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The Scientific and the Social in Implementing *Atkins v. Virginia*

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Atkins v. Virginia *(2002) categorically exempts intellectually disabled defendants from execution, yet some constitutionally suspect punishments suggest a gap between law and practice. This article moves beyond critiquing* Atkins' *formal implementation to provide a decentered analysis of the* Atkins *gap focused on the category of intellectual disability. It explores how drawing boundaries around intellectual disability in capital cases requires law to grapple with fluid scientific and social constructs through a study of how courts operationalize intellectual disability in capital cases. It draws from literatures considering the construction of intellectual disability and law's relationship to the scientific and the social and finds that this intersection first enables a conceptual disconnect between scientific and legal constructions of intellectual disability and, second, invites the use of stereotypes to inform the category. These processes undermine Atkins'—and other categorical exemptions'—ability to functionally limit extreme punishments and also reveal law as mutually constitutive.*

INTRODUCTION

During Marvin Wilson's tenure on Texas's death row, an appellate firestorm blazed over whether Wilson was intellectually disabled and therefore exempt from execution under *Atkins v. Virginia* (2002). A state-court-appointed neuropsychologist examining Wilson two years after the *Atkins* holding placed his IQ at 61, noted adaptive deficits in several areas—media reports described Wilson as a thumbsucker who, at 54 years old, could not tie his shoes (Cohen 2012; Rudolf 2012)—and determined that, after consulting family members and friends, Wilson's condition had appeared during childhood (Trahan 2004). The convergence of these three diagnostic prongs—subaverage intellectual functioning with concurrent, substantial deficits in adaptive functioning manifesting before the age of eighteen—comported with a clinical diagnosis of intellectual disability, yet Wilson's *Atkins* claim was denied and, eight years after the expert's diagnosis, Marvin Wilson was executed.

The controversial execution suggests a gap between *Atkins*' promise to exempt categorically those with intellectual disability from capital punishment and the reality that defendants like Marvin Wilson continue to be sentenced to death and executed (Ellis 2003; Tobolowsky 2003; Cassel 2004; Bonnie and Gustafson 2007;

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Blume, Johnson, and Seeds 2008b, 2010; Steiker and Steiker 2008; Weithorn 2008; White 2009; Dillard 2011; Wood et al. 2013). Much *Atkins* literature examines how states have, given the Court's failure to adopt a uniform definition of intellectual disability, operationalized the mandate and suggests that, in particular, legal deviations from prevailing clinical definitions of intellectual disability cause some defendants like Wilson to be excluded improperly from *Atkins*' protection (Ellis 2003; Bonnie and Gustafson 2007; Blume, Johnson, and Seeds 2008b). The legal remedy, then, to *Atkins*' implementation woes lies in the uniform adoption of definitions grounded in clinical standards of intellectual disability. This recommendation now comes with constitutional teeth after *Hall v. Florida*'s (2014) reliance on and incorporation of clinical standards in its decision to invalidate Florida's threshold requirement that *Atkins* claimants demonstrate an IQ below 70 because it ignores the clinical recognition that intelligence tests have an inherent standard error of measurement.

Hall, though it helps clarify *Atkins*' formal implementation, may not close the gap that undermines *Atkins*' promise to protect. Instead, this article suggests that the mandate's functionality is complicated by the fundamental nature of the category it protects. *Atkins* offers no clear boundary on which to predicate its protection, which is in stark comparison to a parallel line of juvenile extreme punishment cases that bound exemption from capital[1] and some life without parole[2] (LWOP) sentences at age eighteen. Instead, courts operationalizing intellectual disability must grapple with fraught concepts like intelligence and normalcy that are constructed through both the scientific, which *Hall* makes explicit, and the social, represented by the reemergence of historical tropes like the feebleminded and eternal child (Kevles 1985; Noll 1991; Trent 1995; Willrich 1998; Montagu 1999; Castles 2004; Dorr 2006; Lombardo 2010). This article analyzes how the intersection of the scientific and the social implicit in *Atkins* manifests in a sample of thirty-seven state court death penalty appeals and undermines the mandate's functionality both as a bright-line restriction on the death penalty and as a protection for those with intellectual disability.

First, these cases reveal a disconnect between law and science. Literature has already suggested that state deviations from clinical standards are a primary mechanism of the *Atkins* gap (Ellis 2003; Bonnie and Gustafson 2007; Blume, Johnson, and Seeds 2008b), yet these findings suggest that the disconnect is deeper than formal definitional disparities and instead reflects core conceptual differences between law and science. This decentered analysis of *Atkins* claims reveals that courts leverage science to impose precise legal boundaries that conceptualize the *Atkins* category as a binary where, like law's operationalization of juvenile status, a defendant's eligibility for protection is clear. Yet, science, despite its cultural authority as a conclusive truth machine, deals in probabilities rather than certainties, which complicates law's invocation of scientific concepts (Aronson and Cole 2009). Law may intend for science to make deciding intellectual disability—and executability—

1. *Roper v. Simmons* (2005) (exempting juvenile defendants from the death penalty).

2. *Graham v. Florida* (2010) (exempting juvenile defendants convicted of a nonhomicide offense from LWOP); *Miller v. Alabama* (2012) (exempting juvenile defendants from mandatory LWOP sentences).

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precise, but closer analysis reveals there is a fundamental disconnect between law's need to implement *Atkins* as a clear binary and science's probabilistic determination of intellectual disability.

Second, courts' reliance on historical stereotypes to make sense of intellectual disability reveals the role of the social in implementing *Atkins*. Intellectual disability, even when understood with reference to clinical standards and diagnostics, remains predicated on socially constructed concepts like intelligence and normalcy that have wide interpretative margins. In the data analyzed here, courts placed particular significance on evidence that resonated with the feebleminded or the eternal child constructions of intellectual disability.

In this sense, *Atkins* claims function as a site for the manifestation of dehumanizing stereotypes and reinforce the historical vulnerability of those with intellectual disability. Practically, implementing *Atkins* through these stereotypes subverts its fundamental recognition that unfair assumptions about intellectual disability enable unjust punishment decisions (*Atkins v. Virginia* 2002, 321). More broadly, the social, consistent with literature analyzing the cultural life of capital punishment (Lynch 2000a,b; 2002a,b; Sarat 2002, 2014; Culbert 2007; LaChance 2007; Cheng 2010; Kaplan 2012; Sarat et al. 2014), and law's power to create, inform, and bound conceptual categories (Calavita 2010) reveals that law and culture are mutually constitutive of intellectual disability both in implementing *Atkins* and in its larger social context. Together, the social undercuts *Atkins*' promise to protect the intellectually disabled from prejudiced punishment decisions and reveals law's complicity in constructing the category as a social other.

This article first provides a brief overview of *Atkins v. Virginia* (2002) and an outline of the difficulties in its implementation. I then set out an alternative framework for understanding the function of the scientific and the social in implementing *Atkins*. After describing the data and analytical method used for this case study, I analyze a sample of cases in order to reveal how the disconnect between law and science and the social manifests. Finally, I discuss the significance of these findings for: (1) implementing *Atkins*, (2) law's mutually constitutive relationship with the sociocultural understanding of intellectual disability, and (3) contextualizing other categories exempted from extreme punishments.

EXEMPTING THE INTELLECTUALLY DISABLED FROM CAPITAL PUNISHMENT

Atkins v. Virginia (2002) categorically exempts defendants with intellectual disability from execution based on the Eighth Amendment's prohibition of cruel and unusual punishments. The opinion first identified a national consensus against the practice as demonstrated by the passage of relevant legislation in sixteen states after the Court's refusal to issue an exemption in its 1986 decision in *Penry v. Lynaugh*[3] (*Atkins* 2002, 316). The Court then confirmed the necessity of a constitutional mandate by balancing the culpability of those with intellectual disability against

3. Only one state and Congress had legislatively exempted those with intellectual disability from execution when the Court first considered the issue in *Penry*.

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the death penalty's stated ends of retribution and deterrence. This analysis first found that intellectual disability's inherent characteristics—such as a diminished ability to understand, reason, communicate, control impulses, and learn from experiences and mistakes—categorically reduced the criminal culpability of such defendants and undermined the death penalty's penological purposes (317). Further, the intellectually disabled are, whether because of their increased likelihood of falsely confessing or of being subjected to unfair juror bias during sentencing, especially vulnerable to receiving an unjust death sentence (320–21).

Atkins' delegation of responsibility for implementing the mandate's details to the states, though not uncommon, has been characterized as especially problematic. Clear and uniform definitions of intellectual disability are, *Atkins* literature suggests, critical for implementing a constitutional bright line between life and death (Ellis 2003; Bonnie and Gustafson 2007; DeMatteo, Marczyk, and Pich 2007; Barger 2008; Blume, Johnson, and Seeds 2008b; Weithorn 2008; White 2009). In this definitional vacuum, the Court's citations to the American Psychiatric Association's (APA) *Diagnostic and Statistical Manual*[4] (*DSM*) and the American Association of Mental Retardation[5] (AAIDD), which both define intellectual disability as characterized by (1) subaverage intellectual functioning with (2) concurrent deficits in adaptive functioning that (3) manifest during childhood, have functioned as a de facto point of implementation reference.

A majority of states do define intellectual disability through some combination of these three prongs, but many fail to operationalize them with sufficient specificity (DeMatteo, Marczyk, and Pich 2007).[6] As a result, definitions appear to comport with prevailing scientific standards, but diagnosing intellectual disability is nuanced, and the vagueness that has characterized the legal operationalization of intellectual disability produces considerable variation in how *Atkins* is implemented across death penalty states (Duvall and Morris 2006; Blume, Johnson, and Seeds 2008b).

For example, in the fifth and latest edition of the *DSM*, assessing deficits in intellectual functioning requires clinicians to consider both clinical assessments and standardized intelligence testing. IQ score estimates that fall within two standard deviations or more below the population mean are suggestive of intellectual disability, but clinicians are also advised to consider several concepts that render IQ scores estimates, rather than precise measures, of intelligence (APA 2013, 33–37). The practice effect, for example, suggests that repeated administration of the same intelligence test can artificially inflate an individual's IQ score (Duvall and Morris 2006). As a result, increases in IQ scores over time may be a product of the practice effect rather than true increases in intelligence. Further, the Flynn effect suggests that IQ scores need adjusting to account for differences in when intelligence tests are normed, since population-wide shifts in average intelligence may also artificially inflate individual test results (Flynn 2006).[7] Similarly, the standard error of

4. A fifth edition of the *DSM* was published in 2013, replacing the edition cited by *Atkins*.

5. Now the American Association of Intellectual and Developmental Disabilities.

6. This pattern was replicated in the data here. All states included in the sample incorporate the three prongs, but there was variation in their degree of specificity.

7. Clinicians should reduce IQ scores by 0.3 points for each year between when the test was administered and when it was normed to adjust properly for the Flynn effect (Flynn 2006).

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measurement, made constitutionally significant in *Hall v. Florida* (2014), allows for an inherent margin of error in IQ estimates of generally ± 5 points (APA 2013, 33–37).

Evaluating adaptive functioning and age-of-onset assessments under intellectual disability's second and third prongs is similarly nuanced. The *DSM*−5 defines the adaptive functioning prong as a "failure to meet developmental and sociocultural standards for personal responsibility … in one or more activities of daily life, such as communication, social participation, and independent living," and notes that valid assessments must be culturally appropriate and informed by proper individuals, such as teachers or family members, and that assessments done in controlled settings, such as prisons or detention centers, are problematic (APA 2013, 37–38). Deficits in particular areas of adaptive functioning often coexist with strengths in other areas, so evaluations should not weigh the skills a person has against those he or she does not; instead, they are intended to balance an individual's strengths and weakness in specific skill areas to determine an individual's limitations in a particular area of daily life (Blume, Johnson, and Seeds 2008b, 706–07). Clinical evaluations, therefore, do not pivot on a person's strengths, but on his or her limitations.

The final age-of-onset prong is defined in similarly flexible language, which requires that symptoms begin during the developmental period in order to distinguish intellectual disability from other forms of brain damage that occur later in life (APA 2013). This social history assessment should also include interviews with people who, like teachers or classmates, knew the individual in the community context of his or her development period as well as an evaluation of school and medical records (Blume, Johnson, and Seeds 2008b, 696).[8]

Instead, stereotypes about intellectual disability may be used in place of these clinical nuances to give vague legal standards meaning (Blume, Johnson, and Seeds 2008b). In Texas, for example, the Court of Criminal Appeals has adopted the seven *Briseño*[9] factors to guide evaluations of the "exceedingly subjective" adaptive behavior criteria (*Ex parte Briseño* 2004, 8). The Texas example demonstrates how sanist legal reasoning (Perlin 1992, 2000) can undermine even progressive laws about mental disabilities and illnesses. Sanism, "an irrational prejudice, an 'ism', of the same quality and character of other prevailing prejudices, such as racism, sexism, heterosexism, and ethnic bigotry" (Perlin 1992, 374), occurs when legal actors

8. Blume, Johnson, and Seeds's (2008a) empirical examination of 234 *Atkins* claims found that only two cases pivoted on the age-of-onset prong, suggesting that it is the least controversial component in implementing *Atkins*. The data analyzed here echoed this pattern: determining intellectual disability turned on either intelligence or adaptive functioning, even when discussion of age of onset appeared in the background.

9. These ask: (1) Did those who knew the offender during the developmental stage … think he was mentally retarded at that time, and, if so, act in accordance with that determination? (2) Has the person formulated plans and carried them through or is his conduct impulsive? (3) Does his conduct show leadership or does it show that he is led around by others? (4) Is his conduct in response to external stimuli rational and appropriate, regardless of whether it is socially acceptable? (5) Does he respond coherently, rationally, and on point to oral and written questions or do his responses wander from subject to subject? (6) Can the person hide facts or lie effectively in his own or others' interests? and (7) Putting aside any heinousness or gruesomeness surrounding the capital offense, did the commission of that offense require forethought, planning, and complex execution of purpose?

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implement laws through ordinary common-sense reasoning (Perlin 2000)—or what "everybody knows"—about mental disabilities or illness. The *Briseño* factors, for example, designate the fictional Lennie Smalls from Steinbeck's *The Grapes of Wrath* as a baseline (*Ex parte Briseño* 2004, 6) and draw from inaccurate stereotypes about what those with intellectual disabilities can and cannot do (Blume, Johnson, and Seeds 2008b). When *Atkins* is implemented using knowledge based on stereotypes rather than science, capital defendants may be improperly excluded from *Atkins* protection.

THE SCIENTIFIC AND THE SOCIAL

The *Atkins* gap can be explained, on one hand, by legal deviations from scientific definitions of intellectual disability that see clinical nuances lost or even replaced by sanist legal reasoning and result in defendants who, like Marvin Wilson, may be diagnosed as intellectually disabled, but are denied *Atkins* protection. Yet, the scientific and the social suggest an analysis that moves beyond *Atkins*' formal legal implementation to examine the category of intellectual disability itself as complicating the mandate's utility as a bright-line restriction on capital punishment.

Operationalizing intellectual disability requires courts, as *Atkins*' implicit and *Hall*'s explicit reliance on the *DSM* suggests, to navigate the scientific, yet literature analyzing the law-science interface identifies knowledge inequalities and disparate modes of thinking in their relationship. Studies of sexually violent predator acts (SVPA)—laws that generally provide for the civil commitment of certain sexual offenders with particular mental disorders—suggest that the science-law interface is particularly fraught in the areas of boundaries, evaluation, and translation (Schopp, Scalora, and Pearce 1999; Prentky et al. 2006). For example, legal actors often evaluate scientific evidence to make decisions about questions like whether to authorize a civil commitment under an SVPA or to exempt from execution under *Atkins*, but their limited scientific competence compromises their ability to evaluate the evidence fully for its particular legal purpose. In short, understanding scientific nuance is often beyond the ability of legal actors and can undermine law.

That legal and scientific categories have fundamentally different functions can also undermine law's implementation. Where legal categories have normative significance, scientific categories are descriptive (Haney 2002). Yet, when legal standards are vague—as laws implementing *Atkins* often are (DeMatteo, Marczyk, and Pich 2007)—scientific standards can inappropriately dictate legal boundaries or scientific categories can be analyzed interchangeably with their legal counterparts. In the SVPA context, for example, mental health experts often lack the legal expertise in the constitutional conception of mental disorders that legitimate a civil commitment, yet legal decision makers may be tempted to set normative boundaries using scientific categories or to analyze the two categories interchangeably when faced with vague legal standards (Schopp, Scalora, and Pearce 1999; Prentky et al. 2006).

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Finally, the proliferation of scientific rhetoric in the capital context suggests that law invokes science to reveal with certainty absolute truths about executability—a mobilization that ignores the probabilistic, subjective, and sometimes imperfect reality of scientific evidence (Aronson and Cole 2009; Cole and Aronson 2009). The rise of DNA evidence to prove the actual innocence of death row inmates during postconviction appeals exemplifies how science is leveraged to demonstrate the "truth" about high-stakes criminal questions (Kreimer 2005; Bandes 2008; Aronson and Cole 2009), yet DNA evidence is ultimately "just evidence" (Jasanoff 2006).

Operationalizing intellectual disability also implicates the social. The meaning of intellectual disability is, rather than an objective or self-evident category, historically influenced by shifting sociopolitical agendas and informed by the particular context in which the condition is invoked (Kevles 1985; Noll 1991; Trent 1995; Castles 2004; Dorr 2006; Lombardo 2010). In the Progressive Era, for example, eugenics rhetoric and scientific racism leveraged the category to rationalize class and racial prejudices (Noll 1991; Trent 1995; Gould 1996). Ostensibly objective IQ tests were developed and deployed to oppress the poor and racial and ethnic minorities by legitimating state-sponsored campaigns to institutionalize or sterilize the feebleminded (Kevles 1985; Noll 1991; Dorr 2006; Lombardo 2010).

The category pivoted after the end of World War II when the dramatic impact of Nazism on the American consciousness caused eugenics rhetoric to fall from favor. The disabled shifted from being a menace requiring removal to eternal children who could be understood even if not accepted by the wholesome ethos of midcentury Americana (Castles 2004). Even today, the APA and AAIDD, the professional organizations invoked by the *Atkins* decision, continually retool their definitions and diagnostic criteria as the meaning and measures of "average" evolve.

Intellectual disability is, as these shifts suggest, socially constructed and mutually constituted by the contexts in which it is invoked. The *Atkins* mandate's mobilization of intellectual disability as a categorical exemption implicates legality's ability to create, bound, and determine categories like race, gender, disability, and sexuality through an iterative process that informs and is informed by the social (Frohmann and Mertz 1994; Rollins 2002; Engel and Munger 2003; Lopez 2006; Carbado 2009; Calavita 2010). Together, law's constitutive power and society's role in shaping the contours of intellectual disability suggest a second theoretical lens exploring the cultural life of the death penalty (Lynch, 2000a,b; 2002a,b; Culbert 2007; LaChance 2007; Cheng 2010; Sarat et al. 2014) and how *Atkins*' practical implementation contributes to social meaning.

DATA AND METHOD OF ANALYSIS

I conducted a contextual analysis of thirty-seven opinions from state high courts deciding appeals related to the propriety of a defendant's death sentence on the basis of intellectual disability in order to examine how the scientific and the

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social manifest in implementing *Atkins*. These cases, drawn from both before and after the *Atkins* ruling, provide insight into how courts operationalize intellectual disability and enable analysis of how *the category*, rather than *Atkins*' formal legal implementation, functions in practice.

The Materials[10]

To gather cases from the national consensus states, I used each of the sixteen state statutes exempting defendants with intellectual disability from execution after the *Penry* decision but prior to *Atkins* as a starting point for a KeyCite[11] search in Westlaw, restricted to return opinions from the state's high court issued before the *Atkins* ruling in 2002. This returned sixty-seven cases, which I then manually sorted so as to include only those involving a substantive application of the statute and thus narrow in on only those cases adjudicating the meaning of intellectual disability. This produced a final sample of eight cases.[12]

Of these, seven found no error in the lower court's finding that the defendant was not intellectually disabled and only one issued a remand to the trial court to hear the defendant's motion as to the issue of intellectual disability. The final sample of cases, though small compared to the initial unrestricted sample, is unsurprising given the slow speed of appeals in the criminal justice system and the eleven-year window between 1990, when the first statutes post-*Penry* were passed, and 2001, when the last pre-*Atkins* statutes were passed.[13] For the more than one-quarter of states that enacted legislation just two years before *Atkins*, this window was even shorter and the likelihood of a case commenced after a statute's enactment finding its way through the various appellate channels to a state's high court before the *Atkins* decision was even smaller.[14]

To collect post-*Atkins* state court cases,[15] I relied on the Atkins Project Database, which catalogs all published legal opinions on *Atkins*, to compile a sample of cases hearing substantive *Atkins* issues by searching the database's relevant keywords.[16] Cases tagged with five or more substantive keywords were retained for analysis.[17] However, in order to ensure a diversity of case outcomes that would

10. Sample drawn during March 2013.

11. This returns materials available in Westlaw's databases that utilize the document as a citing reference.

12. Two unpublished cases were eliminated.

13. The unwillingness of legislatures to specify and of most courts to find these statutes retroactive further limited this window, since defendants whose criminal proceedings commenced before their passage are, without retroactivity, ineligible for protection.

14. Arizona, Colorado, Missouri, North Carolina, New Mexico, and South Dakota returned no cases matching this temporal window.

15. An exploratory KeyCite search of state high court cases in death penalty jurisdictions citing to *Atkins* returned 505 cases—too large a sample to screen manually for substantive issues.

16. The Atkins Project Database is a joint project of Habeas Assistance and Training Counsel and the Cornell Death Penalty Project. A full list of the database's thirty-two keywords is available online at http://www.atkinsproject.com.

17. Of the approximately 250 cases included this first search, over half were tagged with only one or two issues, while some had as many as nine. I selected five keywords in order to balance the competing need for a richness of analytical material and the production of a manageable sample for deep analysis.

TABLE 1.
Summary of Case Outcomes on the Issue of Intellectual Disability

Case Outcome (as of Spring 2013)	Number
Death sentence commuted to LWOP on the basis of intellectual disability	9
Claim of alleged intellectual disability remanded for further proceedings	4
Defendant not found intellectually disabled	24

otherwise be lost,[18] I retained cases resulting in a "win on the merits"[19] for the defendant or in the defendant's eventual execution[20] as long as they were tagged with one substantive keyword. This sampling scheme collected twenty-nine cases. Of these, nine cases resulted in the reversal of the defendant's death sentence on the basis of intellectual disability, eleven involved unsuccessful claims of intellectual disability made by defendants who were eventually executed, three cases involved *Atkins* claims that were remanded to a lower court for further evaluation, and in five cases, a lower's court denial of *Atkins* relief was upheld. Table 1 summarizes the case outcomes of the final, comprehensive sample of pre- and post-*Atkins* cases ($N = 37$).[21]

Data Limitations

The version of Westlaw Campus used for these searches made only state court opinions adjudicated by the jurisdiction's highest court uniformly available. This means that the issues available for judicial consideration are limited by procedural standards of review that dictate both the variety of questions that can be appealed and the depth with which the court can engage these questions. For example, courts of appeals are generally unable to grapple with factual questions directly, such as whether a defendant is intellectually disabled, and can instead only review whether the trial court abused its discretion in reaching its conclusion on the factual issue. However, higher courts frequently engage trial court records in their analyses of appellate questions, enabling their opinions to offer insights into both what is treated as factual evidence and legal reasoning. Ultimately, the data, while imperfect in form, have rich analytical utility in revealing how the category of

18. As Blume, Johnson, and Seeds (2008a) documented in their study of 234 *Atkins* claims, only 38 percent of *Atkins* claimants proved their intellectual disability. Moreover, as the Death Penalty Information Center reported in its 2013 end-of-year report, of the more than 3,000 death row inmates, thirty-nine individuals were executed.

19. This tag tracks two outcomes: (1) the defendant's claim is favorably decided based on its fundamental rather than technical or procedural merits or (2) the defendant wins an ineffective assistance of counsel claim, meaning that a defense attorney's failure to raise a claim violated the Sixth Amendment.

20. Defendants were cross-referenced through the Death Penalty Information Center's searchable execution database to determine which had been executed.

21. A complete list of analytical materials is available in the Appendix.

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intellectual disability functions in practice and have the added benefit of being uniformly available across jurisdictions.[22]

I designed sampling procedures to ensure that my materials were drawn from the universe of available cases relevant to understanding the substantive operationalization of the category of intellectual disability in practice in order to analyze *Atkins*' implementation through this process rather than through its formal implementation. Cases were accordingly not representatively sampled across jurisdictions, meaning that the data do not uniformly track state-by-state implementations and cannot properly explain state-level variations.

Analytical Method

I utilized a multistage, open coding, and thematic content analysis adapted from Glaser and Strauss's (1967) grounded theory approach across both sets of cases.[23] I began analysis by coding for general themes emergent in the data and then, after several iterations, developed three distinct substantive categories and seven subcategories that represent how courts operationalized intellectual disability.[24] These major categories are: (1) defining intellectual disability, (2) evaluating the presence of intellectual disability in the defendant, and (3) marshaling evidence of intellectual disability. The first category illustrates how courts articulate the condition of intellectual disability. The second category illustrates how courts apply this articulation to a particular *Atkins* claimant. The last category illustrates how courts grapple with the first two categories in order to reach a legal outcome.

THE SCIENTIFIC AND THE SOCIAL IN IMPLEMENTING *ATKINS*

This section is organized around two central concepts: (1) the struggle to integrate science and law and (2) the invocation of stereotypes to give meaning to intellectual disability. Findings are presented as continuous rather than segregated by time period. This framing reinforces my analytical focus on the category of intellectual disability itself rather than on *Atkins*' formal legal implementation—or of the legislative exemptions that preceded it. More importantly, the data did not reveal consistent or significant shifts—though some are noted below—in how courts grappled with the category of intellectual disability across the pre- and post-*Atkins* context.

22. The data, despite their richness, do not uniformly reveal demographic factors about the sample of capital defendants, which precludes a systematic analysis of how sociocultural factors like the defendant's race or class—considerations so historically integral to conceptualizing intellectual disability—may function in this context.

23. Despite my intentions to read each case objectively, critiques of *Atkins*' implementation raised by the literature cited here likely colored my engagement with the data. However, my initial readings of the data were not limited by any theoretical or practical examination of the death penalty or intellectual disability.

24. A complete coding frame is available upon request.

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A Disconnect Between Law and Science

The data revealed an ambiguity about intellectual disability's meaning for the capital context that presented real implementation difficulties. Courts sought strategies that could alleviate these ambiguities and provide the category with concrete boundaries distinguishing protected defendants from the executable. In particular, courts invoked clinical concepts to give vague legal standards meaning, yet the data revealed complexities in the law-science interface.

A Disconnect in Conceptualizing the Category of Intellectual Disability

Courts working with vague, pre-*Atkins* statutory exemptions of intellectual disability—only one of the five states captured in this subsample statutorily defined all three prongs—invoked the scientific even as they recognized a distinction between law and science and resisted the wholesale adoption of clinical standards. In *State of Tennessee v. Smith* (1994), for example, the Supreme Court, though frustrated with legislative failure to give a statutory definition of "deficits in adaptive behavior," declined to "place a technical gloss" (917) on the concept, interpreting it instead in its "ordinary sense, to mean the inability of an individual to behave so as to adapt to surrounding circumstances" (918).

Indiana's Supreme Court in two pre-*Atkins* cases supplemented the statute, which left prong one and two undefined, with references to the *DSM-IV* but did not replace law with science, noting that law's conception of adaptive functioning is comparatively "more general and open-ended" (*Rogers v. State of Indiana* 1998, 1179). The Tennessee court followed suit a few years later by referencing the *DSM-IV* throughout an opinion's description of intellectual disability, but still cautioning in a footnote that the scientific definition provides only "background into mental retardation" (*van Tran v. State of Tennessee* 2001, 795).

Vague[25] or even nonexistent statutory definitions of intellectual disability continued after *Atkins*; fourteen cases across five states relied on judicial implementations of *Atkins* that uniformly cited either the *DSM* or the AAIDD. Courts continued to invoke science to clarify but not subsume the legal category in this definitional vacuum. In Mississippi, for example, where its Supreme Court had already adopted the definitions cited in *Atkins*, *Goodin v. State of Mississippi* (2012) explained that while clinical definitions controlled its implementation of *Atkins*, law had a distinct goal: to "determine whether a person is ineligible for the death penalty not whether a persons is . . . in need of special services" (1114).

Judicial efforts to operationalize intellectual disability's special meaning as a categorical exemption to the death penalty also revealed struggles to classify the defendant consistently and appropriately. For example, Alabama's Supreme Court, in *Jackson v. State of Alabama* (2006), maintained that the Retarded Defendant Act (1975)—the state's only pre-*Atkins* statutory definition of intellectual disability designed to assist in deciding bail, place of detention, and the ultimate disposition

25. Only one state's statutory definition of intellectual disability—Washington's pre-*Atkins* § 10.95.030—referenced by the data defined all three prongs.

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of criminal cases involving an intellectually disabled defendant—was inapplicable to implementing *Atkins*. Instead, the court reaffirmed its decision to use a more specific and restrictive definition developed exclusively for the *Atkins* context.[26] As a result, an Alabama defendant could *theoretically* be deemed intellectually disabled under the Retarded Defendant Act for the purpose of deciding some questions, but still be denied *Atkins* protection on the basis that the defendant had failed to meet the court's *Atkins*-specific definition.

Competing definitions of intellectual disability also reveal the tension between the condition as a diagnosis and the condition as a legal status meaningful only for capital punishment. In *Rogers v. State of Indiana* (1998), for example, the Indiana Supreme Court confronted a defendant who was simultaneously intellectually disabled and executable. At trial, a lower court had concluded that the defendant "was a retarded person … but not within the purview of the statute" because he was "able to adapt" (1177). The Indiana Supreme Court, under the deferential abuse of discretion review, declined to disturb the trial court's factual finding as to the defendant's adaptive functioning—or engage with the conceptual disconnect between the categories—and so the defendant remained simultaneously intellectually disabled and executable.

Expert testimony about how to classify defendants reinforced the imprecision of the line bounding executability. For example, the Arkansas Supreme Court, in *Rankin v. State of Arkansas* (1997), reviewed expert testimony that alternatively characterized the defendant as "in the mild range of mental retardation," "borderline intelligent," "mildly borderline mentally retarded," and "somewhat behind." The court ultimately found the defendant outside the statute's protective scope, implicitly contrasting the spectrum of clinical labels against the binary legal category.

Courts still struggled to classify defendants in post-*Atkins* cases, but at a higher level of technical abstraction. Expert witnesses often agreed that the defendant could be diagnosed—often with multiple conditions—but disagreed over whether any of the conditions were significant for *Atkins* purposes. Analysis then frequently centered on whether intellectual disability could coexist with other conditions like behavioral, conduct, or personality disorders, or if other conditions competed with and negated the possibility of intellectual disability. Across the data, only the Oklahoma Supreme Court engaged with the specific categorization problem raised by multiple conditions.

The court's decision in *Lambert v. State of Oklahoma* (2005) suggested that a defendant might exist in two categories at once:

> Mental retardation and mental illness are separate issues. It is possible to be mentally retarded and mentally ill. Lambert has not claimed to be mentally ill, and evidence of mental problems did not make the issue of his mental retardation more or less likely. Prosecutors used this information to argue that Lambert's adaptive functioning limitations were caused by something other than mental retardation. However, in doing so, they accepted Lambert's claims of adaptive functioning limitations. (659)

26. *Ex Parte Perkins*, 851 So.2d 453 (Alabama 2002).

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This possibility of coexisting conditions was central to the *Lambert* court's modification of the defendant's death sentence to LWOP under *Atkins*.

Cases in which conditions were treated as competing were more common. The Texas Court of Criminal Appeals' use of the *Briseño* factors to evaluate *Atkins* claims exemplifies this pattern. The Texas court adopted the AAIDD definition of intellectual disability to implement *Atkins* in the face of legislative silence, and crafted seven factors for judicial fact finders to utilize while evaluating limitations in adaptive functioning. The *Briseño* factors are, as *Ex parte Hearn* (2010) explains, for the specific purpose of distinguishing between intellectual disability and a personality disorder and they appeared in six of the Texas cases in the data. The Texas approach to treating a defendant's multiple possible conditions as competing may be, as suggested by the Pennsylvania Supreme Court's approval of the *Briseño* factors (*Commonwealth of Pennsylvania v. DeJesus* 2012), proliferating.

A Disconnect in Bounding the Category of Intellectual Disability

Even as the data revealed that intellectual disability for capital punishment purposes was conceptualized as distinct from its clinical counterpart, scientific standards were imported to the legal context to enforce concrete boundaries around an otherwise abstract category demarcated by uncertainty. IQ scores were used to bound intellectual disability in quantifiable and concrete terms, but trading uncertainty for precision was not without problems.

In Tennessee, for example, which statutorily defines subaverage intelligence as an IQ of 70 or below, a single point rendered a fine balance between life and death in *van Tran v. State of Tennessee* (2001). Van Tran's original murder trial in 1989 did not include specific evidence of IQ (793), but after a 1997 psychological evaluation, one expert placed van Tran's IQ at 67 while another expert suggested that, due to tester error, his IQ was actually 72 with a standard measurement error of ±3. A second, revised IQ test administered in 1999 placed van Tran's IQ at 65. This single score, against a backdrop of numerous and disparate scores, served as the basis for the Tennessee Supreme Court finally, after years of appeals, to remand van Tran's claim of intellectual disability to a lower court for consideration.

Post-*Atkins*, IQ continued to serve as gatekeeper, as this excerpt from an Oklahoma Supreme Court opinion makes clear:

> That more than one test was administered and/or that more than one score is above 70 does not matter; only one test score of 70 or below needs to be shown for a defendant to "get his foot in the door" and claim ineligibility for the death penalty by reason of mental retardation. (*Pickens v. State of Oklahoma* 2005, 616)

Leveraging IQ scores as a strict boundary mechanism reflects law's conceptualization of IQ as a precise measure of intelligence rather than as a probabilistic estimate best expressed by a range of scores. This use of IQ, in addition to revealing a fundamental conceptual disconnect between law and science, raised a serious practical problem for defendants like van Tran. These small point discrepancies between

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various intelligence tests are perhaps minor in the clinical context but, legally, a single point difference in score could have a radical impact on the viability of a defendant's claim.

Scientific concepts that rendered IQ scores fluid found little traction in the data. For example, like the standard error of measurement the US Supreme Court leveraged in *Hall v. Florida* (2014), the Flynn effect also undermines law's utilization of IQ as concrete. The Flynn effect argues that because average IQ scores increase at a rate of about 0.31 points per year, intelligence tests standardized on old information will overestimate individual IQ scores by a small but potentially significant margin of points (Flynn 2006; Wood et al. 2013). Of the seven cases in the data that discussed the Flynn effect, only the Tennessee Supreme Court demonstrated any receptivity to the concept.

In *Smith v. State of Tennessee* (2011), the court remanded the case for reconsideration of the defendant's *Atkins* claim based, in part, on the possibility that the Flynn effect might undermine the accuracy of the defendant's IQ score. However, even in Tennessee, where the Supreme Court has expressly allowed for experts to consider "standard error of measurement, the Flynn Effect, the practice effect, or other factors affecting the accuracy, reliability, or fairness" of IQ assessments, the opinion reinforced that IQ must be expressed not in a range, but as a specific number (*Smith v. State of Tennessee* 2011, 354).

The other six cases referencing the Flynn effect are, as *Ex parte Blue* (2007) demonstrates, dismissive. The defendant's IQ score in *Blue*, once adjusted for the Flynn effect, fell below the 70 IQ threshold set by the Texas Criminal Court of Appeals. The court considered both the Flynn effect and IQ score invalid, writing that:

> This Court has never specifically addressed the scientific validity of the Flynn Effect. Nor will we attempt to do so now. Rather than try to extrapolate an accurate IQ by applying an unexamined scientific concept to an incomplete test score, we will simply regard the record as it comes to us as devoid of any reliable IQ score. (166)

These cases reveal that in order to implement the bright line between life and death sentences for defendants alleging intellectual disability, law needs intelligence to be conceptualized as a precisely quantifiable measure. Yet, science, as concepts like the standard error of measurement and the Flynn effect demonstrate, prefers to express intelligence as probabilistic and best captured by a range rather than a bright line. Opinions included in the data, even when explicitly confronting scientific evidence of IQ's imprecision, often ignored it and elected to conceptualize IQ's patina of scientific legitimacy as a proxy for precision and certainty.

Giving Law Meaning with Stereotypes

The data also reveal the role of the social in operationalizing the category of intellectual disability and in determining which capital defendants properly fit within its boundaries. This process was especially apparent in how evidence used to

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evaluate a defendant's adaptive functioning made particular use of stereotypes evoking the specter of the eternal child or the feebleminded. Adaptive functioning, in the clinical content, refers to an individual's ability to meet standards of personal independence and social responsibility and while all thirteen states represented in the data included this prong in their definitions, eight invoked a version of this more specific scientific language by incorporating a professional definition. Practically, however, the operationalization of this prong often developed into a comparison of a defendant's various abilities and limitations to common-sense understandings of intellectual disability. The excerpt below is demonstrative.

> He was living in the community. He was working. He [w]as operating an automobile. He was living with a young lady. According to her, bringing money home. He was able to go where he wanted to go. And I don't think he would be accepted in a group home setting. I think that he would not even qualify for that. (*Rogers v. State of Indiana* 1998, 1177)

The trial court judge distinguishes the defendant from the intellectually disabled and implicitly constructs the category as unable—without the ability to provide or function—and unusual—outside and apart from everyday society. Representations of intellectual disability that invoked the eternal child or the other, even when based on legitimate diagnostic characteristics, had a particular legal resonance that reveals the role of the social in implementing *Atkins*.

Invoking the Eternal Child

The specter of the eternal child manifested in some cases through literal comparisons of a defendant to a child. For example, the Pennsylvania Supreme Court's synthesis of evidence relevant to evaluating the defendant's adaptive functioning highlighted expert testimony that the defendant "at 43 years of age, functions at a third-grade level and at a mental age of a nine-year-old child" to affirm the lower court's grant of *Atkins* relief (*Commonwealth of Pennsylvania v. Gibson* 2007, 418). The court relied, in part, on this thirty-four-year gap between the defendant's age in years and the expert evaluation of his mental age as childlike to affirm the lower court's finding that the defendant was intellectually disabled.

This type of comparison is not an uncommon or illegitimate means of explaining a clinical evaluation, but the power of this trope to make legal sense of a defendant's claim reveals the powerful role of the social in implementing *Atkins*. For example, in *State of Arizona v. Grell* (2013), evidence that the defendant had used a false identity initially undermined his claim to have severe deficits in adaptive behavior, but expert testimony explaining this as within a child's abilities mitigated its legal damage:

> this ruse did not necessarily indicate strong adaptive skills . . . [when the expert framed it] as whether a child at Grell's functional intelligence level [eight to eleven years old] would be capable of creating and carrying on such a ruse; and the answer was clearly "yes." (354)

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In *Commonwealth of Pennsylvania v. DeJesus* (2013), the state presented evidence that the defendant had smuggled a cell phone to send text messages and make calls from death row in order to demonstrate that the defendant did not have deficits in his adaptive functioning. The defense, hoping to mitigate the damage to its *Atkins* claim, argued that the "level of cell phone use at issue was consistent with someone capable of functioning at a sixth-grade level" and could therefore be "considered [within] the extent of development that mildly mentally retarded persons can achieve" (75).

Reframing actions that first appear beyond the reach of those with intellectual disability as within a child's capabilities had, as these two cases demonstrate, a particular legal power to mitigate potentially problematic evidence. Similarly explicit invocations of the eternal child trope appeared in five of the nine cases that overturned the defendant's death sentence on the basis of intellectual disability. Identifying which defendants fit within the category of intellectual disability seemed to pivot on the eternal child trope, revealing the power of the social to inform the legal boundary distinguishing intellectual disability from executability.

Invoking the Other

Representations of the intellectually disabled also invoked "the other," particularly when courts struggled to determine whether evidence of how the defendant lived fit within the protected category. Evidence of a defendant's "good" or relatable behavior was used to defeat his[27] claim of intellectual disability while evidence of "bad" or strange behavior seemed to legitimize his claim. Together, these two patterns constructed the category of intellectual disability as the other, discernible through evidence of bad behavior.

In *Jackson v. State of Alabama* (2006), the defendant's former supervisor described the defendant as frequently absent from his job at a lumber mill and unable to get along with his coworkers during his three months of employment (156). Evidence of the defendant's troubled work history was the sole evidence of the defendant's adult adaptive functioning in *Jackson*, and it also played a significant role in *Ex Parte van Alstyne* (2007) and *Commonwealth of Pennsylvania v. Gibson* (2007). These cases, each emphasizing bad work behavior, were three of the nine reversing death sentences on the basis of intellectual disability.

In contrast, good behavior undermined *Atkins* claims by placing the defendant outside the category of the intellectually disabled. For example, in *Phillips v. State of Florida* (2008), the Florida Supreme Court noted that the defendant was "a great son, brother, and uncle [and that] [h]e spent a lot of time with his nieces and nephews, and 'was real good with them'" (511). The court found the positive nature of the defendant's relationships incompatible with significant deficits in his home life—a component of the *DSM* definition of adaptive functioning—and fatal to his *Atkins* claim.

Evidence of an individual's communication abilities is, like job skills and home life, also relevant to assessing adaptive functioning and was leveraged across the

27. All claims in the sample involved male defendants.

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data to evaluate defendants' claims of intellectual disability. In Texas, the Court of Criminal Appeals assessed the defendant's letters to his family, finding that his use of a "polite" tone in letters to his mother and of gang slang in letters to his brother incompatible with his *Atkins* claim (*Ex Parte Simpson* 2004, 666). Again, in *Neal v. State of Texas* (2008), the Texas court credited expert testimony characterizing the defendant's "problems" as "personal rather than intellectual" based on a poem the defendant had written describing his incarceration (274). In contrast, in Oklahoma, the Supreme Court reconciled testimony that the defendant had little trouble communicating with prison guards with his *Atkins* claim since the witnesses did not describe "long or complex conversations which required an exchange of ideas or feelings" (*Lambert v. State of Oklahoma* 2005, 652).

Evidence of job skills, home life, and communication is, as the *DSM-5* explains, relevant to clinically assessing adaptive functioning, but its particular salience to the legal determination of intellectual disability suggests that its resonance with the other may amplify its power to construct in this context. The data reveal that adaptive functioning was often operationalized through a binary understanding of intellectual disability informed by the social. When a defendant's behavior was good—when he, for example, loved his family—this evidence functioned to remove him from the legal category of intellectual disability. In contrast, when a defendant's behavior revealed him as unable or bad—like the evidence of antisocial behavior at work in *Jackson*—it functioned to place him within it. Together, these dual processes work to construct a category seemingly predicated on a binary understanding of intellectual disability bounded by good or bad behavior rather than a holistic, clinical assessment of the defendant's abilities.

Revealing the Social as Explicit

This process—and its problems—was made explicit in only one case. In *State of Arizona v. Grell* (2013), the defendant's *Atkins* claim was denied by the trial court, which found a diagnosis of antisocial personality disorder more compelling based on the adaptive functioning evidence. On appeal, the Arizona Supreme Court reversed, crediting defense testimony explaining that because the defendant "is a handsome man who does not fit the physical stereotype of someone with mental retardation" (355), earlier assessments likely overestimated his abilities and compromised the diagnosis.

More often, courts *purposely* invoked stereotypes to evaluate *Atkins* claims. The Texas *Briseño* factors—rooted in a construction of intellectual disability explicitly based on Steinbeck's Lennie Smalls[28]—exemplifies this process. The seven *Briseño* factors, designed to help fact finders sort through "exceedingly subjective" (*Ex Parte Briseño* 2004, 8) adaptive functioning evidence and distinguish between intellectual disability and personality disorder, set rationality as the boundary between the two conditions. In applying the *Briseño* factors, the trial court in *Ex Parte van Alstyne* (2007), for example, described the defendant's involvement in the murder of a pizza

28. This quote from a sampled case is revealing: "Steinbeck's Lenny [sic] is more what this court would think a mentally retarded individual would look and act like" (*Ex Parte van Alstyne* 2007, 822).

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deliveryman as "crazy" and "out of nowhere" (821)—an invocation of irrationality that validated the defendant's *Atkins* claim.

The *Briseño* factors are specific to Texas, but the use of rationality as a salient boundary appeared across the data. Pennsylvania has explicitly approved the use of the *Briseño* factors to supplement *Atkins* analysis (*Commonwealth of Pennsylvania v. DeJesus* 2012, 78), and other courts have implicitly invoked rationality through evidence of the capital crime itself or criminal history. For example, in *Phillips v. State of Florida* (2008), that the defendant could "orchestrate and carry out his crimes, his foresight, and his acts of self-preservation" (512) convinced the Florida Supreme Court that the defendant was not intellectually disabled.

The role of the social in implementing *Atkins* is especially problematic in light of the Supreme Court's recognition of stereotypes about intellectual disability. Evidence of intellectual disability often worked as an aggravating rather than a mitigating factor during sentencing decisions, since juries were likely to consider the condition a proxy for future dangerousness, which reinforced the need for a categorical exemption (*Atkins v. Virginia* 2002, 321). One Oklahoma case in the data demonstrated this very phenomenon.

Prosecutors first leveraged the defendant's intellectual disability at the original trial to seek the death penalty, arguing that his condition meant he was "unable to learn from his crimes and would continue to pose a danger to society" (*Lambert v. State of Oklahoma* 2005, 650). The state contested the defendant's condition only after the *Atkins* ruling rendered his death sentence unconstitutional. On review, the Oklahoma Supreme Court deemed evidence of the defendant's crimes prejudicial and of little probative value in resolving the defendant's *Atkins* claim since "mentally retarded people can and do commit crimes" (656). *Lambert* was the only case to recognize the danger of relying on evidence of the defendant's capital crime to assess intellectual disability.

DISCUSSION

Disparate and sometimes restrictive definitions of intellectual disability have been characterized as mechanisms of an *Atkins* gap that produces defendants who, like Marvin Wilson, are considered intellectually disabled in the clinical context but executable in the capital context (Ellis 2003; Bonnie and Gustafson 2007; Barger 2008; Blume, Johnson, and Seeds, 2008b, 2010; Weithorn 2008; White 2009). The Supreme Court responded to these definitional challenges in *Hall v. Florida* (2014) by invaliding Florida's use of an IQ threshold requiring a score below 70 for proving intellectual disability and providing additional clarification about implementing *Atkins*.

Hall's scientification of intellectual disability (Slobogin 2014) offers a degree of standardization in operationalizing the first prong of intellectual disability and signals that law should pay clinical definitions a degree of deference in implementing *Atkins*. Yet, my analysis of how appellate courts reviewing capital cases grapple with intellectual disability suggests that the *Atkins* gap transcends law's formal implementation and is instead rooted in the category of intellectual disability itself. I identify

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the scientific and the social as sociolegal mechanisms to frame this decentered analysis of the *Atkins* gap.

On one hand, implementing *Atkins* suggests a disconnect between law and science that is deeper than legal deviations from clinical definitions. The data revealed that courts both sensed a difference between the capital category of intellectual disability and its clinical counterpart and struggled with its meaning and boundaries. Invoking the scientific to operationalize and bound the category made inherently abstract concepts like intelligence concrete and made deciding which defendants fit within *Atkins*' protective scope objective and quantifiable.

However, leveraging IQ as a precise measurement of intelligence invokes science's idealized cultural authority and ignores its probabilistic discourse. Concepts like the Flynn effect that fundamentally undermine IQ scores as perfect measures of intelligence found little traction in legal analysis not because courts could not understand them, but because they undermined law's pursuit of precision. Rather, the disconnect revealed in implementing *Atkins* transcends knowledge inequities that complicate the translation of the scientific to the legal (Schopp, Scalora, and Pearce 1999; Prentky et al. 2006) and is rooted in fundamentally different approaches to the nature of categories.

In practice, this disconnect could render applications of the exemption an exercise in form over function. Adjudicating an *Atkins* claim on IQ such that a single point becomes the fulcrum upon which a defendant's death sentence turns seems, as *Atkins* literature has noted (Blume, Johnson, and Seeds 2008b), to undermine the mandate's spirit. *Hall* validates this concern, rendering IQ thresholds unconstitutional, as least when the fulcrum turns on an IQ score of 70. Yet, even as *Hall* confronts this, the case also reveals the deeper and more fundamental disconnect between law and science—the conflict between law's need for bright lines and scientific indeterminacy in bounding categories. As Justice Kennedy explains in his majority opinion, Florida's conceptualization of an IQ score as "final and conclusive evidence of a defendant's intellectual capacity" by virtue of its purportedly scientific measurement is unconstitutional precisely because the "score is, on its own terms, imprecise" (*Hall v. Florida* 2014, 1995).

The data confirm that the nuances inherent to the scientific understanding of intellectual disability are not easily imported to the bright lines law prefers to operationalize in the extreme punishment context. Where a diagnosis of intellectual disability allows for imprecision and boundary blurring, as standard errors of measurements and coexisting conditions suggest, law's categorical exemptions seek precise identification in order to distinguish protection from executability properly. The cases categorically exempting juveniles from execution and some applications of LWOP, for example, uniformly implement a clear binary, where protection is predicated on age eighteen, yet the *Atkins* context offers no clear analog. Instead, IQ is fluid and a defendant may be properly diagnosable with multiple conditions that draw from similar diagnostic criteria. The blur at the scientific edges complicates law's desire for binary operationalization and *Hall* offers little guidance here. It may even exacerbate the subjectivities that plague this category.

The social, represented by the feebleminded and eternal child tropes that have historically infiltrated intellectual disability, has also filtered into the *Atkins* context.

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Cases in the data leverage stereotypes about what those with intellectual disability can and cannot do to make sense of *Atkins* claims. Adaptive functioning is, whether poorly defined or operationalized through the *DSM* definition, ultimately an abstract concept predicated on normalcy, and courts often make sense of the subjective through the social. At its worst and most explicit, sanist legal reasoning (Perlin 1992, 2000) can improperly exclude deserving defendants (Blume, Johnson, and Seeds 2008b) like Marvin Wilson, who, despite being diagnosed as intellectually disabled, was executed after his *Atkins* claim was denied based on the *Briseño* factors.

The *Briseño* factors, based on a fictional character rather than scientific norms, are a clear example of implementing *Atkins* through stereotypes, yet the social also functioned as a more subtle mechanism. Evidence that invoked the specter of the feebleminded or the eternal child functioned as a salient pivot point filtering legal evaluations of intellectual disability. Finding a defendant intellectually disabled was more likely when evidence constructed him as bad, while evidence of good behavior undermined claims. This suggests that the constitutive function of implementing *Atkins* through the social is not just limited to clear instances of stereotype over science, but also manifests when valid scientific evidence is credited perhaps not just for its science, but also for its resonance with troubling tropes.

The social, then, does more than fill in the gaps between ambiguous legal standards and complex scientific definitions; it also engages a subtle process with law that constructs intellectually disability. For *Atkins*, this implements a category of intellectual disability that resonates with the very dehumanizing stereotypes that necessitated a categorical exemption. This suggests a second and equally problematic *Atkins* gap between its promise to protect and the realities of its implementation.

Law and the social are mutually constitutive of intellectual disability in a larger sense, too. The adjudication of *Atkins* claims through the social resurrects the tropes targeted, but seemingly not defeated, by disability rights advocates, and implicates law's power to construct, inform, and create categories that have meaning in the everyday. Implementing *Atkins* through the social suggests consequences not only for the capital context in a very practical sense, but also for the cultural context in which law operates. This identifies a new facet of the death penalty's cultural life in which the process of implementing categorical exemptions produces mutually constitutive sociolegal meaning.

Finally, analyzing *Atkins*' implementation through the scientific and the social can also serve as a case study to assess categorical exemptions that enforce ostensibly bright-line restrictions on extreme punishments. The proliferation of post-*Furman v. Georgia* (1972) jurisprudence retooling the scope of extreme punishments like capital punishment and LWOP sentences suggests that these practices will remain part of the US punishment landscape (Garland 2010). Exempting vulnerable groups keeps extreme punishments aligned with changing cultural values such that categorical exemptions help penal institutions adapt and survive. Sociolegal scholarship, however, recognizes a gap between law and practice that, in this context, sees defendants like Marvin Wilson lost in the space between.

This analysis suggests that categorical exemptions function best when constitutional lines are clear and concrete, yet, as the scientific and the social describe, this line is murky. Other exemptions at play in the extreme punishment context appear, like *Atkins*,

incompatible with binary operationalization. For example, identifying which death row inmates are too mentally ill to execute under *Ford v. Wainwright* (1986) has, as Miller and Radelet (1993) argue, proved a dysfunctional limitation on the death penalty because the category is difficult to operationalize. Mental illness, like intellectual disability, exists on a spectrum informed by scientific and social constructions of normalcy.

Even the extreme punishment cases exempting juveniles from the death penalty and instances of LWOP, perhaps the gold standard of binary operationalization, are murkier than they initially appear. The very neuroscience leveraged to demonstrate that children are categorically less culpable than adults also reveals that the extreme punishment binary predicated on age eighteen may be an underinclusive category of young people with diminished culpability (Cole and Aronson 2009).

Categorical exemptions continue to proliferate in the extreme punishment context and function as, Garland (2010) suggests, adaptations that enable the penal practices they purport to restrict to survive. Yet, their utility as limitations on extreme punishments is predicated not just on their formal implementation, but also on how their boundaries are operationalized in practice. In the *Atkins* context, the scientific and the social undermine law's ability to draw bright-line boundaries around protected categories like intellectual disability. The blur at *Atkins*' edges compromises its promise to protect and leaves defendants like Marvin Wilson vulnerable to slipping through constitutional cracks and being unjustly executed.

More broadly, this analysis of *Atkins* is a particularly dramatic revelation of the role of the scientific and the social that may also serve to identify how these processes may function throughout the extreme punishment context. Policymakers continue to retool the scope, rather than rethink the existence, of a host of extreme punishments using the logic of categorical exemptions. Yet, exemptions like *Atkins* are, as this article suggests, subject to the scientific and the social processes that may make protection contingent rather than categorical.

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