Who Owns Children’s DNA?

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In recent years, DNA has become increasingly easy to collect, test, and sequence, making it far more accessible to law enforcement. While legal scholars have examined this phenomenon generally, this Article examines the control and use of children’s DNA, asking who ultimately owns children’s DNA. I explore two common ways parents—currently considered “owners” of children’s DNA—might turn over children’s DNA to law enforcement: (1) “consensual” searches and (2) direct-to-consumer testing. My fundamental thesis is that parental consent is an insufficient safeguard to protect a child’s DNA from law enforcement. At present, the law leaves parents in complete control of children’s DNA, with parents’ and children’s interests viewed as totally unified. This Article is the first to argue that parents might have serious conflicts of interest and even encourage (or be the ones) sharing DNA with law enforcement.

This Article contributes to the literature by using the functional logic of a property rights framework, including property law’s rare virtue of historically recognizing children’s and parents’ interests as separate. A property-like interest in one’s DNA leads to solutions that create safeguards beyond parental consent. Ultimately, I advocate for moving from a framework of parents-as-owners to parents-as-fiduciaries—of both children’s DNA and of children themselves.

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INTRODUCTION

In Melbourne, Florida, Adam and four other teenage boys were in a parked car when a police officer pulled up behind them. The officer said there had been a bunch of break-ins in the area and urged all the boys to submit a DNA sample. Adam provided a sample, and his DNA was incorporated into the local Melbourne database. Adam would later explain his reaction to the officer’s request: “I thought it meant we had to.” Adam’s DNA joined an estimated 7,000–8,000 samples that Melbourne and Palm Bay police had amassed.

Around the same time, Angela Evans decided to test the DNA of her two children, who were ten and seven at the time. She was interested in knowing more about their genetics, and doctors refused to test her children since there wasn’t a medical need to do so. She decided to use 23andMe, a direct-to-customer (“DTC”) genetic testing company, and told her children to provide their saliva in a tube. After receiving the results, she posted the raw DNA files to a

2. Id.
3. Id.
4. Id.
5. Id.
7. Id.
8. Id.
few different open-source databases, including GEDmatch. Open-source databases—essentially crowd-sourced by the millions of people who have contributed their raw DNA files—make DNA searchable by anyone, including law enforcement.

While DNA provided through “consent” searches might be termed a direct route to law enforcement and consumer genetic testing an indirect route, the children in the stories above have something significant in common: their DNA ended up in the hands of law enforcement without meaningful consent. The addition of innocent children’s DNA to these databases should concern us. Federal and state DNA databases may have some value for the detection and deterrence of criminal activity because they contain profiles of those who have been arrested or convicted of crimes. But collection of innocent children’s DNA does not hold the same benefit. Indeed, there are significant risks with DNA collection and retention by police. These include human errors, linking innocent people to crimes, privacy concerns, chilling First Amendment activities, and increasing racial disparities. DNA is considered infallible evidence, but in reality there are human beings at every step of the process from collection to testing to retention. Law enforcement officers have

9. Id.
12. Some have proposed a universal DNA database. I do not fully take up that issue here, but the existing research indicates benefits for a database of those who have committed crimes, not necessarily a universal database. See, e.g., Anker et al., supra note 11. There are reasons to oppose a universal DNA database. First, the empirical evidence does not suggest it would be more effective than the current approach. The UK rapidly expanded its DNA database (NDNAD) when a legal change permitted retaining the DNA of witnesses, victims, arrestees, and anyone who consented to collection. Yet the country did not see many more crimes solved. Indeed, larger databases may actually carry a greater risk of false positives, overburden labs, lead to backlogs of DNA, and create increased margins for error. See Oscar Schwartz, DNA Databases May Deter Criminals, but at What Cost?, POPULAR SCI. (Sept. 25, 2019, 3:20 PM), https://www.popsci.com/do-dna-databases-deter-crime [perma.cc/JVD3-8FHT]. Second, the DNA segments typically used by law enforcement for identification—typically called noncoding sections of DNA—are not “junk” DNA, as was formerly thought. Natalie Ram, Genetic Privacy After Carpenter, 105 VA. L. REV. 1357, 1379 (2019). There is new research showing that this DNA can indicate certain genetic diseases. Id. A universal database would expose this health information to law enforcement, with potential consequences beyond identification.
made significant mistakes in the past. Police have misused DNA databases, from incorporating rape victim DNA into searchable databases to subpoenaing newborn DNA stored for medical purposes. Additionally, racial biases that already exist in the criminal justice system are perpetuated by the mishandling of DNA. DNA databases also pose significant privacy concerns. Despite best efforts, DNA databases have been hacked, and information has fallen into the wrong hands.

Including young people in a DNA database also creates specific harms. Children are different from adults: this is the entire foundation of the juvenile justice system and a principle cemented by the Supreme Court through a quartet of cases, starting with *Roper v. Simmons*. The law provides specific safeguards to protect children’s privacy in juvenile delinquency hearings.

14. *Id.*


18. There may be harms to DTC testing of children that go beyond law enforcement exposure. These sorts of harms affect a child’s right to an open future. See Joel Feinberg, *The Child’s Right to an Open Future, in WHOSE CHILD? CHILDREN’S RIGHTS, PARENTAL AUTHORITY, AND STATE POWER* 124 (William Aiken & Hugh LaFollette eds., 1980). For example, the mother in the story above, Angela, received information about her children’s propensity to develop Parkinson’s, an adult-onset disease. Bala, *supra* note 6. Medical associations uniformly oppose sharing adult-onset disease information with children when there is no clinical action that can be taken and advise that children should decide for themselves when they reach the age of majority whether to receive this information. E. Charlisse F. Caga-anan, Laurie Smith, Richard R. Sharp & John D. Lantos, *Testing Children for Adult-Onset Genetic Diseases*, 129 PEDIATRICS 163, 163–64 (2012). But there may be ways to cabin the harms of recreational testing—for example, by opting for tests that do not reveal this kind of information. On the other hand, publishing results on databases accessible to law enforcement poses the clearest harm, and it is the issue that I take up here.

including the destruction of records.\textsuperscript{20} And these laws apply to children who have been adjudicated as delinquent—where the state may have a compelling argument to create these records in the first place. In contrast, the forms of DNA collection I describe here can cause a profile to remain on file for the rest of a child’s life, imposing an ongoing burden on privacy.\textsuperscript{21} Those children included in databases might be less likely to engage in public activities for fear of becoming a suspect in subsequent investigations.\textsuperscript{22} Paradoxically, collecting DNA from innocent children might actually increase the risk that they commit crimes in the future, as research indicates that any contact with the justice system for low-risk youth can have a criminogenic effect.\textsuperscript{23} Given the harms listed above, the collection of children’s DNA is particularly egregious. Of particular concern is children’s inability to understand and consent to what is occurring.

In a number of contexts, the law has responded to children’s immaturity and vulnerability by positioning parents as the “interested adult[s]” to protect young people’s rights.\textsuperscript{24} In the 	extit{Miranda} context, courts and legislatures have assumed that the presence of parents can mitigate the risk of involuntary waivers,\textsuperscript{25} though research reveals that, if anything, a parent’s presence makes waiver more likely.\textsuperscript{26} Similarly, when it comes to DNA, our current legal regime views parents as the best possible guardrail to prevent overreach by the justice system, with parental consent as the gold standard for obtaining and

\textsuperscript{20} 43 C.J.S. Infants § 137 (2023) (“[A] judge may have no authority to permit the public to be present at a juvenile delinquency trial or hearing.”); 47 AM. JUR. 2D Juvenile Courts, Etc. § 116 (2023).


\textsuperscript{23} See Mahsa Jafarian & Vidhya Ananthakrishnan, Just Kids: When Misbehaving Is a Crime, VERA INST. OF JUST. (Aug. 2017), https://www.vera.org/when-misbehaving-is-a-crime [perma.cc/ACSY-TLEP] (discussing how criminalizing kids through court involvement or incarceration for misbehaviors that pose little to no risk to public safety actually increases the risk of future criminal behavior). For low-risk children, even going to court can increase the risk of future involvement in the criminal justice system. \textit{Id.}

\textsuperscript{24} This is particularly true for children under fifteen. RESTATEMENT (FIRST) OF CHILD. & THE L. § 14.22 cmt. b (AM. L. INST., Tentative Draft No. 1, 2018).

\textsuperscript{25} See, e.g., N.M. STAT. ANN. § 32A-2-14(E)(8) (2023) (listing counsel of relatives as a factor in determining whether the child waived any rights); United States v. Doe, 155 F.3d 1070, 1073 (9th Cir. 1998) (discussing parental notification as a factor in whether a child waived \textit{Miranda} rights).

\textsuperscript{26} See infra Section II.C.
Parents are in control of children’s DNA, and in the DTC context, parents are the owners of children’s accounts. Parents’ and children’s interests are viewed as unified. But in reality, parents might have serious conflicts of interest and even encourage or be the ones sharing DNA with law enforcement.

My fundamental thesis is that parental consent is insufficient to turn over DNA to law enforcement. This practice can have serious, lifelong consequences for the affected child.

This Article is an analytic exploration of the control and use of children’s DNA, adding to the existing literature and asking for the first time: who owns children’s DNA? Part I of the Article describes the problems with the collection of DNA from children and why existing laws do not adequately address this issue. The problem manifests through both (1) “consensual” DNA searches of children, primarily by local law enforcement agencies, and (2) DTC testing. As in Adam’s story above, parents may not be directly involved in the “consensual” DNA searches by law enforcement. Indeed, this is one of the criticisms of law enforcement practices underlying proposed reforms. But looking to parents as a safeguard against consensual DNA searches is misguided. In both contexts, a conflict between a parent’s and a child’s interests can emerge, and assuming an identity of interest is profoundly wrong.

Part II proposes that we borrow from the functional core rights acknowledged in a property framework to view this issue. Property uniquely separates parent and child interests in a way that many other areas of the law do not. Under a property law framework, neither parent nor child alone can consent to the child’s DNA being exposed and permanently relinquished: we protect children’s property from being disposed of by children themselves in their youth, and from their parents mismanaging or alienating something that truly does not belong to parents.

Thus, it can be helpful to conceptualize parents as fiduciaries, as Elizabeth and Robert Scott described in their seminal article almost three decades ago. A fiduciary model moves us away from parents as owners of children and their information; rather, it recognizes that parents are trustees of their children’s

27. See Assemb. 1584, 2018 Leg., Reg. Sess. (Cal. 2018). Additionally, a few states specifically require parental permission for genetic testing of a minor. Arizona and Oklahoma have enacted a “Parents’ Bill of Rights” specifically requiring written parental consent before any genetic tests are conducted. One problem flagged by others that I do not address here is that statutes can impede the ability of pregnant minors to obtain these tests on their own. Ellen Wright Clayton, How Much Control Do Children and Adolescents Have over Genomic Testing, Parental Access to Their Results, and Parental Communication of Those Results to Others?, 43 J.L. MED. & ETHICS 538, 539–40 (2015).

28. Here, I specifically discuss the law enforcement context, recognizing that there may be different issues that present in clinical care and research. See Debra J.H. Mathews & Natalie Ram, Get Law Enforcement Out of Biospecimen Authentication, 376 SCIENCE 1274, 1275–76 (2022).

information. Protecting a property-like interest in children’s DNA reflects the importance of moving away from a framework of ownership, in both the way we think of children’s DNA but also the way we think of children themselves. But even children who have the most well-meaning parents as fiduciaries benefit from safeguards protecting their DNA from law enforcement overreach. Part III concludes the Article with a number of solutions to better protect children’s DNA and data privacy more generally through the law.

I. THE PROBLEM OF DNA COLLECTION FROM CHILDREN

A. “Direct” DNA Collection from Children

Almost every state and the federal government have clear laws regulating the collection of DNA from juveniles. Juvenile DNA can be added to state and federal databases only when a juvenile is arrested, adjudicated as delinquent, or convicted. The practice of databasing young people’s DNA, just because they are justice-involved, raises a number of concerns that other scholars have explored. But at the very least, the practice is legislatively authorized, meaning there are specific rules regulating when and how DNA can be collected. For example, in order to participate in the FBI’s Combined DNA Index System (CODIS), local, state, and federal forensic labs must be accredited. Additionally, states must adhere to federal guidelines under the DNA

30. My conception of parents as fiduciary diverges from the Scotts’ in this important way. See Section II.C. In sum, Scott & Scott rely heavily on normative and informal mechanisms to align parents’ and children’s interests. They argue that the parent-child relationship in an intact family is sufficiently secure and “bonded” that monitoring and state regulations have limited utility (and higher costs). For Scott & Scott, “monitoring plays an important role in a scheme of sanctions once evidence of parental deficiencies overcomes the presumption of good faith and diligence.” Scott & Scott, supra note 29, at 2442 (emphasis added). My argument is that the need for regulations to protect children in the criminal legal context is not based on parental deficiencies. Even an excellent parent may fail to protect the child from collection of DNA and law enforcement overreach. Safeguards are needed.


32. The Federal Bureau of Investigation maintains the Combined DNA Index System (CODIS), which consists of the National DNA Index System (NDIS) and other participating federal, state, and local forensic DNA collection systems. Frequently Asked Questions on CODIS and NDIS, FBI, https://www.fbi.gov/services/laboratory/biometric-analysis/codis/codis-and-ndis-fact-sheet [perma.cc/B2GB-Z4WH].

33. See id.

34. Id.; e.g., Kevin Lapp, As Though They Were Not Children: DNA Collection from Juveniles, 89 TUL. L. REV. 435 (2014).

Identification Act, which ensures limited access to DNA and spells out standards for labs to follow, among other requirements.

In contrast, there is an entire hidden world of unregulated DNA databases run by localities. Local law enforcement officers create their own hyperlocal databases (for example, the Bucks County, Pennsylvania DNA database), mostly filled with “consensual” searches of DNA. While strict rules govern which DNA samples are added to CODIS, these rules don’t apply to local police departments’ databases. They often contain DNA from individuals who were never suspected of crimes, including victims, witnesses, and family members whose DNA happened to be present at crime scenes. Unlike CODIS and state databases, which have strict use limitations, local law enforcement agencies search these databases for any reason they please. Even if a state has protections for collecting DNA—for example, restricting collection to certain crimes and providing for expungement—these protections are routinely treated as irrelevant by local law enforcement agencies. Local agencies vocally embrace the fact that they can avoid regulations and create a DNA database outside the rules. For example, the California Peace Officers Association explicitly references the ability to solve property crimes without being “beholden to the backlog and lower priority levels of a traditional crime lab.”

Local law enforcement officers see not adhering to standards as a benefit, as “departments can analyze their own samples without an environmentally controlled room, as required for crime laboratories, and without a forensically trained DNA analyst.” Additionally, racial and social profiling (including the targeting of youth) is a greater risk in these local law enforcement databases, since law enforcement retains complete discretion to include any samples they like.

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37. See also Frequently Asked Questions on CODIS and NDIS, supra note 32.
38. See Kirchner, supra note 1; Mercer & Gabel, supra note 21, at 667.
39. Kirchner, supra note 1.
40. Id.
41. Id.; Frequently Asked Questions on CODIS and NDIS, supra note 32.
42. Frequently Asked Questions on CODIS and NDIS, supra note 32; see Kirchner, supra note 1.
44. Id. Similarly, Bensalem County is generating DNA results in ninety minutes based on its local database (created by a private lab), despite admitting concerns about accuracy. Jo Ciavaglia, DNA Results in 90 minutes: “This Is Real CSI Stuff,” BURLINGTON CNTRY. TIMES (Nov. 19, 2013, 5:30 PM), https://www.burlingtoncountytimes.com/story/news/crime/2013/11/19/dna-results-in-90-minutes/17482010007 [perma.cc/EHJ3-XQ98].
As DNA technology has improved and become cheaper, many of the barriers that prevented the creation of local and private databases have disappeared, and the number of local databases has increased substantially. Some of the known agencies with local DNA databases include police departments in Palm Bay, Florida; San Diego, California; Bensalem Township, Pennsylvania; Baltimore City and Prince George’s County, Maryland; and Branford, Connecticut. Orange County and New York City are two of the most well-known municipalities to have local DNA databases, as both have been sued for their DNA retention practices in the last two years. The public safety director of Bensalem Township, Pennsylvania, an early adopter of the practice, said he knows of about sixty departments using local databases. But there is no published data on how many cities and counties create local DNA databases, and the number is likely higher. Indeed, many law enforcement agencies may keep the existence of such a database a secret from the public.

To the extent that the public hears about these practices, there is often a young person, like Adam, at the center of the story. Local law enforcement

46. See generally ERIN E. MURPHY, INSIDE THE CELL: THE DARK SIDE OF FORENSIC DNA (2015). I do not take up private database use by law enforcement here, but it is an issue I hope to fully explore in forthcoming work.


50. Balsamo, supra note 48.

51. Id. (stating that “[d]ozens of police departments” are amassing their own DNA databases).


53. See Kirchner, supra note 1 (describing Adam’s story). In addition, police in San Diego were alleged to have specifically targeted African American children. Jamie Williams, San Diego Police Target African American Children for Unlawful DNA Collection, ELEC. FRONTIER FOUND.
agencies may target young people for DNA collection for a number of reasons. First, officers may believe youth are more likely to commit crimes, particularly Black youth.\textsuperscript{54} Second, they may be more likely to encounter youth in day-to-day interactions, given that most middle and high schools have school resource officers.\textsuperscript{55} Additionally, officers exercise greater authority with young people than adults and are more likely to arrest youth.\textsuperscript{56} Finally, young people might be especially likely to “consent” to DNA searches because of a fear of police and a lack of understanding about their rights to refuse.\textsuperscript{57}

Even in states with laws protecting the collection of children’s DNA, local law enforcement databases can exploit loopholes. For example, California’s DNA collection law permits the collection of a juvenile’s DNA only in the event of a felony conviction, registration as a sex offender, or attendance in a court-mandated sex offender treatment program.\textsuperscript{58} However, the San Diego Police Department collected DNA from a wide range of minors despite this policy, arguing that the language applied only to DNA submitted to the statewide database.\textsuperscript{59}

Along with the serious harms noted above, local law enforcement practices do not provide the same benefits of authorized databases. The primary justifications for the practice of collecting DNA for authorized databases are deterrence and detection.\textsuperscript{60} There is empirical support that DNA databases can deter crime,\textsuperscript{61} but deterrence works only if individuals know that there is a database and know that they are in it. Local law enforcement databases may


\textsuperscript{58.} CAL. PENAL CODE § 296 (West 2014).


\textsuperscript{60.} See Anker et al., supra note 11; Amitai Etzioni, DNA Tests and Databases in Criminal Justice: Individual Rights and the Common Good, in DNA AND THE CRIMINAL JUSTICE SYSTEM 197, 200–01 (David Lazer ed., 2004).

\textsuperscript{61.} Anker et al., supra note 11.
be kept a secret from the public, defeating the deterrence rationale. Second, local law enforcement agencies may argue that their more populated databases, filled with individuals who have “consented” to collection, make it more likely that they will identify perpetrators. However, at least one empirical example indicates this may not be the case. The United Kingdom rapidly expanded its national DNA database when a legal change permitted retaining the DNA of witnesses, victims, arrestees, and anyone who consented to collection. Yet the country did not see many more crimes solved. Indeed, larger databases may actually carry a greater risk of false positives and create increased margins for error. The risk of error might be exacerbated since local labs may not follow best practices to avoid contamination and obtain accurate results.

In sum, local law enforcement agencies create databases that operate outside of the rules, including rules governing when and how a young person’s DNA can be collected. As a result, these agencies are some of the most likely to target innocent youth to “consensually” turn over their DNA. These local agencies can then place a child’s DNA in a database where it can, and likely will, live for perpetuity.

B. Parental Involvement in Direct DNA Collection

Direct searches from local law enforcement are distinct from DTC testing because parents are not providing their child’s DNA to law enforcement. In fact, one of the major criticisms of local law enforcement databases is that officers typically do not involve parents in the “consensual” searches of children. Current reform efforts assume that parental consent requirements will protect children from coerced DNA collection. This is an assumption worth challenging.

62. See NYPD Accused of Secretly Collecting DNA from Thousands of New Yorkers for “Rogue” Database, supra note 52.
64. Id.
65. Id.
66. See Gima et al., supra note 43.
Take the *Miranda* context. The Supreme Court has indicated that having an “interested adult” in the room might protect children’s rights by helping the child fully understand what a waiver entails and reducing the interrogative nature of the setting.\(^69\) Some states do require a parent to be present before questioning a juvenile.\(^70\) The belief is that the presence of this interested adult, especially a parent, is beneficial to young suspects.\(^71\) Research, however, indicates the opposite result.\(^72\) A parent’s presence might actually diminish a child’s ability to assert their rights. After the “interested adult” rule was adopted, a study found that parents who attended interrogations generally offered no advice to their children; many did not even speak to their children.\(^73\) When they did, they recommended a waiver.\(^74\) The “interested adult” rule is further impacted by the fact that many children in the delinquency system are also in the dependency system, and may not have an “interested” party on their side to begin with.\(^75\) The presence of an interested adult can also harm young people in sentencing: when jurors are aware that a parent was present during the interrogations, they are more likely to convict the young person.\(^76\)

Parents are not an adequate protective force against law enforcement overreach for multiple reasons. Parents may lack the knowledge or sophistication to understand the implications of sharing information with law enforcement.\(^77\) In the *Miranda* context, studies demonstrate deficiencies in adult

\(^69.\) See, e.g., In re Gault, 387 U.S. 1, 55–56 (1967) (finding/suggesting that the presence of parents in an interrogation setting would be helpful to the child); Gallegos v. Colorado, 370 U.S. 49, 54 (1962) (indicating that the presence of parents would assist children in asserting their rights).


\(^71.\) See supra note 69.

\(^72.\) See THOMAS GRISSO, JUVENILES’ WAIVER OF RIGHTS 168–90 (1981) (describing study finding that most of the time parents do not offer advice to their children during interrogations, and often they instruct their children to waive their rights—including their right to an attorney).

\(^73.\) See id. at 182–86.

\(^74.\) See id.


comprehension, and it is difficult to rely upon parents who do not understand *Miranda* to provide advice to their children. Parents might also be embarrassed or scared to be in the police station, particularly if they have had their own negative experiences with the criminal justice system. In some cases, parents might actually be the ones putting pressure on their children to confess. They might play the role of moral educator and lean on their children to make a statement to police because they want their children to be “scared straight” and learn a lesson.

All the reasons why the “interested adult” standard is insufficient to protect the interests of the child apply in the DNA context as well. If the underlying rationale for the “interested adult” standard is that the parent understands the right being waived and can help explain the implications to the child, that does not seem to be the case in the *Miranda* context, even with the added familiarity from popular television. DNA is even less accessible: many adults when surveyed demonstrate a lack of understanding concerning basic genetic concepts. Additionally, parents may have a direct conflict of interest—for example, when one of their children is a suspect and the other a victim, or if the parent is also a suspect in the case or has close relationships with other suspects.

Despite the significant concerns with placing parents in the position of the interested adult, California recently became the first state to apply the “interested adult” rule to the DNA context. The state now requires that a parent, guardian, or attorney be consulted before children provide a DNA sample. The reformed rule does not adequately address the fact that, when consulted, parents sometimes facilitate or encourage the direct collection of DNA by law enforcement.

78. *Id.*
79. *Id.*
80. *Id.*
84. *In re* H.K.D.S., 469 P.3d 770 (Or. Ct. App. 2020) (en banc) (dealing with a case, discussed more fully in Section II.B., where a parent consented to DNA collection of one child when their other child was the victim); Mindthoff et al., *supra* note 76, at 210 (“If parents are also suspects in the case or have close relationships with other suspects, they may be otherwise unsuitable or disinclined to serve in a protective capacity for their child.”).
85. 2018 Cal. Stat. 93. Most states continue to leave an inquiry about whether a consensual search was legal up to the courts, which evaluate the voluntariness of consent to a search (an assessment that is supposed to involve age but often does not). Megan Annitto, *Consent Searches of Minors*, 38 N.Y.U. REV. L. & SOC. CHANGE 1, 1 (2014) (“Close analysis reveals that courts struggle to create a meaningful standard and, more often than not, appear to simply ignore minor status.”).
C. “Indirect” DNA Collection from Children

Beyond databases created by law enforcement agencies themselves, agencies can also tap into other genetic platforms.86 Private databases do not require law enforcement to directly collect DNA from individuals. Given the popularity of genetic/ancestry tests, private databases contain millions of profiles, making them a veritable gold mine for law enforcement.87

Direct-to-consumer ("DTC") genetic testing emerged in the early 2000s as a way for individuals to learn about their genetics and ancestry.88 The three largest companies are Ancestry.com, 23andMe, and FamilyTreeDNA. However, a survey found thirty-one total companies in the DTC market, with an additional thirty-two companies that used to provide services but are no longer in operation or have been acquired by other companies.89 It is estimated that over 100 million people have used a DTC genetic test.90

These databases contain DNA from both children and adults. While DTC testing companies do not track the number of kits being used to test children, there are indications of a growing interest in testing children. 23andMe states that it is intended for adults, but its marketing appears to target children, including ads featuring animated characters from popular children’s films like Despicable Me.91 23andMe allows a parent or guardian to open an account on behalf of their child.92 Ancestry.com and FamilyTreeDNA both state that children under thirteen are not permitted to create user accounts or send their own DNA samples directly, and if the companies become aware of direct col-


92. Id.
lection from a child under the age of thirteen, they commit to making commercially reasonable efforts to delete the data.93 But parents are still permitted to send saliva samples of their minor children to DTC companies, with Ancestry.com requiring that a parent first ask the child’s permission.94

In addition to the mainstream, adult-targeting DTC companies, some directly market test kits for children, such as Map My Gene, Orig3n, and geneDecode.95 Map My Gene states that the Inborn Talent Gene Test can help parents identify forty-six talents and traits their children have that may not be obvious at a young age.96 Orig3n boasts a “child development” DNA test that assesses characteristics from physical fitness to a child’s ability to learn new languages.97 Finally, geneDecode tells parents to consider using their talent test on newborns for “maximum effect” since parents of young children have a better ability to shape the character of the child.98

Once parents have tested a child’s DNA through a DTC site, they have the option of uploading the raw DNA file to an open-source database. Many DTC companies have their own databases; for example, Ancestry.com has a database of eighteen million profiles.99 Open-source databases are distinct from law enforcement or private databases because anyone can upload their raw DNA data to the sites for free.100 Individuals typically place their DNA on open-source databases in the hopes of finding relatives who may have used a different site (for example, an individual who used 23andMe could connect with a user of MyHeritage).101 The largest open-source databases are FamilyTreeDNA and GEDmatch, both primarily created for genealogy purposes;

94. ANCESTRY, supra note 93.
96. MAP MY GENE, supra note 95.
97. ORIG3N, supra note 95.
98. GENEDECODE, supra note 95.
but there are others, like “DNASolves,” specifically created to solve crimes.  

For law enforcement officers, these open-source databases offer a new way to investigate cold cases. Approximately 30% of public profiles on GEDmatch have currently opted in to law enforcement matching (with 83% of new GEDmatch users opted in by default). GEDmatch’s main competitor, FamilyTreeDNA, boasts that 96% of profiles are open to law enforcement, since the default setting is that profiles are open to law enforcement views. Officers can create a user profile for a DNA sample from a crime scene, upload the sample, and find partial matches from all the profiles that have opted in to law enforcement views. At that point, a genealogist would help discern the relationship between the match and potential suspects.

Consumers may not be aware of or explicitly consent to the way companies use their information. This includes sharing results with law enforcement agencies. No federal laws directly address DTC testing and the ensuing consumer privacy issues that may arise. The recent trend of DNA companies being purchased (partially or entirely) by other companies adds further urgency to a situation lawmakers and regulators have been slow to address. The big four consumer genetic companies—23andMe, GEDmatch, Ancestry.com, and MyHeritage—were either partially or fully acquired by profit-incentivized

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[perma.cc/4D8B-LFZT]. Open-source databases can also be used to learn more about one’s DNA data and ancestry, to gain nutrition and fitness analysis, and to contribute to science. Id.


104. Guerrero et al., supra note 103, at 15.

105. Law enforcement officers are typically required to declare themselves as part of law enforcement and, on databases like GEDmatch, they should only have access to those accounts that have consented to law enforcement searches. However, agencies have been known to break the rules and pretend to be the actual owner of the DNA they are submitting. See Rafil Kroll-Zaidi, Your DNA Could Send a Relative to Jail, N.Y. TIMES MAG. (Jan. 3, 2022), https://www.nytimes.com/2021/12/27/magazine/dna-test-crime-identification-genome.html [perma.cc/PR3G-7SXN] (describing how law enforcement officers and their hired genealogists uploaded DNA profiles to GEDmatch without declaring themselves—a requirement for sites like GEDmatch—or used MyHeritage, which officially prohibits law enforcement use).


firms between 2019 and 2020.\footnote{108} These acquisitions make it almost inevitable that DNA data will be further monetized and sold to law enforcement.\footnote{109} Children’s data may hold special value to data brokers since the children’s merchandise market is in the hundreds of billion dollars in the United States alone, and dossiers on children’s data hold immense value for the future.\footnote{110}

Sensitive information in law enforcement hands poses serious harms. Law enforcement agencies creating genetic dossiers on citizens can impact liberty, privacy, and the ability to lead full lives. These harms are amplified because DTC testing, compared to DNA profiles in CODIS, can reveal more information about an individual.\footnote{111} CODIS only includes noncoding regions of DNA, which reveal fewer observable characteristics of an individual, such as gender or race.\footnote{112} In contrast, sites like Ancestry.com and 23andMe employ a form of testing called single-nucleotide polymorphism (SNP) testing.\footnote{113} SNP testing is far more comprehensive than the FBI’s traditional testing. For example, Ancestry.com advertises that it “surveys a person’s entire genome at over 700,000 locations.”\footnote{114} Consequently, when an Ancestry.com user’s DNA portrait is uploaded and shared with law enforcement, it’s not just their identity at stake; their physical characteristics, ancestry, race, and predisposition to disease are compromised.

Although DNA technology can seem infallible, human influence and error abound. Law enforcement collect samples from crime scenes and often cannot

\begin{itemize}
  \item Id. at 2. But see Ram, supra note 12, at 1379. The distinction between CODIS using “junk DNA” and SNPs is less tenable since even noncoding DNA sections can be valuable identifiers and may even indicate certain genetic diseases.
  \item Ram, supra note 12, at 1378.
\end{itemize}
be sure whose DNA they collect. This could lead officers to upload an innocent person’s DNA to public databases, compromising privacy without consent. This technology has led to mistakes being made and wrong individuals being targeted. Michael Usry was wrongfully accused of rape and murder when police matched a contaminated DNA sample to his father’s DNA profile on a public DNA database. In most states, there are no laws addressing the privacy harms that innocent individuals face or providing a mandated remedy—such as expungement of the DNA sample—in scenarios involving children. Mitigation of some of these harms is possible but few standards ensure law enforcement officers follow best practices when engaging in forensic genetic genealogy.

D. Parental Involvement in Indirect DNA Collection

Parents might test children to learn more about ancestry, to assess medical risks, or for recreational purposes. However, geneticists have consistently opposed testing children for reasons unrelated to medical needs in childhood. The potential benefits to testing and sharing a child’s results online must be weighed against the substantial harm to the child—including the ex-

116. Id.
117. Akpan, supra note 106.
119. Maryland and Montana have passed laws that limit the use of forensic genetic genealogy. Maryland’s law requires the consent of any third parties before obtaining their DNA. Montana’s law requires a warrant. Michelle Taylor, Maryland, Montana Become First States to Restrict Genetic Genealogy Searches, FORENSIC (June 30, 2021), https://www.foresnicmag.com/577298-Maryland-Montana-Become-First-States-to-Restrict-Genetic-Genealogy-S earches [perma.cc/AZ5X-J5VH]. But overall, the field of genetic genealogy is still the wild west with few rules.
120. The Committee on Bioethics, Committee on Genetics, and the American College of Medical Genetics and Genomics advise against the testing of adult-onset conditions in children “unless an intervention initiated in childhood may reduce morbidity or mortality.” Lainie F. Ross, Howard M. Saal, Rebecca R. Anderson & Karen L. David, Ethical and Policy Issues in Genetic Testing and Screening of Children, 131 PEDIATRICS 620, 621 (2013). Additionally, the American College of Obstetricians and Gynecologists recommends against prenatal testing of adult-onset conditions. See Laura Hercher et al., Prenatal Testing for Adult-Onset Conditions: The Position of the National Society of Genetic Counselors, 25 J. GENETIC COUNSELING 1139, 1140–41 (2016). However, there are differences of opinion regarding testing when it might reveal pertinent information for childhood—for example, whole genome sequencing at the newborn screening. See Natalie Ram, America’s Hidden National DNA Database, 100 TEX. L. REV. 1253, 1256 (2022) (“[S]ome researchers and clinicians have advocated for broader genetic sequencing at birth to ‘facilitat[e] a lifetime of personalized medical care.’” (quoting The Ethics of Sequencing Newborns, HASTINGS CTR., https://www.thehastingscenter.org/publications-resources/special-reports-2/ethics-sequencing-newborns-reflections-recommendations [perma.cc/Y5HX-PFQU])).
posure of their health data and other personal information. Medical organizations worldwide are largely unanimous in their recommendation to defer the genetic testing of children to adulthood out of concern for exposure of the child’s sensitive information.121

Unfortunately, children have little to no control over the dissemination of their personal information by their parents, and information shared on the internet can last long after the initial disclosure. Evans—mentioned in the Introduction—is not alone in testing her children. Dr. Joanna Mountain, former Senior Director of Research at 23andMe, described in a blog post how she sent in the genetic information of her two sons, ages seven and twelve, to be tested.122 While she acknowledged that the ethical discussion around genotyping one’s children was “fascinating,” she decided to take the “pragmatic approach” and have them tested.123 The blog post begins with her seven-year-old jumping up and down in the kitchen, wanting to see his data.124 Mountain mentioned that her boys share the Alzheimer’s-disease-associated gene at 100%, and that one of the boys has twice the risk of Type II Diabetes as her other child.125 Interestingly, her older son asked for direct access to his account, but Mountain felt strongly against it, stating that, as a parent, she “owns” his account.126

Sharing genetic information might be considered part of the larger phenomenon of “sharenting,” which has its own criticisms. Sharenting, a portmanteau of sharing and parenting, includes all the ways parents, guardians, extended family, educators, and other trusted adults share children’s private

121. See Ram, supra note 120, at 1271.
123. Mountain, supra note 122.
124. Id.
126. Mountain, supra note 122.
information via digital channels. Sharenting is now ubiquitous from the moment of conception to a child’s school-aged years and into adolescence. Otherwise innocent sharenting can lead to privacy concerns, embarrassment, and a digital footprint created without the child’s consent. A general criticism of sharenting is that it fundamentally changes the nature of childhood—placing it on display and making it difficult for children to develop the autonomy and agency that comes from having space to make mistakes that are not captured for posterity. Sharing genetic information (rather than, say, preschool photographs) is in a category of its own. Biometric information is intimate information that could expose children to criminal misconduct. Adults can use the information to blackmail, threaten, or stalk the child. One study predicted that online fraud targeting young people will contribute to a loss of £667 million (over $800 million) by 2030, and two thirds of identity fraud facing young people will be related to sharenting.

Posting a child’s genome is the most direct method by which parents can become genetic informants against their own children, making all the harms discussed above more pronounced. Furthermore, a parent sharing their own genome on an open-source database can pose some of the same harms because DNA is closely shared within a family. If law enforcement is permitted to engage in familial searches, they will be able to identify a child from a parent’s DNA. Critics have pointed to Fourth Amendment issues, including voluntariness, since genetic relatives have not consented to the inclusion of their DNA in the databases selected by the original DTC user. Additionally, familial matching may disproportionately impact racial minorities since databases like CODIS have more samples from communities of color. California

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128. Id. at 471.
131. See Ram, supra note 12, at 1389.
132. Erin Murphy, Relative Doubt: Familial Searches of DNA Databases, 109 MICH. L. REV. 291, 322 (2010) (“Given the disproportionate representation of blacks and Hispanics in the criminal justice system, the use of convicted offender databases to conduct familial searches necessarily means that the burden of such search techniques will primarily be borne by innocent relatives of those subpopulations.”); Sonia M. Suter, All in the Family: Privacy and DNA Familial Searching, 23 HARV. J.L. & TECH. 309, 370 (2010) (“The fact that minority groups are over-represented in DNA databases necessarily means that the pool of individuals subject to future
was the first state to permit familial matching using CODIS; eleven other states have followed.  

Even with familial matching, a prohibition on parents sharing children’s DNA would still matter, particularly in states that either forbid or limit familial matching. If law enforcement is permitted only to engage in direct matching to a genome (at least in certain cases), then prohibiting the sharing of children’s DNA directly can still mitigate harm. By publishing a child’s genetic information online, parents make it possible for law enforcement to track any activity or crime, no matter how minor, directly to their child. Exposing this information can create a conflict between the parent’s and the child’s rights, discussed below.

E. Conflict Between Parents’ and Children’s Interests

In testing a child, a parent might argue that they have a clear right, acknowledged time and time again by the Supreme Court, to direct the upbringing of their child. A parent’s right to make decisions and consent on searches for matching DNA profiles in criminal investigations will disproportionately include minorities.”.


134. See Romine, supra note 133, at 378. Nearly all states that regulate familial DNA testing impose limits on when it can be used, including restricting it to serious and violent cases, or after other investigatory techniques have been exhausted. Maryland and Washington, D.C. prohibited familial DNA searches, but Maryland does allow the use of consumer genetic databases in certain instances (which rely on familial matching). MD. CODE ANN., CRIM. PROC. § 17-102 (LexisNexis 2022).

135. Here, I do not address a parent’s right to test before birth. See, e.g., Antina de Jong et al., Non-Invasive Prenatal Testing: Ethical Issues Explored, 18 EUR. J. HUM. GENETICS 272, 272 (2010) (“If broad NIPD testing includes later-onset diseases, the ‘right not to know’ of the future child will become a new issue in the debate about prenatal screening.”).
behalf of their child arises from a liberty interest protected under the Due Process Clause of the Fourteenth Amendment.\textsuperscript{136} While parents’ rights are not unlimited, courts generally do not interfere with parenting.\textsuperscript{137} State intervention is reserved for cases where the government believes there might be abuse or neglect.\textsuperscript{138} In general, adults must comport with only “minimal standards of child care negatively set in neglect, abuse, and abandonment statutes and affirmatively set in provisions such as those obligating parents to send their children to school.”\textsuperscript{139} The law, as it stands now, does not prevent parents from testing and publishing their children’s DNA, and no court would be likely to find the practice to rise to the level of abuse or neglect. A parent’s decisionmaking is seen as the gold standard since they are so intimately familiar with their own child.

But parental rights are not absolute. The law has recognized that children possess recognized constitutional rights just like their adult counterparts. In \textit{In re Gault}, the Supreme Court recognized that “whatever may be their precise impact, neither the Fourteenth Amendment nor the Bill of Rights is for adults alone.”\textsuperscript{140} Subsequently, in \textit{Tinker v. Des Moines Independent Community School District}, the Court held that students “are possessed of fundamental rights,”\textsuperscript{141} later explaining in \textit{Planned Parenthood of Central Missouri v. Danforth} that “[c]onstitutional rights do not mature and come into being magically only when one attains the state-defined age of majority.”\textsuperscript{142} It is in the protection of children’s fundamental rights that the rubber meets the road.

\textsuperscript{136} See \textit{Troxel v. Granville}, 530 U.S. 57, 65 (2000) (“[T]he interest of parents in the care, custody, and control of their children . . . is perhaps the oldest of the fundamental liberty interests recognized by this Court.”). The Fourteenth Amendment provides that no State shall “deprive any person of life, liberty, or property, without due process of law.” U.S. \textsf{Constitution}, amend. XIV, § 1.

\textsuperscript{137} It is worth noting that the Due Process Clause may protect parental rights from state interference but not from children themselves.


\textsuperscript{140} \textit{In re Gault}, 387 U.S. 1, 13 (1967).


Until children can make decisions for themselves, safeguarding their interests is of the utmost importance. How do we balance stewardship of those rights between parents, the state, and children?

Children occupy a complicated place in history. On the one hand, children have been treated as property for much of Western history. The notion of children as the patriarch’s property dates back to Roman law, with echoes that remain in contemporary American family law. On the other hand, in the sixteenth century, the parental role was minimal and children had no custodian—parent, master, or otherwise. But, as Barbara Bennett Woodhouse has articulated, parental ownership emerged as the predominant thread in American jurisprudence well into the nineteenth and twentieth centuries, with courts employing the language of ownership and possession when issuing opinions in custody cases. Ownership extended to wives as well under marital coverture. It was accepted that a father would provide for wives and children and, in exchange, could require them to work, physically control and punish them, and collect any wages they earned. While marital coverture has been abolished, the coverture over children, and their status as property, still has remnants in the law. Parents continue to have broad control over their children and are permitted to do much in the name of parental rights, including isolate children from others, beat them in the name of discipline, and force them to attend or prevent them from attending a religious institution.

In the name of these parental rights, the law gives parents full control of the governance of children’s data, with few guardrails. Courts more or less eliminate the tension between parents’ rights and children’s privacy concerns by lumping their interests as one and the same. Two such areas are the wiretapping of children’s conversations and children’s online privacy rights.

143. See 1 WILLIAM BLACKSTONE, COMMENTARIES *452 (“The antient Roman laws gave the father a power of life and death over his children . . . .”); Barbara Bennett Woodhouse, “Who Owns the Child?: Meyer and Pierce and the Child as Property, 33 WM. & MARY L. REV. 995, 997 (1992) (“Meyer and Pierce constitutionalized a narrow, tradition-bound vision of the child as essentially private property. This vision continues to distort our family law and national family policy . . . .”).

144. HOLLY BREWER, BY BIRTH OR CONSENT: CHILDREN, LAW, AND THE ANGLO-AMERICAN REVOLUTION IN AUTHORITY 232 (2005).

145. See Woodhouse, supra note 143, at 1038.


147. Id.

148. Id. at 92.

149. See, e.g., Complying with COPPA: Frequently Asked Questions, FTC (July 2020), https://www.ftc.gov/business-guidance/resources/complying-coppa-frequently-asked-questions [perma.cc/HZM6-X5R8] (stating that COPPA was enacted to allow parents’ control over their children’s online privacy).

150. Daniel R. Dinger, Should Parents Be Allowed to Record a Child’s Telephone Conversations When They Believe the Child Is in Danger?: An Examination of the Federal Wiretap Statute and the Doctrine of Vicarious Consent in the Context of a Criminal Prosecution, 28 SEATTLE U. L.
both areas of law, the doctrine makes parents the guardians of the information and assumes that parents and children have a complete unity of interest. The law centers around parental rights in this domain—parents as owners of their children’s data and accounts—and only as a secondary matter acknowledges children as developing autonomous beings. Instead, I propose using the functional considerations from a property rights framework to both recognize the importance DNA holds to us and shift the understanding of a parent’s duties and responsibilities toward their children’s information.

II. BORROWING FROM A PROPERTY FRAMEWORK

Thanks to property law’s protective yet flexible nature, legislatures, industry, and courts use the property framework to provide control over genetic information. Whether DNA samples and genetic information are actually personal property is unsettled and not a question I resolve here. DNA and the information it contains shares many characteristics with traditional common law property but not all of them. And much of what is accomplished by providing a property right to one’s DNA might be accomplished through other frameworks, such as privacy. But there is something to be gained from applying the functional approach of property to address the collection of DNA.

For example, an increasing number of legislatures have turned to property to protect one’s genetic information, finding many favorable features in a property rights model. Even if the conception of property has evolved, and “property” no longer conveys an absolute or fixed set of rights, it generally includes the power to restrict others from taking what is ours. In light of
property’s protective nature, Alaska, Colorado, Florida, Georgia, and Louisiana explicitly define genetic information as personal property. Florida’s law finds “[t]he results of . . . DNA analysis, whether held by a public or private entity, [to be] the exclusive property of the person tested.” Exclusive property” rights include “the right . . . to exercise control over [one’s own] DNA sample and any results of [one’s own] DNA analysis with regard to the collection, use, retention, maintenance, disclosure, or destruction of such sample or analysis results.” Similarly, Alaska’s genetic privacy statute forbids the collection, retention, analysis, and disclosure of an individual’s DNA sample without their informed and written consent. The law further specifies that a person’s DNA sample and test results are the “exclusive property” of the person analyzed. Colorado, Georgia, and Louisiana all use similar language, though they seem more geared at protecting against genetic discrimination. Even many states that do not explicitly call DNA property provide the individual with control over how their genetic information is used. These rights include requiring explicit consent from the individual to perform a genetic test, obtain genetic information, and disclose that information. Overall, there is a trend among states to recognize DNA as property. In the past eleven years, legislators in Alabama, New Hampshire, New Jersey, Massachusetts, South Dakota, and Texas have introduced bills that would make a person’s genetic

‘property’ is used in this Restatement to denote legal relations between persons with respect to a thing. The thing may be an object having physical existence or it may be any kind of an intangible such as a patent right or a choose in action.”.

156. FLA. STAT. § 760.40(2) (2023).
157. Id. § 760.40(1)(c).
159. Id. § 18.13.010(a)(2).
160. COLO. REV. STAT. § 10-3-1104.6(1)(a) (2022) (“Genetic information is the unique property of the individual to whom the information pertains . . . .”); id. § 10-3-1104.6(1)(d) (stating the intent to prevent the use of genetic information to deny insurance coverage); GA. CODE ANN. § 33-54-1(1) (2020) (“Genetic information is the unique property of the individual tested . . . .”); id. § 33-54-1(4) (stating the intent to prevent the use of genetic information to deny insurance coverage); LA. STAT. ANN. § 22:1023(E) (2023) (“An insured’s or enrollee’s genetic information is the property of the insured or enrollee.”); id. § 22:1023(B)(1) (prohibiting discrimination).
information or DNA sample their property. There are also pragmatic reasons to favor a property-like right to protect genetic information, given rhetoric favoring property over privacy by the Supreme Court and others.

Property or property-like rights in DNA can and do have a direct impact on the ability to control one’s genetic information. First, state statutes may provide individuals with a substantive right when their DNA is exposed without their consent. In Alaska, the creation of the property right provided an avenue for a class action lawsuit against Gene by Gene, the parent company of FamilyTreeDNA, when it publicly shared genetic information without consent. While Gene by Gene argued that the lawsuit should be dismissed because there were no real harms as a result of the disclosure, the court found that the exclusive property interest created a substantive right in genomic information, and the disclosure itself was the harm. Second, a property framework can respond to the increasing monetization of DNA by providing a right for the individual to better control their information and potentially share in the profits currently held by companies and research institutions. Much of


163. The current political climate may favor a right to property rather than privacy, which is not explicitly mentioned in the Constitution. Privacy rights are vulnerable in light of the Dobbs decision. See Dobbs v. Jackson Women’s Health Org., 142 S. Ct. 2228, 2260 (2022). In contrast, conservative justices might favor a property-based theory to protect rights. Justice Gorsuch, for example, argues for an expansive understanding of the Fourth Amendment based on property; rather than looking to the “reasonable expectation of privacy” framework, Justice Gorsuch would have judges focus on whether a “house, paper, or effect was yours under law.” Nicholas A. Kahn-Fogel, Property, Privacy, and Justice Gorsuch’s Expansive Fourth Amendment Originalism, 43 HARV. L. & PUB. POL’Y 425, 429 (2020) (emphasis omitted) (quoting Carpenter v. United States, 138 S. Ct. 2206, 2267–68 (2018) (Gorsuch, J., dissenting)).


the existing case law recognizes research institutions’ property interests in the DNA they collect, but it does not recognize such an interest for the person whose body produced the genetic material.\footnote{167} Statutes providing individuals a property-like interest in their DNA may correct this injustice and offer research participants in genetic trials greater control over their genetic information.\footnote{168} Third, property concepts have the unique potential to respond to the fact that DNA is relational; Natalie Ram, for one, has discussed a proposal to use concepts such as joint tenancy and tenancy in the entirety.\footnote{169}

### A. Traditional Property Rights of Children

Despite a strong tradition of parental rights in the United States, parents have limited authority to control their children’s property.\footnote{170} The parent cannot sell, transfer, or contract out the child’s property.\footnote{171} A parent does not have the right to take their child’s property when it is received as a gift or inheritance.\footnote{172} Simply put, a child’s property belongs to the child, not the parent:

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168. There are at least two positive examples of what vesting research participants with ownership rights could look like. One is the case of Ted Slavin, who was able to control the use of his cells, selling vials of blood serum to researchers so that they could create the first hepatitis B vaccine. Rebecca Skloot, \textit{Taking the Least of You}, N.Y. TIMES MAG. (Apr. 16, 2006), https://www.ny-times.com/2006/04/16/magazine/taking-the-least-of-you.html[perma.cc/8NBU-HGRW]. A second case involves the group PXE International, created by a group of patients suffering from pseudoxanthoma elasticum, a rare genetic disorder. PXE International negotiated a share of patent rights and licensing royalties for the diagnostic test that was created from samples they provided to researchers. See Donna M. Gitter, \textit{Ownership of Human Tissue: A Proposal for Federal Recognition of Human Research Participants’ Property Rights in Their Biological Material}, 61 Wash. & Lee L. Rev. 257, 316–19 (2004).


170. 59 AM. JUR. 2d Parent and Child § 40 (2023); see also \textit{In re} Scott K., 595 P.2d 105, 111 (Cal. 1979) (holding that a minor’s box was his property, and his father could not consent to its search as “[j]uveniles are entitled to acquire and hold property, real and personal and a minor child’s property is his own . . . not that of his parents”) (citations omitted) (first quoting Estate of Yano, 206 P. 995, 997 (1922); and then quoting Emery v. Emery, 289 P.2d 218, 225 (1955))). \textit{But see In re} D.C., 115 Cal. Rptr. 3d 837, 844 (Ct. App. 2010) (holding that a parent does have authority to consent to a search of the child’s room, but not a closed container within the room).

171. Bombardier v. Goodrich, 110 A. 11, 11 (Vt. 1920) (“[A parent] cannot bind [the minor] to contracts made in his behalf, nor sell, pledge, or transfer the latter’s property . . . .”); Poteet v. Blossom Oil & Cotton Co., 115 S.W. 289, 293 (Tex. Civ. App. 1909) (“[T]here is not involved in the exercise of parental authority the power to so bind and obligate the child as to conclude or abrogate her property rights—no more so than could the parent legally deed or mortgage her land or bind or conclude by contract of conveyance.”).

172. See, \textit{e.g.}, Kreigh v. Cogswell, 21 P.2d 831 (Wyo. 1933) (holding that sheep received as a gift by minor children belonged to the children, not to the father; hence, they could not be}
“Common authority over [a child’s] personal property may not be implied from the father’s proprietary interest in the premises. Neither may it be premised on the nature of the parent-child relation.”173

It may seem curious that while parental control has been the default for almost every aspect of the child’s life, parental control of a child’s property is not assumed. This is likely because, before children were their parents’ property, they were viewed more like mini-adults, capable of executing contracts, and an integral part of the family line.174 In the sixteenth century, children’s property likely did not “belong” to their parents because the parental role was minimal.175 Children had no custodian—parent, master, or otherwise.176 They could consent to far more: “an infant of the age of four years may make a will, and it shall be good for all his goods and chattels . . . .”177 Neither the principle that children were subject to extrinsic control because they couldn’t form judgments nor the principle that fathers had extensive and unlimited powers over their children existed yet.178 Parents were allowed only a few privileges over their children—but these privileges “were not central to the law and were of short duration.”179 The law’s greater interest was to keep the property within the family line.180

Two centuries later, the law carved a few exceptions to the general rule that a child’s property is their own. For example, parents have a right to any earnings the child receives from labor or services while under the parents’ care.181 The rationale is one of reciprocity: because parents provide support for the children, they are entitled to what the child earns while living under their roof. As one nineteenth-century American case explained,

this is the extent of the father’s right. He has no title to the property of the child, nor is the capacity or right of the latter to take property or receive

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173. In re Scott K., 595 P.2d at 110 (citation omitted).
174. See BREWER, supra note 144.
175. Id.
176. Id.
178. See BREWER, supra note 144.
179. Id. at 236.
180. Id. at 245.
181. Compare CAL. FAMILY CODE § 7500(a) (West 2023) (describing parents’ entitlement to “services and earnings of the child”), with CAL. FAMILY CODE § 7502 (West 2023) (“The parent, as such, has no control over the property of the child.”).
money by grant, gift or otherwise, except as a compensation for services, in any degree qualified or limited during minority.\footnote{182}

The law also carves out a narrow exception classifying children’s clothing, books, and toys as property that belongs to the parent, as these are furnished to the child by the parent. For example, in the 1859 case \textit{Parmelee v. Smith}, the court reasoned that both a parent’s property right in their children’s clothing and the parent’s rights to their services and earnings are corollaries of the parent’s duty to support their children.\footnote{183}

A third exception is that the home, including the child’s room, belongs to the parent. In \textit{Georgia v. Randolph}, the Supreme Court held that police had no constitutional right to search a house where one resident consents to the search while another resident objects.\footnote{184} The Court carved out an exception for parental consent, stating that “[a]bsent some recognized hierarchy, e.g., parent and child, there is no societal or legal understanding of superior and inferior as between co-tenants.”\footnote{185}

None of these exceptions are absolute. With respect to a child’s wages and earnings, the law in certain states provides protections for child performers and athletes. In California, there is Coogan Law—named after the famous child comedian whose earnings were drained by his parents.\footnote{186} Coogan Law requires parents to place 15% of the minor’s acting wages into a blocked trust account.\footnote{187} Similarly, state courts have recognized that items of children’s personal property are differentiated from other items in their parents’ homes for purposes of protection from unreasonable search and seizure.\footnote{188}

\footnote{182. Banks v. Conant, 96 Mass. (14 Allen) 497, 498 (1867) (finding that because a bounty given to a minor to encourage enlistment in the military was not compensation for services, it could not be reached by the minor’s father).}

\footnote{183. Parmelee v. Smith, 21 Ill. 620, 623–24 (1859). Similarly, in Dickinson v Winchester, 58 Mass. (4 Cush.) 114 (1849), a father sued an innkeeper for the loss of his son’s trunk and its contents. It was held that clothing purchased by the father for his minor son belonged to the father, and therefore the father could recover for its loss. Also, in \textit{Epps v Hinds}, 27 Miss. 657 (1854), the court held that a father could sue an innkeeper to recover money he had provided to his son to pay for the son’s travel and college expenses, which had been stolen while the son was a guest at the defendant’s inn.}

\footnote{184. Georgia v. Randolph, 547 U.S. 103 (2006).}

\footnote{185. \textit{Id.} at 104.}

\footnote{186. Bonnie E. Berry, \textit{Practice in a Minor Key}, L.A. L., May 2002, at 29, 31 (“The Coogan law, originally enacted in 1939 and named after silent picture actor Jackie Coogan (whose parents squandered all his earnings), was amended in January 2000.” (footnote omitted)).}

\footnote{187. \textit{Id.; see also Act of Sept. 19, 1939, ch. 637, § 1, 1939 Cal. Stat. 2064, 2064–65 (California’s first Coogan Law).}}

\footnote{188. \textit{E.g., In re S.L.M.}, 206 P.3d 283 (Or. Ct. App. 2009) (holding that a minor’s mother did not have the authority to consent to a search of the minor’s purse); \textit{see also RESTATEMENT (FIRST) OF CHILD. & THE L.} § 12.11 (AM. L. INST., Tentative draft No. 3, 2021); \textit{In re Scott K.}, 595 P.2d 105 (Cal. 1979) (holding that a parent cannot consent to opening a child’s locked toolbox).}
Property law recognizes that a conflict of interest can emerge when parents have enticing, valuable property at their disposal.\textsuperscript{189} For example, courts are reluctant to affirm the sale of property of a minor unless it is necessary or to the minor’s advantage.\textsuperscript{190} Typically, to make changes to the property, the court will appoint a guardian for the estate of the minor.\textsuperscript{191} The guardian will have to seek court approval to sell the property, and the proceeds will generally be held for the youth until they reach the age of majority.\textsuperscript{192} Any money spent must be for the benefit of the child, generally with specific court approval.\textsuperscript{193}

Restrictions on parental rights are relatively rare outside of property law. Acknowledging separate, and sometimes conflicting, interests between children and adults is a feature well worth extending beyond real property.

B. The Child’s Genetic Information Using a Property Framework

Property concepts can clarify a parent’s rights in relation to their child’s genetic information. For example, applying the conceptual frameworks offered by property makes clear that the narrow categories in which a parent can control a child’s property would not apply to the child’s DNA. DNA is unlike wages or earnings, which are created by the child’s labor or services during the time that the child lives with the parent. DNA is not owed to a parent in exchange for room, board, and other services. Nor is it like clothing, books, or toys that are “property furnished by a parent to his child for the purpose of support and maintenance, or education.”\textsuperscript{194} DNA is not actively furnished to the child by the parent.

Rather, genetic information is far more like a gift or inheritance to the child, classes of property that are protected as the child’s own. Indeed, while

\textsuperscript{189} This is also a concern in the medical bioethics context, where parents must make a decision about donating organs from a healthy child to an unhealthy one. In these cases, the court typically does appoint a guardian ad litem. \textit{But see} Strunk v. Strunk, 445 S.W.2d 145 (Ky. 1969) (overruling a guardian ad litem’s recommendation not to donate a kidney from an incompetent adult to his healthy sibling, finding that losing his brother would be psychologically devasting).

\textsuperscript{190} \textit{See} 1 LEGAL RIGHTS OF CHILDREN § 8:2 (3d ed. 2022) (citing Kenwood Sav. & Loan Ass’n v. Williams, 220 N.E.2d 582 (Ohio Ct. Com. Pl. 1966)).

\textsuperscript{191} 39 C.J.S. Guardian & Ward § 10 (2014).


\textsuperscript{193} \textit{See, e.g.}, Feuring v. Siewers, 200 N.Y.S. 440 (Cnty. Ct. 1923) (holding that though the guardian is beset with the responsibility of maintaining the minor’s property, he must obtain a court order to use a minor’s assets to pay for the upkeep and repair of the minor’s property).

the word “inheritance” carries one meaning in property, it also carries a meaning in genetics: to transmit traits from one generation of individuals or cells to the next. DNA is a child’s first inheritance.

If we consider a child’s DNA to be property-like, genetic information belongs to the child, not the parent. A number of other implications follow:

First, even if children lack the maturity to fully control property as children, they will be able to once they are adults—but only if their property is protected, not wasted or squandered. For DNA, this means protecting it from exposure online. Once exposed in one place, genetic information can be sold to third parties and shared with others, with little recourse to regain control.

In many states, a DTC site can sell or share information as long as it does not violate the site’s own terms and conditions, since HIPAA privacy laws do not regulate direct-to-consumer genetic testing. DNA is not like a credit card or other personal identifying information that can be changed if it is hacked or exposed: there is no easy way for a child to repair a privacy violation once they are older.

Here, Joel Feinberg’s seminal work provides a useful framework to conceptualize the preservation of a child’s interest in their own genetic information as a right held in trust. Feinberg divides children’s rights into four types: (1) rights that adults and children have in common (for example, the right to not be killed); (2) rights generally only possessed by children, because of their dependence on others (for example, the rights to food and shelter); (3) rights only exercised by adults; and (4) “rights-in-trust”—rights that are saved for the child until they are an adult. Rights-in-trust are those whose mismanagement in the present could easily lead to preventing their exercise in the future. An example would be the right to reproduce—a right a child cannot


197. For example, even if AncestryDNA and 23andMe claim they do not sell DNA, “the independent labs they send [samples] to for analysis make no such guarantees.” Ethan Magistro, It’s Not Just Me, It’s Also You: How Shared DNA Complicates Consent, PRINCETON LEGAL J. (May 16, 2021), https://legaljournal.princeton.edu/its-not-just-me-its-also-you-how-shared-dna-complicates-consent [perma.cc/NL68-PZ69].


199. See FEINBERG, supra note 18.

200. Id. at 124–26.
exercise.” However, “the child . . . has the right not to be sterilized, so that the child might exercise the right to reproduce in the future.”

A child’s property can be considered a right-in-trust: children lack the maturity to be able to control their property and are generally not empowered to make irrevocable conveyances of realty, absent a guardian being appointed and express judicial authority for the sale. The parent or appointed guardian owes a fiduciary duty to the child with regard to their property. The right to one’s genetic information is similar to a right held in trust until the minor is an adult and can make appropriate decisions about their own DNA.

There are exceptions where parents can test a child’s DNA before adulthood, though even these are not without controversy. These include health reasons—from cases that clearly indicate a genetic disease in the child, to whole genome prenatal testing, which is more problematic. A young person may be required to provide a DNA sample to law enforcement pursuant to a court order or statute. Children who are arrested or adjudicated as delinquent of serious offenses are also required to submit DNA samples in many states. Again, there are significant criticisms with this practice that other


202. Id. at 464. Controversy remains regarding the sterilization of profoundly disabled children, an issue I do not touch upon here. However, the law in general has moved towards requiring “court oversight and an individualized best-interest inquiry in order to protect the person’s fundamental right to reproductive freedom.” Anne Tamar-Mattis, Sterilization and Minors with Intersex Conditions in California Law, 3 CALIF. L. REV. CIR. 126, 126 (2012).


204. 59 AM. JUR. 2D Parent and Child § 40 (2023) (citing Rodriguez v. Montalvo, 871 F.2d 163 (1st Cir. 1989) (applying Puerto Rican law)).

205. Id. (citing Murphy v. Murphy, 694 A.2d 932 (Me. 1997)).

206. There are medical and clinical reasons why a parent, as fiduciary, may share genetic information in a limited fashion. Here, I specifically consider those cases where there is little to no benefit for the child: the sharing of DNA to law enforcement through “consensual searches” and DTC sites.

207. Lainie Friedman Ross & Ellen Wright Clayton, Ethical Issues in Newborn Sequencing Research: The Case Study of BabySeq, 144 PEDIATRICS 6 (2019) (discussing the concerns with returning information about adult-onset conditions through whole genome sequencing).

208. Lapp, supra note 31, at 50–51.

scholars take up fully. But these instances are distinguishable from instances where a parent facilitates turning over their child’s genes to law enforcement and/or private databases without a legal requirement to do so.  

A second implication is that parental consent should be insufficient to expose a child’s DNA to law enforcement. Case law is lacking, but at least one court has found that parents do not have the authority to unilaterally consent to a search of a minor’s person. In a case of first impression, the Oregon Court of Appeals, en banc, found in In re H.K.D.S that, absent a warrant, law enforcement officers could not obtain a DNA sample from a juvenile suspect when the officers obtained the parent’s consent but not the child’s. In that case, the twelve-year-old minor was suspected of abusing his stepsister. His parents signed paperwork and consented to the buccal swab. He complied with the instruction to open his mouth for the swab but was not otherwise asked for consent. While the State initially argued that the youth had consented by opening his mouth, it abandoned that argument on appeal and instead argued that parental consent was sufficient. The court considered whether “to recognize a new exception to the warrant requirements” of the


Additionally, I do not directly take up the issue of shed DNA (DNA that is inadvertently left everywhere we go) to build databases, except to acknowledge that the principles articulated in this Article—that meaningful consent is necessary to the collection of DNA—affect shed DNA as well. California v. Greenwood, 486 U.S. 35 (1988). Under current Fourth Amendment doctrine, a person does not retain a privacy interest in something they intend to discard. The Supreme Court has not specifically considered whether the collection of abandoned DNA is a search for Fourth Amendment purposes. However, several courts have held that the collection and analysis of abandoned DNA does not constitute a search, relying on California v. Greenwood’s holding that an individual cannot possess a reasonable expectation of privacy in trash. Id. at 5, 37; see, e.g., Raynor v. State, 99 A.3d 753, 760, 768 (Md. 2014); see also Schmidt v. Stassi, 250 F. Supp. 3d 99, 105 (E.D. La. 2017) (acknowledging in dicta that officers would not have committed a search by collecting defendant’s abandoned property had officers not trespassed). There is a much larger debate as to whether Greenwood’s principle should translate to abandoned DNA since the DNA is inevitably shed, without the knowledge or control of the individual. See Elizabeth E. Joh, Reclaiming “Abandoned” DNA: The Fourth Amendment and Genetic Privacy, 100 NW. U. L. REV. 857 (2006); Palma Paciocco, Abandoning Abandoned DNA: Reconsidering How the Fourth Amendment Abandonment Doctrine Is Applied to DNA Samples, 51 CRIM. L. BULL. 1386 (2015). But see Thomas D. Holland, Novel Features of Considerable Biologic Interest: The Fourth Amendment and the Admissibility of Abandoned DNA Evidence, 20 COLUM. SCI. & TECH. L. REV. 271, 272 (2019) (arguing that to adopt an exception for abandoned DNA would be unworkable since there is no similar analogue).

In re H.K.D.S., 469 P.3d 770 (Or. Ct. App. 2020) (holding that a child’s acquiescence without consent does not permit a buccal swab when the child is a suspect).

Id. at 772.

Id.

Id.
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U.S. and Oregon Constitutions that “could have far-reaching consequences for the constitutional rights of Oregon children.”

It is well-settled that a government-compelled buccal swab implicates the protections afforded by the Fourth Amendment to the U.S. Constitution against unreasonable searches and seizures. While consent is an exception to the Fourth Amendment’s protections, in this case “mere acquiescence’ to police authority does not constitute voluntary consent.” The young person was not given a reasonable opportunity to refuse the swab.

Nevertheless, the Oregon Court of Appeals put forward three theories for why a parent’s consent might be sufficient to administer the buccal swab: (1) cases holding that parents can consent to the search of their children’s rooms and property; (2) cases allowing for searches of children’s persons when they are not a suspect (typically when they are an abuse victim); and (3) cases holding that parents have a liberty interest protected by the Fourteenth Amendment to raise their children how they please.

The court rejected the parallel between parental consent to search the home and parental consent to search the body, arguing that the existence of valid third-party consent depends on agency principles or common authority over the property.

But “a child is not the property of her or his parents (or anyone else),” and the court was “aware of no cases holding that a parent has a property interest in a child.”

The doctrinal shift that the Oregon Court of Appeals made is one the law in general must make as well. By virtue of the parent-child relationship, the parent does not own the child. This may seem obvious, but it bears repeating: the child is not property. On the contrary, the child owns themself, including an interest in their own DNA.

217. Id. at 773.
218. See Maryland v. King, 569 U.S. 435, 446 (2013) (“[U]sing a buccal swab on the inner tissues of a person’s cheek in order to obtain DNA samples is a search [under the Fourth Amendment].”).
220. Id. at 773; see also Bumper v. North Carolina, 391 U.S. 543 (1968) (finding no valid consent where an officer displayed authority in way that effectively communicated to the suspect that she had no right to refuse a search); United States v. Ruiz-Estrella, 481 F.2d 723, 728 (2d Cir. 1973) (finding no valid consent when defendant merely handed over his suitcase to a uniformed sky marshal who “asked” defendant to either submit to a search or be subject to having “to go through a baggage search”); United States v. Rodriguez, 888 F.2d 519, 523 (7th Cir. 1989) (finding statements such as “If you want to go ahead on in, go on in”; “Go ahead and look in the room”; and nods not to be acquiescence but consent); Robinson v. State, 578 P.2d 141 (Alaska 1978) (finding that defendant’s failure to demand that police leave hotel room after they were admitted by a third party did not amount to consent on his part to subsequent search).
221. In re H.K.D.S., 469 P.3d at 775.
222. Id. at 776.
223. Id. (emphasis omitted).
The court also rejected the argument that a parent’s fundamental liberty to parent their child allows for a parental consent exception to the Fourth Amendment:

To conclude that the Fourteenth Amendment gives parents a constitutionally protected interest in unilaterally waiving their children’s constitutional rights would . . . transform the right from a limitation on governmental interference in the parent-child relationship to a grant of power to parents— the power to determine unilaterally whether their children should receive the same constitutional criminal procedural protections that adults do, and the power to bring the state into the family relationship.224

Parents should not have “veto power” over their children’s constitutional rights when “the state is acting in a prosecutorial capacity with respect to a child.”225 The dangers to the child are great in the criminal legal system: the child “suspected of a crime and facing a potential criminal prosecution—along with a lifetime of potential attendant consequences—is entitled to receive the same protection that [the Constitution] indisputably provides adults.”226

C. A Parent’s Role in Protecting a Child’s Genetic Information

Parents still need to have the ability to consent on behalf of children in certain contexts—for example, where there is a need to genetically test for medical reasons. Vesting authority in a third party would at best be inconvenient and at worst lead to deleterious delays and consequences for the child. Public actors or third parties may be less interested or engaged than parents.227

Conceiving of parents as fiduciaries of their children’s genetic information is a useful model in this regard. In general, fiduciary relationships share three core factors: (1) a transfer of a property or right; (2) a trust relationship between the trustee (also known as the agent) and principal; and (3) potential harm to the principal based on the trustee’s action.228 Most importantly, in the course of that relationship, there remains clarity that fiduciaries do not become the owners of the thing they are entrusted to manage.229 Thus, framing parents as fiduciaries can assist in clarifying their responsibilities toward children’s genetic information.

224. Id. at 778.
225. Id. at 777.
226. Id. at 778–79.
Conceiving of parents as fiduciaries is not novel—Elizabeth and Robert Scott proposed such an idea in 1995. They occupy a special role of confidence, there are information asymmetries present between parents and children, and children, like other principals, are not in a position to direct or monitor the trustee’s performance. Ultimately, however, the conception of parents as fiduciaries as the Scotts envisioned it—one fairly lacking in regulations and substantive safeguards—does not sufficiently protect children from the broad spectrum of consequences that occur when law enforcement acquires a child’s DNA.

According to Scott and Scott, agency theory provides two primary strategies for reducing conflicts between the agent and the principal in the fiduciary relationship: bonding (encouraging the aligning of interests) and monitoring (oversight to detect selfish behavior). Scott and Scott argue that the parent-child relationship in an intact family is sufficiently secure and bonded that monitoring and regulations have limited utility. However, state intervention should play a role once evidence of parental deficiencies overcomes the presumption of good faith and diligence.

This framework neglects an additional circumstance when oversight is needed of the parent-as-fiduciary—where the issue is not parental deficiencies or a “fractured” family, but where the parent is simply not well-equipped to protect their child in that particular context. Even an excellent parent may be unable to protect a child from DNA collection and law enforcement overreach. The following taxonomy clarifies how the DNA context makes conflicts between parent and child especially salient:

First, parents and guardians can be ignorant of what DNA is, the implications of turning it over, and the consequences of having it in a database for all time. Reliance on parents, even in an intact family, to serve as protection against law enforcement overreach asks too much of parents. Parents are seen as good fiduciaries because they are often experts on their own children, and for everyday concerns, they may be the ideal decisionmakers. There is often no one better situated to determine a child’s interest. In Parham v. J.R., the

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230. See Scott & Scott, supra note 29.
231. Id. at 2402.
232. Id.
233. The Scotts do argue for regulation of the relationship between children and noncustodial parents, or what they also call “fractured” families. Id. at 2443, 2446. But they emphasize that, in an intact family, the “extralegal bonds of biology, affection, and crescopic attachment, together with internalized informal norms about parenting . . . mitigate potential conflicts of interest without extensive legal regulation.” Id. at 2446.
234. See id. at 2403.
235. Id. at 2441–42.
236. Id.
237. See Larson, supra note 77, at 656.
Supreme Court famously said that the “natural bonds of affection lead parents to act in the best interests of their children.” Parents, however, are not recognized as experts in all fields. Even if a parent has a genuine belief that their child does not need a critical surgery, courts override that belief in favor of a doctor’s determination. A young person alleged to have committed a crime is not only provided with their parent or guardian but also a lawyer. There are certain situations—so dire, so serious—where the law must look out for a vulnerable child, even for children in good homes with excellent parents. And while ignorance is not a conflict of interest per se, it does have analogues in fiduciary law. A fiduciary should not be incompetent or grossly negligent in managing a beneficiary’s affairs.

Second, parents might be scared of law enforcement, particularly in minority communities. They might be scared on their own behalf and additionally frightened of what may happen to their children if they refuse a law enforcement “request” for DNA. This is not an instance of parents acting in a self-interested way; rather, they truly believe it is in their child’s interest to comply. The law’s role in these matters is not, as Scott and Scott argue, simply limited to curbing a parent’s pursuit of self-interested goals.

Third, a parent may believe that turning over their child’s DNA to law enforcement will “scare them straight” and deter them from future bad behavior or criminal conduct. In some cases, a parent may believe themselves to be acting in the child’s interest. In other cases, such as for foster youth and young people without an invested guardian, there may be less of a unified interest than usual. Young people who have dependency system involvement are some of the most likely to have justice involvement, and thus, to be targeted for inclusion in DNA databases. There are clear racial disproportionalities.

241. See Scott & Scott, supra note 29, at 2424.
242. See Leslie A. Anderson, Margaret O’Brien Caughy & Margaret T. Owen, “The Talk” and Parenting While Black in America: Centering Race, Resistance, and Refuge, 48 J. BLACK PSYCH. 475 (2021); see also Juan J. Barthelemy, Cassandra Chaney, Elaine M. Maccio & Wesley T. Church, II, Law Enforcement Perceptions of Their Relationship with Community: Law Enforcement Surveys and Community Focus Groups, 26 J. HUM. BEHAV. SOC. ENV’T 413 (2016).
244. See Etzioni, supra note 60, at 200–01.
245. See HALEMBA & SIEGEL, supra note 75. A number of articles make clear that individuals who are Black and/or indigent are often targeted by local law enforcement agents. Williams, supra note 53; Andrew Whalen, NYPD’s ‘Knock-and-Spit’ DNA Database Makes You a Permanent Suspect, NEWSWEEK (Feb. 11, 2019, 12:29 PM), https://www.newsweek.com/police-dna-database-nypd-swab-testing-collection-new-york-1326722 [perma.cc/V48P-ZP2C].
that cannot be ignored, as Black children in particular have been targeted by law enforcement to “stop and spit.”

Fourth, there can be clear cases of conflict where parent and child are codefendants or where one child is the alleged suspect and the other the alleged victim. In the direct-to-consumer context, a conflict of interest can emerge as DNA is monetized and sold; at least one company allows parents to share children’s DNA and compensates the account holder for it.

The various conflicts that arise make clear that we cannot depend on strong parental rights to adequately protect children’s DNA data interests. Parents, like all fiduciaries, would benefit from a framework that protects children from certain types of decisions. The ideal framework would take into account (1) the irreversibility and harm of the decision at hand, (2) special circumstances when the parent-as-fiduciary does not have the information and expertise to protect the beneficiary, and (3) the likelihood that conflicts of interest will arise.

In a sense, nearly every decision a parent makes leaves irreversible marks on a child’s future. Every decision or lack of decision, from education to recreation, has implications. A parent who doesn’t sign their child up for piano lessons has likely foreclosed their child’s ability to become a master pianist. But there is something greater at stake with DNA testing, a decision that affects the core of a child’s bodily autonomy, self-determination, and privacy in the most significant way. DNA is truly the gift that keeps on giving, with the amount of information it can provide about an individual constantly evolving. Finally, sensitive genetic information is potentially exposed on a database forever. Sharing a child’s genetic information, specifically with law enforcement, necessitates regulations.

As Justice Stevens aptly stated, “even a fit parent is capable of treating a child like a mere possession.” Property law recognizes that while parents

246. Whalen, supra note 245; Kirchner, supra note 1.  
249. But see Clare Huntington & Elizabeth Scott, The Enduring Importance of Parental Rights, 90 FORDHAM L. REV. 2529 (2022) (arguing for the importance of parental rights above all).  
250. There may be implications for other similar situations concerning a child’s bodily autonomy, including requesting circumcision or performing cosmetic genital surgery in the case of intersex children. These procedures are distinct, but they also alter a child’s body in a significant way and have come under significant criticism in recent years. See Peter W. Adler, Robert Van Howe, Travis Wisdom & Felix Daase, Is Circumcision a Fraud?, 30 CORNELL J. L. & PUB. POL’Y 45 (2020); Stephen R. Munzer, Examining Nontherapeutic Circumcision, 28 HEALTH MATRIX 1, 2 (2018); see also Ariana Aboulafia, Just What the Doctor Ordered?: An Analysis of Unnecessary Surgeries on Intersex Children from a Human Rights Perspective, 30 U. FLA. J. L. & PUB. POL’Y 321, 322 (2020).  
might love and protect their children, it is tempting to use, waste, or squander what is their children’s for the parent’s own self-interest. The same would hold true if parents might acquire a benefit from turning over their children’s DNA—whether monetary or otherwise.

We restrict fiduciaries through limits that tend to be more rigorous than those imposed through contract law alone because of potential conflicts of interest.252 A fiduciary’s principal is the more vulnerable party in the fiduciary-principal relationship. The law responds by placing restrictions on the fiduciary and preventing the principal from altering those restrictions, setting fiduciary agreements apart from typical contracts. In the context of the parent-child relationship, the child cannot unilaterally waive the fiduciary obligation—for example, a child could not consent to the parent waiving child support payments or using them in a way the law does not permit. We do not use the fact that a child might be unconditionally loved by their parents as the rationale for having no safeguards around child support or, more broadly, a child’s property.253

The DNA context provides an opportunity to extend this principle and put procedural safeguards in place to protect children. Procedural safeguards are not uncommon with fiduciary relationships governing property; for example, court-appointed guardians must seek court approval when they spend above a certain amount or make large transactions.254 Additionally, despite a strong parental rights tradition, we do have procedural safeguards in place even in domains that are otherwise left to parents.255

Similarly, a property-like framework would suggest creating safeguards beyond parental consent to turn over a child’s DNA. First, borrowing directly from a solution suggested by the property framework, states could require third-party oversight before a “consensual” search of DNA. Second, states (and the federal government) could regulate the collection of child DNA by DTC companies. Finally, expungement of child DNA can mitigate the lifelong harms of retention.


253. See Margaret F. Brinig, Parents: Trusted but Not Trustees or (Foster) Parents as Fiduciaries, 91 B.U. L. REV. 1231, 1234 (2011) (“[Biological] parents bear the legal and social norm protection of full societal trust because they most often love their children unconditionally and permanently.”).


255. For example, parents cannot refuse a lifesaving blood transfusion for their child. S. Woolley, Children of Jehovah’s Witnesses and Adolescent Jehovah’s Witnesses: What Are Their Rights?, 90 ARCHIVES DISEASE CHILDHOOD 715 (2005).
III. SOLUTIONS

A. Solution for the “Direct” Collection of DNA: Attorney Consultation Prior to Consent Search

Consent is a well-established exception to the Fourth Amendment’s protections against unreasonable search and seizure. Searches are permissible when a person “voluntarily” consents to the search, and whether a person’s consent is voluntary depends on evaluating all the factors of the case. These factors relate to the subject’s characteristics, such as the their level of maturity, educational attainment, and English proficiency; and the circumstances of the search, such as the length of detention, the display of weapons, and any threats or physical abuse directed toward the person searched or seized.

Consent searches are used to expedite police activities; they are the quickest and easiest way to search a person or vehicle. Sometimes they are used when police do have probable cause but do not want to go through the inconvenience or administrative hassle of seeking a warrant. But more often they are used when police have little or no reason to search an individual and would not otherwise be granted a warrant by a court.

Scholars have come around to recognize what community members have long known: consensual searches are a legal fiction. People rarely feel free to say no to police “requests,” which are more often felt by the recipients as commands. Saying no can escalate the encounter, leading to danger for the

257. Id. at 226.
259. WAYNE R. LAFAVE, JEROLD H. ISRAEL, NANCY J. KING & ORIN S. KERR, CRIMINAL PROCEDURE 279 (5th ed. 2009); see also Ric Simmons, Not “Voluntary” but Still Reasonable: A New Paradigm for Understanding the Consent Searches Doctrine, 80 IND. L.J. 773, 773 (2005) (“Over 90% of warrantless police searches are accomplished through the use of the consent exception to the Fourth Amendment.”).
260. See Alafair S. Burke, Consent Searches and Fourth Amendment Reasonableness, 67 FLA. L. REV. 509, 511, 511 n.5 (2015) (relying the widespread consensus that there is a disconnect between doctrine and reality).
individual, including excessive use of force and even death. Those who bear the burden of consent searches are disproportionately people of color. It is why Black parents across the country have “the talk” with their children, warning them that it is better to acquiesce to law enforcement requests and simply consent to searches than to end up dead for refusing.

Recognizing the legal fiction of consensual searches, some states and municipalities have restricted law enforcement power to perform them. The Austin Police Department has cautioned their officers that the “overuse of the consent search can negatively impact the Department’s relationship with our community,” thus instructing them to “only request a consent search when they have an articulable reason why they believe the search is necessary and likely to produce evidence related to an investigation.” Milwaukee’s police department has similar language in its policy manual. In New Jersey and Minnesota, courts have ruled that police cannot perform a so-called consensual search without reasonable articulable suspicion of criminal activity.

So-called consent searches hurt the most vulnerable in our community—particularly children, who are the least likely to provide knowing, meaningful consent. In the absence of a warrant, states should require parental and child consent and consultation with an attorney for the direct collection of DNA from the child. Some of the most progressive reforms require parent and child consent, including case law in Oregon and currently proposed legislation by the New York City Council. In 2003, AB 1584 amended California’s Welfare


264. See Anderson et al., supra note 242.


266. See MILWAUKEE POLICE DEPT’, STANDARD OPERATING PROCEDURE 18 (2022), https://city.milwaukee.gov/ImageLibrary/Groups/mpdAuthors/SOP/085-CITIZENCON TACTSFIELD/INTERVIEWSSEARCHANDSEIZURE.pdf[perma.cc/NR36-DT5H] (“The Chief of Police has restricted your ability to request consent for a search to those circumstances in which you have individualized, objective, and articulable reasonable suspicion that you will recover contraband, weapons and evidence of crimes.”).


268. See supra note 213 and accompanying text for a full discussion of In re H.K.D.S. See also Int. 0306-2022, N.Y.C. COUNCIL: LEGIS. RSCH. CTR., https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=5641353&GUID=7E6FCF42-C07C-4DDC-8B67-22306F4E3D02[perma.cc/8HMQ-7TN7] (proposing a bill that would prohibit any member of the NYPD from collecting a DNA sample from a minor prior to the lawful arrest of such minor without the consent of the minor’s parent, legal guardian, or attorney); People v. K.N., 87 N.Y.S.3d 862, 870–72 (N.Y. Crim. Ct. 2018) (finding that a minor suspect’s signed consent for a buccal swab sample was not voluntary as it was not in the presence and lacked the involvement of a parent, guardian,
and Institutions Code to require law enforcement to (1) obtain informed consent in writing from the minor; \(^{269}\) (2) contact a specific parent, guardian, or attorney for the child to privately consult with them; and (3) require the adult to concur in the decision to voluntarily provide a DNA reference sample. \(^{270}\)

These laws see parental consent and consultation with an attorney as interchangeable. But the two are not equivalent. For example, research on *Miranda* waivers reveals that parents are unlikely to resist police intervention on behalf of their children. \(^{271}\) In one study, parents demonstrated their own fear and their lack of understanding of the waiver of the right; worst of all, many exerted coercive pressure on the young person, making an unknowing and involuntary waiver on the part of the child even more likely. \(^{272}\)

Requiring an attorney consultation is not unprecedented; we need only turn to the *Miranda* context to see this solution at play. For example, Chicago requires every person in custody to receive prompt access to an attorney. \(^{273}\) Recently, California passed a law requiring all young people under eighteen to consult with an attorney before any questioning may commence or *Miranda* can be waived. \(^{274}\) The consultation is mandatory and cannot be waived, and a parent or guardian is not considered an adequate substitute. \(^{275}\) The only exception is an imminent threat to life or property. While no other state goes as far in protecting juveniles, there are a number of similar examples. In New Mexico, confessions by children under the age of thirteen are inadmissible in

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\(^{269}\) Informed consent here includes, “after being verbally informed of the purpose and manner of the collection, the right to refuse consent, the right to sample expungement, and the right to consult with an attorney, parent, or legal guardian.” CAL. WELF. & INST. CODE § 625.4(a)(1) (2023); Assemb. 1584, 2018 Leg., Reg. Sess. (Cal. 2018); see also People v. Lehmkuhle, 117 P.3d 98, 102–03 (Colo. App. 2004) (finding consent to search of youth’s saliva, blood, and hair valid when both minor and parents consent to search); In re S.C., 523 S.W.3d 279, 287 (Tex. App. 2017) (finding a minor’s consent not valid when parent objects).

\(^{270}\) See CAL. WELF. & INST. CODE § 625.4(a)(2) (2023).

\(^{271}\) See GRISSO, supra note 72.

\(^{272}\) See id. at 180–87.


\(^{275}\) *Id.*
court under any circumstance. In Illinois, children under fifteen accused of serious crimes cannot be questioned without a lawyer present.

Applying a property framework to the context of DNA suggests the need for similar safeguards. Requiring a third party other than a parent to assist the child in this context both comports with the view that a child’s DNA is precious and disaggregates the assumed unity between parent and child. We protect a child’s property until they reach majority—their consent (and a parent’s) would not be sufficient to dispose of or alienate the property. For the most precious property, courts already appoint a guardian to ensure that the transaction is in the best interest of the child. That is the purpose of an attorney’s guidance.

If a parent consents and the child does not, or a child consents and the parent does not, the answer is clear: law enforcement should not proceed with the DNA collection. But when both are considering consent to the search, guidance from an attorney can be crucial to inform the child of the implications of DNA collection. Providing an attorney might mean that the child is given information that a refusal to consent cannot be used against them. An attorney can also inform the youth that their DNA may remain in the database for perpetuity. Finally, an attorney can help mitigate negative parental advice (or a lack of advice all together) contrary to the child’s best interest.

These procedural safeguards may seem inconvenient, politically unpalatable, and downright annoying to law enforcement officers. But they are necessary to protect children’s genetic information and would not unreasonably hinder investigations. Law enforcement could still continue investigations when fruitful, attempt to establish probable cause, and seek a warrant as an alternative. But the speed bump of requiring consent from a parent and providing the child with guidance from an attorney would discourage the local law enforcement practice of approaching children to “stop and spit.”

B. Solution for the “Indirect” Collection of Children’s DNA: Government Should Regulate DTC Companies to Ban the Collection of Children’s DNA

An integral part of a property framework is consent. A third party who has no ownership interest cannot generally consent to a search of property. And as Jorge Contreras has argued, informed consent gives users many of the rights

278. See supra Section II.C (discussing property rights of the child).
279. See supra Section II.C.
282. Cf. supra Section II.C (discussing potential conflicts of interest).
283. 18 AM. JUR. 2D Proof of Facts § 1 (1979).
associated with a Blackstonian conception of property, including a right to access, exclude, or destroy genetic data; the ability to consent to some uses but not others; and, potentially, a right to alienate their genetic information.\textsuperscript{284} DTC testing of children’s DNA exhibits fundamental deficiencies in assessing consent. Ensuring that these property-like rights are honored for children in DTC testing is notably absent. For example, one company that does not test minors explains that “in order to offer testing to minors there would need to be a separate consent process for guardians/assent process for adolescents that would require different protocols than are currently in place.”\textsuperscript{285} Putting aside that no website surveyed has a process in place that requires both parent and adolescent consent,\textsuperscript{286} this response also does not take into consideration young people who cannot meaningfully consent, such as newborns and toddlers.\textsuperscript{287} Additionally, consent for one purpose may not be sufficient for another: adolescents as young as eleven may consent to certain medical decisions, such as vaccinations.\textsuperscript{288} We might even be comfortable with these young people engaging in some recreational DNA testing. But we might feel differently about their consent extending to testing for adult-onset diseases, or about their capability to consent in the criminal justice context.\textsuperscript{289}

There are two ways to regulate DTC companies to respond to these concerns: (1) generally prohibiting the testing of children by these services; or (2) specifically barring law enforcement searches of minor profiles.\textsuperscript{290} Banning the testing of children would be a far stronger measure, with benefits beyond preventing the harms of justice system involvement. The second option might be favored by those who generally wish to allow recreational testing to continue, while mitigating the worst harms children face due to the uninformed sharing of their DNA.

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\item \textsuperscript{284} See Jorge L. Contreras, \textit{Genetic Property}, 105 GEO. L.J. 1, 20–30 (2016) (exploring the ways in which the requirement to seek informed consent for research using genetic data has resulted in the emergence of property-like rights in that data).
\item \textsuperscript{286} See id.
\item \textsuperscript{287} For example, newborn DNA collected at birth (for health purposes) is now being used by law enforcement investigators in criminal investigations. Ram, \textit{supra} note 120, at 1255. Neither parents nor children have consented to this use. \textit{Id.} at 1261–62.
\item \textsuperscript{289} I plan to explore disaggregation of consent from a specific age marker, taking vaccination as an example, in future work.
\item \textsuperscript{290} Even with a general prohibition against testing children, I recognize that some individuals might lie on their account about the age of the person submitting the sample. Nevertheless, a warning that individuals are breaking the law if they submit a child’s DNA would likely reduce the incidence of children’s DNA being collected.
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The most effective regulatory framework would be federal, addressing the reality that DTC tests are purchased and shipped nationally, usually through internet sales. Federal oversight could be established via a number of routes. First, the Food and Drug Administration (FDA) currently regulates DTC testing used for moderate-to-high-risk medical purposes, but its regulations mainly focus on a test’s validity.\textsuperscript{291} The FDA could specifically regulate DTC testing of children based on the lack of children’s consent. The Agency has recognized, at least in the context of clinical trials, that children are in need of additional protections—including assessments of whether children are competent to consent.\textsuperscript{292} But the very nature of DTC testing does not allow for assessment of a child’s consent.\textsuperscript{293} Less than a decade ago, the FDA stepped up and banned testing by several DTC companies for misleading the public.\textsuperscript{294} Similarly, the FDA can evaluate the practice of children’s DNA collection and regulate DTC companies once again.

Second, the Federal Trade Commission (FTC) has the power to control the marketing practices of DTC companies, specifically unfair or deceptive business practices.\textsuperscript{295} The FTC has rarely exercised the power it has to hold DTC companies accountable. It has brought one administrative action against a DTC company for making false claims about its ability to provide tailored skin care based on genetic information.\textsuperscript{296} The Agency also considered bringing an action against MyCode DNA, which promised nutritional supplements based on each customer’s unique genetic profile and survey responses, but chose not to do so because the company ceased operations.\textsuperscript{297} In most cases, the FTC has interpreted its power as restricted to enforcing whatever limited provisions a company claims in its own policies.

\textsuperscript{291} Additionally, the FDA does not review tests provided for “non-medical, general wellness, or low risk medical purposes,” such as those to discover a person’s ancestry or find relatives. \textit{Direct-to-Consumer Tests}, FDA (Dec. 20, 2019), \url{https://www.fda.gov/medical-devices/in-vitro-diagnostics/direct-consumer-tests} [perma.cc/2NPU-VVXY]; Christi J. Guerrini et al., \textit{Who’s on Third? Regulation of Third-Party Genetic Interpretation Services}, 24 GENETICS MED. 4, 5 (2019).


\textsuperscript{293} See Howard et al., supra note 285, at 1125 (“The very context of DTC genetic testing does not allow for an adequate assessment of the competence of a minor.” (quoting European Society of Human Genetics, \textit{Statement of the ESHG on Direct-to-Consumer Genetic Testing for Health Purposes}, 18 EUR. J. HUM. GENETICS 1271, 1272 (2010))).


\textsuperscript{295} The Commission’s basic authority to regulate advertising and marketing practices comes from Section 5 of the FTC Act. See Federal Trade Commission Act, 15 U.S.C. § 45.

\textsuperscript{296} See Complaint for Petitioner, \textit{In re Genelink, Inc.}, Nos. C-4456, C-4457 (May 12, 2014).

Some have argued that the FTC could be more aggressive in its regulation of DTC testing.\textsuperscript{298} There are plenty of missed opportunities for the FTC to regulate DTC testing broadly. For example, the Consumer Federation of America recommends that DTC companies refrain from making unsubstantiated claims about accuracy, not hide important information in the terms of service, and enforce stricter guidelines around destroying samples when accounts are closed.\textsuperscript{299}

The FTC could also specifically address targeted marketing about and toward children. First, companies are making bogus representations about predicting a child’s aptitudes based on genetics and should be held accountable for those claims.\textsuperscript{300} A separate issue involves companies specifically targeting children with their advertising, like 23andMe seemingly did when it used \textit{Despicable Me} in its advertising, or like Orig3n’s marketing campaign containing superheroes, a comic-book-style font, and a picture of a child in a superhero costume.\textsuperscript{301} When something is targeted to children, the FTC will consider that from the perspective of an ordinary child, with the vulnerabilities that child would possess when viewing marketing materials.\textsuperscript{302} This should include the fact that children are unlikely to understand opting in to or out of law enforcement searches (and more than likely have no control whatsoever of their account).

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  \item \textsuperscript{299} Id. at 5.
  \item \textsuperscript{300} Silvia Camporesi \\& Mike J. McNamee, Ethics, Genetic Testing, and Athletic Talent: Children’s Best Interests, and the Right to an Open (Athletic) Future, 48 \textsc{Physiological Genomics} 191, 191 (“We conclude that current genetic tests for ‘talent’ do not predict aptitude or success to any significant degree . . . .”). This practice is rampant in China but has no scientific validity. Daniela Wei, K. Oanh Ha \\& Kristen V. Brown, Chinese Parents Test DNA to Check if Kids Will Become Prodigies, \textsc{ThePrint} (Nov. 20, 2019, 10:38 AM), https://theprint.in/world/chinese-parents-test-dna-to-check-if-kids-become-prodigies/323557 [perma.cc/FM5W-69BD] (“[E]xperts say claims that DNA data can be used to predict a child’s abilities is more horoscope than science.”).
  \item \textsuperscript{301} See Mullin, supra note 91; Lydia Ramsey Pflanzer, I Took a $30 Test That Told Me if I Had ‘Superhero’ Genes—And It Was by Far the Most Fun Test I’ve Taken, \textsc{Insider} (Oct. 19, 2016, 1:59 PM), https://www.businessinsider.com/a-30-genetics-test-for-superhero-genes-2016-8 [perma.cc/KR9Q-QTBJ]; Kathryn Luttner, 23andMe Partners with ‘Despicable Me 3’ for First Movie Partnership, \textsc{Med. MKTG. \\& Media} (June 6, 2017, 5:50 PM), https://www.mmm-online.com/home/channel/campaigns/23andme-partners-with-despicable-me-3-for-first-movie-partnership [perma.cc/S32A-ENGJ].
  \item \textsuperscript{302} Deception Policy Statement, appended to Cliffdale Associates, Inc., 103 \textsc{F.T.C.} 110, 179 (1984).
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Third, the Children’s Online Privacy Protection Act (“COPPA”), which is enforced by the FTC, could be strengthened to protect children’s genetic information. COPPA mandates specific rules for online sites that collect information from children. So far, there has been little discussion as to whether COPPA applies to DTC sites like 23andMe, but it seems clear that sites testing children would fall under COPPA. Even if an online service is not directed at children, it will be subject to COPPA if the operator knows that particular users are under the age of thirteen. Since sites like 23andMe allow children’s participation in their service, COPPA would apply.

COPPA is not just a privacy law; it enters the domain of family law by vesting the complete authority of consent in parents’ hands without sufficient substantive limits. As long as there is verifiable parental consent, sites can generally collect any private information from children that parents turn over. The FTC, through rulemaking pursuant to COPPA, does attempt to address information-sharing with third parties, stating that “[a]n operator must give the parent the option to consent to the collection and use of the child’s personal information without consenting to disclosure of his or her personal information to third parties.” But this provision is insufficient and underenforced: it does not actually restrict third-party sharing of certain information as long as consent is obtained.

COPPA could be amended, or the FTC could issue a rule, to protect children’s genetic information or, even more broadly, biometric information. The law has no substantive limits on what children’s information can be collected, as long as the procedural requirement of “verifiable parental consent” is met. This approach lacks common sense. Some information should not be shared, no matter who is sharing it. COPPA could carve out certain sensitive categories of information—for example, health information that should not be

304. Genetic information is likely considered personal information under COPPA, though it is not specifically discussed as an identifier. See ANDREW B. SERWIN, INFORMATION SECURITY & PRIVACY: A GUIDE TO FEDERAL & STATE LAW & COMPLIANCE § 3.4 (2022).
305. FTC Children’s Online Privacy Protection Rule, 16 C.F.R. § 312.2 (2024) (explaining that COPPA applies to any operator that has actual knowledge that it is collecting or maintaining personal information from a child).
306. I am not suggesting 23andMe or sites like it are currently violating COPPA; I am just stating that COPPA applies. COPPA requires verifiable parental consent prior to any collection, use, or disclosure of personal information from a child. 15 U.S.C. § 6502(b)(1)(A)(ii). Thus, DTC sites can say that, by requiring a parent to own and operate the account, they are complying with COPPA.
307. 16 C.F.R. § 312.5(a)(2).
308. Ariel Fox Johnson, 13 Going on 30: An Exploration of Expanding COPPA’s Privacy Protections to Everyone, 44 SETON HALL LEGIS. J. 419, 426 (2020) (reporting that the third-party provision is underappreciated and underenforced).
309. 16 C.F.R. § 312.3 (requiring notice and verifiable parental consent, without limits on what information can be collected).
shared with third parties without court or medical approval (regardless of who is doing the sharing). This could ensure that even if parents do test their children’s DNA, it is not retained by the company, placed in a database, or shared with other companies, researchers, insurance companies, or—most importantly—law enforcement.

Finally, even under COPPA’s current form, one could argue that law enforcement searches of children’s DNA should not be permitted. Verifiable consent from a parent may be sufficient for private use of information, but not law enforcement. Without a warrant, law enforcement must rely on consent as the exception to an unreasonable search under the Fourth Amendment. While 23andMe and similar sites require a parent’s consent, the very nature of DTC testing does not facilitate consent from the child. But if both a parent and child’s consent is required for a law enforcement search—as required in a number of jurisdictions already—then the child’s DNA should be excluded from the search.

In lieu of federal regulations, states have a variety of mechanisms they could use to regulate DTC providers. They could require all DTC providers selling tests in their state to prohibit knowingly testing minors and promise to delete any data they believe to be from a child (a principle a few companies, like Ancestry.com, already follow). They could forbid law enforcement searches of profiles known to belong to children. And finally, states could use or amend existing laws to combat those searches.

As I discuss above, legislatures have increasingly protected genetic privacy through protections in the law, including by granting an “exclusive” or “unique” property right to one’s own genetic material. However, some of these laws do not address the child’s interest in their own genes, or they explicitly ignore potential conflicts of interest. For example, Alaska and Florida designate that a guardian can consent to collection, testing, retention, and disclosure of a genetic analysis. The other states that have passed property protections for DNA do not mention parents or guardians at all. States should look to their genetic privacy and/or property laws and create limitations to protect children from the gravest harms (perhaps allowing for testing but placing limits around disclosure).

Additionally, states should consider enacting a warrant requirement that would ensure officers had developed probable cause before a DTC search, thereby encouraging officers to exhaust other investigative methods before

311. See Howard et al., supra note 285, at 1125.
searching a DNA database. 23andMe and AncestryDNA have long stated they will keep users’ information private and will require a warrant to search their databases.\textsuperscript{314} But other databases, such as GEDmatch, do not require a warrant for law enforcement searches.\textsuperscript{315} Without a warrant, law enforcement officers have access to a wide swath of DNA profiles, including children’s profiles. With GEDmatch now owned by Verogen, a forensics company that has actively stated its interest in helping law enforcement, the conduit between these private databases and police is likely only to increase.\textsuperscript{316}

Warrants ensure that officers develop probable cause, that they seek a magistrate’s approval, and that there is a remedy through the exclusionary rule if such procedures are not followed.\textsuperscript{317} Unlike suppression hearings, warrant applications require an ex ante approval of police practice, which may actually prevent illegal police practices rather than just address violations after the fact.\textsuperscript{318}

Montana and Maryland have passed laws regulating law enforcement access to and use of consumer genetic platforms for forensic genetic genealogy searches. While the laws differ, some of the protections they contemplate include a warrant requirement (Montana) and the use of the search only for certain serious offenses (Maryland).\textsuperscript{319} These states’ laws also require that law enforcement have access only to those who have consented to searches of their profiles.\textsuperscript{320} Future state or federal laws that mirror Maryland’s and Montana’s, but are interested in doing more to protect children, could forbid law enforcement searches of profiles of those under eighteen (given the complications with lack of consent) or, at the very least, require databases to ensure these

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\item GEDmatch has had an opt-in policy for law enforcement searches since May 2019. See Ram, supra note 12, at 1362–63. The company has no opposition to law enforcement officers searching users who have opted in. Additionally, at least one court in Florida opened up all profiles to a search, even those who had not opted in to a law enforcement search. Kashmir Hill & Heather Murphy, Your DNA Profile Is Private? A Florida Judge Just Said Otherwise, N.Y. TIMES (Dec. 30, 2019), https://www.nytimes.com/2019/11/05/business/dna-database-search-warrant.html [perma.cc/X779-J4YW].
\item Bala, supra note 108.
\item See id. at 890 ("The essence of the warrant process lies . . . in the timing of the magistrate’s decision. A judge in a suppression hearing decides whether the officer’s past conduct was legal. A magistrate reviewing a warrant application must decide whether a search is legal before it takes place.").
\item Jennifer Lynch, Maryland and Montana Pass the Nation’s First Laws Restricting Law Enforcement Access to Genetic Genealogy Databases, ELEC. FRONTIER FOUND. (June 7, 2021), https://www.eff.org/deeplinks/2021/06/maryland-and-montana-pass-nations-first-laws-restricting-law-enforcement-access [perma.cc/7HDB-JRXH].
\item Id.
\end{itemize}
profiles are not available to law enforcement searches by default. To be clear, warrants would not directly address the issue of children’s DNA being exposed on these sites, but they might mitigate how often children’s DNA is searched by law enforcement.

C. Solution That Affects Both Methods of Collection: Expungement Can Be Used to Mitigate Harms

The law treats the permanent taking of property by the government differently from a temporary possession, with a permanent taking requiring far more government compensation.321 Expungement as a mechanism can help mitigate harms when a young person’s DNA is exposed on a database by ensuring that such exposure is not permanent.

Most states have a way to expunge juvenile records, either automatically or by petition. But many expungement mechanisms do not link expungement of criminal records to expungement of DNA.322 Additionally, local law enforcement databases in most states do not have to follow any rules, including expungement procedures.323 An automatic expungement process would not eliminate the harms from collecting and sharing children’s DNA described above. But it could minimize the damage by limiting how long DNA is exposed to a searchable database. Assuming DNA is acquired because a parent consented to its acquisition—a decision a child may later regret—automatic expungement would at least ensure that their DNA is not permanently disclosed to the world.

California’s recently passed law requires automatic expungement for DNA in the state database after two years if the minor has not been implicated in a criminal offense.324 Similarly, in Maryland and Missouri, the law requires automatic expungement of arrestee DNA samples in certain cases.325 All these regulations need to be extended to local law enforcement databases.

Children should retain control of their own information, particularly as they reach the age of majority. DTC and open-source databases should also consider expungement of children’s information after a period of time, or at the very least a clear protocol to transfer the account to the child when they

322. See Lapp, supra note 34, at 445.
323. See Joh, supra note 118, at 52.
324. CAL. WELF. & INST. CODE § 625.4(e) (2023).
are eighteen. If the company cannot contact or successfully transfer the account, the default should be expungement of the data.

CONCLUSION

Children are not owned by their parents and have not been considered property for over a century. Yet this conception stubbornly remains and haunts laws around children’s data privacy in particular. Parents are considered the owners of children’s information and accounts—giving them an ability to share that information without considering the full implications of the forfeiture of privacy. Children are not property, but we can protect children’s DNA with property-like principles. This requires recognizing parents’ limitations as protective forces against law enforcement intervention in their children’s lives.

The solutions discussed in this Article—regulations around consensual searches of children, local law enforcement databases, and DTC databases, as well as expungement mechanisms—can all help protect children’s DNA. But there are also larger changes required in the way we conceptualize laws like COPPA. Verifiable parental consent should not be all that is required to acquire children’s data, regardless of the type of information or the extent of the exposure. Even graver are the consequences in the criminal legal system when we rely solely on parental consent to protect against interrogations, waiver of constitutional rights, or collection of potentially incriminating information.

We must engage in a larger theoretical shift in how we understand and protect children as independent, developing beings with their own interests. Parental rights are not the end all be all. Parents’ actions, including the ability to expose their child’s DNA permanently to law enforcement, must have limits. With substantive protections in place, we can ensure that children have meaningful control of their own bodies and DNA well into the future.