THE *MIRANDA* APP: METAPHOR AND MACHINE

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INTRODUCTION

For fifty years, a familiar scene has played out in interrogation rooms across America. Police officers read suspects the *Miranda* warnings.[1] Suspects listen to the warnings before either waiving or invoking their Fifth Amendment rights.[2] The *Miranda* process remains an all-too-human drama—fraught with tension, conflicting incentives, and potential miscommunication. Not surprisingly, after millions of such personal interactions, familiar issues of coercion,[3] constitutional understanding,[4] unambiguous invocation,[5] custody,[6] interrogation,[7] trickery,[8]

[1] Miranda v. Arizona, 384 U.S. 436, 469-73 (1966) (holding that an individual subjected to police interrogation must be apprised of his right to remain silent, that anything he says can be used against him in a court of law, of his right to an attorney, and of his right to a court-appointed attorney if he cannot afford his own).

[2] U.S. CONST. amend. V; *Miranda*, 384 U.S. at 479.

[3] *See, e.g.*, Stephen J. Schulhofer, *Reconsidering* Miranda, 54 U. CHI. L. REV. 435, 440-45 (1987). *But see* Joseph D. Grano, Miranda*'s Constitutional Difficulties: A Reply to Professor Schulhofer*, 55 U. CHI. L. REV. 174, 182-86 (1988).

[4] Berghuis v. Thompkins, 560 U.S. 370, 384-88 (2010) (explaining that an individual must understand his rights before his waiver can be effective).

[5] Davis v. United States, 512 U.S. 452, 458-59 (1994) ("[I]f a suspect makes a reference to an attorney that is ambiguous or equivocal . . . our precedents do not require the cessation of questioning.").

[6] J.D.B. v. North Carolina, 564 U.S. 261, 271 (2011) (holding that a child's age properly informs the *Miranda* analysis).

[7] Rhode Island v. Innis, 446 U.S. 291, 301 (1980) ("'[I]nterrogation' under *Miranda* refers not only to express questioning, but also to any words or actions on the part of the police . . . that the police should know are reasonably likely to elicit an incriminating response from the suspect." (footnote omitted)).

[8] Oregon v. Mathiason, 429 U.S. 492, 493 (1977) (finding that a police officer lying to a

literacy,[9] competency,[10] and mental illness[11] have arisen out of this human dialogue between investigators and suspects. The unsatisfying results have been well catalogued by many of the scholars participating in this Symposium, offering fifty years' worth of criticism and suggestions for improvement.[12]

Strikingly, the core problem that gave rise to *Miranda*—namely, the coercive pressure of custodial interrogation—has remained largely unchanged.[13] *Miranda* warnings have been incorporated into the interrogation script without notable decrease in custodial pressure.[14] *Miranda* warnings, which were supposed to counterbalance that human pressure, have instead become a tool adding to that pressure.[15] Further, the primary control of constitutional power—how the warnings are given, how invocation and waiver are interpreted, and whether the warnings are understood—remains with the interrogating officers.[16]

suspect about finding his fingerprints at the scene was irrelevant to the determination of whether the suspect was "in custody"); Frazier v. Cupp, 394 U.S. 731, 739 (1969) (holding admissible a confession given after the police lied about a codefendant confessing); Christopher Slobogin, *Deceit, Pretext, and Trickery: Investigative Lies by the Police*, 76 OR. L. REV. 775, 775-77 (1997) (discussing the "murk[y] morality" of police lying to suspects to gather evidence); Deborah Young, *Unnecessary Evil: Police Lying in Interrogations*, 28 CONN. L. REV. 425, 429-30 (1996) ("Police lie about facts in interrogations in pursuit of varied, and sometimes conflicting, objectives.").

[9] *See* Pamela M. Henry-Mays, *Farewell* Michael C.*, Hello* Gault*: Considering the* Miranda *Rights of Learning Disabled Children*, 34 N. KY. L. REV. 343, 350-53 (2007) (recounting situations in which defendants with the reading ability of elementary school children waived their *Miranda* rights after reading them).

[10] Bruce Frumkin, *Competency to Waive* Miranda *Rights: Clinical and Legal Issues*, 24 MENTAL & PHYSICAL DISABILITY L. REP. 326, 326 (2000) ("A defendant may make a knowing waiver, but not an intelligent one. For example, a defendant who understands the right to be represented by a lawyer, but erroneously believes that an attorney only defends innocent people cannot intelligently waive this right.").

[11] *See, e.g.*, Virginia G. Cooper & Patricia A. Zapf, *Psychiatric Patients' Comprehension of* Miranda *Rights*, 32 LAW & HUM. BEHAV. 390, 392 (2008) (investigating psychiatric patients' understanding of the *Miranda* warnings).

[12] *See generally* Albert W. Alschuler, Miranda*'s Fourfold Failure*, 97 B.U. L. REV. 849 (2017); Yale Kamisar, *The* Miranda *Case Fifty Years Later*, 97 B.U. L. REV. 1293 (2017); Christopher Slobogin, *Manipulation of Suspects and Unrecorded Questioning: After Fifty Years of* Miranda *Jurisprudence, Still Two (or Maybe Three) Burning Issues*, 97 B.U. L. REV. 1157 (2017).

[13] Scott W. Howe, *Moving Beyond* Miranda*: Concessions for Confessions*, 110 NW. U. L. REV. 905, 924 (2016) ("Almost everyone who accepts the *Miranda* Court's view that custodial police interrogation generally jeopardizes free and rational choice would agree that *Miranda* doctrine has failed to remedy that concern adequately.").

[14] *Id.* at 933.

[15] *Id*. at 925.

[16] *Id*. at 940.

With limited exception, the *Miranda* colloquy remains not appreciably different today than it was fifty years ago.[17]

This Article proposes bringing *Miranda* into the twenty-first century by developing a "*Miranda* App" to replace the existing, human *Miranda* warnings and waiver process with a digital, scripted computer program of videos, text, and comprehension assessments. Accessible on a smartphone, computer, tablet, iPad, or other system, the *Miranda* App would provide constitutionally adequate warnings, clarifying answers, contextual information, and age-appropriate instruction to suspects before interrogation. Designed by legal scholars, validated by social science experts, and tested by police, the *Miranda* App would address fifty years' worth of unsatisfactory *Miranda* process.[18] Each of *Miranda*'s core warnings would be communicated via interactive digital graphics, animation, video, and text.[19] Explanations would accompany each word and legal concept.[20] Short comprehension tests would be built into the system to evaluate a suspect's general understanding of language and law.[21] Additional clarification would be available to address confusion about terminology, process, or rights.[22] In addition, as designed, the *Miranda* App could generate a contemporaneous record of useful data about the suspect's current capacity, literacy, understanding, and familiarity with constitutional rights.[23] The App would be free, simple to use, easy to understand, and would provide the clarity and finality lacking in current *Miranda* practice. After custody, a police officer would simply hand over the *Miranda* App to the suspect and hand off the responsibility to explain or advise suspects to the machine.

The goal is not simply to invent a better process for informing suspects of their *Miranda* rights, but to use the design process itself to study what has failed in past practice. This Article includes not only the blueprints for *Miranda*'s future, but also a rendering of the structural weakness of past doctrine.

The *Miranda* App is both metaphor and machine. As metaphor, thinking through how one might offer *Miranda* warnings anew—without the mediation of an interrogating detective—requires resolving many elided or assumed questions at the heart of *Miranda*. How much do we want suspects to know about their rights, or about the larger adversarial context of investigation, or about the consequences of invocation or waiver? In *Berghuis v. Thompkins*,[24] the Supreme Court emphasized the importance of a suspect "understanding" *Miranda* as a

[17] *Id*. at 943.

[18] *See supra* notes 11-12 and accompanying text.

[19] *See infra* Section II.D.1.

[20] *See infra* Section II.D.2.

[21] *See infra* Section II.F.1.

[22] *See infra* Section II.D.2.

[23] *See infra* Section II.F.

[24] 560 U.S. 370 (2010).

prerequisite of waiver,[25] but the *Miranda* process has not evolved to address or ensure that requirement of understanding.[26] Similarly, the Supreme Court has demanded that defendants master a new level of precision for invoking rights. Suspects must now "unambiguously" invoke their right to silence or counsel,[27] yet the *Miranda* colloquy has not changed to clarify this more exacting requirement. As metaphor, the *Miranda* App allows a reexamination of each of these doctrinal choices developed piecemeal in the case law. The design process necessarily entails a questioning of what information should be provided to fulfill constitutional requirements as well as how to best convey information to a wide variety of potential suspects.

As machine, the *Miranda* App could become a useful replacement for current *Miranda* practice. Educational software has become commonplace,[28] and the development of such a computer program to teach, test, and evaluate *Miranda* would be relatively simple to create. Once designed, a *Miranda* App could provide a standardized yet customizable constitutional process for providing *Miranda* to all suspects. Once developed and tested, the *Miranda* App could offer police officers an easy method to complete *Miranda*'s requirements in a way that would be relatively immune from legal challenge.[29] *Miranda* warnings and waiver could become as routine as the many other computer interfaces citizens regularly must navigate in a digital world.

Part I of this Article looks back on *Miranda* fifty years later to ask whether the central goal of *Miranda*—counterbalancing the coercive effects of custodial interrogation—has been achieved. In arguing that *Miranda* has largely failed, this Part revisits some of the problems in doctrine and practice that have undermined its promise.

Part II sets out the prototype design for the *Miranda* App. This Part details the design components, including what instructions would be given to users, the language of *Miranda*, how clarifying information would be provided, and mechanisms for human assistance. This Part also describes the design

[25] *Id.* at 384.

[26] *See* Howe, *supra* note 13, at 908 ("[T]he *Miranda* Court itself mandated only a confusing and misleading warning that was of no help to suspects in understanding the consequences of their choices.").

[27] Davis v. United States, 512 U.S. 452, 458-59 (1994).

[28] Marcia Clemmitt, *Digital Education: Can Technology Replace Classroom Teachers?*, 21 CQ RESEARCHER 1001, 1001 (2011).

[29] Our proposed *Miranda* App will face legal challenges. But, once developed, tested, and accepted as an improved practice, such challenges will be easier to defeat. Currently, officers must defend their individual practice against a rather standardless backdrop of appropriate behavior. *See* Howe, *supra* note 13, at 940-41. Each confession can be litigated because each *Miranda* colloquy is different. But, with a *Miranda* App, once the initial challenges have been overcome successfully, each additional use of the system will not require challenge as it will present a uniform approach to handling *Miranda* warnings and waiver. Once accepted, the litigation costs will be reduced.

mechanisms that would allow for the collection of data about the competency, literacy, and mental health about particular suspects in individual cases, as well as the collection of national data about *Miranda* practices more broadly.

Part III argues that many of the problems identified in Part I can be solved by designing and adopting the *Miranda* App. The *Miranda* App offers five significant improvements over the existing human process of informing suspects of their rights. The *Miranda* App has the potential to reduce custodial pressure, rebalance constitutional power, ensure legal understanding, provide clear guidelines, and create a valuable dataset about *Miranda* practices. The arguments in this Part seek to offer both a technological and theoretical design for an improved *Miranda* process.

Part IV briefly addresses some of the concerns with the proposed *Miranda* App design. These concerns involve the traditional critique that any improvement of *Miranda* will increase invocation and decrease confessions, as well as some more modern issues involving technological literacy, system validation, and cybersecurity.

The modest goal of this Symposium Article reflecting on *Miranda*'s first fifty years is to use the design process of the *Miranda* App to rethink the *Miranda* warnings and waiver process. As metaphor, the *Miranda* App offers an opportunity to examine the strengths and weaknesses of existing practice. As a technical blueprint, the *Miranda* App offers a schematic for software designers to actually develop a better system to inform suspects of their constitutional rights.

I. *MIRANDA*: AFTER FIFTY YEARS

As just about anyone who has watched television knows, *Miranda* requires that, before custodial questioning can begin, police warn a suspect of his rights to silence and publicly appointed counsel and that anything he says may be later used against him.[30] Though *Miranda* is presumed to contain one holding, Stephen Schulhofer has argued that it actually contains at least three separate conceptual steps or holdings that are necessary to understand its doctrinal structure.[31] First, the Supreme Court held that compulsion within the meaning of the Fifth Amendment privilege against self-incrimination applies not only in formal settings, such as at trial, but also in informal settings, such as in-custody police interrogation, which are inherently compulsive.[32] Second, the Court held that unless adequate alternative protective devices are established to protect a suspect from these inherently compelling pressures, police are required to warn a suspect prior to interrogation of his rights to silence and appointed counsel,

[30] Ronald Steiner, Rebecca Bauer & Rohit Talwar, *The Rise and Fall of the* Miranda *Warnings in Popular Culture*, 59 CLEV. ST. L. REV. 219, 220-21 (2011).

[31] Schulhofer, *supra* note 3, at 436.

[32] *Id*. at 436-40.

and that anything he says may be used against him in court.[33] Finally, the Court held that statements obtained during custodial interrogation will only be admissible if a suspect has voluntarily, knowingly, and intelligently waived these Fifth Amendment rights.[34] The purpose of the constitutionally required *Miranda* warning and waiver regime was to dispel the inherent compulsion of custodial interrogation and thereby protect a suspect's informed choice about whether to freely participate in police questioning, and thus prevent involuntary statements.[35]

As Charles Weisselberg has pointed out, the Warren Court made several assumptions about what was necessary for the *Miranda* warnings to achieve this goal.[36] First, the Court assumed that "'custody' would distinguish interrogations that contain compelling pressures from those that do not."[37] The Court thus only required *Miranda* warnings when an interrogated suspect was in custody (i.e., when the suspect is either under arrest or "otherwise deprived of his freedom of action in any significant way").[38] Second, the Court assumed that police detectives would provide warnings and elicit waivers before employing any interrogation techniques.[39] The Court emphasized that the warnings and waiver must precede any custodial interrogation.[40] Third, the Court assumed that suspects would be able to understand their rights and thus be able to freely and rationally choose whether to speak or remain silent.[41] In order to be valid, the *Miranda* Court required that a suspect's waiver be knowingly, voluntarily, and intelligently given.[42] Finally, the Court assumed police interrogators "would not begin questioning unless suspects clearly and affirmatively *waived* their rights, and questioning would cease if suspects who initially waived their rights later indicated that they wished to *invoke* them."[43] In other words, interrogation could not proceed in the absence of an affirmative waiver or in the presence of an affirmative invocation. The *Miranda* decision thus placed a "heavy burden" on the prosecution to establish that the suspect's waiver had been properly obtained.[44]

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[33] *Id*. at 440-53.

[34] *Id*. at 453-55.

[35] *Id.* at 445.

[36] Charles D. Weisselberg, *Mourning* Miranda, 96 CALIF. L. REV. 1519, 1527-29 (2008).

[37] *Id*. at 1527 (emphasis omitted).

[38] Miranda v. Arizona, 384 U.S. 436, 444 (1966).

[39] *Id.* at 476 ("[T]he fact of lengthy interrogation or incommunicado incarceration before a statement is made is strong evidence that the accused did not validly waive his rights.").

[40] *Id*. at 444.

[41] Weisselberg, *supra* note 36, at 1528.

[42] *Miranda*, 384 U.S. at 444.

[43] Weisselberg, *supra* note 36, at 1529 (emphasis omitted).

[44] *Miranda*, 384 U.S. at 475.

The *Miranda* Court drew on contemporary police training manuals to present a picture of psychologically oriented interrogation that was inherently coercive and thus undermined the ability of the suspect to make an informed and unfettered choice about whether to participate in custodial questioning or to give a voluntary statement.[45] The Court decried the secrecy of incommunicado police interrogation and its effects, calling it "at odds with one of our Nation's most cherished principles—that the individual may not be compelled to incriminate himself."[46] And the Court viewed the use of warnings and waivers as necessary to constitutionally regulate the admissibility of statements elicited during custodial interrogation.[47]

In the fifty years since *Miranda* was decided, numerous scholars have empirically studied the effects of *Miranda* on the ground, demonstrating that *Miranda* warnings have devolved into a largely meaningless ritual, and thus become grossly ineffective as a means to protect basic rights.[48] Three police practices relating to *Miranda*'s presentation have similarly minimized the warnings' effectiveness. The first can best be described as "softening up" a suspect. By starting with relatively innocuous questions and putting the suspect at ease, law enforcement agents commence a pattern of questioning (by police) and answering (by suspects) that becomes challenging for suspects to break when the questions grow increasingly serious and related to the incident at hand.[49] By the time *Miranda* warnings are finally given, a rapport has often been established that encourages suspects to talk.[50] Even when a rapport is not established, some suspects become so used to the pattern of question and response that they continue to cooperate out of habit.

The second tactic involves deemphasizing the warnings' importance.[51] By framing the warnings as an irrelevant bureaucratic procedure, police are able to

[45] *Id.* at 447-55.

[46] *Id.* at 457-58.

[47] *Id.* at 473.

[48] *See, e.g.*, Richard A. Leo, *Questioning the Relevance of* Miranda *in the Twenty-First Century*, 99 MICH. L. REV. 1000, 1021 (2001) ("If the goal of *Miranda* was to reduce the kinds of interrogation techniques and custodial pressures that create stationhouse compulsion and coercion, then it appears to have failed miserably: The reading of rights and the taking of waivers has become, seemingly, an empty ritual, and American police continue to use the same psychological methods of persuasion, manipulation, and deception that the Warren Court roundly criticized in *Miranda*." (footnote omitted)); Sandra Guerra Thompson, *Evading* Miranda*: How* Seibert *and* Patane *Failed to "Save"* Miranda, 40 VAL. U. L. REV. 645, 669 (2006) ("In short, *Miranda* is effectively dead, and only its ghost remains in the empty ritual played out in interrogation rooms across the country.").

[49] Richard A. Leo, *The Impact of* Miranda *Revisited*, 86 J. CRIM. L. & CRIMINOLOGY 621, 661 (1996).

[50] *Id.* at 661-62.

[51] *Id.* at 662-63.

increase the likelihood that suspects will waive their rights, not recognizing the import of their actions.[52] In this way, the "time out" that the Supreme Court envisioned *Miranda* providing—a space in which suspects could rationally decide whether to invoke their rights—becomes not a time out at all, but a moment that simply blurs into the background.[53]

The third tactic is to suggest to suspects that providing information to police could lead to the suspect's case being viewed more favorably, or even more leniently, in court.[54] David Simon, Richard Leo, and Welsh White have documented numerous instances of this technique in the interrogations of adults.[55] Barry Feld has observed this tactic used with particular effectiveness upon juvenile suspects.[56] A related maneuver is to imply that a suspect's relationship with police is non-adversarial, that the police are neutral fact-finders who can help him, and that opening up to these powerful "friends" is the only way to improve his situation.[57] Drawing on these studies, Yale Kamisar has suggested that police interrogators are not so much adapting to *Miranda* as circumventing, evading, and disregarding it:

> According to Simon, Leo and White, in a significant number of instances, what the police are doing *in effect* is explaining to the suspect (or persuading him) why it is in his best interest to talk to them and why it will

[52] Richard A. Leo & Welsh S. White, *Adapting to* Miranda*: Modern Interrogators' Strategies for Dealing with the Obstacles Posed by* Miranda, 84 MINN. L. REV. 397, 433 (1999) ("In order to de-emphasize the significance of the *Miranda* warnings, the interrogator then portrays the reading of the warnings as an unimportant bureaucratic ritual and communicates, implicitly or explicitly, that he anticipates that the suspect will waive his rights and make a statement.").

[53] Weisselberg, *supra* note 36, at 1562.

[54] Leo & White, *supra* note 52, at 440-47 ("Interrogators may seek to persuade a suspect that waiving his *Miranda* rights will be in his best interest and will result in tangible or intangible benefits."); Weisselberg, *supra* note 36, at 1558 ("[O]fficers may suggest that a person would be viewed more favorably (and thus, implicitly, receive more lenient punishment) if she speaks with investigators.").

[55] *E.g.*, DAVID SIMON, HOMICIDE: A YEAR ON THE KILLING STREETS 203 (Owl Books 2006) (1991) (documenting an investigator saying "[n]ow's the time to speak up, right now when I got my pen and paper here on the table, because once I walk out of this room any chance you have of telling your side of the story is gone and I gotta write it up the way it looks"); Leo & White, *supra* note 52, at 440 ("[The interrogator] may state that she can only portray the suspect's account in its most favorable light to the prosecutor if the suspect waives his rights."); Leo, *supra* note 49, at 662 (describing an instance in which an officer points out "that what the suspect tells him may help him out and thus may or may not be used against him").

[56] BARRY C. FELD, KIDS, COPS, AND CONFESSIONS: INSIDE THE INTERROGATION ROOM 80 (2013).

[57] *Id.* at 76-79; RICHARD A. LEO, POLICE INTERROGATION AND AMERICAN JUSTICE 122 (2008).

> be so much the worse for him if he decides not to do so. I do not think it an exaggeration to say that in a significant number of cases, the police, in effect, are *talking the suspect out of asserting* his rights *before* the "waiver of rights" transaction ever takes place.[58]

The ability of suspects to comprehend their rights, once presented with warnings, has also been the subject of much empirical and theoretical investigation. Largely unanticipated by the Supreme Court in the 1960s, the difficulty that many suspects have understanding their rights has played a major role in limiting *Miranda*'s effectiveness.[59] The inability to understand has been driven by two factors. First, *Miranda* warnings are phrased differently in various jurisdictions—some phrasings are easier to comprehend or more likely to elicit a knowing waiver than others.[60] The second factor focuses not on the characteristics of the warnings, but on the characteristics of suspects. Suspects with limited education, juveniles, non-English-speaking populations, and the intellectually disabled have all been found to face particular difficulties understanding their rights.[61]

The standard for an effective waiver is that it be made "knowingly and intelligently"[62] as well as voluntarily.[63] Voluntariness is assessed by looking into whether suspects have made a "free and deliberate choice" to waive their rights, and determining whether that choice was free of coercion.[64] Thomas Grisso,[65] Solomon Fulero and Caroline Everington,[66] and Richard Rogers[67] are among

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[58] Yale Kamisar, *On the Fortieth Anniversary of the* Miranda *Case: Why We Needed It, How We Got It—And What Happened to It*, 5 OHIO ST. J. CRIM. L. 163, 187 (2007). As the Warren Court in *Miranda* indicated, "any evidence that the accused was threatened, tricked, or cajoled into a waiver will, of course, show that the defendant did not voluntarily waive his privilege." Miranda v. Arizona, 384 U.S. 436, 476 (1966).

[59] *See* Weisselberg, *supra* note 36, at 1563-67.

[60] *See id.* at 1565.

[61] GEORGE C. THOMAS III & RICHARD A. LEO, CONFESSIONS OF GUILT: FROM TORTURE TO *MIRANDA* AND BEYOND 196-207 (2012).

[62] *Miranda*, 384 U.S. at 479.

[63] Weisselberg, *supra* note 36, at 1563.

[64] *Id.*

[65] Thomas Grisso, *Juveniles' Capacity to Waive* Miranda *Rights: An Empirical Analysis*, 68 CALIF. L. REV. 1134, 1166 (1980) ("[Y]ounger juveniles as a class do not understand the nature and significance of their *Miranda* rights to remain silent and to counsel.").

[66] Solomon M. Fulero & Caroline Everington, *Mental Retardation, Competency to Waive* Miranda *Rights, and False Confessions*, *in* INTERROGATIONS, CONFESSIONS, AND ENTRAPMENT 163, 163-79 (G. Daniel Lassiter ed., 2004) ("Persons with mental retardation are susceptible to non-physical forms of coercion, pressure and intimidation by the police that people with normal intelligence can more readily withstand.").

[67] *See* Richard Rogers et al., *"Everyone Knows Their* Miranda *Rights": Implicit Assumptions and Countervailing Evidence*, 16 PSYCHOL. PUB. POL'Y & L. 300, 315 (2010)

those who have participated in a groundswell of research into the ability of suspects to understand *Miranda* warnings such that an informed choice can occur. For example, Rogers and his colleagues have reported on the general understandability of the warnings.[68] Using the Flesch-Kincaid measurement of grade equivalent reading ability, they discovered that an eighth-grade reading ability, on average, is needed to understand the right to counsel, while a tenth-grade reading ability is needed to understand the right to appointment of counsel.[69] Because criminal defendants are often less educated than the general population,[70] this relatively high reading requirement can have a startling impact on the ground.

Those suspects who are intellectually disabled,[71] borderline intellectually disabled,[72] psychiatric inpatients,[73] juveniles,[74] or non-native English speakers[75] are especially at risk. For example, Virginia Cooper and Patricia Zapf found that approximately 60% of seventy-five psychiatric inpatients they tested were

[hereinafter Rogers et al., *Everyone Knows*] (finding "widespread misassumptions and misinformation about Miranda rights and waivers"); Richard Rogers et al., *General Knowledge and Misknowledge of* Miranda *Rights: Are Effective* Miranda *Advisements Still Necessary?*, 19 PSYCHOL. PUB. POL'Y & L. 432, 434 (2013) [hereinafter Rogers et al., *General Knowledge*] ("A central question is whether members of the American public possess a working knowledge of their *Miranda* rights.").

[68] Rogers et al., *Everyone Knows*, *supra* note 67, at 307 ("Although the right to counsel may seem self-explanatory, many defendants have limited understanding of the precision required to invoke this right and its concomitant advantages.").

[69] *Id*.

[70] Weisselberg, *supra* note 36, at 1569.

[71] Morgan Cloud et al., *Words Without Meaning: The Constitution, Confessions, and Mentally Retarded Suspects*, 69 U. CHI. L. REV. 495, 590 (2002).

[72] *Id.*

[73] Cooper & Zapf, *supra* note 11, at 402 ("[T]here was . . . significant impairment in that three-fifths of our sample of psychiatric adults failed to understand at least one Miranda right.").

[74] Grisso, *supra* note 65, at 1166 ("[T]he comprehension of these rights by younger juveniles is so deficient as to mandate a per se exclusion of waivers made without legal counsel by these juveniles."); Jodi L. Viljoen, Patricia A. Zapf & Ronald Roesch, *Adjudicative Competence and Comprehension of* Miranda *Rights in Adolescent Defendants: A Comparison of Legal Standards*, 25 BEHAV. SCI. L. 1, 17 (2007) ("The application of adult standards to youth may lead to extremely high rates of youth . . . being classified as impaired or incompetent.").

[75] Floralynn Einesman, *Confessions and Culture: The Interaction of* Miranda *and Diversity*, 90 J. CRIM. L. & CRIMINOLOGY 1, 47 (1999) ("[T]he suspect's cultural heritage and language abilities affect every facet of *Miranda*."); Richard Rogers et al., *The Language of* Miranda *Warnings in American Jurisdictions: A Replication and Vocabulary Analysis*, 32 LAW & HUM. BEHAV. 124, 125-26 (2008) (discussing the effect of sentence complexity on understanding *Miranda* warnings).

unable to understand even one *Miranda* right.[76] Morgan Cloud and his colleagues' findings were similarly disturbing: the disabled subjects understood only 20% of the words that make up the *Miranda* warning[77] and comprehended the right to remain silent only 22% of the time.[78] The right to consult with an attorney and the warning that anything said could be held against them was understood only 31% of the time.[79]

As for juveniles, most individuals fifteen and younger tested by Grisso failed to understand at least one warning.[80] In another study, Jodi Viljoen and his colleagues reported that 78% of eleven to thirteen year olds and 62.7% of fourteen to fifteen year olds were impaired with respect to understanding their rights when compared with adults.[81] *Miranda* warnings that have been rephrased to increase youth comprehension may, ironically, be even less accessible than the standard warnings.[82] And once juveniles do talk, they are especially at risk of offering false confessions. In a study of 340 wrongful convictions, 42% of juveniles provided false confessions, as compared with 13% of adults.[83]

The warnings are similarly inaccessible to non-English speakers. For example, while Spanish language warnings are generally easier to comprehend than those in English, they also tend to convey less information, incorporate errors, or omit information.[84] Some errors are so egregious as to exclude entire rights, such as the right to counsel or silence.[85] Additionally, once non-English speakers do waive their rights, they are—like juveniles—especially at risk of falsely confessing.[86] This is due, in part, to the inflated power differential

[76] Cooper & Zapf, *supra* note 11, at 400.

[77] Cloud et al., *supra* note 71, at 539.

[78] *Id.* at 545.

[79] *Id.* at 548-50.

[80] Grisso, *supra* note 65, at 1160.

[81] Viljoen, Zapf & Roesch, *supra* note 74, at 9.

[82] Richard Rogers et al., *The Comprehensibility and Content of Juvenile* Miranda *Warnings*, 14 PSYCHOL. PUB. POL'Y & L. 63, 84 (2008) (noting that additional explanatory details "result in significantly longer warnings that place increased demands on juveniles' comprehension"); Weisselberg, *supra* note 36, at 1573.

[83] Samuel R. Gross et al., *Exonerations in the United States 1989 Through 2003*, 95 J. CRIM. L. & CRIMINOLOGY 523, 545 (2005). As of February 16, 2017, The National Registry of Exonerations lists 2015 exonerations in the United States since 1989. NAT'L REGISTRY EXONERATIONS, https://www.law.umich.edu/special/exoneration/Pages/Exonerations-in-the-United-States-Map.aspx [https://perma.cc/X3GK-BSLT] (last updated Apr. 13, 2017).

[84] Weisselberg, *supra* note 36, at 1573-74.

[85] Richard Rogers et al., *Spanish Translations of* Miranda *Warnings and the Totality of the Circumstances*, 33 LAW & HUM. BEHAV. 61, 64 (2009).

[86] *See* SUSAN BERK-SELIGSON, COERCED CONFESSIONS: THE DISCOURSE OF BILINGUAL POLICE INTERROGATIONS 106-07 (Richard J. Watts ed., 2009) (explaining how viewing *Miranda* warnings through the lens of another culture can greatly affect a suspect's understanding of her rights).

underlying interrogations where the suspect does not speak English and the interrogator does.[87]

The rights *Miranda* safeguards have been further jeopardized by courts' increasing recognition of implicit waivers.[88] While investigators once had the burden to establish suspects had explicitly waived their rights before statements could be admitted into evidence, that burden has shifted.[89] Today, something as simple as answering investigators' questions following *Miranda* warnings can be interpreted by courts as an implied waiver.[90] Further, the original practice of asking suspects whether they "understand" their rights or whether they are willing to talk after hearing the warnings has largely fallen to the wayside.[91] Often, rights are read and then questioning simply ensues, blurring into each other, leaving little room for either an invocation or an explicit waiver.[92]

Even as the ability for investigators to establish a waiver has become easier, the ability to assert one's rights has become more difficult. For example, in *Davis v. United States*,[93] the Supreme Court found the statement "maybe I should talk to a lawyer" too uncertain to obligate the police to stop questioning a suspect.[94] Charles Weisselberg has stressed that *Davis*, in combination with the implied waiver doctrine, has essentially remade both *Miranda*'s standard and burden of proof.[95] As he explains, "we no longer require a suspect's clear articulation of waiver as the 'green light' that permits interrogation to go forward. Rather we require a suspect's clear and firm articulation of invocation as the 'red light' to stop it."[96] In case there was any doubt remaining, this inversion was confirmed by the Court in *Thompkins*, in which the Supreme Court declared that not speaking is not enough to assert one's right to silence; instead, the invocation must be explicit.[97]

Once the *Miranda* rights are waived (implicitly or explicitly)—and studies show that 78 to 96% of suspects do in fact waive[98]—*Miranda* typically plays no

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[87] *Id.* at 108.

[88] *See* Berghuis v. Thompkins, 560 U.S. 370, 384 (2010); North Carolina v. Butler, 441 U.S. 369, 373-76 (1979).

[89] *See Thompkins*, 560 U.S. at 383-84.

[90] Leo, *supra* note 48, at 1017-18.

[91] *Id.*; Weisselberg, *supra* note 36, at 1588.

[92] LEO, *supra* note 57, at 37 ("[D]etectives typically minimize and blow past the warnings in a moment.").

[93] 512 U.S. 452 (1994).

[94] *Id.* at 455-62 ("[W]e are unwilling to create a third layer of prophylaxis to prevent police questioning when the suspect *might* want a lawyer.").

[95] Weisselberg, *supra* note 36, at 1588-89.

[96] *Id.* at 1589.

[97] Berghuis v. Thompkins, 560 U.S. 370, 381 (2010).

[98] Richard A. Leo, Miranda *and the Problem of False Confessions*, *in* THE MIRANDA DEBATE: LAW, JUSTICE, AND POLICING 271, 275 (Richard A. Leo & George C. Thomas III

role in mitigating the process or outcome of the subsequent interrogation.[99] Any protection *Miranda* might have offered a suspect usually evaporates as soon as the rights are waived and the accusatory interrogation begins—which is exactly when a suspect is mostly likely to feel the inherently compelling pressures of police-dominated custodial questioning.[100] As William Stuntz noted, "[a]lmost no one invokes his *Miranda* rights once questioning has begun."[101]

In short, empirical studies of *Miranda*'s impact on the ground have demonstrated that the underlying assumptions necessary for *Miranda* to successfully achieve its stated goals simply have not been met in practice.[102] Custody is no longer a marker for whether interrogation contains compelling pressures: police often circumvent, evade and disregard *Miranda*'s clear commands by providing warnings only after interrogation has begun; many suspects do not comprehend the warnings; and waivers are assumed from the reading of the warnings themselves rather than from any evidence or documentation that they were knowingly or voluntarily given.[103]

On its own terms, *Miranda* has largely failed "to afford custodial suspects an informed and unfettered choice between speech and silence and, at the same time, prevent involuntary statements."[104] Instead, it has become a pale shell of its former self. Psychological police tactics since *Miranda* seems to go on more or less as they did before *Miranda*, and so the inherently compelling pressures remain, sometimes made worse by the fact that the voluntariness of the waiver is treated by many trial courts as a proxy for the voluntariness of the confession itself.[105] As Kamisar foresaw one year before the *Miranda* decision, the original *Miranda* may have been destined to fail because the Warren Court delegated the function of giving the *Miranda* warnings to the very group who would be most inclined to undermine its potential effect.[106] In addition, *Miranda* did not and could not change the adversarial nature of American police interrogation. By the time police detectives reach the interrogation stage, they are no longer neutral investigators or mere fact-finders, but rather have become partisans whose goal is to build a case against the accused by eliciting and constructing incriminating statements in order to help the state achieve a successful prosecution.[107]

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eds., 1998); *see also* THOMAS & LEO, *supra* note 61, at 9.

[99] WELSH S. WHITE, *MIRANDA*'S WANING PROTECTIONS: POLICE INTERROGATION PRACTICES AFTER *DICKERSON* 118-19 (2001).

[100] *See supra* notes 32-34 and accompanying text.

[101] William J. Stuntz, Miranda*'s Mistake*, 99 MICH. L. REV. 975, 988 (2001).

[102] Leo, *supra* note 48, at 1005.

[103] Weisselberg, *supra* note 36, at 1543-64.

[104] *Id.* at 1521.

[105] *See supra* notes 88-92 and accompanying text.

[106] Yale Kamisar, *Equal Justice in the Gatehouses and Mansions of American Criminal Procedure: From* Powell *to* Gideon, *From* Escobedo *to . . ., in* CRIMINAL JUSTICE IN OUR TIME 3, 35-36 (A. E. Dick Howard ed., 1965).

[107] LEO, *supra* note 57, at 6; Feld, *supra* note 56, at 20.

Utilizing a computer program to give *Miranda* warnings and take *Miranda* waivers would remove the investigative bias that police interrogators introduce into the pre-interrogation process. We believe that a *Miranda* App may thus be able overcome many of the problems that have undermined the promise of *Miranda* and have caused the *Miranda* warnings to fail in practice. At the very least, a *Miranda* App offers a better system to inform suspects of their constitutional rights and to afford them a more complete and contextualized choice about what is about to follow before they consent to potentially coercive and life-altering police interrogation. It is to this discussion that we now turn.

II. THE *MIRANDA* APP

As both metaphor and design blueprint, the *Miranda* App allows a reflection on how to improve the *Miranda* warnings and waiver process. This Part describes the technical, practical, and theoretical vision of a *Miranda* App.

After a brief discussion of design elements, this Part examines the *Miranda* process from the perspective of how a suspect might interact with the *Miranda* App at the outset of a custodial interrogation. First, we examine what information needs to be provided to orient a suspect about why they are being handed this electronic device and computer program. Second, we examine what information needs to be given to suspects about why *Miranda* warnings are given at all. Third, we examine how the actual *Miranda* warnings would be given and how to clarify and improve the delivery of information. Fourth, we examine how the waiver and invocation process should be explained and memorialized. Finally, we offer a few suggestions to test *Miranda* comprehension. This framework allows us to detail a vision of what a *Miranda* App might look like, and just as importantly, to expose some of the hidden assumptions in current *Miranda* practice that undermine comprehension and contextual understanding of Fifth Amendment rights.

A. *Brief Comment on Design*

Software design involves both art and science.[108] The *Miranda* App, like all educational apps, involves the creation of a structured learning environment to achieve certain comprehension or learning outcomes.[109] Computer scientists, given the appropriate informational inputs, and told to focus on particular educational outputs, can design an interactive program to guide users through an established step-by-step learning process. The task at issue with a *Miranda* App involves providing substantive and procedural information to a user to ensure constitutional understanding.

The challenge for law professors writing a law review article is to set forth the legal requirements of such an App, leaving open design choices for software

[108] Greg R. Vetter, *The Collaborative Integrity of Open-Source Software*, 2004 UTAH L. REV. 563, 625.

[109] *See* Clemmitt, *supra* note 28, at 1004-08, 1010-12.

developers. As such, we take no particular position on how a *Miranda* App should be designed. But, to understand how we visualize the *Miranda* App working, we offer several basic design suggestions.

First, using the technology available today, we envision the *Miranda* App working on a computer, tablet, iPad, or even a smartphone. The App could be launched with a click of a button, and there would be no other mediation between the user and the digital interface. All information would be saved on the device and uploaded into a secure server.[110] An alternative could be a web-app, hosted on a single URL and accessible to anyone with online connectivity. A video feed would record the suspect as she interacted with the App.[111] As a result, the device would capture a complete video of the suspect's face as she worked through the App.[112] In addition, the device would collect audio of the suspect's interaction with the *Miranda* App.

Second, all of the *Miranda*-related information must be presented in formats for both visual and auditory learners, and designed consistent with established Web Content Accessibility Guidelines.[113] Some suspects may not be able to

[110] Data security will be a serious consideration in the creation of a *Miranda* App. Secure data storage of digital video can be expensive. These issues are already being confronted in the debate over police-worn body cameras. Lucas Mearian, *As Police Move to Adopt Body Cams, Storage Costs Set to Skyrocket*, COMPUTERWORLD (Sept. 3, 2015, 2:45 AM), http://www.computerworld.com/article/2979627/cloud-storage/as-police-move-to-adopt-body-cams-storage-costs-set-to-skyrocket.html [https://perma.cc/QXC4-QNEW] ("[W]ith the increasing use of body cameras . . . the amount of video content now being generated is far more difficult to manage locally."). Open questions remain about types of encryption needed, whether the data would need to be secured from police officers involved in the case as well as individuals trying to interfere with the criminal justice system, and what the data retention processes and procedures would be.

[111] *See generally* Steven A. Drizin & Marissa J. Reich, *Heeding the Lessons of History: The Need for Mandatory Recordings of Police Interrogations to Accurately Assess the Reliability and Voluntariness of Confessions*, 52 DRAKE L. REV. 619, 639-40 (2004) (explaining that, through legislation and resolutions, several states and the American Bar Association are calling for police to record interrogation); Thomas P. Sullivan, *Electronic Recording of Custodial Interrogations: Everybody Wins*, 95 J. CRIM. L. & CRIMINOLOGY 1127, 1127-28 (2005) (discussing the ways recorded interrogations benefit suspects, law enforcement, and courts).

[112] A warning alerting the suspect to this recording will be necessary in the design. Suspects will need to be informed that they are being recorded on video, and offered an ability to opt out of the entire *Miranda* App process. In addition, suspects will need to be informed that their data will be collected as part of the *Miranda* App process, with appropriate disclaimers for official use and possible deanonymized scientific research.

[113] *See* M.H. Sam Jacobson, *A Primer on Learning Styles: Reaching Every Student*, 25 SEATTLE U. L. REV. 139, 151-56 (2001) (discussing different learning styles of law students); *Web Content Accessibility Guidelines (WCAG) Overview*, WEB ACCESSIBILITY INITIATIVE, www.w3.org/WAI/intro/wcag.php [https://perma.cc/4469-RWB9] (last updated Mar. 10, 2017) (describing WCAG 2.0 which emphasizes the technical standards to improve web

read, but can comprehend verbal instructions. Other suspects may only learn by seeing and studying the words themselves. In addition, because the medium of an App allows for digital innovation, we envision video, graphics, and animations adding explanatory power to the design. Written descriptions of legal terms could be accompanied by visual explanations through images, graphics, animations, or hyperlinks. Videos of real people, avatars, or a combination of the two could be used to capture the attention of viewers. A narrator (available in multiple languages) would guide users through the process of understanding *Miranda* warnings and obtaining a valid waiver or acknowledging the invocation of rights. Over time, the App would need to be developed for translation in multiple languages.

Third, all descriptions and lessons must be communicated in a slow, clear, and repetitive manner. Because electronically mediated instruction can be intimidating to some, and too much information to process for others, a mechanism for review and repetition must be built into the process. A playback mechanism akin to a digital video recording device will allow the suspect to rewind and replay the tape. Design choices must be made to remedy the limited educational backgrounds and legal experience of some suspects. Layout and information should be simple, spare, basic, and clear. Systems to double check comprehension, mechanisms to portray the same information in different formats, and literal repetition will enhance learning.

Fourth, word choices, images, and other design choices must be culturally sensitive, so that suspects will not be insulted or distanced from the relevance to their lives. Such sensitivity would necessitate creating the App for different languages and perhaps even different ages or geographic regions. One could even offer individuals a choice of programs that might be more culturally relevant to their particular circumstance.[114]

Finally, the *Miranda* App must reinforce the gravity of the information provided. The way the App conveys the information must reflect the significance of the constitutional lessons being imparted, and the tone of the App must match the seriousness of the constitutional moment. The App should be viewed not as a game, but more like a test.

B. *Initial Instructions—Establishing Context*

The *Miranda* warnings only make sense in context. *Miranda* requires a suspect be informed of particular rights relevant for the particular experience of custodial interrogation.[115] Developers of a *Miranda* App must account for the importance of accurately establishing the context of what is happening to the suspect now, and what is going to happen to the suspect in the future.

content accessibility).

[114] A suspect might choose an "avatar" which would make him or her feel most comfortable.

[115] *See supra* notes 32-34 and accompanying text.

1. Explaining Why a *Miranda* App Is Being Used: Context and Process

In a traditional interrogation, a detective offers some prologue before giving the *Miranda* warnings.[116] This introduction might be as formulaic as, "before we speak, I need to inform you of your rights," or might include a lengthy build-up that in practice serves to minimize the importance of *Miranda* warnings in the context of the extended interrogation.[117] This police-directed prologue could be replaced by handing over an electronic device with the *Miranda* App. As such, the *Miranda* App must orient the suspect to why they have been handed this electronic device and what is going to happen next.

From a suspect's perspective, the *Miranda* App must first explain why it has been provided. This can be done with a quick initial video introduction or animation. This initial introduction would provide context about the relevance and importance of the *Miranda* process. First, the *Miranda* App must explain why any instruction about constitutional rights is being provided at this moment.[118] Second, the *Miranda* App must explain how this moment fits within the police-dominated context of a criminal investigation and possible criminal prosecution.[119] Simply stated, the initial introduction answers the question of "what is going on?"

The introduction also must signal a seriousness of what is about to take place. In the ordinary booking process, many routine, relatively unimportant tasks must be accomplished. A booking officer may ask routine booking questions (to gather biographical information),[120] another officer may collect biometric information (fingerprints, DNA),[121] another might take a booking photograph (mug shot),[122] and another might be there to inquire about personal needs (food/bathroom necessities). Handing over a *Miranda* App could be seen as yet another routine booking task, as opposed to a significant constitutional moment. The *Miranda* App must inform a suspect about the significance of the upcoming warnings. Further, it might have to do so without the custodial setting envisioned by *Miranda*. The *Miranda* App could be provided before entering the interrogation room and so must explain the upcoming custodial experience.

In thinking through informational design, the first question to be answered is "what background information does a suspect need to know about the *Miranda*

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[116] Leo & White, *supra* note 52, at 433.

[117] *See supra* notes 48-58 and accompanying text.

[118] After all, a suspect may not understand why a computer is being handed over without this introduction.

[119] The App would try to explain, in a big picture sort of way, what is happening and is going to happen. Assuming that police have no role at this point, such explanation might be necessary for someone with no familiarity with the legal system.

[120] Pennsylvania v. Muniz, 496 U.S. 582, 584, 590-91, 601-02 (1990) (finding that "routine booking question[s]" are not within the purview of *Miranda* protections).

[121] Maryland v. King, 133 S. Ct. 1958, 1969 (2013).

[122] Wayne A. Logan, *Policing Identity*, 92 B.U. L. REV. 1561, 1567-70 (2012).

process?" A host of big issues could be introduced. Do you need to explain the Constitution's role in regulating criminal procedure?[123] Do you need to explain the Supreme Court's constitutionalizing of the *Miranda* script?[124] Do you need to explain the larger adversarial process of criminal justice?[125] Do you simply need to explain the fact that *Miranda* rights exist? These questions—rarely examined—are embedded in any *Miranda* recitation. After all, when a detective says something to the effect of "the Supreme Court has required I read you your *Miranda* rights before we speak," this statement presumes knowledge of basic concepts like "what is the Supreme Court?" or "what is *Miranda*?" or "what are rights?"[126] Choosing how to clearly convey the existence, importance, and relevance of constitutional rights in this particular police setting, and how the App will help with this understanding, is the initial challenge of any *Miranda* App introduction.

Relatedly, the *Miranda* App must explain these constitutional rights in the context of the adversarial process.[127] By removing the detective from the recitation of the warnings, a symbol of adversarial conflict is also removed. Yet, the adversarial posture remains. The *Miranda* App must still explain the adversarial reality of the interrogation process. The App must convey what will occur, without the suspect necessarily being in the interrogation room or facing an interrogating detective. Establishing the adversarial context is, thus, an important part of the introduction.

Such orientation may also include explaining how interrogation fits within the larger criminal justice system. Most suspects fail to see how what they say in a police station might impact all of the other players and moments later on in the criminal justice system.[128] Deciding how much to explain presents complications. Does the *Miranda* App need to convey what happens to an

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[123] *See, e.g.*, Thomas P. Crocker, *The Political Fourth Amendment*, 88 WASH. U. L. REV. 303, 340 (2010) ("Regulating police misconduct is the special province of the Constitution's 'criminal procedure' clauses."); David M. Jaros, *Preempting the Police*, 55 B.C. L. REV. 1149, 1150 (2014) ("Since the Warren Court's revolution of criminal procedure, the primary approach to regulating law enforcement has been to rely on the Constitution and the judiciary to establish threshold standards to restrain the police.").

[124] Dickerson v. United States, 530 U.S. 428, 432 (2000) ("We hold that *Miranda* [is] a constitutional decision of this Court . . . .").

[125] Rogers v. Richmond, 365 U.S. 534, 541 (1961) ("[O]urs is an accusatorial and not an inquisitorial system . . . ."). *See generally* Keith A. Findley, *Adversarial Inquisitions: Rethinking the Search for the Truth*, 56 N.Y.L. SCH. L. REV. 911, 914-19 (2011-2012) (asserting that the adversarial nature of our justice system leads to erroneous outcomes).

[126] Rogers et al., *General Knowledge*, *supra* note 67, at 438-41 (describing large-scale ignorance of basic concepts of *Miranda* among a sample jurors).

[127] LEO, *supra* note 57, at 33 ("Interrogators have internalized the values and goals of the adversaries (i.e., the lawyers) and emphasize case-building over impartial investigation . . . .").

[128] *See* Leo, *supra* note 48, at 1012-15.

interrogation statement at some future trial? Does it need to explain how police might use the statement in a criminal prosecution? Does it need to explain the role of other players in the criminal justice system, such as prosecutors, the judge, defense counsel? All of these realities—well known to professionals—may not be known by the suspect. After all, most suspects, when they give a statement to a specific police investigator, do not think about the long-term impact of that decision.[129] A *Miranda* App has the ability to correct that impression and provide a more accurate understanding of the role of confession in the criminal justice system. It also offers a moment to reflect on big questions at the heart of *Miranda*.

So the first step is to provide appropriate context to the suspect about (1) why they have been handed the *Miranda* App, and (2) how this *Miranda* App process fits within the larger criminal justice system. Without seeking to fully resolve those answers, the next subsection applies the principles as an illustrative guide.

2. Initial Instructions—Adversarial Context Applied

You—the suspect—enter the criminal justice system after having been arrested.[130] You go through routine booking, providing fingerprints, a mug shot, biographical information, and are handed an iPad with the simple instruction: "You need to complete the *Miranda* App."

Without micromanaging the design, the *Miranda* App needs to convey the following information in the introduction to provide the appropriate contextual understanding. Again, this introduction explains "the what" of what is about to happen.

First, an initial introduction must explain that the following process is designed to inform you of your constitutional rights, and offer a moment to understand the choice to speak with police or not. The introduction can explain that the *Miranda* warnings process comes from the United States Supreme Court (the highest court in the land), finds its roots in the United States Constitution (Fifth Amendment), and is an established police practice recognized across the land. One can imagine visuals of the Supreme Court, the Constitution, and police reciting *Miranda* rights, or animations describing where these other abstract rights come from in some visual form.

[129] Laura Smalarz, Kyle C. Scherr & Saul M. Kassin, Miranda *at 50: A Psychological Analysis*, 25 CURRENT DIRECTIONS PSYCHOL. SCI. 455, 457 (2016) ("In a recent examination of the reasoning underlying the Miranda decisions made by 80 pretrial defendants, results showed that only about half reported that they had considered the long-term risks associated with waiving their rights.").

[130] Custody would trigger use of the *Miranda* App. *See* Berkemer v. McCarty, 468 U.S. 420, 441-42 (1984). Because the *Miranda* App would be portable and accessible on mobile devices, it could be offered to a suspect outside of the stationhouse. As a matter of convenience, the process might more easily be accomplished at the stationhouse, but the App could be provided on a smartphone or other device.

The introduction should explain that this digital process replaces a police detective reciting the *Miranda* warnings. This is necessary, as some suspects might be familiar with traditional police practice from television, the movies, or past experience with police.

The introduction should make clear that the information is being provided to allow the suspect to make an informed choice about whether or not to speak with police.

The introduction should reaffirm the seriousness of what constitutional rights are and why a considered decision should be made before claiming them or waiving them.

The introduction should include a statement explaining that a police interrogation is just the initial step in a larger adversarial process, and then provide a limited contextual understanding of the criminal justice process, from interrogation to trial. This brief overview should explain the roles of the various players in the criminal justice system.

Finally, the introduction should include a very practical "what is going to happen next?" section that explains that if the suspect agrees, she will be brought to an interrogation room and asked questions by police officers.

Again, all of these points of contextual introduction can be done using words, images, and animations to describe these complex principles. Visualizing the criminal justice system on a timeline from arrest to trial, communicating why constitutional rights are important using other constitutional principles or patriotic images, or giving visual context to the other players in the adversarial system, might provide more clarity of otherwise abstract ideas.

All of these principles will be repeated throughout the process, but it is important to provide an initial introductory overview about what is happening before detailing the specific *Miranda* warnings or waiver questions.

C. *Why* Miranda *Rights? Explaining* Miranda*'s Purpose*

Explaining the *Miranda* process, obviously, should be the central goal of the *Miranda* App. After the initial introduction offering context, the next step of the *Miranda* App should be to accurately inform suspects of why *Miranda* exists in the first place.

1. *Miranda*'s Purpose

The constitutional justification for *Miranda* warnings comes from the custodial pressure felt by suspects in a police dominated environment.[131] *Miranda* warnings both counteract that custodial pressure as well as educate suspects about the available constitutional rights.[132] In theory, by being informed

[131] *See supra* notes 45-46 and accompanying text.

[132] Andrew E. Taslitz, *Terrorism and the Citizenry's Safety*, CRIM. JUST., Summer 2002, at 4, 6 ("In *Miranda v. Arizona*, 384 U.S. 436 (1966), the Court required the police to give

of their constitutional rights to speak or not, suspects will be able to overcome any inherent environmental pressure and make an informed decision.[133]

Traditional interrogations usually omit this explanation of *Miranda*'s purpose. *Miranda* warnings are given, but the underlying justifications for the *Miranda* process are not similarly provided. Detectives might explain the source of the protection (the Supreme Court, the Constitution, the Fifth Amendment) and may explain the necessity of the rights (to protect the suspect), but rarely if ever does the phrase "custodial pressure" come out of a detective's mouth. The omission results from a combination of it both being awkward for police to acknowledge the police-created custodial pressure (as they seek to reduce that same pressure through providing the warnings), as well as the fact that police may not have been instructed on the underlying constitutional theory of *Miranda*.

A *Miranda* App can remedy this omission by explaining why *Miranda* warnings exist in the first place. The *Miranda* App will directly explain the dangers of custodial environments and the role of constitutional rights. To be clear, this step is analytically distinct from the question of "why have you been handed an iPad?," instead informing suspects of the substantive purpose of the information they are going to be provided.

In this stage, the *Miranda* App will explain why the Supreme Court has chosen to provide suspects with *Miranda* warnings. The App will explain the reality of "psychological pressures 'which work to undermine the individual's will to resist and to compel him to speak where he would not otherwise do so freely.'"[134] From a design perspective, choices exist about the level of detail necessary to convey at this stage. Conceptually, the App could explain the history of involuntary confessions leading to the need for *Miranda* warnings,[135] the fear of "the third degree,"[136] or the problems of false confessions.[137] Alternatively, the App could discuss the natural human, psychological reaction to stress, questioning, or accusations.[138] A wealth of social science studies

warnings that educate the suspects about, and show respect for, their privilege not to speak.").

[133] *Miranda*, 384 U.S. at 467.

[134] Maryland v. Shatzer, 559 U.S. 98, 103 (2010) (quoting *Miranda*, 384 U.S. at 467).

[135] *See generally* THOMAS & LEO, *supra* note 61.

[136] *See* LEO, *supra* note 57, at 41-77 (detailing various forms of "the third degree" and its failings, including producing false confessions and harming law enforcement's image).

[137] *See generally* Steven A. Drizin & Richard A. Leo, *The Problem of False Confessions in the Post-DNA World*, 82 N.C. L. REV. 891 (2004) (studying known false confessions that resulted in wrongful convictions and how actors in the criminal justice system treated those suspects).

[138] Stephanie Madon et al., *A Biphasic Process of Resistance Among Suspects: The Mobilization and Decline of Self-Regulatory Resources*, 41 LAW & HUM. BEHAV. 159, 159 (2017) ("[I]nterrogations can become psychological pressure cookers that impair suspects' ability to resist interrogative influence.").

supports the very human reaction to interrogation, all of which might be of interest to a suspect.[139] But, both due to practical time constraints and fear of confusion, most of this detail (more suitable to a criminal procedure law class) should probably be replaced with a simple declarative statement explaining that courts have recognized that interrogation settings put stress on people,[140] and that to counteract that stress, individuals must understand their rights.[141]

If the insight of *Miranda* is that by understanding constitutional protections, individuals are somewhat more empowered in facing police, it seems odd not to inform suspects of this assumption. While accepted in the legal community, it is hardly obvious that by hearing you have constitutional rights in the abstract, you feel protected in the reality of the moment. Many people on the wrong end of an unpleasant police interaction will viscerally understand the limits of constitutional rights in the face of police authority.[142]

So, the working assumption that constitutional understanding will counterbalance police coercion should be explained to the suspect. Again, a simple declaration that the reason *Miranda* rights are being provided is to level an inherently coercive playing field might be sufficient to provide the "why" of why *Miranda* exists.[143]

2. *Miranda*'s Purpose Applied

The suspect sits in front of the screen. After a brief introduction explaining "the what" of what will happen with this digital device, the next brief section explains "the why"—why the *Miranda* warnings are being given.

While critical, this part need not be long or involved. The only thing necessary to articulate is the usually unarticulated underlying assumption of why the Supreme Court thought *Miranda* was necessary. Two points must be included: (1) the reality of custodial pressure, and (2) how being informed of one's constitutional rights serves to counteract custodial pressure.

This information could be conveyed in a sentence or two. A quote from the *Miranda* decision as visual background could be used to emphasize the point and situate the case in the real-world context of interrogation.[144] One can also

[139] Saul M. Kassin et al., *Police-Induced Confessions: Risk Factors and Recommendations*, 34 LAW & HUM. BEHAV. 3, 4 (2010) (discussing previous studies of false confessions, attributing false confessions in part to feelings of "'hope,' 'fear,' 'promises,' 'threats,' 'suggestion,' 'calculations,' 'passive yielding,' 'shock,' 'fatigue,' 'emotional excitement,' 'melancholia,' 'auto-hypnosis,' 'dissociation,' and 'self-destructive despair'").

[140] Miranda v. Arizona, 384 U.S. 436, 447-55 (1966).

[141] *Id*. at 467 ("In order to combat these pressures . . . the accused must be adequately and effectively apprised of his rights and the exercise of those rights must be fully honored.").

[142] Ronald J. Allen, Miranda*'s Hollow Core*, 100 NW. U. L. REV. 71, 76 (2006).

[143] *See supra* notes 32-34 and accompanying text.

[144] *Miranda*, 384 U.S. at 467 ("We have concluded that without proper safeguards the process of in-custody interrogation of persons suspected or accused of crime contains

imagine the reality of custodial pressure illustrated in a simple animation with a closed interrogation room and a drop of sweat on the brow of the suspect. Similarly, one can imagine the counterbalance of constitutional rights being depicted as a form of power. Some representation that "constitutional knowledge is power" probably suffices to provide an answer to why *Miranda* rights are being given to suspects.

This brief explanation of "why *Miranda* rights" will also have the effect of reaffirming the constitutional significance of the moment. By tying constitutional rights to individual power and choice, the importance of the decision will be reemphasized.[145]

D. *The Formal* Miranda *Warnings*

A *Miranda* App must provide the actual *Miranda* warnings as envisioned by the Supreme Court and recrafted by law enforcement professionals. As the Supreme Court has made clear in *Florida v. Powell*[146] and earlier cases, the *Miranda* warnings do not require particular magic words to be constitutionally sufficient.[147] As a constitutional requirement, substance counts over form, and police departments retain flexibility in how to convey those warnings.[148] The *Miranda* App embraces this flexible approach, and does not seek to mandate any particular language in the warnings. The App does however take seriously the importance of suspects' understanding those rights, and thus incorporates an overt education-focused approach to explaining *Miranda* rights.

Such an education-focused approach remains absent in most police practice. In a traditional interrogation, a police detective will read the *Miranda* warnings out loud and may subsequently ask the suspect to read the written warnings.[149]

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inherently compelling pressures which work to undermine the individual's will to resist and to compel him to speak where he would not otherwise do so freely. In order to combat these pressures and to permit a full opportunity to exercise the privilege against self-incrimination, the accused must be adequately and effectively apprised of his rights and the exercise of those rights must be fully honored.").

[145] Connecticut v. Barrett, 479 U.S. 523, 528 (1987) ("The fundamental purpose of the Court's decision in *Miranda* was 'to assure that *the individual's right to choose* between speech and silence remains unfettered throughout the interrogation process.'" (quoting *Miranda*, 384 U.S. at 469)).

[146] 559 U.S. 50 (2010).

[147] *Id.* at 63 ("Although the warnings were not the *clearest possible* formulation of *Miranda*'s right-to-counsel advisement, they were sufficiently comprehensive and comprehensible when given a commonsense reading."); Duckworth v. Eagan, 492 U.S. 195, 203 (1989) ("Reviewing courts therefore need not examine *Miranda* warnings as if construing a will or defining the terms of an easement. The inquiry is simply whether the warnings reasonably 'conve[y] to [a suspect] his rights as required by *Miranda*.'" (alteration in original) (quoting California v. Prysock, 453 U.S. 355, 361 (1981))).

[148] *See Miranda*, 384 U.S. at 490.

[149] Leo & White, *supra* note 52, at 422-38.

Some detectives will ensure that suspects understand the words in the warnings, and others will not.[150] Some detectives will offer clarifying instruction to warnings, but most, for fear of undercutting the clarity (and thus legality) of the written warnings, will not editorialize much on the printed warnings. The result is a fairly one-directional explanation, leaving the suspect with little practical ability to seek clarification, admit confusion, or pause for reflection.[151]

A *Miranda* App offers a three-fold change to existing practice, allowing: (1) better comprehension of the words that convey constitutional rights; (2) clarity about the meaning of constitutional rights; and (3) a space for deliberative reflection about the decision at hand. By design, a *Miranda* App can offer a more intentional educational approach that specifically addresses some of the weaknesses in current *Miranda* practice.

1. Language of *Miranda* Warnings

The *Miranda* App must convey the foundational principles of *Miranda*. These principles include: the right to remain silent, the knowledge that anything you say can be used against you in a court of law, the right to talk to a lawyer for advice before questioning, the right to talk to a lawyer during questioning, the right to have a lawyer appointed for you without cost, and the ongoing nature of these rights.[152] This subsection examines the language chosen to convey those rights, with the next subsection studying the meanings of the rights themselves.[153]

Language facilitates understanding.[154] If suspects do not understand the words within the *Miranda* warnings, then they likely cannot understand the meaning of the warnings.[155] Studies have shown that the actual words chosen to

[150] *See* Gregory DeClue, *Oral* Miranda *Warnings: A Checklist and a Model Presentation*, 35 J. PSYCHIATRY & L. 421, 425-27 (2007) (describing a process of questioning for comprehension).

[151] LEO, *supra* note 57, at 27.

[152] Laurent Sacharoff, Miranda*'s Hidden Right*, 63 ALA. L. REV. 535, 552-56 (2012).

[153] Rogers et al., *supra* note 75, at 124-25; *see also* Morgan Cloud et al., *supra* note 71, at 528-30 (discussing how courts evaluate waivers based on their interpretation of *Miranda* rights).

[154] *See* Richard Rogers et al., *Development and Initial Validation of the* Miranda *Vocabulary Scale*, 33 LAW & HUM. BEHAV. 381, 390 (2009) ("A lack of comprehension of key Miranda terminology is likely to compromise a suspect's ability to make a rational waiver.").

[155] Cloud et al., *supra* note 71, at 499 ("*Miranda* conceptualized suspects as rational decision makers who possessed the cognitive tools necessary to implement the warnings. The Court assumed that suspects would understand both the meaning and the legal significance of the warnings. Unless a suspect understands the warnings, they are but meaningless sounds." (footnote omitted)); Rogers et al., *Everyone Knows*, *supra* note 67, at 302 (noting that survey participants could recognize *Miranda* rights but could not identify what those rights were).

provide the *Miranda* warnings can range across jurisdictions from 49 words to 547 words, and in sophistication from reading levels appropriate for middle schools to postgraduate level words.[156] Rogers and his colleagues found almost 900 different *Miranda* warnings among approximately 945 federal, state, and county jurisdictions.[157] Without trying to mandate a particular linguistic formula for the warnings, certain precautions can be added to improve comprehension.

Take as examples the following eight words or concepts in most *Miranda* warnings, "right," "silent," "court of law," "afford," "appointed," "represent," "exercise," and "lawyer." For professionals in the criminal justice field or attorneys, the use of these terms presents little problem.[158] We know "right" means a legal privilege, not its other meanings of morally correct, or honorable, or the opposite of wrong.[159] We know "silent" means the choice not to answer questions, and not tacit, or noiseless, or implicit.[160] We know "court of law" is a trial court, even though professionals rarely use that archaic and somewhat redundant phrasing (why not just say "court"). We know "appointed" means provided by the court, not scheduled or furnished. We know "represent" means defend, and not stands for or constitutes. We know "exercise" means use, not physical activity. And, we know what lawyers do. But, the assumption that everyone should know this legalistic language and phrasing is empirically false.[161] In fact, many groups, especially vulnerable populations, demonstrate great difficulty in understanding the language of the traditional *Miranda* script.[162]

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[156] Rogers et al., *supra* note 75, at 125.

[157] *Id.* at 125-27.

[158] *But see* Rogers et al., *Everyone Knows*, *supra* note 67, at 314 ("For instance, do they understand that their right to silence is constitutionally protected against self-incrimination? With 36.4% of college students and nearly as many defendants (30.9%) erroneously concluding that silence is likely to incriminate, the idea of an accurate working knowledge for most defendants is highly suspect.").

[159] *See* Miranda v. Arizona 384 U.S. 436, 468 (1966).

[160] *See supra* note 27 and accompanying text.

[161] Rogers et al., *Everyone Knows*, *supra* note 67, at 307-12 (explaining that defendants often misunderstand the consequences of exercising their *Miranda* rights and how their word choices after their invocation of such rights); Rogers et al., *General Knowledge*, *supra* note 67, at 434 ("Even the seemingly basic concept of "'right to silence"' is often seriously misconstrued. [A]bout one third of both pretrial detainees (30.6%) and university students (36.4%) failed to recognize that their silence is constitutionally protected and cannot be used as incriminating evidence." (citation omitted)).

[162] *See, e.g.*, Cooper & Zapf, *supra* note 11, at 392; William C. Follette, Deborah Davis & Richard A. Leo, *Mental Health Status and Vulnerability to Police Interrogation Tactics*, 22 CRIM. JUST., Fall 2007, at 42, 44-45; Solomon M. Fulero & Caroline Everington, *Assessing the Capacity of Persons with Mental Retardation to Waive* Miranda *Rights: A Jurisprudent Therapy Perspective*, 28 LAW & PSYCHOL. REV. 53, 55 (2004).

Three related difficulties arise from existing practice. We do not know which words (if any) a suspect may not understand. We do not want detectives becoming the grammar police testing suspects for vocabulary comprehension. Finally, suspects, themselves, may not wish to admit ignorance or confusion about particular terminology. The result is that the *Miranda* script assumes comprehension without any mechanism to clarify real comprehension.[163]

The *Miranda* App recognizes this limitation of human capacity, and the complex diversity of educational backgrounds that *Miranda* must address. Without changing the words themselves, an interactive program can provide definitional clarity for any word that a suspect does not understand. Words in the warnings could be highlighted, definitions embedded, and contextual descriptions appended to the existing *Miranda* warnings. Instead of simply reading the warnings as written, an interactive app could allow further interaction with the words to make sure the suspects understood their meaning.

To visualize this process as applied: imagine a suspect sits facing the computer screen. Words and images appear that demand comprehension. For example, the program explains, "You have the right to remain silent." Instead of just having the text alone, each important word (i.e., "right," "remain," and "silent") would be underlined with hyperlinks to definitions and illustrations about the relevant concepts. Major concepts such as "right" would have additional context to explain what the term means. Click on the link and a definition appears. Click again and more clarifying information can be provided through video, animation, or other images. Following each part of the *Miranda* warning, a prompt will ask if the suspect would like more information about the meaning of the terms used. Designed to facilitate understanding without changing the wording of the *Miranda* warnings, each component part of the *Miranda* warnings could be accompanied by definitions, as well as textual and non-textual explanations or visualizations.

For those individuals who readily understand the words of *Miranda*, this extra level of information can be quickly skimmed over. If suspects do not need extra information, they can quickly bypass the embedded or linked information. But for others who might not completely understand a word, or who would be too embarrassed to ask a detective for more information, a clarifying solution exists.

2. Meaning of *Miranda* Warnings

Miranda comprehension requires a relatively sophisticated translation of constitutional principles into actionable protections. Many nuanced constitutional arguments are embedded in each part of the warnings.

For example, the familiar statements "You have the right to remain silent" and "Anything you say can be used against you in a court of law" are practical distillations of a potential course of conduct arising from the Self-Incrimination

[163] *See* Andrew Guthrie Ferguson, *The Dialogue Approach to* Miranda *Warnings and Waiver*, 49 AM. CRIM. L. REV. 1437, 1474-75 (2012).

Clause of the Fifth Amendment.[164] In fact, these rights do not mean one can sit silently to invoke the protection of the Fifth Amendment.[165] Instead, as a doctrinal matter, they mean that the United States Constitution forbids any unwarned custodial statement from being introduced in the government's case-in-chief at trial.[166] The warnings say nothing about use of the statements before trial as impeachment evidence, or even in collateral matters. The warnings offer little clarity about how these rights work and against whom. Worse, the warnings do not explain that instead of sitting silently, a suspect must affirmatively invoke (speak) to claim their right to silence.[167] This complexity, and the resulting confusion, means that suspects remain uninformed of their rights and disempowered from claiming them.[168]

The goal of a successful *Miranda* App is not only to use existing Supreme Court language and concepts, but to offer different learning methods to ensure that suspects better understand the meaning of their rights. Explaining the meaning of each of *Miranda*'s component parts will be a critical part of a functioning *Miranda* App. While it is not easy to distill the doctrinal confusion resulting from a half-century of *Miranda* case law, the next few subsections highlight the most important aspects of each right that could be clarified for the suspect.

a. *Right to Remain Silent*

A *Miranda* App must inform the suspect that they have "the right to remain silent."[169] Assuming the suspect understands as a linguistic matter the meaning of "right" and "silent," this shorthand phrasing of the protection against self-incrimination may be sufficient.

But, the value of a *Miranda* App is that one can ensure that a suspect completely understands the point. For example, the *Miranda* court linked the

[164] Scholars have disagreed with the Supreme Court's application of the Self-Incrimination Clause. *See, e.g.*, Alschuler, *supra* note 12, 850-63.

[165] In both *Thompkins* and *Salinas v. Texas*, the Supreme Court held that suspects must affirmatively claim the right. *See* Harvey Gee, Salinas v. Texas*: Pre-*Miranda *Silence Can Be Used Against a Defendant*, 47 SUFFOLK U. L. REV. 727, 748 (2014) (discussing the dangers of the prosecution's ability to use suspect's post-*Miranda* warning silence at trial).

[166] Berghuis v. Thompkins, 560 U.S. 370, 388 (2010).

[167] *Id.* at 409 (Sotomayor, J., dissenting) ("Advising a suspect that he has a 'right to remain silent' is unlikely to convey that he must speak (and must do so in some particular fashion) to ensure the right will be protected.").

[168] Howe, *supra* note 13, at 923-24 ("Unless we implausibly assume that people are generally highly self-destructive, the *Miranda* Court was correct that interrogated persons who self-incriminate were usually not acting rationally (even if freely), either because they were ill-informed, deceived, or mentally impaired.").

[169] Miranda v. Arizona, 384 U.S. 436, 473-75 (1966).

right to remain silent to the ability to freely choose to speak and overcome the pressure of interrogation. As the Court stated in *Miranda*:

> For those unaware of the privilege, the warning is needed simply to make them aware of it—the threshold requirement for an intelligent decision as to its exercise. More important, such a warning is an absolute prerequisite in overcoming the inherent pressures of the interrogation atmosphere.[170]

This linkage between information and choice is not intuitive from the phrase "the right to remain silent." A *Miranda* App could make that link clear.

In other words, informing suspects that they have a right to remain silent should also mean informing them that they also have the power to stop the process of questioning.[171] The suspect has a choice to make. This could be done with something as simple as a graphic that equates "right to silence" with "freedom to choose whether to speak with police or not," or an animation that shows a suspect invoking the "right to silence" and ending the interview. The point is to put some context around an oft mentioned but rarely used right.

b. *Knowledge that Anything You Say Can Be Used Against You in a Court of Law*

A *Miranda* App will need to include the warning that "anything he says can be used against him in a court of law."[172] This warning, as the *Miranda* Court recognized, "is needed in order to make him aware not only of the privilege, but also of the consequences of forgoing it. It is only through an awareness of these consequences that there can be any assurance of real understanding and intelligent exercise of the privilege."[173]

Two important considerations are buried in this warning. First is the idea of explaining "used against." A plain reading of "used against" from a non-lawyer's perspective leaves the meaning of the warning unclear. How will a conversation be used against someone? Practically, what would be used against me—a recording, a transcript, something else? What does it mean? Will you show I am a liar, nervous, confused? While anyone familiar with trial practice, and thus the uses of documentary evidence or impeachment, will be able to conceptualize future events, anyone without a legal degree might be quite confused.

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[170] *Id.* at 468.

[171] Smalarz, Scherr & Kassin, *supra* note 129, at 457 ("For example, many people hold the false belief that invoking one's right to silence can be used against them, or even that one could be punished or prosecuted for it. Yet Miranda warnings rarely contain language to correct such misconceptions. An analysis of 385 Miranda warnings from across the country revealed that only 7% informed suspects that invoking their rights would result in the immediate cessation of questioning; none assured suspects that it could not be used as evidence of guilt." (citations omitted)).

[172] *Miranda*, 384 U.S. at 479.

[173] *Id.* at 469.

The *Miranda* App can address this confusion by clarifying what "used against" means in practice. One can imagine an animation showing a transcript of a confession being shown to prosecutors, the judge, and the jury. One can imagine seeing a video of a confession being played in court. Such visualization of the meaning of "used against" will make the concept a bit clearer.

Similarly, the idea of "a court of law" needs further clarification. In which courts of law will the statement be used? "Courts of law" handle pretrial, investigatory, trial, post-trial, and even collateral or civil matters. The warning accurately warns that the statement could be used in any of these courts, but how? The warning is not inaccurate, but inadequate. The *Miranda* App can address this confusion by explaining what is meant by a "court of law" and how a statement could be used in future litigation. Each of the terms of art used in *Miranda* could have similar explanations.

c. *The Right to Talk to a Lawyer for Advice Before Questioning/The Right to Talk to a Lawyer During Questioning*

Two related rights concerning the ability to speak with a lawyer before and during questioning must be communicated to the suspect. As recently as *Thompkins*, the Supreme Court stated, "[t]he main purpose of *Miranda* is to ensure that an accused is advised of and *understands* the right to remain silent and *the right to counsel*."[174] More emphatically, the *Miranda* Court framed the issue:

> As with the warnings of the right to remain silent and that anything stated can be used in evidence against him, this [right to counsel] warning is an absolute prerequisite to interrogation. No amount of circumstantial evidence that the person may have been aware of this right will suffice to stand in its stead. Only through such a warning is there ascertainable assurance that the accused was aware of this right.[175]

A *Miranda* App would ensure that this prerequisite is met and that a suspect understands that the Fifth Amendment grants individuals the right to consult with a lawyer before and during questioning.[176]

While easily stated, the Fifth Amendment right to counsel in the interrogation room is less easily comprehended or realized. In truth, there is no counsel to speak with at the moment of interrogation.[177] No public defender waits outside

[174] Berghuis v. Thompkins, 560 U.S. 370, 383 (2010) (emphasis added).

[175] *Miranda*, 384 U.S. at 471-72.

[176] *Id.* at 466 ("The presence of counsel . . . would be the adequate protective device necessary to make the process of police interrogation conform to the dictates of the [Fifth Amendment] privilege. His presence would insure that statements made in the government-established atmosphere are not the product of compulsion.").

[177] *See* JAMES DUANE, YOU HAVE THE RIGHT TO REMAIN INNOCENT: WHAT POLICE OFFICERS TELL THEIR CHILDREN ABOUT THE FIFTH AMENDMENT 5 (2016) ("You will almost

the interrogation room. Few retained counsel beat detectives to the police station.[178] The *Miranda* Court itself rejected the ACLU amicus brief's original suggestion to mandate a lawyer be present at all custodial interrogations.[179] So, the warnings convey the potentiality of counsel but do little to explain the reality or role of defense lawyers.

Both points—about the logistical reality of a lawyer and what a lawyer does—could be clarified by a *Miranda* App. First, a *Miranda* App could explain how and when a suspect might be able to talk to this lawyer. In truth, this might entail a substantial delay, perhaps until arraignment when a lawyer would be provided to the suspect. It might also involve a delay if the suspect has the means to afford an attorney. Both realities pose serious impediments to any interrogation. In practice, they might forestall the actual interrogation. A *Miranda* App could explain the pros and cons of this dilemma. While a suspect has the right to speak with a lawyer before questioning, this right—practically speaking—interferes with the ability to talk with detectives at the present moment. A *Miranda* App could help a suspect weigh the choice whether to speak or not. An App could also clarify that the potential right to a lawyer may take some time before becoming a reality.

This logistical problem is compounded by the fact that some suspects do not understand what a lawyer might do for them in an interrogation. To someone not versed in the role of the criminal defense lawyer, saying she can speak with a lawyer may mean very little. What is a lawyer? What do they do? How might they be relevant to an interrogation? In a traditional *Miranda* warning, no clarification follows about the roles and responsibilities of an attorney. In an omission that privileges legal sophistication, no explanation of the role of attorney counseling, advocacy, or education follows the advisement of a "right to speak with a lawyer."

A *Miranda* App, because it seeks to inform a suspect both about the right to counsel and what counsel might do, could offer a way around (1) the logistical gap of there not being a human lawyer present, as well as (2) the informational gap of not understanding what a lawyer might do. The App could—like an actual lawyer in the station house—explain the pros and cons of speaking with police at the moment. For some suspects, it makes sense to talk with police immediately. For others, this decision may not be beneficial. But, an App

certainly *not* be offered the chance to speak to anyone other than the officer. The only advice you will receive in that moment is likely to come straight from the police officer . . . .").

[178] *See* Moran v. Burbine, 475 U.S. 412, 415 (1986) (relaying how the suspect's attorney contacted police officers after his arrest and police discouraged the attorney from going to the police station by falsely claiming questioning would not start until the following day).

[179] Brief of the American Civil Liberties Union as Amicus Curiae, Miranda v. Arizona, 384 U.S. 436 (1966) (No. 759), *reprinted in* 63 LANDMARK BRIEFS AND ARGUMENTS OF THE SUPREME COURT OF THE UNITED STATES: CONSTITUTIONAL LAW 701, 727 (Philip B. Kurland & Gerhard Casper eds., 1975).

could—in an objective and fair way—walk a suspect through the pluses and minuses of this important constitutional decision. In addition, it could offer some background information about what lawyers do in criminal cases, such as their role, duty, and responsibilities.

d. *The Right to Have a Lawyer Appointed for You at No Cost*

The *Miranda* warnings have always advised suspects that no matter their economic situation, a lawyer would be provided without cost.[180] Poverty, the Supreme Court recognized, should not be a barrier to constitutional protections.[181] Such a right clarifies that a lawyer will be provided, but leaves ambiguous how this appointment works. Who will appoint the lawyer? How will it be paid for? Who does this lawyer work for? Is it a government lawyer?

The ambiguity arises, in part because the answer differs depending on the jurisdiction. Indigent defense systems are different in every state and county.[182] Some indigent defense systems are staffed by full-time lawyers, other by part-time attorneys, still others by relying on contractually assigned counsel.[183] So, the claim that a lawyer will be appointed for you free of cost is both true, and yet unrevealing. Yes, the government will pay for a lawyer, but left unsaid is how this appointment will turn into an actual physical person to advise and consult the suspect.

Beyond logistics of who pays the cost lies the question of what exactly is being paid for by the government. Some people rightly question the quality of "free" goods and services received from the government and suspect a divided

[180] *Miranda*, 384 U.S. at 479.

[181] *Id.* at 472 ("The financial ability of the individual has no relationship to the scope of the rights involved here. The privilege against self-incrimination secured by the Constitution applies to all individuals. The need for counsel in order to protect the privilege exists for the indigent as well as the affluent. In fact, were we to limit these constitutional rights to those who can retain an attorney, our decisions today would be of little significance.").

[182] Anne Bowen Poulin, *Strengthening the Criminal Defendant's Right to Counsel*, 28 CARDOZO L. REV. 1213, 1254-55 (2006); Robert E. Stein, *Public Defenders*, HUM. RTS., Apr. 2013, at 25, 26 ("According to data collected by the Bureau of Justice Statistics (BJS) in 2007, in forty-nine states and the District of Columbia, there are twenty-seven county and hybrid states with 763 individual offices and twenty-two states with 483 local offices that have a central state-based public defender office.").

[183] Randolph N. Stone, *The Role of State Funded Programs in Legal Representation of Indigent Defendants in Criminal Cases*, 17 AM. J. TRIAL ADVOC. 205, 209-10 (1993) ("Three basic program types have evolved throughout the United States to provide legal services to the indigent accused: (1) assigned counsel programs where lawyers who are members of the private bar are appointed on a case-by-case basis; (2) contract attorney programs where the local government contracts with individual private attorneys, law firms or bar associations to provide representation to certain categories of defendants over a specific period of time; and (3) public defender programs where a salaried staff of full-time or part-time attorneys provide defense services.").

loyalty. The "government," after all, also pays the salaries of the police, prosecutors, and the judges, so why would this appointed lawyer be on the suspect's side? Without an explanation of how the government divides responsibilities, why it creates an adversarial system, and who enforces the duties of defenders, the mere "appointment" of a lawyer does little to answer the ultimate question of what that "appointment" actually means. Further, the somewhat sullied reputation of public defenders or lawyers appointed under the Criminal Justice Act[184] may only add to the suspicion of the type of lawyer appointed.[185]

All of these issues can be addressed through a *Miranda* App. A *Miranda* App, having already explained the adversarial system, and the role of the defense lawyer, would need to address these concerns arising from the offer of free legal assistance. This explanation need not be lengthy, but should directly address the concerns with logistics and legal duty.[186] Specifically, the App should explain how the government appoints counsel, how the lawyers are chosen, and why the defense lawyers remain independent of the court and the other government actors. Again, whether tied to the particular realities of a jurisdiction (or a more generic explanation), this information can be provided through video, animation, or text.

e. *The Ongoing Nature of the* Miranda *Rights*

Miranda protections continue throughout the interrogation.[187] If at any moment the suspect wishes to invoke his rights to silence or counsel he can do so, even after originally waiving those rights. This reality is embedded in the phrase used to convey the on-going nature of those rights, e.g., "You can decide at any time to exercise these rights and not answer any questions or make any statements."

This statement is both comforting and counterintuitive. The statement comforts by granting suspects the ability to change his or her mind, and essentially control the use of the rights. In *Thompkins*, Justice Kennedy emphasized that this control exists throughout the interrogation. A suspect can "consider the choices he or she faces" and "reassess his or her immediate and

[184] 18 U.S.C. § 3006A (2012).

[185] Bonnie Hoffman, Gideon*'s Champions: Advocates Fight for the Indigent in Tennessee*, 36 CHAMPION 49, 50 (2012) ("'One of the biggest challenges [in working with clients] is distrust,' he explained. 'Many clients and most of the public have negative opinions about lawyers and public defenders in particular. They think [public defenders] are not real lawyers and not as good as paid lawyers.'" (alteration in original)).

[186] A defense lawyer's obligation of zealous advocacy is not known by many individuals in the criminal justice system, so this legal duty may need to be explained. *See* MODEL CODE OF PROF'L RESPONSIBILITY Canon 7 (AM. BAR ASS'N 1980).

[187] Miranda v. Arizona, 384 U.S. 436, 479 (1966).

long term interests" during a lengthy interrogation process.[188] Justice Kennedy conceived of an almost deliberative reflection throughout the interrogation process. Such a deliberative choice can, of course, only be effectuated if a suspect understands that the *Miranda* rights still exist even after formally (or informally) waiving them.

This leads to confusion for those suspects who might not understand how or why they can change their minds about speaking with police. Postwaiver, once the conversation has begun, the ability to choose again may not seem possible.[189] The continued coercive environment, the human pressure, and the lack of understanding of how to reclaim those previously waived rights all increase confusion.[190]

A *Miranda* App would explain the ongoing nature of the rights by clarifying that the initial waiver can be reconsidered. It might use Justice Kennedy's deliberative framework to explain that the power continues throughout the entire interrogation (and beyond).[191] Further, the *Miranda* App would provide the "magic words" to invoke silence or counsel, so debates over ambiguous invocations would be reduced.[192] As will be discussed later, this transparency about what words are necessary to invoke *Miranda* will avoid later confusion.

3. Reflection

Improving the language and explanations of the rights behind the *Miranda* warnings obviously might improve comprehension. But, a *Miranda* App offers one other, less obvious, benefit: distance to reflect on one's decision.

The custodial pressure of a police-dominated interrogation, almost by design, prevents deep reflection. In the traditional *Miranda* script, there is no place for a detective to say, "Look, think about your rights for a few minutes and get back to me; it is an important decision." Instead, the pressure for waiver is immediate, and intentionally so;[193] the detective is waiting right in front of the suspect with a pen and the room for deliberative thought is quite limited.

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[188] Berghuis v. Thompkins, 560 U.S. 370, 388 (2010); Ferguson, *supra* note 163, at 1447 ("The only plausible way to interpret a suspect's near three-hours of silence and explicit refusal to sign a *Miranda* waiver form as an implicit waiver was to presume that during that entire time the suspect understood the relevant application of his rights and simply chose not to invoke them.").

[189] *See* Stuntz, *supra* note 101, at 988.

[190] *See supra* notes 32-34 and accompanying text.

[191] *See supra* note 188 and accompanying text.

[192] *Thompkins*, 560 U.S. at 409-10 (Sotomayor, J., dissenting) ("[T]he *Miranda* warnings give no hint that a suspect should use [the Court's] magic words, and there is little reason to believe that police—who have ample incentives to avoid invocation—will provide such guidance.").

[193] Leo & White, *supra* note 52, at 42-43.

The *Miranda* App creates a space for some thought because it takes place independent of police controlled questioning. By actual design, the *Miranda* App will slowly go through the rights and warnings. By giving suspects a moment to think and inquire about rights, a natural space will develop to consider the decision. While digital media does not necessarily encourage deep reflection, and many people are familiar with simply skipping past all of the fine print of any computer mediated waiver form,[194] the hope will be that some time and space will be created to think about that decision to waive or not.

E. Miranda *Waiver—Unambiguous Invocation*

The entire *Miranda* process has one final outcome—the waiver or invocation of a suspect's constitutional rights. It should be a binary choice, but as any student of *Miranda* knows, the gray areas of implicit waiver, ambiguous invocation, and miscommunication between officers and suspects has made the process quite uncertain.[195] Through its design, the *Miranda* App seeks to recapture certainty and force a suspect to make a clear binary choice, thus avoiding some of the existing legal confusion.

1. Explaining Waiver and Invocation

Much academic ink has been spilt attempting to sort through the Supreme Court's rules on waiver and invocation. The doctrine has evolved from a presumption against finding waiver,[196] to one in which implicit waiver can be found relatively easily.[197] Similarly, the clarity required for a suspect to "unambiguously" invoke the right to silence or counsel leaves more questions than answers. Courts regularly make judgment calls on the facts, but, ironically, a demand for unambiguous clarity has not made the doctrine any clearer.

One reason for continued confusion over waiver and invocation is that neither concept is explained very well during a traditional *Miranda* script. Many *Miranda* warning cards (or documents) include a place for explicit waiver as

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[194] *See generally* Tess Wilkinson-Ryan, *A Psychological Account of Consent to Fine Print*, 99 IOWA L. REV. 1745, 1747 (2014) ("The proposition that most people do not read the small print, heed the warning labels, or review the 'Terms and Conditions' links, is no longer controversial.").

[195] Weisselberg, *supra* note 36, at 1577-88 (explaining how easily a suspect unintentionally waives his rights based on subsequent Supreme Court interpretation and officer conduct).

[196] North Carolina v. Butler, 441 U.S. 369, 373 (1979) ("An express written or oral statement of waiver of the right to remain silent or of the right to counsel is usually strong proof of the validity of that waiver, but is not inevitably either necessary or sufficient to establish waiver. The question is not one of form, but rather whether the defendant in fact knowingly and voluntarily waived the rights delineated in the *Miranda* case.").

[197] *Thompkins*, 560 U.S. at 381 ("There is good reason to require an accused who wants to invoke his or her right to remain silent to do so unambiguously.").

well as explicit invocation, but those same cards do not explain the impact of implicit waiver, and nor do they clue in suspects about what "magic words" need to be said to unambiguously invoke *Miranda*'s protection.[198] As criminal procedure students regularly query, "If the Supreme Court wants an unambiguous invocation, why don't they just tell suspects that is the rule?"

In the context of the larger *Miranda* educational project, a *Miranda* App can improve instructions for both waiver and invocation. More appealingly, it can also memorialize the intent of the suspect with a clarity lacking in a human system. The *Miranda* App script will force suspects to make a choice—waive or invoke—and do so in a manner that will be unambiguous. Probably to the relief of most courts, debates over ambiguous invocations should end.[199]

2. Waiver and Invocation Applied

The *Miranda* App's approach to waiver and invocation tracks the traditional practice with one big change: it explains in a transparent manner the consequences of each choice and then forces the suspect to make a choice.

In essence, the App provides a decision tree for suspects. For suspects who wish to waive their rights, the App explains the meaning of waiver and the possible benefits of talking with police. For suspects who wish to invoke, the App explains the consequences of invoking, and further explains that such a choice will constitute "an unambiguous invocation" of *Miranda* rights.[200] Because the computer will guide the choices into a binary framework, there will be no option for an ambiguous assertion. Because there will be either a waiver or invocation, there will be no cause to debate implicit waivers.[201]

The decision tree design and binary choice of the system removes much of the human miscommunication. It also provides clear proof of the choice. The preliminary inquiries of "[m]aybe I should talk to a lawyer"[202] and "[d]o you think I need a lawyer"[203] will be answered (or not answered) by the *Miranda* App as opposed to the detective. The App will make the choice, answers, and decision clear before the suspect speaks with the detective.

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[198] Davis v. United States, 512 U.S. 452, 459 (1994) ("[T]he suspect must unambiguously request counsel."); *see also* DUANE, *supra* note 177, at 111-19.

[199] As a caveat, there will be situations in which, after the suspect waives using the *Miranda* App, the suspect will want to invoke his or her *Miranda* rights later during the interrogation. In those cases, the *Miranda* App will not be of much assistance and the ordinary rules of *Miranda* will apply.

[200] *Thompkins*, 560 U.S. at 381.

[201] As a second caveat, there may be cases of "no decision," in which the suspect simply does not decide using the App. Again, in those cases detectives will simply resort to the traditional methods.

[202] *Davis*, 512 U.S. at 462.

[203] Diaz v. Senkowski, 76 F.3d 61, 63-64 (2d Cir. 1996).

Finally, the *Miranda* App will provide explicit instructions of the "magic phrases" to invoke *Miranda* after an interrogation has begun.[204] The suspect will be informed that to invoke the right to silence she must state, "I would like to remain silent" and to invoke the right to counsel she must state, "I would like a lawyer." While variations of these phrases might be acceptable to a court interpreting invocation, the App will provide instruction on the words that will (without interpretation) clearly signal an invocation so police officers know how to respond appropriately.

F. Miranda *Assessment*

The *Miranda* waiver process only works if the suspect understands the warnings and chooses to speak with officers. The difficulty has always been how to assess the level of comprehension of the suspect. How do you know the warnings worked as designed? The *Miranda* App can offer some improvement on any ultimate expert or legal judgment by providing more information about the *Miranda* process. By design, the *Miranda* App can offer clues as to how every suspect interacts with the software. In addition, a designer could incorporate actual assessment tests to ensure adequate comprehension.

1. Assessment by Design

For decades, experts have studied how suspects grasp the *Miranda* warnings.[205] In thousands of individual criminal cases, *Miranda* competence has been litigated. Experts routinely testify about levels of comprehension and some of the problems facing individuals in making an informed judgment.[206] *Miranda* assessment mechanisms such as the Grisso tests,[207] have allowed a measure of objective assessment to make its way into court.[208] The difficulty of these assessments, however, is that such expert analysis usually takes place well after the *Miranda* warnings were given, and can only recreate an artificial simulation

[204] This language would track existing Supreme Court requirements.

[205] Marty Beyer, *Immaturity, Culpability & Competency in Juveniles: A Study of 17 Cases*, CRIM. JUST., Summer 2000, at 26, 28; Frumkin, *supra* note 10, at 326; Grisso, *supra* note 65, at 1152-54; J. Thomas Grisso & Carolyn Pomicter, *Interrogation of Juveniles: An Empirical Study of Procedures, Safeguards, and Rights Waiver*, 1 LAW & HUM. BEHAV. 321, 339 (1977); Rachel Kahn, Patricia A. Zapf & Virginia G. Cooper, *Readability of* Miranda *Warnings and Waivers: Implications for Evaluating* Miranda *Comprehension*, 30 LAW & PSYCHOL. REV. 119, 123-25 (2006); Rogers et al., *Everyone Knows*, *supra* note 67, at 302; Rogers et al., *General Knowledge*, *supra* note 67, at 432.

[206] THOMAS GRISSO, EVALUATING COMPETENCIES: FORENSIC ASSESSMENTS AND INSTRUMENTS 150 (2003).

[207] The Grisso tests, developed by Thomas Grisso, measure "the capacities or competence of defendants to have understood their rights and to have waived them voluntarily prior to making the confession to police officers." *Id.* at 149.

[208] *See id.* at 157-62; Grisso, *supra* note 65, at 1143-44.

of the process after the fact.[209] Sometimes, if the *Miranda* warnings are videotaped, and the expert hired soon after arrest, the delay will not be too long.[210] But, other times the issue can be litigated months or years after the relevant time period of the interrogation.[211]

The *Miranda* App can offer real-time data collection of how a suspect interacts with the device. Even without formal assessments, a study of how long the suspect takes to complete each section, the types of clarifying responses he seeks out, the level of confusion with the terminology, in combination with the actual answers given to the questions, will provide clues about comprehension. The App videotaping the suspect's facial features while he uses the App creates an additional record of his level of comprehension, intoxication, mental illness, or physical illness.

Software can be designed to assess comprehension beyond affirmative waiver or invocation. The Grisso tests essentially require subjects to explain in their own words the meaning of the various *Miranda* rights.[212] A similar design element could be included in the *Miranda* App. After a reading of the rights, but before waiver or invocation, the App could require passing a threshold test to see if, in fact, the suspect understood the warnings. The answers would be memorialized for future study. Whether or not there was an ultimate waiver, wrong answers on these assessment questions could clue in the reviewing expert or judge about possible comprehension problems.

While time consuming, this type of informal check is sometimes done by police detectives trying to ensure that suspects understand their rights.[213] Asking a suspect to define a term of art, or to repeat their understanding of a right, is a common tactic to ensure understanding (and also protect against future litigation about competence to waive).[214] The *Miranda* App could build that double-check procedure into the system with a few questions and prompts.

More broadly, experts have identified systemic comprehension problems for certain vulnerable populations—the intellectually disabled, juvenile offenders, or the mentally ill—who routinely fail to grasp the meaning of *Miranda*.[215] The

[209] Ferguson, *supra* note 163, at 1438 ("The central tension in any disputed confession case arises from the fact that the tests to evaluate the suspect's knowing, intelligent, and voluntary waiver are conducted months after the relevant time of the interrogation. . . . This tension exists because current *Miranda* practice fails to develop an adequate record of a suspect's knowledge and understanding at the time of the waiver.").

[210] *See id.* at 1481.

[211] *See id.* at 1438.

[212] GRISSO, *supra* note 206, at 165.

[213] DeClue, *supra* note 150, at 423.

[214] *See id.*

[215] LAWRENCE M. SOLAN & PETER M. TIERSMA, SPEAKING OF CRIME: THE LANGUAGE OF CRIMINAL JUSTICE 78 (William M. O'Barr & John M. Conley eds., 2005) ("[P]eople with mental retardation do not typically understand their *Miranda* rights at anything approaching

Miranda App can be designed to flag issues of comprehension and understanding for these groups. Assessment measures can be built within the software to identify the common struggles from certain groups, which, in turn, will allow for a better understanding of how certain people understand (or fail to understand) *Miranda*.

2. Assessment Applied

To improve assessment in individual cases, the *Miranda* App could be designed with three levels of comprehension checks. These levels would be seen to observers as "red flags" for possible comprehension problems.

At the first level, a flag might be raised if the subject took an inordinately long time, clicked on all of the explanatory features, or had trouble completing the process. A time stamp from start to finish would be available to gauge speed, and subjects who took a long time or seemed confused by words or terminology could be identified as presenting possible comprehension issues. In addition, the designers might include several decision-tree choices that required a display of affirmative knowledge, or a series of prompts that require consistent answers. An inconsistent answer would show confusion. One obvious concern for the *Miranda* App will be that some vulnerable or compromised suspects will mask their lack of comprehension by agreeing to the prompts without understanding their rights.[216] The App will be designed to develop red flags for comprehension and developmental disabilities to catch these issues.

At a second level, the *Miranda* App could ask specific questions to assess comprehension. This direct assessment would clearly show whether a suspect understood the warnings or not. The App could instruct a suspect to "Please state in your own words whether you have to talk to police." The answer could reveal gaps in knowledge or competence. This system could work with multiple choice or true/false answers as well. The assessments could serve as both a double check on understanding, and also develop a record of possible comprehension problems.

At the third level, the *Miranda* App would include a background questionnaire that could include personal information related to educational achievement, special education, age, prior experience with police, mental illness, mental health medication, intoxication, injury, sleep deprivation, stress,

an acceptable level."); Cloud et al., *supra* note 71, at 528-30 (describing how courts use suspects' intelligence, age, previous police encounters, and previous warnings to determine whether they understood the *Miranda* warnings police gave them); Kassin et al., *supra* note 139, at 4 (stating that a goal of their paper is to "identify the dispositional characteristics . . . and situational-interrogation factors . . . that influence the voluntariness and reliability of confessions"); Rogers et al., *supra* note 82, at 63 (stating that *Miranda* warnings to juveniles range in readability and summarizing the article as recommending simplified language for *Miranda* warnings).

[216] This would be similar to the multiple-choice exam taking strategy of just circling "C" down the line in the hope of getting some answers correct.

confusion, and other possible obstacles to full comprehension. While not directly related to informing the suspect of their Fifth Amendment rights, the App will be designed to collect other data points to assist experts in evaluating mental health, literacy and/or competence issues for vulnerable suspects. Answers to some of these questions might also present a red flag for comprehension issues that could be evaluated by courts.

III. ARGUMENTS FOR THE *MIRANDA* APP

The *Miranda* App offers five significant advantages to the current approach of explaining Fifth Amendment rights. The arguments are less technological than theoretical, and offer a way forward to capitalize on the strengths of *Miranda*, while at the same time remedying the doctrine's practical weakness.

First, by interposing a digital medium between the suspect and the Fifth Amendment, a *Miranda* App can reduce custodial pressure. The all too human pressure of a detective waiting for an answer dissipates when the detective is not in the room. Second, by signifying an independent source of legal rights, the *Miranda* App serves to rebalance constitutional power away from the police. Third, a *Miranda* App can ensure that a suspect "understands" *Miranda* as required by *Thompkins*.[217] Fourth, building on the Supreme Court's recognition that *Miranda*'s "core virtue" has been "clarity and precision,"[218] the App will establish a set procedure for police to follow, as well as clear instructions for suspects to follow. Finally, the *Miranda* App will be designed to collect helpful information for prosecutors, defense lawyers, and experts litigating the adequacy of warnings and waiver in individual cases, as well as to capture global data useful for academic researchers studying *Miranda* practice. In doing so, the *Miranda* App will signal the beginning of a best practices approach to *Miranda* allowing for a more cohesive and efficient approach to an otherwise individualized police practice. Each of these claims will be discussed in turn.

A. *Custodial Pressure*

The central insight of *Miranda* is that the interrogation room creates a coercive environment.[219] Yet, the *Miranda* warning and waiver decision occurs

[217] Berghuis v. Thompkins, 560 U.S. 370, 384 (2010).

[218] J.D.B. v. North Carolina, 564 U.S. 261, 288 (2011) (Alito, J. dissenting) ("[A] 'core virtue' of *Miranda* has been the clarity and precision of its guidance to 'police and courts.' (quoting Withrow v. Williams, 507 U.S. 680, 694 (1993))); *see also infra* Section III.D.

[219] Miranda v. Arizona, 384 U.S. 436, 467 (1966) ("We have concluded that without proper safeguards the process of in-custody interrogation of persons suspected or accused of crime contains inherently compelling pressures which work to undermine the individual's will to resist and to compel him to speak where he would not otherwise do so freely. In order to combat these pressures and to permit a full opportunity to exercise the privilege against self-incrimination, the accused must be adequately and effectively apprised of his rights and the exercise of those rights must be fully honored."); *see also* Moran v. Burbine, 475 U.S. 412,

within that same coercive space. As scholars have shown, many *Miranda* waivers suffer from the same coercive defects as the actual confession.[220] The *Miranda* App, by removing the police officer from the process of advising or overseeing the waiver, serves to avoid direct human coercion.

As envisioned, the *Miranda* App would be designed to reduce some of the physical, temporal, and emotional pressure of a detective-led process. First, all of the information would be coming from a third-party digital source. The detective would have no role. Second, the time pressure of a detective waiting for an answer would be removed from the detective's control. Police will still need an answer about invocation or waiver, but the suspect will have time to think about it away from the detective's pressuring gaze. Third, the App would be designed to foster rational decision-making. The process would both literally force the suspect to think about the choices, and also allow an answer that does not seem to disappoint the detective. It is hard for any human to say "no" to someone who wants something from us. Humans like to please, and by removing the human from the questioning, it makes it easier to make an unemotional choice.

Removing the human interface of interrogation does not eliminate custodial pressure. The *Miranda* Court also focused on how an environment of isolation and ignorance combine to pressure suspects. Simply put, being alone and without contact with the outside world, or ignorant of the legal or procedural process, undermines a suspect's ability to resist the police-dominated environment.[221] A *Miranda* App offers a counterweight to the coerciveness of the environment. The information comes from a third-party, non-law enforcement source, thus offering some connection to the outside world. By providing information about rights, options, and legal protections, the *Miranda* App offers contextual and substantive information to address any ignorance about the legal process. By providing a more objective source of information, suspects will be physically and informationally shielded (a bit) from the police. The *Miranda* App, not a police agent, will provide suspects the constitutional lessons needed to understand the purpose and practical application of *Miranda*. The computer program—not the police—will describe the legal choices available.[222] While the coercive environment will not be eliminated, the pressure might be ameliorated.

420 (1986).

[220] *See* Schulhofer, *supra* note 3, at 454 (arguing that it is doubtful that *Miranda* warnings dispel compulsion and instead "liberate the police" and allow custodial interrogation to continue).

[221] *Miranda*, 384 U.S. at 467.

[222] *See* Connecticut v. Barrett, 479 U.S. 523, 528 (1987) ("The fundamental purpose of the Court's decision in *Miranda* was 'to assure that *the individual's right to choose* between speech and silence remains unfettered throughout the interrogation process.'" (quoting *Miranda*, 384 U.S. at 469)).

B. *Constitutional Power*

A *Miranda* App shifts the source of constitutional power away from the police. *Miranda* rights would no longer be "granted" by police. One of the inherent limitations of traditional *Miranda* warnings is that they are provided by police officers who seemingly control the constitutional protections. In 1965, Kamisar warned:

> [W]hen we expect the police dutifully to notify a suspect of the very means he may utilize to frustrate them—when we rely on them to advise a suspect unbegrudgingly and unequivocally of the very rights he is being counted on *not* to assert—we demand too much of even our best officers.[223]

Fifty years later, proving both his prescience and the failure of *Miranda* warnings, Kamisar reflected:

> There is reason to believe that the delivery of the *Miranda* warnings is sometimes, perhaps even routinely, undermined by police interrogators who (a) blend the warnings with booking questions or (b) build a rapport with suspects *before* advising them of their rights or (c) deliver the warnings as if they were merely bureaucratic triviality or (d) inform suspects at the outset that they will not be able to tell the police "their side of the story" unless they first waive their rights.[224]

Not only are the incentives skewed, but from the suspect's perspective, the constitutional power also appears to be connected to the detective granting or withholding constitutional rights. As Tracey Maclin has written, the police become "the law"—the source of constitutional power.[225]

In truth, of course, the Fifth Amendment's protections exist outside police control, and were designed to counteract police power. But, because the information is mediated through police officials, the source of that power gets muddied in practice.[226] A *Miranda* App that locates the source of constitutional

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[223] Kamisar, *supra* note 106, at 35.

[224] Yale Kamisar, *A Look Back at the "Gatehouses and Mansions" of American Criminal Procedure*, 12 OHIO ST. J. CRIM. L. 645, 654 (2015).

[225] Tracey Maclin, *A Comprehensive Analysis of the History of Interrogation Law, with Some Shots Directed at* Miranda v. Arizona, 95 B.U. L. REV. 1387, 1391 (2015) (reviewing THOMAS & LEO, supra note 61) ("Just as a police officer may announce that he is the 'law' during a street encounter with a citizen, so too, during interrogation sessions, police detectives are the 'law.' The 'law,' and how it is employed in the interrogation room, reflects American culture.").

[226] *See* Moran v. Burbine, 475 U.S. 412, 426 (1986) ("[T]he Court has recognized that the interrogation process is 'inherently coercive' and that, as a consequence, there exists a substantial risk that the police will inadvertently traverse the fine line between legitimate efforts to elicit admissions and constitutionally impermissible compulsion. *Miranda* attempted to reconcile these opposing concerns by giving the *defendant* the power to exert some control over the course of the interrogation." (citation omitted)).

power away from the police shifts that power back to the individual. The App serves its own mediating influence to separate constitutional rights from police control.

Finally, as pure information, the *Miranda* App empowers citizens to exercise their constitutional rights. While somewhat naïve in the face of the reality of police interrogation practices, the Supreme Court has often emphasized the importance of free choice.[227] The Court's theory being that an informed citizen is a powerful citizen, one who can use constitutional rights to stand up to a powerful state. A *Miranda* App helps empower citizens by reminding (or teaching) them that their constitutional rights exist independent of and, fundamentally in opposition to, the government.

C. *"Understanding"*

If courts care that suspects actually understand their constitutional rights before invoking or waiving them, the *Miranda* practice must address how to encourage "understanding." A *Miranda* App designed to improve linguistic comprehension, inform about contextual realities, and educate about constitutional meaning attempts to take this principle seriously.

Justice Kennedy in *Thompkins* emphasized that "understanding" *Miranda* is the key to its effectiveness.[228] Justice Kennedy repeated the importance of *understanding* before waiver half a dozen times:

> "As a general proposition, the law can presume that an individual who, with a *full understanding* of his or her rights, acts in a manner inconsistent with their exercise has made a deliberate choice to relinquish the protection those rights afford."[229]
>
> "*Butler* made clear that a waiver of *Miranda* rights may be implied through 'the defendant's silence, *coupled with an understanding of his rights* and a course of conduct indicating waiver.'"[230]
>
> "If the State establishes that a *Miranda* warning was given and the accused made an uncoerced statement, this showing, standing alone, is insufficient to demonstrate 'a valid waiver' of *Miranda* rights. The prosecution must make the additional showing that the accused *understood* these rights."[231]

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[227] Oregon v. Elstad, 470 U.S. 298, 308 (1985) ("Once warned, the suspect is free to exercise his own volition in deciding whether or not to make a statement to the authorities.").

[228] Berghuis v. Thompkins, 560 U.S. 370, 384-85 (2010).

[229] *Id.* at 385 (emphasis added).

[230] *Id.* at 384 (emphasis added) (quoting North Carolina v. Butler, 441 U.S. 369, 373 (1979)).

[231] *Id.* (emphasis added) (citation omitted).

> "In sum, a suspect who has received and *understood* the *Miranda* warnings, and has not invoked his *Miranda* rights, waives the right to remain silent by making an uncoerced statement to the police."[232]

The *Thompkins* Court, however, failed to provide any mechanism to determine whether a suspect actually understood his or her rights. In fact, the Court just presumed constitutional understanding from a failure to signify otherwise.[233]

A *Miranda* App will carefully explain the rights and focus on making sure the language, meaning, and substance of the rights are adequately conveyed. Unlike the facts in *Thompkins*, where the Court assumed understanding, the *Miranda* App will be designed to provide a mechanism to prove "understanding." A prosecutor can build a record to show exactly what a suspect did, what information was provided, how she responded, and why this constitutes an informed waiver.[234]

To the Supreme Court, "understanding *Miranda*" matters because it protects free choice.[235] The Court has repeatedly linked understanding to a full and informed waiver.[236] In making such a linkage, the Court implicitly acknowledged the importance of a contextual understanding of *Miranda* rights. Theoretically, one could be satisfied with merely a "factual understanding" of *Miranda*. Once read, a suspect could say, "I heard the words, and understand that *Miranda* warnings exist." Alternatively, one could demand a contextual understanding of *Miranda*. Not only did one hear the words, but they also understood what those words meant in the context of the situation.[237] As Saul Kassin and his colleagues have explained in the context of juvenile waiver:

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[232] *Id*. at 388-89 (emphasis added).

[233] *See id.* at 385 ("[T]here is no contention that Thompkins did not understand his rights; and from this it follows that he knew what he gave up when he spoke.").

[234] It is interesting to note that the officers in *Thompkins* did have the suspect read the warnings out loud as a test of comprehension. *Id.* at 386. The *Miranda* App offers a more thorough and intentional variation on this police tactic.

[235] Cloud et al., supra note 71, at 498.

[236] *See, e.g.*, Connecticut v. Barrett, 479 U.S. 523, 528 (1987) ("The fundamental purpose of the Court's decision in *Miranda* was 'to assure that *the individual's right to choose* between speech and silence remains unfettered throughout the interrogation process.'" (quoting Miranda v. Arizona, 384 U.S. 436, 469 (1966))); Moran v. Burbine, 475 U.S. 412, 421 (1986) ("[W]aiver must have been made with a full awareness both of the nature of the right being abandoned and the consequences of the decision to abandon it."); Oregon v. Elstad, 470 U.S. 298, 308 (1985) ("Once warned, the suspect is free to exercise *his own volition* in deciding whether or not to make a statement to the authorities." (emphasis added)).

[237] Barry C. Feld, *Juveniles' Competence to Exercise* Miranda *Rights: An Empirical Study of Policy and Practice*, 91 MINN. L. REV. 26, 43 (2006) ("Although the *Miranda* process focuses primarily on factual understanding of the words of the warning, a waiver of rights also involves the ability to make rational decisions and to appreciate the consequences of relinquishing them. Simply understanding the abstract words of a *Miranda* warning may not enable a person to exercise the rights effectively." (footnote omitted)).

> [O]ne may factually understand that "I can have an attorney before and during questioning" yet not know what an attorney is or what role an attorney would play. Others may understand the attorney's role but disbelieve that it would apply in their own situation—as when youth cannot imagine that an adult would take their side against other adults, or when a person with paranoid tendencies believes that any attorney, even his own, would oppose him.[238]

Traditional *Miranda* practice adequately conveys a factual understanding, but largely fails to ensure a contextual understanding. Justice Kennedy's emphasis on "understanding" in *Thompkins* seems to acknowledge the importance of a contextual understanding. He writes that it is not enough for police to simply read the warnings, but "[t]he prosecution must make the additional showing that the accused *understood* these rights."[239] This second step requires more than a factual understanding, although does not settle exactly how much information needs to be provided or comprehended.

A *Miranda* App resolves the uncertainty by providing both a factual and contextual understanding. A *Miranda* App can ensure a real understanding of *Miranda* warnings and waiver at a far more sophisticated level than current practice. If utilized, a *Miranda* App would provide a strong argument against a defense challenge that the suspect did not understand his or her *Miranda* rights.

D. *"Clarity"*

A *Miranda* App will educate suspects with a clear, complete, and constitutionally approved explanation of Fifth Amendment rights. The language of the videos and warnings will be informed by Supreme Court cases and thus should survive constitutional challenge. Such an approach will avoid cases like *Powell* in which the Supreme Court had to bless admittedly imperfect *Miranda* warnings.[240] In addition, this approach will serve to simplify the almost 400 different variations of *Miranda* warnings used by jurisdictions across America.[241]

Clarity has always been important to the Supreme Court. In case after case, the Court held that the warnings must "clearly inform[]" the suspect.[242] The

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[238] Kassin et al., *supra* note 139, at 98.

[239] Berghuis v. Thompkins, 560 U.S. 370, 384 (2010) (emphasis added).

[240] Florida v. Powell, 559 U.S. 50, 60 (2010) ("The four warnings *Miranda* requires are invariable, but this Court has not dictated the words in which the essential information must be conveyed.").

[241] Rogers et al., *supra* note 75, at 126.

[242] Miranda v. Arizona, 384 U.S. 436, 471 (1966); *see also, e.g.*, Missouri v. Seibert, 542 U.S. 600, 622 (2004) ("*Miranda*'s clarity is one of its strengths . . . ."); Moran v. Burbine, 475 U.S. 412, 425 (1986) ("As we have stressed on numerous occasions, '[o]ne of the principal advantages' of *Miranda* is the ease and clarity of its application." (alteration in original) (quoting Berkemer v. McCarty, 468 U.S. 420, 430 (1984))).

suspect must unambiguously invoke the right to counsel.[243] The suspect must unambiguously invoke the right to silence.[244] As Justice Alito stated in his dissent in *J.D.B. v. North Carolina*,[245] "*Miranda*'s prophylactic regime places a high value on clarity and certainty."[246] And in *Moran v. Burbine*,[247] Justice Stevens wrote:

> [T]he interest in clarity that the *Miranda* decision was intended to serve is not merely for the benefit of the police. Rather, the decision was also, and primarily, intended to provide adequate guidance to the person in custody who is being asked to waive the protections afforded by the Constitution.[248]

A *Miranda* App, similarly, provides clarity to both suspects and police. If the purpose of *Miranda* warnings was to lay down "concrete constitutional guidelines for law enforcement agencies and courts to follow"[249] then a software program that structures those guidelines into computer code will be even more settled. Unlike the very human interview process that can change depending on the situation, the *Miranda* App will be fixed. Every suspect will receive similar instruction and similar information. If the "'core virtue' of *Miranda* has been the clarity and precision of its guidance to 'police and courts,'"[250] then such a regularized computer system strengthens that virtue even more. As stated, the *Miranda* App would provide a mechanism for a clear ("unambiguous invocation") of rights that is now required after *Davis*[251] and *Thompkins*[252] and would be designed to require a clear yes/no as to waiver prior to interrogation.

The *Miranda* App will also be easy to use.[253] Police will hand over the computer to the suspect. The suspect will follow the prompts and complete the process. All the information will be recorded. The police officers will not have to do anything else during the interrogation. But, perhaps even more enticingly, police will avoid future litigation about waiver or invocation. Today, police negotiate a minefield of potential traps about how they administer the warnings or how they obtain waiver. Because there are no set practices of how *Miranda*

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[243] Davis v. United States, 512 U.S. 452, 459 (1994).

[244] *Thompkins*, 560 U.S. at 382.

[245] 564 U.S. 261 (2011).

[246] *Id.* at 282 (Alito, J., dissenting).

[247] 475 U.S. 412 (1986).

[248] *Id.* at 461 (Stevens, J., dissenting).

[249] Miranda v. Arizona, 384 U.S. 436, 441-42 (1966).

[250] *J.D.B.*, 564 U.S. at 288 (Alito, J., dissenting) (quoting Withrow v. Williams, 507 U.S. 680, 694 (1993)).

[251] Davis v. United States, 512 U.S. 452, 459 (1994).

[252] Berghuis v. Thompkins, 560 U.S. 370, 382 (2010).

[253] *Cf.* Arizona v. Roberson, 486 U.S. 675, 680 (1988) ("As we have stressed on numerous occasions, 'one of the principal advantages' of *Miranda* is the ease and clarity of its application." (quoting Berkemer v. McCarty, 468 U.S. 420, 430 (1984))).

warnings should be given (just that they are given when believed to be legally necessary by police), each case presents its own potential litigation challenge.

Using the *Miranda* App, prosecutors can meet their burden to prove waiver.[254] The *Miranda* App will save time for prosecutors in litigating *Miranda* waiver after confession. Technology has provided for efficiencies in all manner of life. A *Miranda* App will similarly provide for a streamlined process of waiver or invocation. The plug-and-play nature of the App will allow police to simply start the App with the information collected without any further manual effort. For many routine arrests, this process will simplify booking, paperwork, and evidence collection. The technology will also streamline post-confession litigation as the trial courts will be presented with a transparent record of the warnings and decisions of the suspect. Lengthy pretrial hearings about *Miranda* will be short-circuited by a clear and well-established record of waiver or invocation.

E. *Data*

Despite fifty years of practice, and the increasingly routine use of electronically recording interrogations, experts still do not know what happens in most interrogation rooms.[255] A lack of data has been part of academic debate about *Miranda* for years.[256] A *Miranda* App will provide a new way to collect data.

Every *Miranda* interrogation potentially involves a useful data point in a larger dataset of national police practices. But, because of the nature of how *Miranda* interrogations traditionally occur—in relative secrecy with criminal cases attached—researchers see only a fraction of the problems in current *Miranda* practice. Usually, a problem arises from a criminal case involving a disputed constitutional issue. Occasionally, a researcher gains access to a set of interrogation videos or transcripts, or alternatively conducts a structured academic experiment.[257] But, generally, *Miranda* assessment is analyzed in

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[254] Maryland v. Shatzer, 559 U.S. 98, 104 (2010) ("To establish a valid waiver, the State must show that the waiver was knowing, intelligent, and voluntary under the 'high standar[d] of proof for the waiver of constitutional rights [set forth] in *Johnson v. Zerbst*, 304 U.S. 458 (1938).'" (alteration in original) (quoting *Miranda*, 384 U.S. at 475)).

[255] Ten years ago, Feld wrote, that "[a]lthough four decades have passed since the Supreme Court decided *Miranda v. Arizona*, remarkably little more observational empirical research exists now than did then about what actually occurs inside an interrogation room." Feld, *supra* note 237, at 28 (footnote omitted). While research has certainly been conducted over the past decade on *Miranda*, *see supra* note 67 and accompanying text, no large scale empirical study has changed the sense that more data on *Miranda* practices is needed.

[256] FELD, *supra* note 56, at 33; Richard A. Leo, *Inside the Interrogation Room*, 86 J. CRIM. L. & CRIMINOLOGY 266, 267 (1996) (acknowledging the dearth of empirical research from 1966 to 1996).

[257] *See* Feld, *supra* note 237, at 61 (describing one study in Ramsey County, Minnesota

isolation through a particular criminal case or episodically in jurisdictions where data is available. A *Miranda* App can help develop data relevant for both individual cases and provide a better picture of national practice.

One of the innovations behind digital education software is the ability to track progress at a granular level.[258] Every click or query can be evaluated. The time taken on different sections can be analyzed. For example, if a particular term of art in the *Miranda* script regularly confuses users, then that information can be captured and studied. If a particular question always requires more information or an inordinate amount of time to complete, that section could be flagged for more clarification. Currently, we do not know in any systemic way how suspects understand *Miranda*. Once widely accepted, the *Miranda* App can provide a national sample of how suspects understand *Miranda* and the legal terminology that underlies *Miranda*. Each *Miranda* moment will be cataloged, saved, and archived for study at some later time. Researchers may also someday design a report so that judges, lawyers, and others can get a sense of how this particular suspect scored on the App. This summary report will mirror existing expert reports on *Miranda* comprehension tests.

In creating this database of *Miranda* reports and raw information, the *Miranda* App will begin the process of developing national standards for best practices on *Miranda*. *Miranda* is a fragmented doctrine with an equally fragmented practice. The language of *Miranda* warnings varies in sophistication.[259] The habits of police officers vary by jurisdiction. While millions of *Miranda* colloquies have occurred, scholars have only studied a limited number of cases. Worse, police supervisors are not likely to know much about what happens inside the interrogation room. By switching to a national, data-collecting system, a new practice can develop around improving what works and what does not work in the existing *Miranda* warnings and waiver process. Similar to the impact of the original *Miranda* decision, this will help standardize and professionalize the process.[260]

"because of its proximity and the willingness of the Ramsey County Attorney and her prosecutorial staff to cooperate").

[258] David Streitfeld, *Teacher Knows if You've Done the E-Reading*, N.Y. TIMES, Apr. 9, 2013, at A1 (discussing textbooks that "know when students are skipping pages, failing to highlight significant passages, not bothering to take notes—or simply not opening the book at all").

[259] Ferguson, *supra* note 163, at 1450-51.

[260] Leo, *supra* note 49, at 670 ("*Miranda* has increased police professionalism by rendering interrogation practices more visible to and thus more subject to supervision and control by other actors within the criminal justice system—especially police managers, prosecutors, and judges.").

IV. CONCERNS AND RESPONSES

A modern "*Miranda* Machine" stirs up old debates and creates new problems that must be addressed. Many of the traditional critiques which have long dogged *Miranda* can also be leveled at a *Miranda* App. Questions of whether a *Miranda* App would disrupt police practice, whether it adds unnecessary prophylactic protections, or whether it might increase invocations (and thus decrease confessions) sound familiar echoes to longstanding criticisms of the *Miranda* doctrine.[261] But, new problems also arise, involving technological literacy, informational fatigue, validation, digital security, and legal interpretation. While not unfamiliar concepts to traditional *Miranda* warnings and waiver practice, they must be updated and addressed for a digital world. This section briefly examines both the traditional objections to a *Miranda* App, as well as newly arising problems that emerge from a digital medium.

A. *Traditional Objections*

The first traditional objection involves the age-old wisdom, "If it ain't broke, don't fix it." If police practice with *Miranda* works, why introduce something new—even if innovative—to an established routine? This idea obtains some constitutional grounding in Chief Justice Rehnquist's opinion in *Dickerson v. United States*[262] upholding the constitutionality of *Miranda* on the logic that "*Miranda* has become embedded in routine police practice to the point where the warnings have become part of our national culture."[263] Or, as Chief Justice Burger wrote, "The meaning of *Miranda* has become reasonably clear and law enforcement practices have adjusted to its strictures . . . ."[264] Why, alter something that has been successfully adapted to law enforcement needs?

This Article is born out of the observation that the current *Miranda* practice is, in fact, broken, in that it fails to reduce custodial pressure or adequately inform suspects of constitutional rights.[265] *Miranda* may work for the police, but not the suspects. Taking the Supreme Court at its word about the important role *Miranda* plays to reduce police coercion, the current practice needs an update. In attempting to reduce coercive pressure and increase understanding, the *Miranda* App amplifies the values of empowerment and education to strengthen the traditional process.

A related concern may be that the *Miranda* App might be too difficult to implement and, thus, cuts against principles of efficiency and established police practice. This argument can be quickly overcome by two rather simple points. First, in the vast majority of cases, using the *Miranda* App will be easier than

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[261] *See* Stephen J. Schulhofer, *Reconsidering* Miranda, *in* THE MIRANDA DEBATE, *supra* note 98, at 106, 115.

[262] 530 U.S. 428 (2000).

[263] *Id.* at 443.

[264] Rhode Island v. Innis, 446 U.S. 291, 304 (1980) (Burger, C.J., concurring in judgment).

[265] *See supra* Part I.

the traditional practice. A police officer merely needs to hand over the digital device and wait for the suspect to complete it. In terms of time and effort, it reduces the burden on police. From a systems perspective, the use of the *Miranda* App will also reduce pretrial hearings over coerced waivers and save detectives time in court. The data from the App will be standardized and routine, and thus readily analyzable. Second, in those cases in which use of the *Miranda* App is not practicable for some reason, it does not need to be used. The *Miranda* App is an option, not a mandate, and there may be certain cases or types of interviews or interrogations where the old-fashioned, traditional process may be more appropriate.

The biggest objection—and the most controversial—involves whether police actually want to improve *Miranda*'s limitations through this App. If the reduction of custodial pressure and increased constitutional understanding increases invocation and thus decreases confessions, then why would a police department adopt such a tool? This question reveals the true tension in *Miranda*.[266] If police reject the *Miranda* App because they fear that an accurate and thorough explanation of the *Miranda* warnings will cause suspects to invoke their rights, and thus prefer to follow traditional practices that minimize or undermine constitutional understanding, then police should publicly admit that decision. Offering the *Miranda* App provides a clear choice, and if police choose less constitutional understanding, then police should also defend that choice. Interrogating detectives could be asked in court why they chose to follow a traditional *Miranda* routine, rather than the new (and hopefully more informative) alternative. There may very well be good reasons for the choice in individual cases, but the choice should be addressed.

An honest evaluation of *Miranda* (after fifty years) has to ask whether the doctrine's continued acceptance by law enforcement, in part, results from its impotence in addressing the core concerns of custodial interrogation. If the honest reason for acceptance is that *Miranda* does not work, then that reality should spur change and innovation, not continued acceptance of a failed practice. Police, judges, and lawyers sworn to uphold the Constitution should not be comfortable with an interrogation practice that undermines Fifth Amendment protections.

The tension may also be overstated. Because the *Miranda* App has never been used, we do not know if it will increase invocations. Fear of the impact of the original *Miranda* decision proved largely unfounded.[267] Seventy-eight to ninety-

[266] *See* Richard A. Leo, *From Coercion to Deception: The Changing Nature of Police Interrogation in America*, *in* THE MIRANDA DEBATE, *supra* note 98, at 65, 67 (suggesting that police departments implement *Miranda* begrudgingly by stating that investigators deliver *Miranda* warnings "less than enthusiastically" or "very consciously recite the warnings in a trivializing manner so as to maximize the likelihood of eliciting a waiver").

[267] Stephen J. Schulhofer, Miranda*'s Practical Effect: Substantial Benefits and Vanishingly Small Social Costs*, 90 NW. U. L. REV. 500, 501 (1996) ("[T]he *Miranda*

six percent of suspects still waive *Miranda*.[268] Further, the goal of the *Miranda* App is not to discourage confessions or encourage invocations, but to inform, and the design will intentionally try to maintain an impartial and fair discussion of rights and options. It may well be the case that after understanding the various options, suspects choose to speak with police as they have done in the past.[269] The *Miranda* App would not be giving legal advice as a criminal defense lawyer might, nor would it be offering encouragement to speak like a police detective might. The *Miranda* App would simply provide constitutional information without editorializing or influencing a response. In fact, police departments or police affiliated groups could design their own *Miranda* App consistent with the principles of this Article.

While we cannot know the effect of our proposal, at least the *Miranda* App will provide data to evaluate its impact. As discussed before, the debate over *Miranda* has been clouded by a lack of sufficient data about how *Miranda* warnings impact invocation.[270] Because of the fragmented nature of police practice, and the lack of data recording mechanisms, researchers largely speculate about *Miranda*'s impact. A *Miranda* App, because it will be digitized and uniform, will allow much better analysis about how it positively or negatively impacts the interrogation process.

B. *Technological Objections*

While new technological solutions offer innovation and improvement, technology can also be disempowering, confusing, and impersonal. Adding a technological challenge to the already stressful situation of police interrogation may, for certain people, undermine the learning process and create distance or uncertainty. A *Miranda* App must confront technological objections directly and be designed to address them.

1. Technological Literacy

A *Miranda* App theoretically would be available to all suspects. As criminal suspects range in age from teenagers to senior citizens, and from the highly educated to the barely educated, the level of technological literacy will vary accordingly. Some suspects may not feel comfortable learning through a computer screen and may lack the basic computer skills to scroll through a self-

safeguards do not pose any serious impediment to effective law enforcement."); *see also* Floyd Feeney, *Police Clearances: A Poor Way to Measure the Impact of* Miranda *on the Police*, 32 RUTGERS L.J. 1, 4-5 (2000) (debunking the theory that *Miranda* caused clearance rates to fall).

[268] *See* Leo, *supra* note 98, at 275.

[269] Saul M. Kassin et al., *Police Interviewing and Interrogation: A Self-Report Survey of Police Practices and Beliefs*, 31 LAW & HUM. BEHAV. 381, 383 (2007); Alan C. Michaels, *Rights Knowledge: Values and Tradeoffs*, 39 TEX. TECH L. REV. 1355, 1364-65 (2007).

[270] *See* FELD, *supra* note 56, at 33 ("[W]e know remarkably little about what happens when police question suspects . . . .").

paced educational lesson. Some suspects may be comfortable with the technology, but become confused about the material because of the digital or video format. Confusion over the methods used to convey the information runs the risk of distorting the substance of the warnings.

To imagine a worst-case scenario, consider a suspect who has spent the past decades incarcerated without access to new technological developments such as touch screens, interactive learning programs, or even tablet computers. Brought to the police station and expecting the traditional *Miranda* colloquy, instead he is handed an iPad or tablet and told to complete the program. One can imagine that the experience would be both completely disempowering and confusing. The suspect may spend so much time trying to sort through the computer program that she fails to focus on the information being provided. The data collection measures that collect information about confusion, time to complete the program, etc., would register delay and problems. Yet, the source of that confusion may not be the substance of *Miranda*, but the digital delivery mechanism of the App.

Similarly, vulnerable suspects—for example, the intellectually disabled, mentally ill, juveniles, or others with health impairments—may become overwhelmed with the digital interface and thus be unable to appreciate the information. Interactive videos, hyperlinks, and testing will all present additional barriers for comprehension. While the current *Miranda* process does a poor job of ensuring that vulnerable suspects understand the *Miranda* warnings,[271] at least the confusion centers on the substance, not the delivery mechanism. A *Miranda* App could, in fact, increase comprehension problems if designed poorly.

Three arguments respond to this legitimate criticism of the *Miranda* App. First, the *Miranda* App would be a choice, not a requirement. For particular suspects who are uncomfortable with technology or disabled in some manner, the traditional *Miranda* process would always be available. In fact, if a suspect should become confused, or need human explanation, or wish to opt out of the *Miranda* App completely, she can always request human police assistance and proceed in the traditional manner. Second, more and more people are becoming comfortable with this type of learning medium. Four year-olds can now scroll through an iPad and complete educational games without much assistance.[272] Elementary schools incorporate digital media classes and teach basic computer skills as part of the formal curriculum.[273] Almost three-quarters of Americans

[271] *See supra* Part I.

[272] Interview with Alexa Ann Ferguson, in Washington, D.C. (Oct. 3, 2016) ("Daddy, leave me alone, I can do this game myself.").

[273] *See, e.g.*, Kate Hayden, *Learning by Screenlight in the 21st Century*, CHARLES CITY PRESS (Dec. 9, 2015), http://www.charlescitypress.com/site/epopulate/2015/12/09/learning-by-screenlight-in-the-21st-century/ [https://perma.cc/P2AC-JVPY] (discussing a digital citizenship curriculum for elementary schools); Andy Smith, *URI's Renee Hobbs Champions*

own a smartphone with digital learning capabilities.[274] Almost ninety percent of Americans use the Internet.[275] This comfort with digital information and learning will only increase over time. Third, while technology may compound confusion for vulnerable suspects, it may also flag that confusion for further investigation. In the traditional practice, vulnerable suspects can mask confusion or ignorance without much awareness from interrogating officers. Despite documented developmental disabilities or mental illness, in many confession cases, the interrogating police officers failed to see the suspect's comprehension issues.[276] With a *Miranda* App, the suspect's struggle to use the technology will create a signal that perhaps something is amiss with the suspect's ability to process the relevant information. While not determinative, it might cause police to redouble their efforts to ensure that the suspect does understand the issues or to investigate the developmental barriers at issue.

As a final point, the design elements of the *Miranda* App will need to be conscious of the potential off-putting nature of technology. Technology can be distancing, but it can also be immersive. Designing the program with a sensitivity to creating a welcoming environment will be key to the App's success.

2. Digital Fatigue

On the opposite side of the technological spectrum, some sophisticated digital users may be so accustomed to digital prompts and virtual agreements that they ignore the serious nature of the process. Almost everyone with a smartphone or computer routinely clicks "agree" to online terms of service which they have not read.[277] User agreements regularly involve contracts in which the agreeing party agrees with no actual knowledge of the agreement.[278] Online training programs

Digital Literacy, PROVIDENCE J. (Nov. 23, 2013), http://www.providencejournal.com/topics/special-reports/ewave/content/20131123-uris-renee-hobbs-champions-digital-literacy.ece [https://perma.cc/FZY8-S3PM] (describing the introduction of digital literacy in Rhode Island schools); Andrew Wyrich, *In Emerson, an Early Lesson in "Digital Citizenship" and Online Presence*, N. JERSEY (Feb. 16, 2015), http://archive.northjersey.com/news/education/lessons-in-online-citizenship-begin-early-1.1272258?page=all [https://perma.cc/L8VG-6JMB].

[274] JACOB POUSHTER, PEW RESEARCH CTR., SMARTPHONE OWNERSHIP AND INTERNET USAGE CONTINUES TO CLIMB IN EMERGING ECONOMIES: BUT ADVANCED ECONOMIES STILL HAVE HIGHER RATES OF TECHNOLOGY USE 3 (2016).

[275] *Id*. at 11.

[276] *See* Ferguson, *supra* note 163, at 1461.

[277] *See generally* Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, *Does Anyone Read the Fine Print? Consumer Attention to Standard Form Contracts*, 43 J. LEGAL STUD. 1 (2014).

[278] Amy Kristin Sanders & Patrick C. File, *Giving Users a Plain Deal: Contract-Related Media Liability for Unmasking Anonymous Commenters*, 16 COMM. L. & POL'Y 197, 205-06 (2011) ("Despite the adhesive nature of these contracts, many courts have ruled that clickwrap

required for employment often can be completed without full understanding. Many of our digital tests can be passed with minimal understanding and less than serious consideration. We have learned not to resist a "clickwrap" culture. This can be especially troubling in the case of vulnerable suspects who do not understand the substance or cannot process the volume of information required to agree or disagree with the terms of service. But, it also negatively impacts sophisticated parties inured to the meaning of these digital agreements.

Digital fatigue—here, meaning not having the energy or capacity to engage an overload of digital information—can be combated by two design elements. First, the *Miranda* App should signal to the user the importance of the *Miranda* moment. This can be done in the introduction or the first few minutes. While many digitally savvy users have become largely dismissive of online tests or programs, this particular one does have life-changing consequences. As such, even jaded technology users may pay attention if so instructed in clear enough language. Second, for vulnerable suspects, the system will need to be designed to catch individuals just trying to pass through the program without understanding the process. Design elements that require consistent answers, answers in one's own words, or force suspects to confirm their understanding may assist in catching those suspects who are simply pretending to understand.

3. Validation

A *Miranda* App should be tested by social scientists interested in *Miranda* comprehension. Just as academic researchers have tested *Miranda* comprehension on prisoners, college students, and volunteers, so should a *Miranda* App be tested for validation. Once designed, testing a *Miranda* App should not be difficult. All that is needed is a source of representative volunteers. But testing should be required to ensure that the message, medium, and mechanisms of data collection work as designed. Obviously, a *Miranda* App could be rolled out for real world use, and the testing could take place with real suspects, with the data collected and analyzed as appropriate. However, the better course would be to test, validate, and perhaps edit or correct the design in a laboratory setting before offering it to detectives involved in active criminal investigations.

While time-consuming on the front end, this validation and testing process will help with large-scale adoption. Policing is a tradition-bound and rule-oriented profession. Confessions will be litigated by zealous defense lawyers. So, all new technology used in criminal cases will need to withstand legal challenge. For this reason, ensuring through rigorous testing that the *Miranda* App works to educate suspects will also allow the program to withstand these types of legal attacks. Only after police, defense lawyers, prosecutors, and courts

and other online user agreements are contractually enforceable, analogizing the user's clicking on 'I agree' to the traditional signing on the dotted line. In essence, these courts view the click as manifesting an objective intent to contract.").

all accept the value of the program will it become a routine part of interrogation practice.

4. Legal Interpretation

A related challenge involves how the technology will be interpreted in court. The goal in creating a well-designed, validated, and helpful *Miranda* App would be to avoid costly litigation about the adequacy of *Miranda* waivers. The traditional practice of litigating a detective's distortion of *Miranda* or a suspect's inability to comprehend *Miranda* or some other deficiency involves significant time and expense. A *Miranda* App would provide a default mechanism to avoid the case-by-case evaluation of the adequacy of warning and waiver. If a suspect used the *Miranda* App and successfully went through the program, courts could create a presumption of understanding that would satisfy the constitutional threshold.

Despite the presumption, there will be cases when the *Miranda* App is challenged in court. Here, the technology's advantage to resolve disputes about a suspect's understanding will become evident. In the traditional practice, the *Miranda* hearing usually involves a police detective explaining that he provided the *Miranda* warnings as required and that the suspect appeared to understand them. In opposition, the defense (either through the suspect or an expert) will assert that while the rights were given, they were not adequately understood. Then, a judge, based on a battle of experts, will be required to address the waiver issue. Because neither the detective nor the suspect would have been concerned with creating a detailed record of the suspect's understanding during the interrogation, most of the judge's determinations would necessarily be inferred from testimony, expert reports, or observation (in the case of videotaped confessions). The judge will be relying on a record created after the fact, and sometimes months or years after the fact of the interrogation.

In contrast, with a *Miranda* App a record of how the suspect processed the information would have been developed at the time it happened. Information about confusion, clarification, or misunderstandings of language, context, or concepts would be apparent in the data. Granular clues about comprehension problems would be documented. Experts could study the real-time experience of a suspect, rather than trying to recreate it after the fact. While still requiring some court time to litigate, the areas of contention would be cabined, and the record more clearly established. This would reduce cost and time, and while not a complete escape from pretrial litigation, it would offer judges a better factual record from which to decide cases.

5. Security

The *Miranda* App, because it will include protected personal information, will need to be designed conscious of security and privacy concerns.[279] Personal information will need to be encrypted, secured, and retained. The video stream of the individual using the App will need to be kept private. The data will need to be secured from external interference.[280] After the fact, police should not be able to get unrestricted access to the material in the App that will become the subject of the criminal case.[281] Data files that will accompany criminal prosecutions will need to be tracked and collected for prosecutors and defense lawyers to use in court.[282]

Use of a *Miranda* App across jurisdictions will require local and national collection systems to be created to securely store the data. With millions of interrogations and millions of *Miranda* waivers, these collection points will require their own security systems and protocols. Difficult questions will emerge about retention policies, as criminal cases can take many years to come to completion. In addition, cost issues will arise as the storage of this data will be expensive and hard to manage. Especially, if this information will eventually be made available to researchers to study *Miranda*, a system must be created to anonymize the personal data. As a technical challenge, the *Miranda* App will need to both be able to identify individual suspects using unique identifiers and also be able anonymize the data for research purposes. The *Miranda* App will, thus, need local and national systems in place to ensure the integrity of the data useful for court as well as mechanisms to save and search the data for later academic use.

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[279] *See* Woodrow Hartzog & Frederic Stutzman, *Obscurity by Design*, 88 WASH. L. REV. 385, 387-88 (2013) (discussing privacy by design through "back end" concerns, "such as data security through encryption, data minimization techniques, anonymity, and structural protection though organizational prioritization of privacy" and "front end" concerns "such as privacy settings, search visibility, password protections, and the ability to use pseudonyms").

[280] Measures to protect data security will need to be implemented to mirror existing protections of other police data. *See, e.g.*, Robert Abel, *NYPD Officer Arrested for Hacking FBI Databases*, SC MAG. (Mar. 19, 2015), http://www.scmagazine.com/nypd-officer-hacked-databases-to-get-info-on-accident-victims/article/404250/ [https://perma.cc/45UL-ACE6] (describing a police officer who was arrested for hacking into a police computer to obtain information about individuals); Paul Suarez, *AntiSec Hackers Steal, Post Police Data*, PCWORLD (Aug. 6, 2011, 1:31 PM), http://www.pcworld.com/article/237459/antisec_hackers_steal_post_police_data.html [https://perma.cc/X9ZS-7D25] (describing hackers' theft and release of data from police agencies).

[281] Access should likely be controlled by the prosecutor's office handing the criminal case.

[282] Suspect-relevant information will need to be provided to defense counsel in any case in which the *Miranda* App is used and a resulting confession is obtained.

CONCLUSION

The essays in this Symposium issue cover many themes, including: reflections on the pre-history, history, and evolution of *Miranda* doctrine;[283] the real and alleged failures of *Miranda* in theory and practice;[284] and the possibility of achieving *Miranda*'s original promise, both in the United States as well as abroad,[285] through future tinkering and reform.[286] These articles have also analyzed *Miranda* as part of a more systemic and contextual understanding of constitutional criminal procedure in the American adversarial system.[287]

Our call for a *Miranda* App fits with many of these themes and concerns. As many scholars have argued, lamented, and documented over the years, *Miranda* has largely failed in the last five decades to achieve its core mission of reducing custodial pressure and compulsion while eliciting genuinely voluntary and knowing consent to police interrogation.[288] One way of telling the history of *Miranda* is through an analysis of the evolution of its various component parts—custody, interrogation, the warning and waiver ritual, invocation, voluntariness, constitutional understanding, and *Miranda*'s many exceptions—which we have done in these pages. Yet, we seek in this Article not to mourn *Miranda*'s failures so much as to find a new way to achieve *Miranda*'s core values and concerns as

[283] Kamisar, *supra* note 12, at 1302-07; George C. Thomas III, Miranda*'s Spider Web*, 97 B.U. L. REV. 1215, 1215-17 (2017); Tracey Maclin, *The Prophylactic Fifth Amendment*, 97 B.U. L. REV. 1047, 1049-51 (2017); *see also* Maclin, *supra* note 225, at 1397-1405.

[284] Alschuler, *supra* note 12, at 849-50; Paul Cassell & Richard Fowles, *Still Handcuffing the Cops?: A Review of Fifty Years of Empirical Evidence of* Miranda*'s Harmful Effects on Law Enforcement*, 97 B.U. L. REV. 685, 689 (2017). *But see* Feeney, *supra* note 267, at 4-5.

[285] Charles D. Weisselberg, *Exporting and Importing* Miranda, 97 B.U. L. REV. 1235, 1237-39 (2017).

[286] David Rossman, *Resurrecting* Miranda*'s Right to Counsel*, 97 B.U. L. REV. 1129, 1136 (2017).

[287] Carol S. Steiker, *Two Cheers for* Miranda, 97 B.U. L. REV. 1197, 1197-98 (2017); Susan R. Klein, *Transparency and Truth During Custodial Interrogations and Beyond*, 97 B.U. L. REV. 993, 997-1002 (2017).

[288] WHITE, *supra* note 99, at 8-9 (arguing that "the protections provided by the *Miranda* warnings have often been illusory" because police lie about their interactions with suspects, "interfere[] with suspects' autonomy," and obtain false confessions); Alschuler, *supra* note 12, at 879-90 (arguing that *Miranda* changed little about interrogation because it barely reduced the confession rate, whereas it should have decreased if police used unfair tactics before *Miranda* but not afterward); Leo, *supra* note 48, at 1001 (arguing that "*Miranda* has had a very limited impact (positive or negative) on the criminal justice system in the last two decades"); Smalarz, Scherr & Kassin, *supra* note 129, at 455; George C. Thomas III, Miranda*'s Illusion: Telling Stories in the Police Interrogation Room*, 81 TEX. L. REV. 1091, 1092 (2003) (reviewing WHITE, *supra* note 99) (arguing that "*Miranda* has been a spectacular failure" because most suspects waive their rights, courts rarely question whether police used coercive tactics, and many suspects still give false confessions); Weisselberg, *supra* note 36, at 1590 (arguing that the assumptions that suspects understand warnings and cannot exercise free will in interrogations "do not fare well" under post-*Miranda* practices).

articulated in the original *Miranda* opinion and also in recent progeny. In removing arguably the core problem with *Miranda* in practice—police control over the administration of *Miranda* warnings and the elicitation of *Miranda* waivers and non-waivers—we can improve the practice of *Miranda* by bringing it into the digital age.

Our approach to *Miranda* in this Article is a conservative one. We seek to preserve—rather than to expand or cut back on—*Miranda*'s core constitutional principles and values. Our position also reflects a compromise. Our advocacy for a *Miranda* App is neither pro-defendant nor pro-prosecution. The purpose of a *Miranda* App is not to increase or decrease *Miranda* waivers or invocations; nor is it to increase or decrease confession or conviction rates. The purpose of a *Miranda* App is to improve constitutional practice, process, understanding, and fairness. We take no position on whether the *Miranda* App should advance law enforcement goals. We suspect that, like *Miranda* itself, American police will successfully adapt to the use of the *Miranda* App and benefit, at the very least, from the greater legitimacy it will confer on their interrogation practices and the confession statements they obtain.

While our recommendation of a *Miranda* App offers a substantial improvement over existing practices, it is far from perfect. Even with the adoption of a *Miranda* App, there will still be much to learn, as well as to improve in successive iterations of a *Miranda* App prototype. We believe that the best way to achieve the full potential of a *Miranda* App would be to invite a future project of design, which would include not only technology engineers, designers, and experts, but also police, prosecutors, public defenders, former defendants, and law professors. Given the seemingly limitless advances of technology in almost every aspect of American life in the last decade, it now seems inevitable that *Miranda*'s future years will be influenced, at least to some extent, by technologies like the *Miranda* App that this Article proposes. This new technology offers a way forward out of the current *Miranda* morass that was not thinkable even a mere ten years ago—a way forward that will hopefully allow us to create and implement a better version of *Miranda* for the next fifty years.