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Decoding the “Testimonial” Tug of War: When a Cellphone Search Warrant and a Showing of Substantial Need and Undue Hardship Justify Cellphone Passcode Compulsion

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COMMENT

Decoding the “Testimonial” Tug of War: When a Cellphone Search Warrant and a Showing of Substantial Need and Undue Hardship Justify Cellphone Passcode Compulsion

*Zara. S. Mason**

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I. INTRODUCTION

On July 20, 2014, a teenager from North Conway, New Hampshire walked back into her family’s home after being kidnapped nine months earlier.¹

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¹ Aliya Sternstein, *Hunting for Evidence, Secret Service unlocks phone data with force or finesse*, THE CHRISTIAN SCI. MONITOR (Feb. 2, 2017), <https://www.csmonitor.com/World/Passcode/2017/0202/Hunting-for-evidence-Secret-Service-unlocks-phone-data-with-force-or-finesse>.

After arresting a suspect for the kidnapping, law enforcement applied for, and a court granted, a search warrant for the suspect's home.² During the search, law enforcement seized several cellphones.³ Of the cellphones⁴ seized, one was a passcode-protected cellphone that law enforcement could not unlock.⁵ The New Hampshire State Police did not have access to advanced computer programs capable of unlocking passcode-protected cellphones and sought assistance from the Secret Service, which has become a valuable resource for helping state and local law enforcement extract data from passcode-protected cellphones.⁶ Information on the cellphone contained a "huge piece of evidence" and likely influenced the suspect's decision to enter a guilty plea for kidnapping, rape, and other charges.⁷ Without the help of the Secret Service, the New Hampshire State Police may not have obtained this important evidence, and this crime may have gone unpunished.⁸

In this example, justice was served, but that is not always the outcome.⁹ Today, longer and more complex passcodes are making it difficult for state and federal law enforcement agencies to execute search warrants for passcode-protected cellphones.¹⁰ From October 2015 to March 2016, the Federal Bureau of Investigation (FBI) seized over 3,000 cellphones, approximately 30% of which were passcode-protected.¹¹ The FBI was unable to unlock 13% of those passcode-protected cellphones.¹² Considering that the FBI has access to some of the most advanced computer programs capable of unlocking passcode-protected cellphones, this figure is high.¹³ This difficulty impacts state and local law enforcement agencies in particular because they do not have access to the same advanced computer programs as federal agencies.¹⁴ For example, between September 2014 and October 2015, the Manhattan District Attorney's Office was "unable to execute approximately 111 search warrants for smartphones" in

² *Id.*

³ *Id.*

⁴ All cellphones referred to in this Comment are to be considered smartphones.

⁵ Sternstein, *supra* note 1.

⁶ *Id.*

⁷ *Id.*

⁸ *See id.*

⁹ *See infra* note 15 and accompanying text.

¹⁰ Erin Kelly, *FBI can't unlock 13% of password-protected phones it seized, official says*, USA TODAY (Apr. 19, 2016, 1:56 PM), <https://www.usatoday.com/story/news/politics/2016/04/19/fbi-cant-unlock-13-password-protected-phones-seized-official-says/83224860/>.

¹¹ *Id.*

¹² *Id.*

¹³ *See* Sternstein, *supra* note 1.

¹⁴ *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *3 (Me. Oct. 27, 2015).

cases involving incidents of “homicide, attempted murder, sexual abuse of a child, sex trafficking, assault, and robbery.”¹⁵

In response to this problem, prosecutors around the country have filed motions to compel individuals to produce the passcodes to their cellphones pursuant to valid search warrants.¹⁶ These motions have been met with varying degrees of success.¹⁷ Reasons for these diverse results include: application of the All Writs Act,¹⁸ particularized definitions of “testimonial” sufficient to invoke the Fifth Amendment right against self-incrimination, different opinions about whether the foregone conclusion doctrine exception to the right against self-incrimination applies to this type of motion,¹⁹ and varying standards used to assess whether the requirements of the foregone conclusion doctrine have been met.²⁰

The overriding concern with this type of motion is that it has the potential to violate an individual’s Fifth Amendment right against self-incrimination by compelling him to provide “testimonial” information. This comment specifically focuses on the different ways courts have defined a testimonial communication

¹⁵ MANHATTAN DIST. ATT’Y’S OFFICE, REPORT ON SMARTPHONE ENCRYPTION AND PUBLIC SAFETY 9 (2015). Search warrants were nonexecutable because the cellphones were running iOS 8. *Id.* at 2. Apple could no longer comply with unlock orders because the iOS 8 operating system prevents Apple from accessing data on the cellphone unless it has the user’s passcode. *Id.*

¹⁶ See *Commonwealth v. Davis*, 176 A.3d 869, 870 (Pa. Super. Ct. 2017); see also *State v. Stahl*, 206 So. 3d 124, 128 (Fla. Dist. Ct. App. 2016); *Trant*, 2015 Me. Super. LEXIS 272, at *2.

¹⁷ Compare *Stahl*, 206 So. 3d at 137 (granting the prosecution’s motion to compel production of the defendant’s cellphone passcode), and *Davis*, 176 A.3d at 876 (affirming an order granting the prosecution’s motion to compel production of the defendant’s cellphone passcode), with *Commonwealth v. Baust*, 89 Va. Cir. 267, 271 (Cir. Ct. 2014) (denying the prosecution’s motion to compel production of the defendant’s cellphone passcode), and *Trant*, 2015 Me. Super. LEXIS 272, at *11 (denying the prosecution’s motion to compel production of the defendant’s cellphone passcode).

¹⁸ All Writs Act, 28 U.S.C. § 1651(a) (1949) (“The Supreme Court and all courts established by Act of Congress may issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law.”); see *In re Apple, Inc.*, 149 F. Supp. 3d 341, 351 (E.D.N.Y. 2016) (finding the government’s argument that the All Writs Act empowers the court to circumvent a cellphones security device to satisfy only two of the three statutory elements and denying the relief sought); *Stahl*, 206 So. 3d at 136–37 (finding that the trial court erred in denying the prosecution’s motion to compel production of the passcode because of an incomplete analysis).

¹⁹ *Sec. & Exch. Comm’n v. Huang*, No. 15-269, 2015 WL 5611644, at *2 (E.D. Pa. Sept. 23, 2015) (finding that a work-issued smartphone passcode is a testimonial communication because it would require the defendant to divulge the contents of his mind); *Commonwealth v. Gelfgatt*, 11 N.E.3d 605 (Mass. 2014) (finding that a password to a laptop to be a “foregone conclusion” and therefore not deserving of protection under the right against self-incrimination because the password did not add any information to what the government already knew).

²⁰ *Trant*, 2015 Me. Super. LEXIS 272, at *11 (finding that the State lacks preexisting knowledge sufficient for the foregone conclusion doctrine to apply); *In re Grand Jury Subpoena Duces Tecum* dated March 25, 2011, 670 F.3d 1335, 1344 (11th Cir. 2012) (“Where the location, existence, and authenticity of the purported evidence is known with *reasonable particularity*, the contents of the individual’s mind are not used against him, and therefore no Fifth Amendment protection is available.”) (emphasis added).

when faced with such motions.²¹ Currently, a slight majority of courts faced with these motions have concluded that disclosure of this information constitutes a testimonial communication protected by the Fifth Amendment right against self-incrimination.²² This comment writes in favor of the minority perspective, that compulsion to disclose a cellphone passcode is “non-testimonial” and does not violate the Fifth Amendment of the United States Constitution.²³ The comment asserts three reasons why an individual should be compelled to provide his cellphone passcode when law enforcement has a valid search warrant.²⁴ First, disclosing a cellphone passcode is not a testimonial communication and, therefore, not covered by the Fifth Amendment right against self-incrimination.²⁵ Second, even if disclosing a cellphone passcode is a testimonial communication, an individual should be compelled to disclose his passcode because this type of information falls under an exception to the Fifth Amendment right against self-incrimination known as the foregone conclusion doctrine.²⁶ Finally, because only one of the well-documented purposes of the Fifth Amendment—achieving a balanced relationship between the people of the United States and the government—is applicable in this type of case, an individual should be compelled to provide his cellphone passcode when law enforcement has a valid cellphone search warrant.²⁷

There is currently no overarching federal guidance on this issue.²⁸ As it stands, numerous definitions of “testimonial” are circulating throughout state case law, giving state courts the ability to select whatever definition they want in order to fashion the desired result.²⁹ The ability to pick and choose from this collection of definitions is effectively resulting in the disclosure of cellphone passcodes being categorized as a testimonial communication in some jurisdictions and a non-testimonial communication in others.³⁰ Because all numerical cellphone passcodes by their nature are fundamentally the same—a combination of numbers—there

²¹ See *infra* notes 166–89 and accompanying text.

²² See *Huang*, 2015 WL 5611644, at *4; *Trant*, 2015 Me. Super. LEXIS 272, at *11; *Baust*, 89 Va. Cir. at 271; see also *United States v. Kirschner*, 823 F. Supp. 2d 665, 669 (E.D. Mich. 2010) (finding that the government’s post-indictment grand jury subpoena ordering defendant to provide all passwords associated with his computer in order to secure evidence of child pornography allegedly contained in the computer required defendant to make a “testimonial communication.”).

²³ See *infra* notes 195–99 and accompanying text. Furthermore, this Comment does not contemplate whether the act of creating a cellphone passcode is testimonial. Rather this Comment contemplates whether disclosure of a cellphone passcode is a testimonial communication.

²⁴ See *infra* notes 195–268 and accompanying text.

²⁵ See *infra* notes 195–233 and accompanying text.

²⁶ See *infra* notes 236–51 and accompanying text.

²⁷ See *infra* notes 253–68 and accompanying text.

²⁸ See Adam Clark Estes, *Let’s Take This iPhone Case All the Way to the Supreme Court*, GIZMODO (June 1, 2017, 11:51 AM), <https://gizmodo.com/can-we-please-make-a-decision-on-police-unlocking-iphon-1795721375>.

²⁹ See *infra* notes 166–89 and accompanying text.

³⁰ See *supra* note 17 and accompanying text.

is no logical way to explain how the disclosure of cellphone passcodes could be treated as “testimonial” in some jurisdictions, but not others.³¹ Therefore, to ensure fairness across all jurisdictions, the last section of Part III recommends a standard that should be uniformly imposed when determining whether an individual should be compelled to provide his cellphone passcode.³² In order to lay the foundational framework for these arguments, this comment begins by discussing the various ways courts have defined a testimonial communication and demonstrates how cases have reached different results because of these contrasting definitions.³³

II. BACKGROUND

The Fifth Amendment provides that “[n]o person . . . shall be compelled in any criminal case to be a witness against himself[.]”³⁴ This provision of the Fifth Amendment, known as the right against self-incrimination, is “implicated only when there is compulsion of an incriminating testimonial communication.”³⁵ On the surface, the Fifth Amendment right against self-incrimination and its application might appear straightforward; however, the term “testimonial” has never been clearly defined, and courts have interpreted its meaning differently.³⁶ Whichever interpretation a court relies on determines whether it will compel an individual to disclose his cellphone passcode.³⁷

A. Definitions of “Testimonial” That Lead Courts to Conclude a Cellphone Passcode Is a Testimonial Communication

A slight majority of courts faced with motions to compel production of a cellphone passcode have concluded that this information constitutes a testimonial communication protected by the Fifth Amendment right against

³¹ See Chris Gayomali, *The 10 Most Popular iPhone Passwords, Starring ‘1234’*, TIME (June 13, 2011), <http://techland.time.com/2011/06/13/the-10-most-popular-iphone-passwords-starring-1234/>.

³² See *infra* notes 271–81 and accompanying text. This standard is proposed specifically with respect to cellphone passcodes because this information is frequently unobtainable through cellphone manufacturers, whereas other numerical passcodes such as pin numbers may be procured through a subpoena. Kristen M. Jacobsen, *Game of Phones, Data Isn’t Coming: Modern Mobile Operating System Encryption and Its Chilling Effect on Law Enforcement*, 85 GEO. WASH. L. REV. 566, 574 n. 42 (2017).

³³ See *infra* notes 34–152 and accompanying text.

³⁴ U.S. CONST. amend. V.

³⁵ *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *4 (Me. Oct. 27, 2015) (citing *United States v. Doe (In re Grand Jury Subpoena Duces Tecum)*, 670 F.3d 1335, 1341 (11th Cir. 2012)).

³⁶ Ronald J. Allen & M. Kristin Mace, *Criminal Law: The Self-Incrimination Clause Explained and Its Future Predicted*, 94 J. CRIM. L. & CRIMINOLOGY 243, 245 (2004).

³⁷ See *infra* notes 70–99 and accompanying text.

self-incrimination and therefore denied such motions.³⁸ Although these courts reach the same conclusion, they do so by employing different definitions of “testimonial.”³⁹ Definitions leading to this conclusion are broad and cover a wide range of content—from any communication, knowledge, the contents of one’s mind, or one’s mental or thought processes—and embrace the philosophy that even the most trivial communication should be considered “testimonial.”⁴⁰

In cases that deal with physical evidence such as blood, voice exemplars, and handwriting exemplars, courts typically cite *Schmerber v. California* to distinguish such physical evidence from a testimonial communication.⁴¹ *Schmerber* said: “[T]he distinction to be drawn under the Fifth Amendment privilege against self-incrimination is one between an accused’s communications in whatever form, vocal or physical, and compulsion which makes a suspect or accused the source of real or physical evidence[.]”⁴² This definition affords sweeping protection under the Fifth Amendment because it requires nothing more than communication to invoke the privilege.⁴³

Non-testimonial physical evidence has also been distinguished from a testimonial communication by defining compulsion of the latter as a “compulsion to disclose any knowledge [the accused] might have.”⁴⁴ The *Wade* Court did not specifically elaborate on what “knowledge” meant and whether all forms of it deserve protection under the Self-Incrimination Clause of the Fifth Amendment.⁴⁵ However, the Court went so far as to distinguish non-testimonial physical evidence from a testimonial communication by explaining that compelling an individual to disclose the latter would be forcing him to “speak his guilt.”⁴⁶ This explanation suggests that “knowledge” means one’s knowledge in relation to the facts and circumstances of the crime.⁴⁷ Other courts have drawn a parallel

³⁸ See Sec. & Exch. Comm’n v. Huang, No. 15-269, 2015 WL 5611644, at *4 (E.D. Pa. Sept. 23, 2015); *Triant*, 2015 Me. Super. LEXIS 272, at *11; Commonwealth v. Baust, 89 Va. Cir. 267, 271 (Cir. Ct. 2014); see also United States v. Kirschner, 823 F. Supp. 2d 665, 669 (E.D. Mich. 2010) (finding that the government’s post-indictment grand jury subpoena ordering defendant to provide all passwords associated with his computer in order to secure evidence of child pornography allegedly contained in the computer required defendant to make a “testimonial communication.”).

³⁹ See *infra* notes 40–56 and accompanying text.

⁴⁰ See *infra* notes 41–56 and accompanying text.

⁴¹ See, e.g., *Gilbert v. California*, 388 U.S. 263, 266 (1967); *United States v. Wade*, 388 U.S. 218, 223 (1967).

⁴² *Schmerber v. California*, 384 U.S. 757, 764 (1966).

⁴³ See *supra* note 42 and accompanying text.

⁴⁴ *Wade*, 388 U.S. at 222. This definition is hereinafter referred to as the knowledge definition.

⁴⁵ See *id.*

⁴⁶ *Id.* at 222–23.

⁴⁷ See *id.*

We have no doubt that compelling the accused merely to exhibit his person for observation by a prosecution witness prior to trial involves no compulsion of the

between “knowledge” and “the contents of [the defendant’s] mind.”⁴⁸ Both forms of the knowledge definition make determining whether disclosure of a cellphone passcode is a testimonial communication even more complicated.⁴⁹ When it comes to a cellphone passcode, the passcode itself is part of the contents of one’s mind.⁵⁰ However, compelling an individual to disclose his cellphone passcode does not provide knowledge in relation to the facts and circumstances of the crime.⁵¹

To further complicate the analysis, many of the same courts that have relied on the second form of the knowledge definition have simultaneously reasoned that disclosure of a cellphone passcode is a testimonial communication because it is the product of one’s mental or thought processes.⁵² By relying on both definitions simultaneously, and failing to explain the difference, these courts have effectively equated mental processes with the contents of one’s mind.⁵³ In doing so, these courts have ignored the difference between a mental process and information that many people only know by muscle memory, and thus confused the scope and nature of the Fifth Amendment right against self-incrimination.⁵⁴

These definitions encompass such different concepts that it is difficult to understand how these definitions all lead to the conclusion that disclosure of a cellphone passcode is a testimonial communication. Consider the question: “What is your name?” If a court defined a testimonial communication as any verbal or physical communication, then the response to this question would be

accused to give evidence having testimonial significance. It is compulsion of the accused to exhibit his physical characteristics, not compulsion to disclose any knowledge he might have. It is no different from compelling Schmerber to provide a blood sample or Holt to wear the blouse, and, as in those instances, is not within the cover of the privilege. Similarly, compelling Wade to speak within hearing distance of the witnesses, even to utter words purportedly uttered by the robber, was not compulsion to utter statements of a “testimonial” nature; he was required to use his voice as an identifying physical characteristic, not to speak his guilt.

Id. at 223–23.

⁴⁸ *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *5 (Me. Oct. 27, 2015) (citing *United States v. Doe (In re Grand Jury Subpoena Duces Tecum)*, 670 F.3d 1335, 1341 (11th Cir. 2012)); *Commonwealth v. Baust*, 89 Va. Cir. 267, 271 (Cir. Ct. 2014) (explaining that a fingerprint is non-testimonial because it does not “communicate any knowledge at all,” whereas compelling production of a cellphone passcode forces the defendant to “disclose the contents of his own mind.”).

⁴⁹ See *supra* notes 47–48 and accompanying text.

⁵⁰ See *infra* note 201 and accompanying text.

⁵¹ See *infra* notes 179–80, 182–83 and accompanying text.

⁵² *Trant*, 2015 Me. Super. LEXIS 272, at *11; *Baust*, 89 Va. Cir. at 271. This definition is hereinafter referred to as the mental process definition.

⁵³ See *supra* notes 44–52 and accompanying text.

⁵⁴ See *supra* notes 44–52 and accompanying text.

protected by the Fifth Amendment right against self-incrimination.⁵⁵ On the other hand, if a court utilized the mental process definition, the response would constitute a communication, but because of its trivial and repetitive nature, it would not likely require one to utilize mental or thought processes to produce the response and would, therefore, fall outside of Fifth Amendment protection.⁵⁶ This range of definitions is too broad and invites the possibility that courts will reach different results in factually identical situations.⁵⁷

B. Definitions of “Testimonial” That Lead Courts to Conclude a Cellphone Passcode Is Not a Testimonial Communication

Overall, opinions concluding that disclosure of a cellphone’s passcode is not a testimonial communication typically rely on alternative definitions of “testimonial.”⁵⁸ For example, in *State v. Stahl*, the court stated the trial court was correct in recognizing that a compelled action is “testimonial” if the government seeks to compel “the individual to use ‘the contents of his own mind’ to explicitly or implicitly communicate some statement of fact[.]”⁵⁹ However, the *Stahl* court argued that the trial court did not consider the entirety of the law.⁶⁰ According to the *Stahl* court, the entirety of the law requires that the accused’s mind be “extensively used in creating the response” or “relate him to the offense” in order for the compelled action to be protected by the Self-Incrimination Clause.⁶¹ In other words, a compelled communication is not “testimonial” merely because it “is sought for its content. The content itself must have testimonial significance.”⁶²

In *Doe v. United States*, a case often cited in these cellphone passcode cases,⁶³ the United States Supreme Court addressed whether the target of a grand jury investigation could be compelled to sign a consent directive authorizing foreign banks to disclose records of all accounts in which the target had the right of

⁵⁵ See *supra* note 42 and accompanying text.

⁵⁶ See *supra* notes 42–52 and accompanying text.

⁵⁷ See *supra* note 17 and accompanying text.

⁵⁸ See *infra* notes 60–68 and accompanying text.

⁵⁹ *State v. Stahl*, 206 So. 3d 124, 133 (Fla. Dist. Ct. App. 2016) (quoting *United States v. Doe* (*In re Grand Jury Subpoena Duces Tecum*), 670 F.3d 1335, 1345 (11th Cir. 2012)).

⁶⁰ *Id.* (quoting *In re Grand Jury Subpoena Duces Tecum*, 670 F.3d at 1345). *In re Grand Jury Subpoena Duces Tecum* is not a cellphone passcode case. See *In re Grand Jury Subpoena Duces Tecum*, 670 F.3d at 1337. However, it does analyze the testimonial component of the Self-Incrimination Clause and has value for analogous purposes. *Id.* at 1343–49.

⁶¹ *Stahl*, 206 So. 3d at 133–34 (quoting *United States v. Hubbell*, 530 U.S. 27, 43 (2000); *Doe v. United States*, 487 U.S. 201, 213 (1988)).

⁶² *Id.* at 133 (quoting *Doe*, 487 U.S. at 211 n.10 (citing *Fisher v. United States*, 425 U.S. 391, 408 (1976); *Gilbert v. California*, 388 U.S. 263, 267 (1967); *United States v. Wade*, 388 U.S. 218, 222 (1967))).

⁶³ See *supra* notes 48, 61 and accompanying text; *infra* note 96 and accompanying text.

withdrawal.⁶⁴ In concluding that compelling the target to sign the consent directive did not violate his Fifth Amendment right against self-incrimination, the Court reasoned that, unless the accused is being compelled to disclose consciousness of certain facts and he uses the operations of his mind to disclose those facts, the information sought is not a testimonial communication.⁶⁵ This definition is slightly different from that discussed in *State v. Stahl* because it suggests that a testimonial communication requires *both* consciousness of certain facts *and* the operations of one's mind in disclosing those facts.⁶⁶ Whereas, *State v. Stahl* suggested that a testimonial communication is *either* one that requires an individual to disclose facts that relate him to the offense *or* one that requires extensive use of his mind in creating the response.⁶⁷

Although these definitions are slightly different, they limit protection under the Self-Incrimination Clause to the disclosure of information that either relates the individual to the crime, requires the individual to use the operations of his mind in formulating the response, or both.⁶⁸ Because of their narrow focus, these definitions are easy to apply and more likely to lead to consistent decisions.⁶⁹

C. *The Definition Makes the Difference—A Closer Look at State v. Stahl* & Commonwealth v. Baust

This subsection takes a closer look at how courts have applied the definitions previously discussed in two cases that addressed motions to compel production of a cellphone passcode.⁷⁰ In each case, law enforcement secured a search warrant for an individual's cellphone; however, because the individual locked his cellphone using a passcode, law enforcement was unable to execute the search warrant.⁷¹ The different outcomes in these cases can be explained by the courts' varying perceptions of what constitutes a testimonial communication.⁷²

1. *State v. Stahl*

In *State v. Stahl*, the defendant was charged with video voyeurism after a woman, who was shopping in a store, saw an individual crouch down, holding

⁶⁴ *Doe*, 487 U.S. at 202, 204.

⁶⁵ *Id.* at 211 (quoting 8 JOHN HENRY WIGMORE, EVIDENCE IN TRIALS AT COMMON LAW § 2265, at 386 (John T. McNaughton ed., rev. ed. 1961)).

⁶⁶ See *supra* notes 61–62 and accompanying text.

⁶⁷ See *supra* notes 61–62 and accompanying text.

⁶⁸ See *supra* notes 58–67 and accompanying text.

⁶⁹ See *supra* notes 38–56, 58–67 and accompanying text.

⁷⁰ See *infra* notes 73–99 and accompanying text.

⁷¹ *State v. Stahl*, 206 So. 3d 124, 128 (Fla. Dist. Ct. App. 2016); *Commonwealth v. Baust*, 89 Va. Cir. 267, 268 (Cir. Ct. 2014).

⁷² See *infra* notes 73–99 and accompanying text.

what she believed was a cellphone under her skirt, in an effort to either take a photograph or video of her.⁷³ During the course of the investigation, law enforcement was able to secure a search warrant for the defendant's Apple iPhone 5, but was unable to successfully execute the warrant because the cellphone was passcode-protected and the defendant refused to surrender his passcode.⁷⁴ In response to the defendant's non-compliance, the prosecution filed a motion to compel production of his cellphone passcode.⁷⁵ The trial court ultimately denied the prosecution's motion because it determined that production of the passcode was "testimonial" and therefore protected by Self-Incrimination Clause.⁷⁶

The prosecution appealed the trial court's decision.⁷⁷ In reviewing the trial court's analysis, the appellate court said the trial court reached its conclusion based exclusively on the concept that disclosure of a cellphone passcode would require the defendant to use the contents of his mind.⁷⁸ The appellate court concluded the trial court's reasoning was incorrect because it was based on an incomplete construction of what constitutes a testimonial communication.⁷⁹ Rather, a complete construction of what constitutes a testimonial communication provides that the individual must extensively utilize the contents of his mind in creating the response or the information sought "must relate him to the offense[.]"⁸⁰ In other words, "it is not enough that the compelled communication is sought for its content. The content itself must have testimonial *significance*."⁸¹

In applying this understanding of "testimonial," the appellate court found that the defendant's passcode was sought only for its content—namely, a

⁷³ *Stahl*, 206 So. 3d at 127.

⁷⁴ *Id.* at 128.

⁷⁵ *Id.*

⁷⁶ *Id.* The appellate court decision does not provide any additional information about the definition of "testimonial" applied by the trial court. *See id.* at 127–37. However, the trial court applied the traditional "contents of the mind definition." *Id.* at 133.

⁷⁷ *Id.* at 128.

⁷⁸ *Id.* at 133.

⁷⁹ *Id.* at 133–34.

⁸⁰ *Id.* (citing *United States v. Hubbell*, 520 U.S. 27, 43 (2000); quoting *Doe v. United States*, 487 U.S. 201, 213 (1988)).

⁸¹ *Id.* at 134 (quoting *Doe*, 487 U.S. at 211 n.10 (emphasis added); citing *Fisher v. United States*, 425 U.S. 391, 408 (1976); *Gilbert v. California*, 388 U.S. 263, 267 (1967); *United States v. Wade*, 388 U.S. 218, 222 (1967)). The appellate court was not explicit about what it meant by the phrase testimonial significance. *Id.* at 134. However, it seems from the court's emphasis and subsequent analysis that the phrase testimonial significance means information that relates the individual to the offense. *See id.* For example, if an individual is being investigated for statutory rape, the question, "What is your zodiac sign?" is not "testimonial" because it is sought for its content and does not have testimonial significance since it is unrelated to the individual to the offense. *See infra* notes 179–80, 182–83 and accompanying text. On the other hand, if under the same circumstances the individual is asked how old he was on the date of the alleged offense, any response to that question is "testimonial" because it would disclose the individual's age and therefore relate the individual to the offense. *See infra* notes 179–80, 182–83 and accompanying text.

numerical combination.⁸² The court reasoned the passcode had no independent value or significance because, by providing the passcode, the defendant would not be attesting that the cellphone had evidence of video voyeurism.⁸³ In other words, “[p]roviding the passcode [did] not betray any knowledge” the defendant may have had about the circumstances of the offense because it did not “relate a factual assertion or disclose information” pertaining to the offense.⁸⁴ As a result of the appellate court’s definition of a testimonial communication, the court held that compelling the defendant to provide his cellphone passcode was not “testimonial,” and the court granted the State’s motion to compel.⁸⁵

2. Commonwealth v. Baust

In *Commonwealth v. Baust*, the defendant was charged with *strangling another causing wounding or injury* after he allegedly assaulted an individual in his bedroom.⁸⁶ After the alleged assault, the victim tried to collect the defendant’s video recording device because she knew he had the device programmed to constantly record his bedroom.⁸⁷ When the defendant noticed the victim trying to take the video recording device, he allegedly assaulted her again.⁸⁸ The victim told law enforcement she knew about the defendant’s video recording equipment because he had previously sent her a text message with video footage of the pair engaging in sexual intercourse in his bedroom.⁸⁹ Additionally, the victim told law enforcement that the video equipment was set up to transmit the video footage from the defendant’s bedroom directly to his cellphone, meaning evidence of the alleged assault might have been stored on his cellphone.⁹⁰

Based on this information, law enforcement was able to secure a search warrant for the defendant’s cellphone and other electronic devices.⁹¹ However, law enforcement was unable to execute the warrant without the defendant’s passcode or fingerprint.⁹² In response, the Commonwealth filed a motion to compel production of the defendant’s cellphone passcode or a fingerprint to the encrypted cellphone.⁹³

⁸² See *Stabl*, 206 So. 3d at 134.

⁸³ *Id.*

⁸⁴ *Id.* (quoting *Doe*, 487 U.S. at 219 (Stevens, J., dissenting)).

⁸⁵ *Id.* at 136–37.

⁸⁶ *Commonwealth v. Baust*, 89 Va. Cir. 267, 267 (Cir. Ct. 2014).

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² See *id.* at 268.

⁹³ *Id.* at 267.

In its analysis, the court referred to several of the definitions of “testimonial” mentioned earlier;⁹⁴ however, its analysis hinged on the fact that compelling the defendant to disclose his cellphone passcode would require him to reveal the contents of his mind.⁹⁵ Applying this understanding of “testimonial,” the court turned to a distinction between physical evidence and “testimonial” evidence referenced in *Doe v. United States*.⁹⁶ In *Doe*, Justice Blackmun differentiated physical evidence from “testimonial” evidence on the basis that compelling physical evidence “is more like be[ing] forced to surrender a key to a strongbox containing incriminating documents than it is like being compelled to reveal the combination to [petitioner’s] wall safe.”⁹⁷ The *Baust* court likened a wall safe combination to a cellphone passcode, reasoning that both pieces of information could only be divulged through mental processes.⁹⁸ As a result of this reasoning, the court found that compelling a defendant to provide his cellphone passcode was “testimonial” and denied the State’s motion to compel.⁹⁹

D. The “Testimonial” Tug of War

Earlier cases requiring defendants to exhibit physical characteristics, like standing in a lineup or wearing certain clothing, have easily dismissed defendants’ Fifth Amendment objections.¹⁰⁰ More recently, however, courts addressing motions to compel production of physical evidence with more of a communicative aspect, such as blood, handwriting exemplars, and voice exemplars, are struggling

⁹⁴ *Id.* at 270; see *supra* notes 44–54 and accompanying text.

⁹⁵ *Baust*, 89 Va. Cir. at 270–71. In situations where law enforcement has seized a cellphone pursuant to a valid search warrant and cannot search the cellphone because it is passcode-protected, the first thing law enforcement typically does is turn off the cellphone and place it in a faraday bag. See Kashmir Hill, *The Technological Reason Why Cops Shouldn’t Be Snooping Through Smartphones*, FORBES MAG. (May 2, 2014, 11:39 AM), <https://www.forbes.com/sites/kashmirhill/2014/05/02/the-technological-reason-why-cops-shouldnt-be-snooping-through-smartphones/#4a36e05bee52>. The reason for this is because law enforcement does not want third parties to remotely tamper with any information that might be stored on the cellphone. *Id.* When the cellphone is turned back on, the user must enter the passcode first before he or she can use a fingerprint to unlock the phone. Ben Lovejoy, *If you’re wondering why your iPhone needs your passcode more often, this is why*, 9 TO 5 MAC (May 19, 2016, 3:59 AM), <https://9to5mac.com/2016/05/19/why-does-my-iphone-keep-asking-for-my-passcode/>. Thus, even though a court can compel an individual to place his finger on a cellphone, a fingerprint is not helpful in this situation. See *id.*

⁹⁶ *Baust*, 89 Va. Cir. at 270 (referencing the strongbox analogy seen in *Doe v. United States*, 487 U.S. 201, 210 n. 9 (1988)).

⁹⁷ *Doe*, 487 U.S. at 210 n.9 (internal quotations omitted).

⁹⁸ *Baust*, 89 Va. Cir. at 270.

⁹⁹ *Id.* at 271.

¹⁰⁰ See *infra* notes 102–37 and accompanying text.

to define the scope and nature of the “testimonial” component of the Fifth Amendment right against self-incrimination.¹⁰¹

In *Holt v. United States*, the defendant was charged with murder for allegedly beating an individual to death with an iron bar.¹⁰² One of the evidentiary questions in the case was whether a certain blouse belonged to the defendant.¹⁰³ During the defendant’s murder trial, the trial court ordered the defendant to try on the blouse and permitted a witness to testify as to whether the blouse fit the defendant.¹⁰⁴ The defendant was convicted of murder and subsequently sought review, contending that the trial court erred in forcing him to be a witness against himself in violation of his Fifth Amendment right against self-incrimination.¹⁰⁵ In a unanimous opinion, Justice Holmes wrote: “[T]he prohibition of compelling a man in a criminal court to be a witness against himself is a prohibition of the use of physical or moral compulsion to extort communications from him, not an exclusion of his body as evidence when it may be material.”¹⁰⁶ The Court further explained that if it were to adopt the defendant’s “extravagant extension” of the Fifth Amendment, it would essentially have the same effect as forbidding a jury to look at a defendant and compare his features to a photograph,¹⁰⁷ and the exclusion of such evidence is not warranted by the Self-Incrimination Clause.¹⁰⁸

Although the Court may not have been explicit, its response to the defendant’s self-incrimination argument turned on whether compelling the defendant to try on the blouse constituted a testimonial communication protected by the Fifth Amendment right against self-incrimination.¹⁰⁹ With minimal analysis, the Court unanimously concluded that, because compelling the defendant to try on a blouse did not involve the extortion of any communication, this constitutional right was not violated.¹¹⁰

More than fifty years later, in *Schmerber v. California*, the United States Supreme Court had a harder time determining where to draw the line between testimonial and non-testimonial communications.¹¹¹ *Schmerber* was a landmark

¹⁰¹ See *Commonwealth v. Davis*, 176 A.3d 869 (Pa. Super. Ct. 2017); *State v. Stahl*, 206 So. 3d 124 (Fla. Dist. Ct. App. 2016); *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272 (Me. Oct. 22, 2015); *Commonwealth v. Baust*, 89 Va. Cir. 267 (Cir. Ct. 2014).

¹⁰² *Holt v. United States*, 218 U.S. 245, 247 (1910).

¹⁰³ *Id.* at 252.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at 246, 252.

¹⁰⁶ *Id.* at 252–53.

¹⁰⁷ *Id.*

¹⁰⁸ See *id.*

¹⁰⁹ See *id.*

¹¹⁰ *Id.*

¹¹¹ See *Schmerber v. California*, 384 U.S. 757, 772–79 (1966) (5–4 decision).

case in which the Court addressed whether drawing a suspect's blood for an alcohol analysis without his consent violated his right against self-incrimination under the Fifth Amendment.¹¹² In *Schmerber*, the defendant was arrested at a hospital while receiving treatment for injuries he suffered in a motor vehicle accident wherein he was the driver of one of the vehicles involved.¹¹³ By order of the arresting officer, the defendant's blood was drawn.¹¹⁴ The court admitted the blood into evidence during trial.¹¹⁵ The defendant was subsequently convicted of driving while under the influence.¹¹⁶ In considering whether the defendant's right against self-incrimination was violated, the Court distinguished "testimonial" evidence and physical evidence.¹¹⁷ Ultimately, the Court held that the Fifth Amendment right against self-incrimination provides "a bar against compelling communications or testimony," but does not provide a similar bar against compelling "real or physical evidence."¹¹⁸ The Court had no trouble classifying a blood draw as real or physical, remarking that "not even a shadow of testimonial compulsion upon or enforced communication by the accused was involved either in the extraction or in the chemical analysis."¹¹⁹

In dissent, Chief Justice Warren reasoned that a compulsory blood draw has "testimonial" and "communicative" aspects in that its sole purpose is to confirm or deny the defendant had alcohol in his blood at the time of the arrest.¹²⁰ The dissent acknowledged that blood is not oral testimony; however, it argued that blood "can certainly communicate to a court and jury the fact of guilt."¹²¹ The disagreement between the majority and the dissent is one of the earliest examples of the "testimonial" tug of war seen in more recent cases like *State v. Stahl* and *Commonwealth v. Baust*.¹²² Cases decided after *Schmerber* address physical evidence that has more of a communicative aspect and further invigorates this "testimonial" tug of war.¹²³

For example, in *United States v. Wade*, the defendant, prior to trial, was compelled to stand in a lineup with five or six other individuals so that two bank

¹¹² *Id.* at 760–65 (majority opinion).

¹¹³ *Id.*

¹¹⁴ *Id.* at 758.

¹¹⁵ *Id.* at 759.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 763.

¹¹⁸ *Id.* at 764 (internal quotations omitted).

¹¹⁹ *Id.* at 765.

¹²⁰ *Id.* at 773–74.

¹²¹ *Id.* at 775.

¹²² See *supra* notes 73–99 and accompanying text.

¹²³ See *infra* notes 124–52 and accompanying text.

employees could try to positively identify the bank robber.¹²⁴ Each individual in the lineup wore strips of tape similar to those allegedly worn by the robber.¹²⁵ In addition, each person in the lineup was told to say something like “put the money in the bag” to mimic what the robber had said during the robbery.¹²⁶ Both bank employees identified the defendant in the lineup as the robber.¹²⁷ During trial, they again identified the defendant as the robber.¹²⁸ When the bank employees finished testifying, defense counsel moved for a judgment of acquittal or to strike the defendant’s prior identification arguing the lineup had violated the defendant’s Fifth Amendment right against self-incrimination.¹²⁹ The trial court denied the motion and the defendant was convicted.¹³⁰ “The Court of Appeals for the Fifth Circuit reversed the conviction on Sixth Amendment grounds and ordered a new trial[.]”¹³¹ The appellate court explained that the out-of-court identification of the defendant should be excluded in the new trial because, although it did not violate his Fifth Amendment right against self-incrimination, it violated his Sixth Amendment rights because it was performed in the absence of already-appointed counsel.¹³²

After granting certiorari, in addressing the defendant’s Fifth Amendment argument, the Court first held that the act of physically compelling the defendant to stand in a lineup did not violate the Fifth Amendment right against self-incrimination because it was “not compulsion to disclose any knowledge he might have.”¹³³ Rather, the act only “exhibit[ed] his physical characteristics.”¹³⁴ Also, the Court held that compelling the defendant to speak during the lineup was “non-testimonial” and did not violate his Fifth Amendment right against self-incrimination because “he was required to use his voice as an identifying characteristic, not to speak his guilt.”¹³⁵

However, in dissent, Justice Black argued that the Fifth Amendment’s Self-Incrimination Clause was “designed to bar the Government from forcing any person to supply proof of his own crime.”¹³⁶ In light of this purpose, Justice

¹²⁴ United States v. Wade, 388 U.S. 218, 220 (1967).

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.* at 220–21.

¹³¹ *Id.* at 221.

¹³² *Id.*

¹³³ *Id.* at 222.

¹³⁴ *Id.*

¹³⁵ *Id.* at 222–23.

¹³⁶ *Id.* at 245 (Black, J., dissenting).

Black argued that compelling the defendant to stand in a lineup, wear strips of tape on his face, and say words allegedly said during the course of the robbery effectively compelled him to be a witness against himself and supply proof of his own crime.¹³⁷

Decided on the same day as *United States v. Wade*, *Gilbert v. California* further questioned where the line between a testimonial and a non-testimonial communication should be drawn.¹³⁸ In *Gilbert*, the defendant was convicted of armed robbery and the murder of a police officer who entered the bank during the course of the robbery.¹³⁹ The FBI arrested the defendant in Philadelphia, and, while in custody, the defendant answered a few questions about some local robberies in which the suspect had used a handwritten note to demand money.¹⁴⁰ During the interrogation, the defendant gave the FBI handwriting exemplars.¹⁴¹ These were later used to convict the defendant of the armed robbery and murder that took place in California, despite the defendant's objection that use of the exemplars violated his right against self-incrimination.¹⁴²

In addressing the defendant's Fifth Amendment objections, the Court quickly recognized the unique nature of a handwriting exemplar, noting "one's voice and handwriting are, of course, means of communication."¹⁴³ However, the Court explained that not every compulsion requiring the accused to use his voice or write compels a communication protected by the Fifth Amendment.¹⁴⁴ Instead, "[a] mere handwriting exemplar, in contrast to the content of what is written, like the voice or body itself, is an identifying physical characteristic outside [the Fifth Amendment's] protection."¹⁴⁵ In other words, because the handwriting exemplar did not compel the defendant to actually write what the armed robber wrote on the notes during the course of the robbery, the exemplars were not "testimonial."¹⁴⁶

Justice White's dissent criticized the majority's opinion, classifying it as an impermissible extension of *Schmerber*.¹⁴⁷ Comparing the facts of *Schmerber* to the facts of *Gilbert*, Justice White distinguished blood from a handwriting exemplar.¹⁴⁸

¹³⁷ *Id.*

¹³⁸ *See infra* notes 139–52 and accompanying text.

¹³⁹ *Gilbert v. California*, 388 U.S. 263, 265 (1967).

¹⁴⁰ *Id.* at 265–66.

¹⁴¹ *Id.* at 266.

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* at 266–67 (citing *United States v. Wade*, 388 U.S. 218, 222–23 (1967)).

¹⁴⁶ *See id.* at 266.

¹⁴⁷ *Id.* at 291–92 (White, J., concurring in part and dissenting in part).

¹⁴⁸ *Id.* at 291.

He argued that, unlike blood, a handwriting exemplar cannot be extracted by a physician while the accused is physically restrained.¹⁴⁹ Rather, a handwriting exemplar compels a testimonial communication because the accused must “take affirmative action which may not merely identify him, but tie him directly to the crime.”¹⁵⁰ As such, this affirmative action requires the accused to supply proof of his crime and violates his Fifth Amendment right against self-incrimination.¹⁵¹

In *Gilbert*, the space between physical evidence and a testimonial communication converges closer than the cases previously discussed.¹⁵² This “testimonial” tug of war has remained since *Gilbert* and taken a front row seat in cases addressing motions to compel production of a cellphone passcode.¹⁵³

E. A Take On Explaining the “Testimonial” Tug of War

Well before the “testimonial” tug of war appeared in cellphone passcode cases, authors Ronald J. Allen and M. Kristin Mace criticized the Court’s failure to provide a definition of “testimonial” to explain its own cases and indicated that the *Schmerber* Court’s test distinguishing between “testimony” and physical evidence would not provide answers in certain cases.¹⁵⁴ Allen and Mace argued that the answer to the “testimonial” tug of war is that “testimony is the substantive content of cognition[.]”¹⁵⁵ This concept, labeled the cognition-based test, would

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 291–92.

¹⁵¹ *See id.*

¹⁵² *See supra* notes 100–37 and accompanying text.

¹⁵³ *See infra* notes 172–84 and accompanying text.

¹⁵⁴ *See* Allen & Mace, *supra* note 36 at 259–60. In *Schmerber*, the Supreme Court affirmed the defendant’s conviction for driving under the influence based on a blood test admitted in evidence at trial indicating intoxication. *Schmerber v. California*, 384 U.S. 757, 772 (1966). The Court held that “the privilege protects an accused only from being compelled to testify against himself, or otherwise provide the State with evidence of a testimonial or communicative nature, and that the withdrawal of blood and use of the analysis in question in this case did not involve compulsion to these ends.” *Id.* at 761. The *Schmerber* Court acknowledged that the distinction between real or physical evidence and evidence of a testimonial nature is not always so clear. *Id.* at 764. For example, the Court recognized that while a polygraph examination obtains physical evidence (changes in physiological responses during interrogation), it

may actually be directed to eliciting responses which are essentially testimonial. To compel a person to submit to testing in which an effort will be made to determine his guilt or innocence on the basis of physiological responses, whether willed or not is to evoke the spirit and history of the Fifth Amendment.

Id. Despite the Court’s recognition of the unique nature of a polygraph examination, it failed to explain how the testimonial/physical distinction would apply to a polygraph examination. *See id.*

¹⁵⁵ Allen & Mace, *supra* note 36, at 246. According to Allen and Mace, cognition refers “to the intellectual processes that allow one to gain and make use of substantive knowledge and to compare one’s ‘inner world’ (previous knowledge) with the ‘outside world’ (including stimuli, such as questions from an interrogator).” *Id.* at 267. Allen and Mace exclude “simple psychological

prohibit the government from compelling an individual to disclose incriminating information that is a substantive result of cognition.¹⁵⁶ Although this article did not contemplate the “testimonial” tug of war in the cellphone passcode setting, Allen and Mace’s cognition-based test captures the meaning of a testimonial communication and will serve as a part of the proposed analytical framework courts should utilize when faced with motions to compel production of a cellphone passcode.¹⁵⁷

III. ANALYSIS

This section sets forth three reasons why an individual should be compelled to provide his cellphone passcode.¹⁵⁸ First, a cellphone passcode is not a testimonial communication and, therefore, not protected by the Fifth Amendment right against self-incrimination.¹⁵⁹ Second, even if a cellphone passcode is a testimonial communication, an individual should be compelled to disclose his cellphone passcode because this type of information falls under an exception to the Fifth Amendment right against self-incrimination known as the foregone conclusion doctrine.¹⁶⁰ Third, because only one of the well-documented purposes of the Fifth Amendment—achieving a balanced relationship between the people of the United States and the government—is applicable in this type of case, an individual should be compelled to provide his cellphone passcode when law enforcement has a valid cellphone search warrant.¹⁶¹

Regardless of these arguments, unless and until there is uniformity regarding this “testimonial” tug of war, state courts remain free to interpret the meaning of this term.¹⁶² In order to implement a unifying standard, the final part of this comment proposes an alternative standard for courts to apply when considering whether to compel production of a cellphone passcode.¹⁶³ This standard takes into consideration the need to balance the interests of privacy and those of law enforcement.¹⁶⁴

responses to stimuli such as fear, warmth, and hunger; the mental processes that produce muscular movements; and one’s will or faculty for choice” from their definition of cognition. *Id.*

¹⁵⁶ *See id.* at 266–67.

¹⁵⁷ *See infra* notes 207–08, 271 and accompanying text.

¹⁵⁸ *See infra* notes 195–268 and accompanying text.

¹⁵⁹ *See infra* notes 195–233 and accompanying text.

¹⁶⁰ *See infra* notes 236–51 and accompanying text.

¹⁶¹ *See infra* notes 253–68 and accompanying text.

¹⁶² *See infra* notes 172–84 and accompanying text.

¹⁶³ *See infra* notes 271–81 and accompanying text. This standard could be judicially adopted by the United States Supreme Court or passed by the United States Congress.

¹⁶⁴ *See infra* notes 271–81 and accompanying text.

A. A Definition Disaster—Numerous Contrasting Definitions Have Led to Difficult Application and Inconsistent Results

The table below highlights the confusion surrounding the meaning and scope of the word “testimonial.”¹⁶⁵

Table 1

Case Name	Definition of “Testimonial”	Outcome
<i>Schmerber v. California</i> ¹⁶⁶	“Communications, whatever form they might take.” ¹⁶⁷	Blood is “non-testimonial” because it does not involve any communication. ¹⁶⁸
<i>United States v. Wade</i> ¹⁶⁹	“Compulsion to disclose any knowledge [the accused] might have.” ¹⁷⁰	Compelling the accused to stand in a lineup, wear strips of tape, and utter words said by the perpetrator is “non-testimonial” because it is a compulsion to exhibit physical characteristics. ¹⁷¹
<i>Commonwealth v. Baust</i> ¹⁷²	“Disclose the contents of his [the accused’s] own mind.” ¹⁷³	A cellphone passcode is “testimonial” because it is stored within the contents of the mind. ¹⁷⁴
<i>State v. Trant</i> ¹⁷⁵	“[I]s the product of mental processes.” ¹⁷⁶	A cellphone passcode is “testimonial” because its disclosure constitutes a product of one’s mental processes. ¹⁷⁷

¹⁶⁵ See *infra* notes 271–81 and accompanying text.

¹⁶⁶ *Schmerber v. California*, 384 U.S. 757 (1966).

¹⁶⁷ *Id.* at 765–66.

¹⁶⁸ *Id.* at 765.

¹⁶⁹ *United States v. Wade*, 388 U.S. 218 (1967).

¹⁷⁰ *Id.* at 222.

¹⁷¹ *Id.* at 222–23.

¹⁷² *Commonwealth v. Baust*, 89 Va. Cir. 267 (Cir. Ct. 2014).

¹⁷³ *Id.* at 270.

¹⁷⁴ *Id.* at 271.

¹⁷⁵ *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *5 (Me. Oct. 27, 2015) (citing *United States v. Doe (In re Grand Jury Subpoena Duces Tecum)*, 670 F.3d 1335, 1345 (11th Cir. 2012)).

¹⁷⁶ *Id.* at *5 (citing *Doe*, 670 F.3d at 1345).

¹⁷⁷ *Id.* at *11.

Table 1, continued

Case Name	Definition of “Testimonial”	Outcome
<i>State v. Stahl</i> ¹⁷⁸	<p>“[The] communication must itself, explicitly or implicitly, relate a factual assertion or disclose information.”¹⁷⁹</p> <p>The accused’s mind must be “extensively used in creating the response or must relate him to the offense[.]”¹⁸⁰</p> <p>“[I]t is not enough that the compelled communication is sought for its content. The content itself must have testimonial significance.”¹⁸¹</p>	<p>A cellphone passcode is “non-testimonial” because it is a nonfactual assertion and does not disclose information.¹⁸²</p> <p>A cellphone passcode is “non-testimonial” because it is a nonfactual statement and does not require the accused to acknowledge that his cellphone contains evidence of the crime.¹⁸³</p> <p>A cellphone passcode is “non-testimonial” because the passcode is only being sought for its content.¹⁸⁴</p>
<i>Doe v. United States</i> ¹⁸⁵	<p>“Unless some attempt is made to secure a communication—written, oral or otherwise—upon which reliance is to be placed as involving [the accused’s] consciousness of the facts and the operations of his mind in expressing it, the demand made upon him is not a testimonial one.”¹⁸⁶</p>	<p>The target of a grand jury investigation could be compelled to sign a consent directive authorizing foreign banks to disclose records of all the accused’s accounts because the accused is not being compelled to disclose consciousness of certain facts and it does not require him to use the operations of his mind.¹⁸⁷</p>

¹⁷⁸ *State v. Stahl*, 206 So. 3d 124 (Fla. Dist. Ct. App. 2016).

¹⁷⁹ *Id.* at 131 (quoting *Doe v. United States*, 487 U.S. 201, 210 (1988)).

¹⁸⁰ *Id.* at 133–34 (citing *United States v. Hubbell*, 530 U.S. 27, 43 (2000); *Doe*, 487 U.S. at 213).

¹⁸¹ *Id.* at 134 (quoting *Doe*, 487 U.S. at 211 n.10).

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Doe*, 487 U.S. at 201–11 (quoting 8 WIGMORE, *supra* note 65, § 2265, at 386).

¹⁸⁶ *Id.* at 211 (quoting 8 WIGMORE, *supra* note 65, § 2265, at 386).

¹⁸⁷ *Id.* at 219.

These definitions cover such a range of concepts—from compelling any communication to compelling communication that relates the accused to the offense—that the scope and nature of a testimonial communication are unclear.¹⁸⁸ When a court is faced with a motion to compel production of a cellphone passcode, the confusion surrounding what constitutes a testimonial communication unnecessarily complicates the court’s analysis and leads to inconsistent results.¹⁸⁹

Cellphone search cases follow a typical pattern: law enforcement obtains a search warrant for an individual’s cellphone but, because the cellphone is passcode-protected, it cannot successfully execute the warrant.¹⁹⁰ Prosecutors have moved to compel individuals to provide the passcode to their cellphones but, since there is considerable variation in how courts construe the meaning of “testimonial,” and, thus, whether protection is afforded under the Fifth Amendment’s Self-Incrimination Clause, prosecutors are seeing mixed results.¹⁹¹ There is no logical reason why disclosure of a cellphone passcode should be considered “testimonial” in one jurisdiction and “non-testimonial” in another.¹⁹² There is nothing factually distinct about the nature of a numerical cellphone passcode that would justify different results.¹⁹³ However, the fact these motions are seeing different results amongst jurisdictions demonstrates the need for a workable definition that all courts can easily apply.¹⁹⁴

B. Cellphone Passcodes Are Not “Testimonial”

When comparing the definitions of “testimonial” in Table 1, notable distinctions emerge.¹⁹⁵ Definitions that tend to lead to the conclusion that disclosure of a cellphone passcode is “testimonial” embrace the perspective that, when the accused is being compelled to disclose a product of his mental processes, such information is sufficiently “testimonial” to merit protection under the Self-Incrimination Clause of the Fifth Amendment.¹⁹⁶ On the other hand, definitions

¹⁸⁸ See *supra* notes 166–87 and accompanying text.

¹⁸⁹ See *supra* notes 166–87 and accompanying text.

¹⁹⁰ Commonwealth v. Baust, 89 Va. Cir. 267, 268 (Cir. Ct. 2014); State v. Trant, No. 15-2389, 2015 Me. Super. LEXIS 272, at *2 (Me. Oct. 27, 2015); State v. Stahl, 206 So. 3d 124, 128 (Fla. Dist. Ct. App. 2016); Commonwealth v. Davis, 176 A.3d 869, 870 (Pa. Super. Ct. 2017).

¹⁹¹ See *supra* notes 73–99 and accompanying text.

¹⁹² See *supra* note 31 and accompanying text.

¹⁹³ John E. Coons, *Consistency*, 75 CAL. L. REV. 59, 92 (1987).

¹⁹⁴ See Allen & Mace, *supra* note 36, at 259.

¹⁹⁵ See *supra* notes 166–87 and accompanying text.

¹⁹⁶ See Commonwealth v. Baust, 89 Va. Cir. 267, 271 (Cir. Ct. 2014); State v. Trant, No. 15-2389, 2015 Me. Super. LEXIS 272, at *11 (Me. Oct. 27, 2015); Sec. & Exch. Comm’n v. Huang, No. 15-269, 2015 WL 5611644, at *4 (E.D. Pa. Sept. 23, 2015).

that tend to lead to the conclusion that disclosure of a cellphone passcode is “non-testimonial” endorse the position that a communication must “involv[e] the accused’s consciousness of the facts and the operations of his mind in expressing it” to be covered under the Fifth Amendment right against self-incrimination.¹⁹⁷ Disclosure of a cellphone passcode is not “testimonial” with respect to either perspective because it is neither the product of one’s mental processes, nor does such disclosure require “consciousness of the facts and the operations of his mind.”¹⁹⁸ In addition, disclosure of a cellphone passcode is also “non-testimonial” because it is no more communicative than physical evidence which has already been categorized as “non-testimonial.”¹⁹⁹

1. *A Cellphone Passcode Is Not A Product of One’s Mental Processes*

Studies show that the average iPhone user unlocks his cellphone eighty times per day and the average Android user engages in seventy-six phone sessions per day.²⁰⁰ Further, as many as 65% of cellphone users report that they rely on “memorization” to keep track of their passcodes.²⁰¹ As a result, many smartphone users enter their cellphone passcodes so frequently that they are committed to muscle memory, and many do not actually know what their passcodes are anymore.²⁰² As such, whether a testimonial communication is defined as a “product of one’s mental processes” or that which involves the accused’s “consciousness of the facts and the operations of his mind,” a cellphone passcode falls below either benchmark.²⁰³ In the former camp, the term “mental process” refers to an individual’s personal thoughts and perceptions.²⁰⁴ A “thought” can be defined as “the intellectual product of the organized views and principles of a period, place,

¹⁹⁷ *Doe v. United States*, 487 U.S. 201, 211 (1988) (quoting 8 WIGMORE, *supra* note 65, § 2265, at 386).

¹⁹⁸ *See Doe*, 487 U.S. at 201.

¹⁹⁹ *See infra* notes 216–33 and accompanying text.

²⁰⁰ Julia Naftulin, *Here’s how many times we touch our phones every day*, BUS. INSIDER (July 13, 2016, 10:27 AM), <http://www.businessinsider.com/dscout-research-people-touch-cell-phones-2617-times-a-day-2016-7>.

²⁰¹ KENNETH OLMSTEAD & AARON SMITH, PEW RES. CTR., AMERICANS AND CYBERSECURITY 15 (2017).

²⁰² *See* Abrar Ullah et al., *Usability of Activity and Image-Based Challenge Questions in Online Student Authentication*, 8533 HUMAN ASPECTS OF INFORMATION SECURITY, PRIVACY, AND TRUST 130, 134 (Theo Tryfonas & Ioannis Askoylakis eds., 2014).

²⁰³ *See supra* notes 166–87 and accompanying text.

²⁰⁴ *See Cognitive Psychology*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/medical/cognitive%20psychology> (last visited Apr. 10, 2018) (defining cognitive psychology as “a branch of psychology concerned with mental processes (as perception, thinking, learning, and memory) especially with respect to the internal events occurring between sensory stimulation and the overt expression of behavior.”).

group, or individual.”²⁰⁵ A cellphone passcode is a numerical combination and cannot be properly categorized as the product of organized views and principles of one’s surroundings.²⁰⁶ Similarly, under Allen and Mace’s cognition-based test, cognition does not include mental processes that produce muscular movements.²⁰⁷ With many cellphone users committing their cellphone passcodes to muscle memory, a cellphone passcode would fail the cognition-based test and fall outside the purview of Fifth Amendment Self-Incrimination Clause.²⁰⁸

Looking at the other camp of definitions, the results are the same.²⁰⁹ The term “consciousness” is defined as the “the state or fact of being conscious of an external object, state, or fact.”²¹⁰ “Conscious” is defined as “perceiving . . . or noticing with a degree of controlled thought or observation.”²¹¹ It follows that, if a cellphone passcode was a conscious fact, there would not be so many smartphone users complaining they forgot their cellphone passcodes.²¹² In addition, disclosing a cellphone passcode does not involve the operations of one’s mind.²¹³ Entering a cellphone passcode an average of eighty times per day is such a repetitive, mechanical, and procedural activity that it cannot be said to involve the operation of one’s mind.²¹⁴ A cellphone passcode does not meet the requirements of either camp of definitions and is therefore not protected by the Fifth Amendment’s Self-Incrimination Clause.²¹⁵

²⁰⁵ *Thought*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/thought> (last visited Apr. 10, 2018).

²⁰⁶ See *supra* note 202 and accompanying text.

²⁰⁷ See Allen & Mace, *supra* note 36, at 267.

²⁰⁸ See *supra* notes 201–02 and accompanying text.

²⁰⁹ See *infra* notes 210–15 and accompanying text.

²¹⁰ *Consciousness*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/consciousness> (last visited Apr. 10, 2018).

²¹¹ *Conscious*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/conscious> (last visited Apr. 10, 2018).

²¹² See *supra* notes 201–02 and accompanying text.

²¹³ See *supra* notes 200–05 and accompanying text.

²¹⁴ See *supra* notes 200–05 and accompanying text. For example, in *State v. Stahl*, law enforcement was able to secure a search warrant for the individual’s Apple iPhone 5, but could not execute the warrant because the cellphone was passcode-protected and the defendant refused to surrender his passcode. *State v. Stahl*, 206 So. 3d 124, 128 (Fla. Dist. Ct. App. 2016). In response to the defendant’s non-compliance, the prosecution filed a motion to compel production of the defendant’s passcode. *Id.* The court ultimately determined that the defendant should be compelled to provide his cellphone passcode. *Id.* at 136–37. However, had the prosecution filed a motion to compel information pertaining to the type and location of the incriminating evidence, the court likely would have reached a different result. See *id.* at 136. Not only would this type of motion essentially compel a confession, it would compel the defendant to disclose a product of his mental processes because he would have to recall consciousness of the facts and remember where on his phone this evidence is stored and its format. See *id.*

²¹⁵ See *supra* notes 203–14 and accompanying text.

2. *Disclosing a Cellphone Passcode is No More “Testimonial” Than Physical Evidence Traditionally Classified as “Non-Testimonial”*

When comparing a cellphone passcode with physical evidence such as blood, standing in a lineup, handwriting exemplars, and voice exemplars, it is not readily apparent how a cellphone passcode is more “testimonial” than these types of physical evidence.²¹⁶

Blood is no more “testimonial” than compelling an individual to provide the passcode to his cellphone.²¹⁷ Although compelling an individual to submit to a blood draw does not involve any “communication,”²¹⁸ blood is capable of communicating information such as: the presence or lack of diseases and conditions such as cancer, HIV/AIDS, and autoimmune conditions; how well vital organs are functioning; kinship; the sex of a fetus; the presence of alcohol and controlled substances; and overall mental and physical health.²¹⁹ On the other hand, disclosure of a numerical cellphone passcode does not appear to communicate the same volume of information. In a cellphone passcode case where law enforcement has obtained a valid search warrant, law enforcement would already know the cellphone belongs to a specific individual, so disclosure of the passcode would not communicate the user’s identity.²²⁰ Perhaps a cellphone user’s passcode represents his birth year or street address, but again, law enforcement would already know this information, so the cellphone passcode does not communicate much additional information.²²¹ Because blood has been long regarded as “non-testimonial,” and disclosure of a cellphone passcode arguably communicates less information than blood, a cellphone passcode should not be afforded protection under the Fifth Amendment Self-Incrimination Clause.²²²

²¹⁶ See *supra* notes 102–19, 124–35, 138–46 and accompanying text.

²¹⁷ See *infra* note 219 and accompanying text.

²¹⁸ *Schmerber v. California*, 384 U.S. 757, 765 (1966). The *Schmerber* Court stated that the right against self-incrimination provides “a bar against compelling communications or testimony,” but does not provide a similar bar against compelling “real or physical evidence.” *Id.* at 764.

²¹⁹ See Alice Park, *How Blood Tests Are Changing Medicine*, TIME HEALTH (Jan. 20, 2016), <http://time.com/3960519/how-blood-tests-are-changing-medicine/>; Dale Kiefer & Kristeen Cherney, *Toxicology Screen*, HEALTHLINE (July 15, 2015), <https://www.healthline.com/health/toxicology-screen>.

²²⁰ See *State v. Stahl*, 206 So. 3d 124, 128 (Fla. Dist. Ct. App. 2016) (involving a situation where law enforcement located an Apple iPhone 5 in defendant’s residence and defendant stated it was his cellphone); *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *1 (Oct. 27, 2015) (seizing an iPhone 4 and an iPhone 6 during the arrest); *Commonwealth v. Baust*, 89 Va. Cir. 267, 268 (Cir. Ct. 2014) (involving an incident where law enforcement found a cellphone pursuant to a valid search warrant and defendant told them that evidence of the alleged assault “may exist” on his phone).

²²¹ See *supra* note 31 and accompanying text.

²²² See *supra* notes 118–19, 217–21 and accompanying text.

In addition, a cellphone passcode should be categorized as “non-testimonial” when compared to the outcome in *United States v. Wade*.²²³ In *Wade*, the defendant was compelled to stand in a lineup, wear strips of tape on his face similar to those allegedly worn by the perpetrator, and mimic what the perpetrator of a bank robbery had said.²²⁴ With respect to the focus of this comment, the most significant Fifth Amendment issue was the fact that the defendant was compelled to repeat the words the robber allegedly said during the course of the robbery.²²⁵ The *Wade* Court concluded that the defendant’s Fifth Amendment right against self-incrimination was not violated because “he was required to use his voice as an identifying physical characteristics, not to speak his guilt.”²²⁶ Even so, forcing the defendant to say these specific words comes close to compelling him to “speak his guilt.”²²⁷ In reaching this conclusion, the Court was implying that protection under the Self-Incrimination Clause is not afforded to any and all communications; rather, it is afforded, to communications disclosing facts that relate an individual to a criminal act.²²⁸ It follows that, because disclosing a cellphone passcode does not communicate facts connecting an individual to a criminal act, courts should construe disclosure of cellphone passcodes as “non-testimonial” and outside the protection of the Self-Incrimination Clause.²²⁹

In *Gilbert v. California*, the defendant was convicted of armed robbery and the murder of a police officer that occurred in California.²³⁰ On appeal, the defendant argued that admission of handwriting exemplars taken from him after his arrest violated his Fifth Amendment right against self-incrimination.²³¹ Regarding the defendant’s Fifth Amendment claim, the Court stated that not every compulsion requiring the accused to use his voice or to write compels a communication protected by the Fifth Amendment; instead, the Court found that “[a] mere handwriting exemplar, in contrast to the content of what is written, like the voice or body itself, is an identifying physical characteristic outside [the Fifth Amendment’s] protection.”²³² In doing so, the *Gilbert* Court differentiated between compelling an individual to produce a handwriting exemplar and compelling an individual to write something containing significant information such as a written statement disclosing the circumstances that relate

²²³ See *supra* notes 133–35 and accompanying text.

²²⁴ See *supra* notes 124–26 and accompanying text.

²²⁵ See *supra* notes 124–26 and accompanying text.

²²⁶ *United States v. Wade*, 388 U.S. 218, 222–23 (1967).

²²⁷ See *supra* notes 225–26 and accompanying text.

²²⁸ *Wade*, 388 U.S. at 222–23.

²²⁹ See *supra* note 228 and accompanying text.

²³⁰ *Gilbert v. California*, 388 U.S. 263, 265 (1967).

²³¹ *Id.* at 264–65.

²³² *Id.* at 266–67.

an individual to an offense.²³³ There is a difference between compelling an individual to write a meaningless phrase in order to analyze his handwriting and compelling an individual to produce a written statement that communicates facts potentially relating him to a crime.²³⁴ Like a handwriting exemplar, a cellphone passcode is an identifying characteristic. Once an individual successfully enters a cellphone passcode, he has essentially confirmed that the cellphone belongs to him. Therefore, based on the principles of substantive content and identification asserted in *Gilbert*, disclosure of a cellphone passcode should also be categorized as a non-testimonial communication.²³⁵

C. *Cellphone Passcodes and The Foregone Conclusion Doctrine*

One recognized exception to the Fifth Amendment Self-Incrimination Clause is the foregone conclusion doctrine.²³⁶ Under the foregone conclusion doctrine, if “the State has established, through independent means, the existence, possession, and authenticity” of the information being sought, such information “adds little or nothing to the sum total of the Government’s information[,]” and is thereby considered a foregone conclusion.²³⁷ When the elements of the foregone conclusion doctrine are satisfied, the disclosure can be compelled because the act of production is one of surrender, not testimony.²³⁸ Thus, the defendant’s Fifth Amendment right against self-incrimination has not been violated.²³⁹

In a typical cellphone search case, law enforcement has a search warrant for a cellphone, but it cannot execute the search warrant because the cellphone is passcode-protected.²⁴⁰ Law enforcement’s inability to execute the search warrant because the cellphone is passcode-protected and the user refuses to disclose the passcode demonstrates that a passcode exists, and thus satisfies the first element of the foregone conclusion doctrine.²⁴¹

²³³ See *id.*

²³⁴ See *supra* note 232 and accompanying text.

²³⁵ See *supra* notes 230–34 and accompanying text.

²³⁶ See *Fisher v. United States*, 425 U.S. 391, 411 (1976).

²³⁷ See *State v. Stahl*, 206 So. 3d 124, 135 (Fla Dist. Ct. App. 2016) (citing *United States v. Doe (In re Grand Jury Subpoena Duces Tecum)*, 670 F.3d 1335, 1345 (11th Cir. 2012)) (“In order for the foregone conclusion doctrine to apply, the State must show with reasonable particularity that, at the time it sought the act of production, it already knew the evidence sought existed, the evidence was in the possession of the accused, and the evidence was authentic.”).

²³⁸ *Fisher*, 425 U.S. at 411 (citing *In re Harris*, 221 U.S. 274, 279 (1911)).

²³⁹ *Stahl*, 206 So. 3d at 133 (citing *Fisher*, 425 U.S. at 411).

²⁴⁰ See *supra* note 190 and accompanying text.

²⁴¹ See *supra* note 237 and accompanying text.

Regarding possession of the passcode, it is reasonable to conclude that the cellphone's user is in possession of the passcode.²⁴² As seen in cases like *State v. Stahl*, *State v. Trant*, and *Commonwealth v. Baust*, cellphones in these types of cases are typically seized pursuant to a warrant to search a particular person or that person's residence.²⁴³ Once the cellphone is seized and identified as belonging to a particular person, it is reasonable to conclude that the cellphone's user is in possession of the passcode needed to unlock the cellphone.²⁴⁴

As to the authenticity requirement of the foregone conclusion doctrine, *State v. Stahl* appears to be the only court that has directly addressed the authenticity requirement in the context of a motion to compel an individual's cellphone passcode.²⁴⁵ *Stahl* acknowledged that the foregone conclusion doctrine cannot be "seamlessly applied to passcodes[.]"²⁴⁶ As a result, the *Stahl* court has encouraged courts to "recognize that [a cellphone passcode] is self-authenticating," and other means of achieving authenticity may not exist in this situation.²⁴⁷ Building on this argument, there is no reason to believe that an individual's cellphone passcode is unauthentic.²⁴⁸ This would prevent the user from accessing his phone, which is contrary to the reason that an individual would use security measures like passcode protection—to ensure that he is the only person who can access the contents of the cellphone.

Assuming the authenticity element is applied as discussed in *Stahl*, the remaining elements of the foregone conclusion doctrine are relatively straightforward.²⁴⁹ In typical cellphone search cases, the government will be able

²⁴² See *Stahl*, 206 So. 3d at 136 (explaining that based on the defendant's identification of the phone and the corresponding phone number, the phone belonged to the defendant and therefore the passcode would be in his possession).

²⁴³ See *supra* note 16 and accompanying text.

²⁴⁴ See *supra* note 242 and accompanying text.

²⁴⁵ *Stahl*, 206 So. 3d at 136; see also *Commonwealth v. Davis*, 176 A.3d 869 (Pa. Super. Ct. 2017) (lacking a discussion on authenticity); *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272 (Me. Oct. 22, 2015) (lacking a discussion on authenticity); *Commonwealth v. Baust*, 89 Va. Cir. 267 (Cir. Ct. 2014) (lacking a discussion on authenticity). Since the foregone conclusion doctrine has typically been used in cases involving the production of documents, authenticity has traditionally been independently established by: (1) "testimony of third parties familiar with that type of document"; (2) "comparison to a prior version of the document"; or (3) "comparison to other related documents." *United States v. Greenfield*, 831 F.3d 106, 118 (2d Cir. 2016). However, the *Stahl* court suggests that since the foregone conclusion doctrine cannot be seamlessly applied to passcodes, courts must recognize that technology is self-authenticating and authenticity is established if the phone is accessible once the passcode has been entered. *Stahl*, 206 So. 3d at 136.

²⁴⁶ *Id.*

²⁴⁷ *Id.*

²⁴⁸ See *id.*

²⁴⁹ See *id.* at 135–137 (applying the elements of the foregone conclusion doctrine based on their plain language and with little analysis). But see *Commonwealth v. Baust*, 89 Va. Cir. 267, 271 (Cir. Ct. 2014) (reaching the conclusion that a cellphone passcode is not a foregone conclusion

to demonstrate that the existence, possession and control, and authenticity of the passcode is already known.²⁵⁰ Thus, the passcode itself “adds little or nothing to the sum total of the Government’s information.”²⁵¹ It follows then, assuming a factually similar scenario, that all cellphone passcodes should be construed as a foregone conclusion and, therefore, not entitled to protection under the Fifth Amendment Self-Incrimination Clause.²⁵²

D. Is the Solution in the Purpose of the Fifth Amendment?

The scope and nature of the Fifth Amendment Self-Incrimination Clause are not easily discerned.²⁵³ In recognizing this conceptual difficulty, courts faced with fact patterns similar to the one outlined in this comment have turned to the historical and traditional purposes of the Fifth Amendment for answers.²⁵⁴ However, the traditional purposes of the Fifth Amendment do not shed light on the issue at hand.²⁵⁵

In his extensive research of the Fifth Amendment Self-Incrimination Clause, John H. Wigmore compiled a list of a dozen policies, from multiple sources, which have been advanced as justifications for the right against self-incrimination.²⁵⁶ The Fifth Amendment right against self-incrimination has historically embraced some of the following principles: (1) “protects the innocent defendant from convicting himself by a bad performance on the witness stand,”²⁵⁷ (2) “avoids burdening the courts with false testimony,”²⁵⁸ (3) “encourages third-party witnesses to appear and testify by removing the fear that they might be compelled to incriminate themselves” on the stand,²⁵⁹ (4) “preserves respect for the legal process by avoiding situations which are likely to degenerate into

“because it is not known outside of defendant’s mind.”). The *Baust* court appears to be reading elements into the foregone conclusion doctrine that do not exist, as the foregone conclusion does not require that the information be known outside of the defendant’s mind. *Id.* at 271.

²⁵⁰ See *supra* notes 240–48 and accompanying text.

²⁵¹ See *Stahl*, 206 So. 3d at 135.

²⁵² See *supra* note 250 and accompanying text.

²⁵³ See *Allen & Mace*, *supra* note 36, at 245.

²⁵⁴ See *Commonwealth v. Davis*, 176 A.3d 869, 874 (Pa. Super. Ct. 2017) (“[T]he Fifth Amendment right against self-incrimination is the type of privilege that is deeply rooted in public policy.”); *State v. Trant*, No. 15-2389, 2015 Me. Super. LEXIS 272, at *5 (Me. Oct. 27, 2015).

²⁵⁵ See 8 WIGMORE, *supra* note 65, § 2251, at 296 (stating that “there is no agreement as to the policy of the privilege against self-incrimination.”).

²⁵⁶ See *id.* John H. Wigmore is well-known for his work on the development of evidence law. See *Schmerber v. California*, 384 U.S. 757, 774 (1966).

²⁵⁷ 8 WIGMORE, *supra* note 65, § 2551, at 310.

²⁵⁸ *Id.* at 311.

²⁵⁹ *Id.*

undignified, uncivilized, and regrettable scenes,²⁶⁰ (5) encourage the prosecution to do a thorough and independent investigation,²⁶¹ (6) to protect an individual from being prosecuted for crimes that lack the level of seriousness to be of a genuine concern to society,²⁶² and (7) contribute to the fair balance between the citizens and the government.²⁶³

Many of these purposes are inapplicable to the case at hand.²⁶⁴ For example, prosecuting attorneys do not file motions to compel production of a cellphone passcode in open court when the witness is on the stand.²⁶⁵ As to the last purpose, the Fifth Amendment Self-Incrimination Clause contributes to the fair balance between the rights of citizens and the government.²⁶⁶ However, it is not the only consideration in evaluating this balance.²⁶⁷ In a cellphone search case, law enforcement has conducted a thorough investigation sufficient to establish probable cause for a cellphone search warrant.²⁶⁸ Without the ability to execute this search warrant, the balance between the citizens and the government is disrupted and tips unjustifiably in the cellphone user's favor.²⁶⁹ For the foregoing reasons, and in an effort to strike the proper balance between the citizens and the government, an individual should be compelled to provide the passcode to his cellphone.²⁷⁰

E. A Workable Standard: Substantial Need and Undue Hardship

The distinction this comment makes between testimonial and non-testimonial communications is that the latter is not the substantive content of cognition and therefore undeserving of Fifth Amendment protection.²⁷¹ Conversely, a testimonial communication deserves protection under the Fifth Amendment because it is likely to contain damaging information that connects an individual to an offense.²⁷² Regardless of which side courts land on with respect

²⁶⁰ *Id.* at 312.

²⁶¹ *Id.*

²⁶² *Id.*

²⁶³ *Id.* at 317.

²⁶⁴ See Allen & Mace, *supra* note 36, at 243 (stating that the Self-Incrimination Clause of the Fifth Amendment “is ancient and was written to eliminate specific abuses of authority that have no close modern analogues.”).

²⁶⁵ See *supra* notes 257–59 and accompanying text.

²⁶⁶ 8 WIGMORE, *supra* note 65, § 2551, at 317.

²⁶⁷ See *supra* notes 256–63 and accompanying text.

²⁶⁸ See *supra* note 261 and accompanying text.

²⁶⁹ See *supra* note 263 and accompanying text.

²⁷⁰ See *supra* notes 264–69 and accompanying text.

²⁷¹ See Allen & Mace, *supra* notes 36, at 246; *supra* notes 195–214 and accompanying text.

²⁷² See *supra* note 214 and accompanying text.

to the “testimonial” tug of war, they will continue to struggle with this issue.²⁷³ Given that courts are not working from a blank canvas and the reality that new technology will continue to confuse this issue, a unifying standard that departs from the “testimonial” standard altogether—a standard that is clear and easy to apply—would be beneficial.²⁷⁴

Although no such standard currently exists in the criminal context, the dichotomy between testimonial and non-testimonial communications is somewhat analogous to the different protection afforded to ordinary work and opinion work product in a civil context.²⁷⁵ Rule 26(b)(3) of the Federal Rules of Civil Procedure reads as follows:

(A) *Documents and Tangible Things*. Ordinarily, a party may not discover documents and tangible things that are prepared in anticipation of litigation or for trial by or for another party But, subject to Rule 26(b)(4), those materials may be discovered if:

. . .

(ii) the party shows that it has substantial need for the materials . . . and cannot, without undue hardship, obtain their substantial equivalent by other means.

(B) *Protection Against Disclosure*. If the court orders discovery of those materials, it must protect against disclosure of the mental impressions, conclusions, opinions, or legal theories of a party’s attorney or other representative concerning the litigation.²⁷⁶

Subsection A, known as ordinary work product, consists of documents and tangible things prepared in anticipation of litigation or for trial, and it “is discoverable if the moving party makes a showing of substantial need and undue

²⁷³ This issue, in the context of cellphone cases, surfaced in 2014. *See supra* notes 172–84 and accompanying text. There is nothing to suggest that this issue will not persist.

²⁷⁴ *See supra* notes 166–87 and accompanying text.

²⁷⁵ *Cf.* Fed. R. Civ. P. 26(b)(3)(A)–(B); *see* United States v. O’Keefe, 537 F. Supp. 2d 14, 18–19 (D.D.C. 2008) (standing for the proposition that the Federal Rules of Civil Procedure may provide guidance in criminal cases for discovery-related matters more thoroughly and frequently dealt with in a civil context); United States v. Briggs, No. 10CR184S, 2011 WL 4017886, at *9 (W.D.N.Y. Sept. 8, 2011) (finding that because the Federal Rules of Criminal Procedure are silent as to the issue of production of electronically stored information, the Federal Rules of Civil Procedure apply).

²⁷⁶ Fed. R. Civ. P. 26(b)(3)(A)–(B).

hardship.”²⁷⁷ Subsection B, known as opinion work product, includes the attorney’s opinions and mental impressions, and it is “afforded a near absolute protection from discovery.”²⁷⁸ The reason for this near absolute protection is because, as an officer of the court, a lawyer is “bound to work for the advancement of justice while faithfully protecting the rightful interests of his clients.”²⁷⁹

Similar to opinion work product, a testimonial communication should be afforded near absolute protection because the disclosure of facts relating an individual to a crime is fundamentally contrary to the individual’s interests and can do “substantial damage to the adversary system.”²⁸⁰ On the other hand, ordinary work product is justifiably afforded less protection from compelled disclosure because it does not include an attorney’s mental impressions and legal theories so vital to the functioning of the adversary system.²⁸¹ Circling back, because a cellphone passcode is properly categorized as “non-testimonial,” it should be afforded less protection than testimonial communications.²⁸² A cellphone passcode does not rise to the level of importance meriting absolute protection under the Self-Incrimination Clause, thus a similar substantial need and undue hardship standard is fitting when determining whether someone should be compelled to provide his cellphone passcode.²⁸³

IV. CONCLUSION

Law enforcement agencies at both the federal and state level are frequently unable to unlock passcode-protected cellphones for which valid search warrants exist.²⁸⁴ In response, prosecutors are filing motions to compel defendants to provide the passcode to their cellphones.²⁸⁵ These motions are achieving varying degrees of success, mainly because courts disagree whether a cellphone passcode is “testimonial” and therefore deserving of protection under the Fifth Amendment right against self-incrimination.²⁸⁶ A cellphone passcode is not deserving of protection under the Fifth Amendment because cellphone passcodes should be categorized as “non-testimonial” and because they fall under the foregone

²⁷⁷ *Frazier v. Se. Penn. Transp. Auth.*, 161 F.R.D. 309, 318 (E.D. Pa. 1995) (citations omitted).

²⁷⁸ *Frazier*, 161 F.R.D. at 319.

²⁷⁹ *Hickman v. Taylor*, 329 U.S. 495, 510 (1947).

²⁸⁰ Thomas Wilson, Note, *The Work Product Doctrine: Why Have an Ordinary Course of Business Exception?*, 1988 COLUM. BUS. L. REV. 587, 592 (1988).

²⁸¹ *Id.* at 593.

²⁸² See *supra* notes 195–235 and accompanying text.

²⁸³ See *supra* notes 271–83 and accompanying text.

²⁸⁴ See *supra* notes 10–15 and accompanying text.

²⁸⁵ See *supra* note 16 and accompanying text.

²⁸⁶ See *supra* notes 73–99 and accompanying text.

conclusion exception to the Fifth Amendment.²⁸⁷ Further, Fifth Amendment jurisprudence recognizes the need to balance the interests of law enforcement and an individual's right against self-incrimination.²⁸⁸ As such, following the two-prong analysis proposed by this comment, as long as law enforcement has a search warrant for a cellphone and the prosecution can make a showing of substantial need and undue hardship, courts should compel individuals to disclose their cellphone passcodes to keep the scales evenly balanced.²⁸⁹ This standard will produce more uniform results, help address future issues concerning the "testimonial" tug of war, and achieve a fair balance between the interests of law enforcement and an individual's right against self-incrimination.

²⁸⁷ See *supra* notes 195–251 and accompanying text.

²⁸⁸ See *supra* notes 253–68 and accompanying text.

²⁸⁹ See *supra* notes 263–83 and accompanying text.