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The Voluntariness of Voluntary Consent: Consent Searches and the Psychology of Compliance

ABSTRACT. Consent-based searches are by far the most ubiquitous form of search undertaken by police. A key legal inquiry in these cases is whether consent was granted voluntarily. This Essay suggests that fact finders' assessments of voluntariness are likely to be impaired by a systematic bias in social perception. Fact finders are likely to underappreciate the degree to which suspects feel pressure to comply with police officers' requests to perform searches.

In two preregistered laboratory studies, we approached a total of 209 participants ("Experiencers") with a highly intrusive request: to unlock their password-protected smartphones and hand them over to an experimenter to search through while they waited in another room. A separate 194 participants ("Forecasters") were brought into the lab and asked whether a reasonable person would agree to the same request if hypothetically approached by the same researcher. Both groups then reported how free they felt, or would feel, to refuse the request.

Study 1 found that whereas most Forecasters believed a reasonable person would refuse the experimenter's request, most Experiencers—100 out of 103 people—promptly unlocked their phones and handed them over. Moreover, Experiencers reported feeling significantly less free to refuse than did Forecasters contemplating the same situation hypothetically.

Study 2 tested an intervention modeled after a commonly proposed reform of consent searches, in which the experimenter explicitly advises participants that they have the right to withhold consent. We found that this advisory did not significantly reduce compliance rates or make Experiencers feel more free to say no. At the same time, the gap between Experiencers and Forecasters remained significant.

These findings suggest that decision makers judging the voluntariness of consent consistently underestimate the pressure to comply with intrusive requests. This is problematic because it indicates that a key justification for suspicionless consent searches—that they are voluntary—relies on an assessment that is subject to bias. The results thus provide support to critics who would like to see consent searches banned or curtailed, as they have been in several states.

The results also suggest that a popular reform proposal—requiring police to advise citizens of their right to refuse consent—may have little effect. This corroborates previous observational studies that find negligible effects of *Miranda* warnings on confession rates among interrogees, and little change in rates of consent once police start notifying motorists of their right to refuse vehicle searches. We suggest that these warnings are ineffective because they fail to address the psychology of compliance. The reason people comply with police, we contend, is *social*, not informational. The social demands of police-citizen interactions persist even when people are informed of their rights. It is time to abandon the myth that notifying people of their rights makes them feel empowered to exercise those rights.

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INTRODUCTION

Under the Fourth Amendment, police are permitted to perform warrantless searches of individuals who have given valid consent to be searched.[1] Today, consent searches account for over 90% of all warrantless searches conducted by police.[2] If an individual gives consent, the police can search without having particularized probable cause or reasonable suspicion. The vast majority of searches turn up no contraband or evidence of illegal activity.[3]

The landmark consent search case *Schneckloth v. Bustamonte* provides that an individual's consent must be voluntary and cannot be "coerced, by explicit or implicit means."[4] Related cases have held that mere "acquiescence to a claim of lawful authority"[5] is insufficient; consent must be "freely and voluntarily given."[6] Courts evaluate the "totality of the circumstances" to determine whether the decision to submit to a search was made voluntarily.[7]

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1. Schneckloth v. Bustamonte, 412 U.S. 218, 248 (1973).

2. Ric Simmons, *Not "Voluntary" but Still Reasonable: A New Paradigm for Understanding the Consent Searches Doctrine*, 80 IND. L.J. 773, 773 (2005) ("Over 90% of warrantless police searches are accomplished through the use of the consent exception to the Fourth Amendment."); *see also* Paul Sutton, *The Fourth Amendment in Action: An Empirical View of the Search Warrant Process*, 22 CRIM. L. BULL. 405, 415 (1986) ("[M]ost searches are actually conducted pursuant to the consent of the person searched. In Mountain City, we were told that 98 percent of searches were by consent. Indeed, listening to law enforcement officials there, one would think consent was the easiest thing in the world to come by.").

3. *See* Gerard E. Lynch, *Why Not a* Miranda *for Searches?*, 5 OHIO ST. J. CRIM. L. 233, 235 (2007); *see also* 1 JOSHUA DRESSLER ET AL., UNDERSTANDING CRIMINAL PROCEDURE § 16.01 (7th ed. 2017) (describing the consent search as "almost certainly represent[ing] the dominant category of lawful warrantless searches"); Oren Bar-Gill & Barry Friedman, *Taking Warrants Seriously*, 106 NW. U. L. REV. 1609, 1655-56 (2012); Janice Nadler, *Consent, Dignity, and the Failure of Scattershot Policing*, *in* THE CONSTITUTION AND THE FUTURE OF CRIMINAL JUSTICE IN AMERICA 93, 102 & 107-08 n.26 (John T. Parry & L. Song Richardson eds., 2013) [hereinafter Nadler, *Scattershot Policing*] (describing data from New York City and one Florida county); Janice Nadler, *No Need to Shout: Bus Sweeps and the Psychology of Coercion*, 2002 SUP. CT. REV. 153, 210 [hereinafter Nadler, *No Need to Shout*].

4. *Schneckloth*, 412 U.S. at 228.

5. Bumper v. North Carolina, 391 U.S. 543, 549 (1968).

6. Florida v. Royer, 460 U.S. 491, 497 (1983).

7. *E.g.*, *Schneckloth*, 412 U.S. at 227 ("[T]he question whether a consent to a search was in fact 'voluntary' or was the product of duress or coercion, express or implied, is a question of fact to be determined from the totality of all the circumstances."); State v. Overbay, 810 N.W.2d 871, 875 (Iowa 2012) ("When a defendant [claims a search] was involuntary, we evaluate the totality of the circumstances to determine whether or not the decision was made voluntarily.").

Consent search jurisprudence has drawn fire from academics, criminal justice advocates, and judges.[8] Many critics argue that consent search doctrine is a legal fiction.[9] Judges, these critics say, do not scrutinize whether a citizen submitted to a search voluntarily; rather, they balance the interests of the police against those of the citizen.[10] Courts, however, have largely forged ahead with the voluntariness test, continuing to explain their decisions in terms of consent.[11]

In this Essay, we take the voluntariness test on its own terms. Drawing on the results of two preregistered laboratory studies, we demonstrate how, even if judges intend to assess how pressured people feel to comply with police search requests, systematic biases in social perception are likely to impair their performance on this task. Our findings suggest that third parties judging the voluntariness of consent are likely to underestimate the pressure people feel to comply with intrusive requests. These results generally support, but also diverge in important ways from, the prevailing criticisms of consent search doctrine.

The most prominent critique of consent search jurisprudence is that police searches cannot be truly voluntary if citizens do not know they have the option of withholding consent.[12] To these critics' frustration, the Supreme Court has repeatedly held that the Fourth Amendment does not require police to advise

8. *E.g.*, Simmons, *supra* note 2, at 775 (citing "the nearly unanimous condemnation of the Court's rulings on consensual searches"); Note, *The Fourth Amendment and Antidilution: Confronting the Overlooked Function of the Consent Search Doctrine*, 119 HARV. L. REV. 2187, 2187 (2006) ("Outside the Court . . . the consent search doctrine has found few friends."); *see, e.g.*, DAVID COLE, NO EQUAL JUSTICE: RACE AND CLASS IN THE AMERICAN CRIMINAL JUSTICE SYSTEM 7-8, 20-22, 27-34 (1999); *see also* Lynch, *supra* note 3, at 234-35 (explaining that the method by which judges adjudicate the voluntariness of consent searches was "supposedly prove[n] impossible and unwieldly" and "hopelessly inadequate" when the same method was used to determine the voluntariness of a confession); Nadler, *No Need to Shout*, *supra* note 3, at 209 (noting "a recent proliferation of routinized, suspicionless searches"); Marcy Strauss, *Reconstructing Consent*, 92 J. CRIM. L. & CRIMINOLOGY 211 (2001) (arguing that consent searches are often not consensual).

9. *See infra* notes 41-49 and accompanying text.

10. *Id.*

11. *Id.*

12. *See, e.g.*, COLE, *supra* note 8, at 30 (arguing that consent search doctrine "intentionally exploits the ignorance of the citizenry to reduce the law enforcement costs of the Fourth Amendment").

citizens of their right to withhold consent.[13] In other words, there is no *Miranda* for search.[14]

Another salient critique of consent searches is that they are "inherently coercive"[15] because "implicit in the [police officer's] introduction . . . is a show of authority" that will intimidate the average person.[16] Marcy Strauss argues that the power differential between officer and citizen entails the "simple truism that many people, if not most, will always feel coerced by police 'requests' to search."[17] This may be especially true for racial minorities, who are dispropor-

13. United States v. Drayton, 536 U.S. 194 (2002); Ohio v. Robinette, 519 U.S. 33 (1996); Schneckloth v. Bustamonte, 412 U.S. 218, 248 (1973). Tracey Maclin's explanation for this pattern is that the Court believes that an officer's request to search conveys to the requestee that he has a right to refuse, rendering unnecessary any explicit *Miranda*-like warning. Tracey Maclin, *The Good and Bad News About Consent Searches in the Supreme Court*, 39 MCGEORGE L. REV. 27, 52-53 (2008).

14. Miranda v. Arizona, 384 U.S. 436 (1966) (establishing that, prior to any questioning, suspects in police custody must be given a formal warning notifying them of their rights under the U.S. Constitution and informing them that these rights may be invoked at any time during the interview).

15. Strauss, *supra* note 8, at 242, 268 ("[T]he arguments against the doctrine—the existence of inherent coercion—suggest that it is almost impossible to separate out those situations in which a person 'truly' wants to consent from those situations in which a person feels compelled to acquiesce."); *see also* COLE, *supra* note 8, at 20 (arguing that the reasonable person standard "allows the police to engage in substantial coercion under the rubric of 'consent'").

16. Brown v. United States, 983 A.2d 1023, 1027 (D.C. 2009) (Schwelb, J., concurring in the judgment but dissenting in part) (quoting Lawrence v. United States, 566 A.2d 57, 61 (D.C. 1989)) ("Implicit in the introduction of the [officer] and the initial questioning is a show of authority to which the average person encountered will feel obliged to stop and respond. Few will feel that they can walk away or refuse to answer." (alteration in original)).

17. Strauss, *supra* note 8, at 221.

tionately stopped and asked to submit to consent searches.[18] Indeed, consent search jurisprudence has been decried as "the handmaiden of racial profiling."[19]

A third objection to consent searches is that the legal standard for determining the voluntariness of consent is murky and ill-defined, allowing courts to find consent voluntary in all but the most extreme cases.[20] The Court announced in *Schneckloth* that voluntariness is determined by "careful scrutiny of all the surrounding circumstances," including "the state of the accused's mind."[21] In theory, this voluntariness determination is supposed to be different from the more objective reasonable-person test, which is used to assess whether a person has been "seized" by police.[22] The court emphasized in *Schneckloth* that the voluntariness test for consent searches considers individualized factors such as the defendant's intelligence and level of schooling.[23] Yet over time, the Supreme Court has appeared to embrace a more objective standard that looks at how a reasonable person would feel, deemphasizing how the particular individual felt.[24] In

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18. A recent empirical analysis of millions of police stops across seven states demonstrates that minority drivers are especially likely to be subjected to consent searches. Between 2011 and 2015, black drivers had 2.2 times the odds of white drivers and Hispanic drivers had 1.9 times the odds of white drivers of undergoing a consent search, conditional on being stopped. Emma Pierson et al., *A Large-Scale Analysis of Racial Disparities in Police Stops Across the United States*, STAN. OPEN POLICING PROJECT 1, 6, 8-9 (2017), https://5harad.com/papers/traffic-stops.pdf [https://perma.cc/7WTP-4RGA]; *see also* COLE, *supra* note 8, at 21 ("[A]lthough the doctrine leaves the police free to target whomever they please, the targets will not be random; by and large they will be young black men."); Jeremy Gorner & Matthew Walberg, *Cops Still Stopping More Black and Hispanic Drivers than Whites: ACLU*, CHI. TRIB. (Aug. 13, 2014, 8:25 AM), http://www.chicagotribune.com/news/ct-racial-profiling-traffic-stops-met-20140813-story.html [https://perma.cc/CJ5X-CBRL].

19. George C. Thomas III, *Terrorism, Race and a New Approach to Consent Searches*, 73 MISS L.J. 525, 542 (2003). Racial minorities are not only disproportionately stopped and asked to submit to searches; they are also disproportionately arrested, jailed awaiting trial, and convicted. *See, e.g.*, *Report of the Sentencing Project to the United Nations Special Rapporteur on Contemporary Forms of Racism, Racial Discrimination, Xenophobia, and Related Intolerance: Regarding Racial Disparities in the United States Criminal Justice System*, SENT'G PROJECT 1, 6 (Mar. 2018), https://www.sentencingproject.org/wp-content/uploads/2018/04/UN-Report-on-Racial-Disparities.pdf [https://perma.cc/FTP8-C8SK]. They are also more likely to be given long sentences. *Id.* at 1.

20. *See* COLE, *supra* note 8, at 32.

21. Schneckloth v. Bustamonte, 412 U.S. 218, 226-27 (1973); *see also* Simmons, *supra* note 2, at 778 (describing the Court as going "out of its way" to emphasize that "subjective as well as objective factors" are to be considered in determining the voluntariness of consent searches).

22. COLE, *supra* note 8, at 32.

23. *Schneckloth*, 412 U.S. at 248.

24. *See* Maclin, *supra* note 13, at 61 (lamenting "the modern Court's abandonment of *Bustamonte*'s 'voluntariness' test and its substitution of a 'reasonableness' test that considers only objective

United States v. Drayton, the Court explained that consent searches were permitted as long as "a reasonable person would understand that he or she is free to refuse."[25]

Indeed, systematic studies of lower-court rulings have found that judges rarely give weight to individualized factors about the accused when deciding voluntariness.[26] Instead, judges tend to focus on the conduct of the police, such as whether officers used a "conversational tone" and whether they drew their weapons.[27] If there is "no threat, no command, not even an authoritative tone of

facts or criteria"); Nadler, *No Need to Shout*, *supra* note 3, at 163 ("The standard for determining whether a citizen has been seized or subjected to an involuntary search focuses on whether a reasonable person in the situation would feel free to refuse the police requests."); Simmons, *supra* note 2 (describing the "evolution" of the doctrine from a subjective test focused on the individual characteristics of the defendant to an objective test focused on how a reasonable person would feel); Strauss, *supra* note 8, at 229 ("Recent Supreme Court decisions under both the Fourth and Fifth Amendments seem to be moving the law away from subjective considerations and towards an objective standard.").

25. 536 U.S. 194, 197 (2002).

26. *See, e.g.*, COLE, *supra* note 8, at 32 (citing research by Ray O'Brien of the Georgetown University Law Center showing that in most cases reviewed by the D.C. Circuit for validity of consent between 1989 and 1995, "courts did not even discuss the subjective factors that the Supreme Court in *Schneckloth* said would be relevant in determining voluntariness"); Strauss, *supra* note 8, at 222, 227 (examining hundreds of lower court cases and concluding that courts give "overwhelming attention to police behavior and . . . virtual inattention" to "whether the consent is the product of a person's 'free will and unconstrained choice[]'"); Brian A. Sutherland, Note, *Whether Consent to Search Was Given Voluntarily: A Statistical Analysis of Factors That Predict the Suppression Rulings of the Federal District Courts*, 81 N.Y.U. L. REV. 2192, 2204, 2215 (2006) (analyzing all consent searches discussed in federal district court opinions during a roughly twenty-eight-month period and concluding that "[f]actors relating to the individual traits of the defendant received relatively little discussion"); *see also* Nancy Leong & Kira Suyeishi, *Consent Forms and Consent Formalism*, 2013 WIS. L. REV. 751, 760-61 ("[T]he Supreme Court [has] suggested in a number of cases that the court should determine whether an officer's actions were reasonable from an objective standpoint, rather than a subjective one . . . . The Court has not, however, explicitly overruled *Schneckloth*, leaving doubt regarding the extent to which consent searches should take subjective factors into account.").

27. *See, e.g.*, United States v. Rodney, 956 F.2d 295, 297 (D.C. Cir. 1992) (finding consent voluntary because the officer's "gun was concealed; he wore plain clothes and spoke in a conversational tone; and no other officer came within five feet of" the defendant during the encounter); United States v. Gaviria, 740 F.2d 174, 182 (2d Cir. 1984) (holding that a lower court's finding of voluntary consent was not clearly erroneous because officers "spoke . . . in conversational tones in both English and Spanish and no weapons were displayed at any time"); United States v. Agarwal, No. 1:17-CR-00043-TCB-RGV, 2018 WL 3061923, at *8 (N.D. Ga. Apr. 6, 2018), *report and recommendation adopted*, No. 1:17-CR-043-TCB, 2018 WL 2181620 (N.D. Ga. May 11, 2018) (finding voluntary consent where the officer "used a casual, conversational tone, did not draw his weapon, did not use physical force or restrain [the defendant], and had not threatened him in any way, but simply asked [the defendant] if they could search his vehicle"); State v. Harris, 590 N.W.2d 90, 103 (Minn. 1999) (finding voluntary consent

voice,"[28] judges generally infer that the defendant felt free to refuse the search.[29] It is as if courts are saying that most people feel free to refuse police requests so long as the officers ask permission in a polite, conversational manner.

Reflecting further confusion about the voluntariness test, lower courts are deeply divided about what exactly the standard is meant to capture. A large number of them—the Second, Third, and Tenth Circuits, and, as of 2017, at least twelve state courts of last resort—review the voluntariness determination deferentially on appeal, using a clearly erroneous or abuse of discretion standard.[30] By contrast, the remaining circuits and at least fourteen state appellate courts subject voluntariness determinations to de novo review.[31] These courts defer on issues of "historical fact" but make an independent judgment on the ultimate legal question of whether those facts amount to voluntary consent.[32]

No matter the standard, though, courts tend overwhelmingly to find that consent was given voluntarily,[33] even when it seems that most people would feel enormous pressure to say yes to a search.[34] "[T]he Supreme Court's 'reasonable person' apparently has a lot more mettle than the average Joe," writes David

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when the officer asked the defendant "in a low key, easy-going tone of voice, for permission to search his person").

28. *Drayton*, 536 U.S. at 204.

29. *See* Nadler, *Scattershot Policing*, *supra* note 3, at 98 (arguing that following *Drayton*, lower courts "routinely and mechanically" cite such factors as tone of voice as the basis for finding voluntary consent).

30. Petition for Writ of Certiorari at 17, 21, People v. Aksu, No. 16-1009 (U.S. Feb. 17, 2017).

31. *See id*. at 17-25 (explaining that the other circuits' decisions "reveal the confusion and inconsistency characteristic of th[is] area" of law).

32. *See, e.g.*, State v. Tyler, 870 N.W.2d 119, 127 (Neb. 2015) ("As to the historical facts or circumstances leading up to a consent to search, we review the trial court's findings for clear error. However, whether those facts or circumstances constituted a voluntary consent to search, satisfying the Fourth Amendment, is a question of law, which we review independently of the trial court."); State v. Weisler, 35 A.3d 970, 975-76 (Vt. 2011) (citing cases that explicitly state this approach).

33. *See, e.g.*, Lynch, *supra* note 3, at 243 ("In the post-*Schneckloth* era, the lower courts much more frequently have found voluntary consent than they have overturned consent."); Strauss, *supra* note 8, at 227 ("[A] suspect's consent, except in extreme cases of obvious police misconduct, is typically found by the courts to be voluntary.").

34. Consent has been deemed voluntary in cases where the defendant was handcuffed in the back of a police cruiser. *See, e.g.*, State v. Winot, 897 A.2d 115, 121, 129 (Conn. App. Ct. 2006), *aff'd in part and rev'd in part*, 988 A.2d 188 (Conn. 2010). It has been deemed voluntary where the defendant was awakened in the early morning by SWAT team members who had broken into his home and forced him to the ground at gunpoint. *See, e.g.*, United States v. Hidalgo, 7 F.3d 1566, 1571 (11th Cir. 1993).

Cole, National Legal Director of the ACLU.[35] In *Drayton*, for example, the defendants were passengers on a bus that was stopped during a layover.[36] Three officers came aboard; one stationed himself at the front of the bus, one stood at the back, and one began approaching passengers one by one and asking for consent to search their baggage.[37] The defendants, who were never informed of their right to exit the bus or to refuse the inspection, agreed to be searched.[38] To some commentators, the situation was obviously fraught with coercion and intimidation, but the Justices did not see it that way. During oral argument, one questioned why the presence of police on the bus should make people feel less free to decline: "There's a policeman in the front of the bus. Who cares? He . . . has made it very clear that he's asking for your permission [to perform the search]."[39]

Comments such as these have led critics to charge that the Court is either committing "serious errors" in its understanding of human psychology[40] or else the doctrine "has devolved into a fiction of the crudest sort—a mere device for attaining the desired legal consequence."[41] Indeed, several Fourth Amendment scholars contend that when courts assess the voluntariness of consent, they are really assessing whether the police struck the appropriate balance between their crime-control aims and citizens' privacy rights. Tracey Meares and Bernard Harcourt note that "voluntariness" seems to operate as a "placeholder for an analysis of the competing interests of order and liberty" rather than an assessment of the individual's state of mind.[42] Daniel Williams similarly asserts that "[m]etaphysical notions like voluntariness have always been mere lexical paraphernalia of the actual inquiry into police methods we accept as legitimate crime-fighting

35. COLE, *supra* note 8, at 18.

36. Nadler, *No Need to Shout*, *supra* note 3, at 157.

37. *Id.*

38. *Id.*

39. *Id.* at 190 n.111 (quoting Transcript of Oral Argument at 46, United States v. Drayton, 536 U.S. 194 (2002) (No. 01-631)).

40. *Id.* at 156; *accord* State v. Jenkins, 3 A.3d 806, 876 (Conn. 2010) ("Perhaps the most telling criticism of . . . *Schneckloth* . . . is that the [c]ourt misapprehended the potential for psychological coercion in the context of consent searches." (alteration in original) (quoting 4 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 8.2(i) (4th ed. 2004))).

41. Nadler, *No Need to Shout*, *supra* note 3, at 156.

42. Tracey L. Meares & Bernard E. Harcourt, *Foreword: Transparent Adjudication and Social Science Research in Constitutional Criminal Procedure*, 90 J. CRIM. L. & CRIMINOLOGY 733, 738 (2000).

tools."[43] Janice Nadler has argued that the "real standard" judges apply is whether the police behaved appropriately, while the "nominal standard" they write about in their opinions describes the reasonable suspect's state of mind.[44] She elaborates:

> The "real" standard—whether the police conduct was within the bounds of "acceptable" coercion under the circumstances (no guns drawn, no explicit threats uttered)—functions as the decision rule that permits individual Justices to make an initial private, internal judgment about whether to uphold the admission into evidence of the contraband police discovered. The basis of that judgment is that the police behaved responsibly and did not cross the line that defines acceptable police behavior. The "nominal" standard is then trotted out in the Court's written opinion to justify the police officers' invasion of the citizen's privacy. The reasoning employed to effectuate the nominal standard, by now familiar, goes something like this: The police officer asked permission. The citizen granted it. A reasonable person in the situation would have felt free to not grant permission. Therefore [the] encounter and subsequent search were consensual.[45]

As these scholars note, it would perhaps be better if the Court simply acknowledged that it was weighing public safety against individual liberty, rather than carrying on with the obfuscating language of consent. "[F]or clarity's sake we would be better off unshackling ourselves from metaphysical terms like 'voluntariness,'" writes Williams.[46] "After all, what maddens us about the voluntariness locution in consent-search cases is precisely the unreality of it."[47]

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43. Daniel R. Williams, *Misplaced Angst: Another Look at Consent-Search Jurisprudence*, 82 IND. L.J. 69, 92 (2007).

44. Nadler, *No Need to Shout*, *supra* note 3, at 214.

45. *Id.*

46. Williams, *supra* note 43, at 92.

47. *Id.* at 89; *see also* Strauss, *supra* note 8, at 211 (relating the "mass incredulity" she witnesses every year when she teaches consent search jurisprudence: "Why, one hundred criminal procedure students jointly wonder, would someone 'voluntarily' consent to allow a police officer to search the trunk of his car, knowing that massive amounts of cocaine are easily visible there?").

Commentators have been making versions of this argument for years,[48] yet the Supreme Court insists on propagating the consent fiction.[49] Given that courts do not seem ready to abandon the language of voluntary consent anytime soon, we believe it is worthwhile to take the doctrinal standard at face value—pretextual though it may be—and examine whether it is flawed on its own terms.

In this Essay, we argue that even if the voluntariness test were not a legal fiction designed to legitimate police crime-fighting tactics, it would still demand that judges perform a highly difficult psychological task. We posit that the voluntariness test is problematic because it invites judges to assess the power of social influence, a task that decision makers tend to perform inaccurately.

It is often complained that voluntariness is a slippery concept—"a word without any true referent."[50] For example, Judge Gerard Lynch of the U.S. Court of Appeals for the Second Circuit has lamented the "philosophical complexities"[51] of applying this "fraught"[52] metaphysical concept. Judges, he says, would like to avoid "delving into the murk of determinist philosophies"[53] and facing the "philosophical difficulties attending the purported exercise of free will."[54]

Our concern here is different. While Judge Lynch worries about the "difficult inquiries into the minds of suspects who consent to searches,"[55] we contend that the problem goes beyond mere difficulty. The voluntariness test is subject to a *systematic bias*, we hypothesize, whereby pressures to comply are underappreciated and consent is overstated. If we are right, then even if the voluntariness test is not a legal fiction—even if judges have only a desire to assess as accurately as possible the quality of the citizen's consent—the doctrine would still skew in favor of police and against citizens.

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48. *See, e.g.*, Nadler, *No Need to Shout*, *supra* note 3, at 213-21 (arguing that the consent fiction creates confusion in the lower courts and undermines the legitimacy of the legal system).

49. *See, e.g.*, Alafair S. Burke, *Consent Searches and Fourth Amendment Reasonableness*, 67 FLA. L. REV. 509, 543-44 (2015) (describing how "the Court's decisions reveal an implicit assumption that the doctrine it has created under the myth of consent does, in fact, satisfactorily balance governmental interests and individual liberty and privacy interests").

50. Williams, *supra* note 43, at 97; *see also* Simmons, *supra* note 2, at 774, 818 (objecting that "[i]t is impossible to tell what the Supreme Court means by the term 'free to refuse'" and explaining that "[t]he idea that . . . defendants acted voluntarily . . . is meaningless because no action taken by anybody in any situation is wholly 'voluntary' or 'involuntary,' but rather is a result of myriad pressures, some internal and some external").

51. Lynch, *supra* note 3, at 236.

52. *Id.* at 237.

53. *Id.* at 236.

54. *Id.* at 237.

55. *Id.* at 239.

Our concern is also different from the familiar objection that judges—due to their high stature, knowledge of the law, and sociodemographic privilege—will tend to misapprehend the experiences of ordinary people. In particular, many commentators have criticized white judges for ignoring the ways in which black defendants "feel *forced* to demonstrate racial obedience" when dealing with police.[56] As Judge Julia Cooper Mack, the first African American woman to serve on the District of Columbia Court of Appeals, explained in a powerful dissent: "[N]o reasonable innocent black male (with any knowledge of American history) would feel free to ignore or walk away" from police officers conducting a bus sweep.[57]

The problem with the "reasonable person" standard, critics charge, is that it ignores racial differences in how people respond to police. "While it might be comforting to pretend that black males react to police encounters in the same way that other people do, the reality on the streets"[58] is that black men, out of fear for their safety, feel they must accede to consent search requests. Based on this dynamic, Tracey Maclin has called for consent search jurisprudence to abandon the notion of "an *average*, *hypothetical*, reasonable person," instead recommending consideration of how defendants' race affects their ability to say no to police.[59] Strauss has similarly argued that judges should consider whether the defendant's "prior personal experience or group cultural experience with the police may have affected the decision to consent."[60] These critiques highlight the ways in which judges can unwittingly (or even intentionally) apply white norms to nonwhite defendants, perhaps because their intuitive conception of the "reasonable person" is based in their own (white) vantage point.

Our point is distinct from, though compatible with, this argument. We contend that even when judges evaluate defendants of the same race, they will still underestimate the pressure to comply. To be sure, the perception error can be exacerbated when the person judging has more power than the person being

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56. *See, e.g.*, Devon W. Carbado, *(E)racing the Fourth Amendment*, 100 MICH. L. REV. 946, 1029 (2002). Carbado believes that "consent searches can, under particular racial circumstances, be understood as presumptively coercive." *Id.*

57. *In re* J.M., 619 A.2d 497, 513 (D.C. 1992) (Mack, J., dissenting). Justice Alan C. Page of the Minnesota Supreme Court cites this same sense of fear in his dissent in a different bus-sweep case: "I speak from the perspective of an African-American male who was taught by his parents that, for personal safety, . . . it is best to comply carefully and without question to the officer's request." State v. Harris, 590 N.W.2d 90, 106 n.4 (Minn. 1999) (Page, J., dissenting).

58. Tracey Maclin, *"Black and Blue Encounters"—Some Preliminary Thoughts About Fourth Amendment Seizures: Should Race Matter?*, 26 VAL. U. L. REV. 243, 271-72 (1991).

59. *Id.* at 248.

60. Strauss, *supra* note 8, at 256.

judged.[61] But we posit that the simple fact that one person *experiences* while the other merely *imagines* is an independent source of bias that causes judges to overstate the ease of refusal. This is due to the psychology of emotional perspective taking and the way we judge social influence, as the next Section details.

A. The Psychology of Judgment and Decision-Making

Consent search jurisprudence requires a judge to determine whether a reasonable person would have been unable to withhold consent based on a particular set of facts. Social psychology research suggests that decision makers are likely to perform this task poorly.[62]

Several classic social psychology experiments show that most people placed in a challenging social situation act quite differently from the way an outside observer thinks a reasonable person would behave. This phenomenon has been observed with regard to fending off unwanted sexual advances,[63] responding to racist or homophobic remarks,[64] and putting a stop to cruelty.[65] Typically, uninvolved observers imagine people being more assertive than actors turn out to be.

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61. *See infra* notes 173-177 and accompanying text. It is also possible that the social perception error is exacerbated specifically by having white judges evaluate nonwhite defendants. *Cf. supra* note 57 and accompanying text (providing two examples of cases in which an African American judge dissented from colleagues in a consent search case involving an African American defendant).

62. *See, e.g.*, Vanessa K. Bohns & Francis J. Flynn, *Underestimating Our Influence over Others at Work*, 33 RES. ORGANIZATIONAL BEHAV. 97 (2013) (discussing employer-employee relationships).

63. Julie A. Woodzicka & Marianne LaFrance, *Real Versus Imagined Gender Harassment*, 57 J. SOC. ISSUES 15, 25 tbl.1 (2001) (finding that 68% of approximately 200 respondents think they would refuse to answer at least one sexually harassing question in a job interview, whereas no participants actually refused to answer the interviewer's harassing questions).

64. Jennifer Randall Crosby & Johannes Wilson, *Let's Not, and Say We Would: Imagined and Actual Responses to Witnessing Homophobia*, 62 J. HOMOSEXUALITY 957 (2015) (finding, based on 72 participants, that half of respondents predicted they would confront a homophobic insult, but no participants actually did); Kerry Kawakami et al., *Mispredicting Affective and Behavioral Responses to Racism*, 323 SCIENCE 276 (2009) (finding, based on a 120-person study, that whereas respondents predicted they would confront a person who uttered a racial slur, few participants did).

65. STANLEY MILGRAM, OBEDIENCE TO AUTHORITY: AN EXPERIMENTAL VIEW 29 tbl.1 (1974) (finding that 39 psychiatrists surveyed beforehand vastly underestimated the percentage of participants willing to administer the highest level of electric shock); Günter Bierbrauer, *Why Did He Do It? Attribution of Obedience and the Phenomenon of Dispositional Bias*, 9 EUR. J. SOC. PSYCHOL. 67 (1979) (replicating Milgram's results).

Uninvolved parties tend to underestimate the extent to which fear and discomfort prevent people from speaking up. This is consistent with what we know about emotional perspective taking. When we make judgments about other people's attitudes and behaviors, we typically draw on our own experiences as a starting point and adjust from there. We often adjust insufficiently, however, and this can result in striking social-prediction errors.[66]

Moreover, we often have trouble forecasting our own behavior, thus compounding the bias. A prominent theory argues that this phenomenon occurs because the psychological process by which people make predictions entails a kind of embodied simulation of the emotional experience of a distant future self.[67] Decision makers who are in a relatively "cold" emotional state have trouble imagining what it will later feel like to be in a "hot" state. For example, hungry forecasters anticipate being more interested in eating spaghetti for breakfast than do forecasters who are in a state of satiety.[68]

The more trouble we have simulating a distant emotional state, the more inaccurate our predictions. Leaf Van Boven and colleagues have shown that forecasters who are temporally removed from the date of an embarrassing public performance assert that they would be more willing to dance on stage than they actually are when the day arrives.[69] But forecasters who have just watched a scary movie are better able to predict their reluctance to perform; their current anxiety level allows them to simulate more accurately the emotions their later selves will feel when it comes time to get up on stage.[70]

When applied to the context of consent searches by police, this body of research suggests that uninvolved decision makers (for example, judges) are likely

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66. Nicholas Epley et al., *Perspective Taking as Egocentric Anchoring and Adjustment*, 87 J. PERSONALITY & SOC. PSYCHOL. 327 (2004) (reporting the results of five studies on undergraduates).

67. *E.g.*, Leaf Van Boven et al., *The Illusion of Courage in Social Predictions: Underestimating the Impact of Fear of Embarrassment on Other People*, 96 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 130, 132 (2005) (explaining that hot/cold empathy gaps arise "when people in an unaroused state underestimate the impact of being in an emotional situation").

68. Daniel T. Gilbert et al., *The Future Is Now: Temporal Correction in Affective Forecasting*, 88 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 430, 434-36 (2002) (describing a study of 61 female undergraduates).

69. Leaf Van Boven et al., *The Illusion of Courage in Self-Predictions: Mispredicting One's Own Behavior in Embarrassing Situations*, 25 J. BEHAV. DECISION MAKING 1, 6 fig.3 (2012) (describing results from 61 undergraduates).

70. *Id.* In another study, the researchers found that angering movies had the same effect as scary movies, suggesting that inducing negative emotions more generally can enable forecasters to simulate the anxiety they will later feel, thereby reducing the hot/cold empathy gap. *Id.* at 6 fig.3 (describing results from 207 undergraduates, in which both scary and angering movie clips helped participants make more accurate forecasts).

to underestimate the fear and discomfort experienced by the individual who was approached by police and asked to submit to a search. Consistent with this prediction, Strauss's review of hundreds of lower-court cases finds that courts "typically ignore[] or give[] no weight" to defendants' claims that they "felt they had no choice" but to submit to a search.[71] She points to one case in which the reviewing court "simply found [the defendant's] testimony that she felt she had no choice not to be credible."[72] According to Judge Lynch, these subtle kinds of pressures are the ones that judges are most often called upon to evaluate in consent search cases. "I have never heard a defendant claim to have been subjected to physical abuse" or held without food or water for "extended periods," he writes.[73] Rather, "[t]he typical claim is that the police 'request' to 'look around' was more of an order . . . rather than a true request for consent."[74] It is thus important to understand how consent is perceived in such cases, where the kind of pressure applied is psychological and subtle rather than physical and overt.

In this Essay, we test the prediction that third-party decision makers will overstate how free people feel when confronted with a politely presented request to perform an intrusive search. Relatedly, we hypothesize that decision makers imagining the search request will underestimate the likelihood that people will submit to the search.

B. Applying Psychological Insights to Consent Searches

Judges, lawyers, and legal scholars frequently look to psychological research for guidance about the voluntariness of consent.[75] The most commonly cited

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71. Strauss, *supra* note 8, at 241 n.111.

72. *Id.* (describing United States v. Tucker, 57 F. Supp. 2d 503, 513 (W.D. Tenn. 1999)).

73. Lynch, *supra* note 3, at 242.

74. *Id.* at 242-43.

75. *See, e.g.*, Steven L. Chanenson, *Get the Facts, Jack! Empirical Research and the Changing Constitutional Landscape of Consent Searches*, 71 TENN. L. REV. 399, 449 (2004) (stating that Milgram's "interesting and provocative studies clearly raise troubling issues relevant to consent searches"); Nadler, *No Need to Shout*, *supra* note 3, at 177 (noting Milgram's "empirical demonstration of the power of authorities to command compliance"); Wesley MacNeil Oliver, *With an Evil Eye and an Unequal Hand: Pretextual Stops and Doctrinal Remedies to Racial Profiling*, 74 TUL. L. REV. 1409, 1465 (2000) (citing the Milgram research as "further confirm[ing] that even absent fear or coercion there is an almost reflexive impulse to obey an authority figure"); Daniel L. Rotenberg, *An Essay on Consent(less) Police Searches*, 69 WASH. U. L.Q. 175, 188-89 (1991) ("Translating [Milgram's] conclusion and applying it to the consent search context, as risky as such a transference may be, means that police authority confronting the individual may be much more instrumental in shaping the decision to consent than the recognition that consent relinquishes protected rights . . . ." (footnote omitted));

work is Stanley Milgram's famous laboratory experiments, which showed that a majority of ordinary people are willing to inflict dangerous electric shocks on an innocent, protesting victim when directed to do so by an experimenter.[76] Strauss, for instance, cites Milgram's research to argue that "obedience to authority is deeply ingrained [and] people will obey authority even when it is not in their own best interest to do so."[77] Similarly, to Adrian Barrio, the Milgram studies suggest that "the authority behind the officer's request to search will often indicate to suspects that they have no choice but to consent."[78] When the Supreme Court of New Jersey ruled that police could no longer ask drivers stopped for traffic-type violations to consent to vehicle searches, it justified its decision by citing Barrio's and another scholar's discussions of "psychological studies regarding authority figures," including the Milgram studies.[79]

Yet there are important differences between Milgram's studies and the consent search context. Most problematic is the fact that Milgram's experimenter urged participants to continue when they protested and tried to stop.[80] As Ric Simmons explains,

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Robert V. Ward Jr., *Consensual Searches, the Fairytale that Became a Nightmare:* Fargo *Lessons Concerning Police Initiated Encounters*, 15 TOURO L. REV. 451, 470 (1999) ("In light of the Milgram and Barrio writings, it seems absurd to suggest that consent obtained in the police initiated encounter . . . can be truly voluntary."); Adrian J. Barrio, Note, *Rethinking* Schneckloth v. Bustamonte*: Incorporating Obedience Theory into the Supreme Court's Conception of Voluntary Consent*, 1997 U. ILL. L. REV. 215, 247 (arguing that the Milgram studies suggest that "the authority behind the officer's request to search will often indicate to suspects that they have no choice but to consent"); Illya D. Lichtenberg, Voluntary Consent or Obedience to Authority: An Inquiry into the "Consensual" Police-Citizen Encounter (Oct. 1999) (unpublished Ph.D. dissertation, Rutgers University) (on file with author) (applying Milgram's findings to the literature on police-citizen interactions).

76. Burke, *supra* note 49, at 528 ("Numerous scholars have drawn on the Milgram studies to argue that the Supreme Court has overestimated the fortitude of most people to refuse to cooperate with police."); Simmons, *supra* note 2, at 804 ("Over the past thirteen years, a number of articles have critiqued *Schneckloth* in light of the Milgram experiments—and without exception these articles have concluded that these experiments tend to prove that many 'consents' which are approved by the courts are not truly voluntary." (footnote omitted)). *See generally* Stanley Milgram, *Behavioral Study of Obedience*, 67 J. ABNORMAL & SOC. PSYCHOL. 371 (1963) (outlining the procedures and results of the famous Milgram experiments).

77. Strauss, *supra* note 8, at 236; *accord* Nadler, *No Need to Shout*, *supra* note 3, at 155 ("An examination of the existing empirical evidence on the psychology of coercion suggests that in many situations where citizens find themselves in an encounter with the police, the encounter is not consensual because a reasonable person would not feel free to terminate the encounter.").

78. Barrio, *supra* note 75, at 247.

79. State v. Carty, 790 A.2d 903, 910 (N.J. 2002).

80. Milgram, *supra* note 76, at 374.

> There is no question that if a police officer told a suspect, "The law requires that you allow me to search," or, "You have no other choice, you *must* allow me to search your bag," the consent would be deemed involuntary. Because Milgram relied upon this kind of language to get his extraordinarily high obedience rates, the application of his results to consent searches is tenuous.[81]

Another key difference between Milgram's paradigm and the consent search context is that Milgram's participants were tasked with harming another person, whereas the potential harm involved in consenting to a search is primarily a harm to one's own interests.[82]

Here, we address these shortcomings with a pair of experiments designed specifically to examine the psychology of consent searches. In two preregistered studies, we brought participants into the lab and presented them with a highly invasive request: to allow an experimenter unsupervised access to their unlocked smartphone.

We chose to ask participants to let us search their phones because we thought most participants would consider it an intrusive request.[83] "Modern cell phones are not just another technological convenience," the Supreme Court observed in *Riley v. California*.[84] "With all they contain and all they may reveal, they hold for many Americans 'the privacies of life.'"[85] Indeed, today's smartphones are qualitatively different from other objects police might search, such as pockets or wallets. Rummaging through a person's purse or car could never yield a comprehensive cache of all their communications, a complete inventory of their friends and acquaintances, or a perfect record of their whereabouts.

As digital privacy has become more important, it has simultaneously become more precarious. Police searches of electronic-media devices have exploded in

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81. Simmons, *supra* note 2, at 806.

82. *See infra* note 150; *see also* Lichtenberg, *supra* note 75, at 238 (finding higher compliance rates than the Milgram experiment, though the harm was not to a third party).

83. *See, e.g.*, Jennifer M. Urban et al., *Mobile Phones and Privacy* (Univ. of Cal., Berkeley Pub. Law Research Paper No. 2103405, 2012), https://ssrn.com/abstract=2103405 (surveying a nationally representative sample of 1,203 adults and reporting that "overwhelming majorities" of respondents stated they would definitely or probably not allow an acquaintance, work colleague, or stranger to borrow their phone to run errands).

84. 134 S. Ct. 2473, 2494 (2014); *accord* United States v. Carpenter, 138 S. Ct. 2206, 2214 (2018) (noting the special considerations that attend to modern cell phones given the "vast store of sensitive information" they contain).

85. *Riley*, 134 S. Ct. at 2494-95 (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

recent years,[86] and the ACLU has reported a significant uptick in complaints about police requests to unlock digital devices so that they may be searched.[87] As *Riley* makes clear, cell phones may not be searched incident to arrest; a warrant, or some other exception to the warrant requirement, is needed. Given the barriers to obtaining a warrant, we can expect that police are routinely going to justify searches of phones based on consent. This legal backdrop makes it particularly pressing to understand how people respond to requests to hand over their unlocked phones.

Study 1 tests the hypothesis that outside observers anticipate more voluntariness than people actually feel when approached with an invasive search request. Study 2 tests an intervention that is commonly proposed to address coercion in police encounters: having the requester inform the requestee of the right to withhold consent. Across both studies, observed compliance is higher than predicted compliance.

We believe that a laboratory setting is justified because it provides an ethical and internally valid way to examine compliance. In addition, studying compliance in the laboratory allows us to measure requestees' attitudes and beliefs, not just their behavior.[88] This is important because the doctrinal hallmark of consent search jurisprudence is whether the suspect felt free to decline—not whether she behaviorally complied.[89]

Our research extends beyond the laboratory setting, however. We present additional data demonstrating that the underestimation-of-compliance phenomenon extends to real police-citizen search requests. We do this by comparing traffic-stop data on consent rates among motorists in Los Angeles to participants' incentivized predictions. This comparison enables us to say that motorists

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86. Cynthia McFadden et al., *American Citizens: U.S. Border Agents Can Search Your Cellphone*, NBC NEWS (Mar. 13, 2017, 7:29 PM), http://www.nbcnews.com/news/us-news/traveling-while-brown-u-s-border-agents-can-search-your-n732746 [https://perma.cc/2VH7-CYBZ].

87. *See* Gillian Flaccus, *Electronic Media Searches at Border Crossings Raise Worry*, ASSOCIATED PRESS (Feb. 18. 2017), https://apnews.com/6851e00bafad45ee9c312a3ea2e4fb2c [https://perma.cc/2877-9XQK].

88. Indeed, one advantage of examining consent searches in the lab is that nearly everyone who is searched can be surveyed about the experience. By contrast, in previous research, Illya Lichtenberg sought to interview Ohio motorists who had been stopped and asked to submit to a consent search. Lichtenberg was only able to survey 54 respondents; a full two-thirds of the total 799 motorists either could not be found or never responded to his letter inviting them to take part in the study. This high attrition rate "constitutes a relatively serious threat to validity," he wrote. "However, there was nothing that could be done to increase the sample size." Lichtenberg, *supra* note 75, at 246.

89. *See* Schneckloth v. Bustamonte, 412 U.S. 218, 228 (1973) ("[T]he Fourth and Fourteenth Amendments require that a consent not be coerced, by explicit or implicit means, by implied threat or covert force.").

comply with police search requests at far higher rates than people expect in their best estimations. This finding gives us confidence that Studies 1 and 2 are not capturing something particular to experimenters, university students, psychology labs, or smartphones. It seems, rather, that people are generally inclined to underestimate compliance.

Following presentation of these empirical results in Parts I and II, this Essay turns to the psychology of compliance. Part III draws on the social psychology literature to explain our three core findings: that most people comply with a jarringly intrusive request, that a large gulf exists between what most people do and what most people think is reasonable, and that informing people they have the right to refuse does not seem to change their feelings or behavior. Then, in Part IV, we discuss what these findings mean for the law, highlighting the ways in which current doctrine is subject to bias and raising doubts about the efficacy of using warnings to enhance the voluntariness of consent.

I. STUDY 1: COMPLIANCE WITH A SEARCH REQUEST

Study 1, which was preregistered at AsPredicted,[90] included two conditions. In the Forecasting condition, participants predicted what they would do and how they would feel when faced with an invasive search request. They also judged how a *reasonable person* would act and feel in this situation. In the Experiencing condition, participants were actually approached with the request. The Experiencers then filled out a questionnaire describing how they felt. All study materials are included in Appendix A.

A. Method

1. Participants

Participants were undergraduates at a university in the Northeast. We precommitted to offering the study until May 1, 2017, or until we reached 200 participants, whichever came first. Ultimately, we ran 203 participants (74% female; M_{age} = 20.53, SD_{age} = 1.85; 42% Asian, 31% White, 9% Black, 9% Hispanic, 8% other).

Over 95% of participants reported using their phones for personal emails, taking and storing photos, personal messaging, and storing contact information.

90. Vanessa Bohns, Roseanna Sommers & Lauren DeVincent, *Predicted vs. Actual Consent with a Phone Search Request (#3173)*, ASPREDICTED (Feb. 26, 2017, 5:18 PM PT), https://aspredicted.org/6839n.pdf [https://perma.cc/KK7B-SV4H].

Many also used their phones for banking (78%) and storing sensitive information such as passwords (50%). All participants carried a smartphone with a touchscreen interface and an operating system capable of running applications downloaded from the internet; none carried a phone lacking these features.

2. Procedure

Participants came into the lab and were greeted by an experimenter, who asked them to sit down. The experimenter was always one of three undergraduates (two female, one male) who had been trained to follow a script and wore their regular attire.

Participants were randomly assigned to either the Forecasting condition or the Experiencing condition.[91] Participants in the Forecasting condition were given a questionnaire that portrayed their task as part of a pilot study meant to determine the feasibility of conducting a future study in which experimenters would need to search participants' phones. The questionnaire instructed Forecasters:

> Imagine that you were seated in a psychology lab, similar to the one you are in now, and an experimenter came in and said to you: "Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things."

They were further instructed to "[i]magine that the experimenter in this scenario is the same experimenter whom you met for the study you are currently participating in."

Forecasters were then asked to judge whether a reasonable person would hand over their phone in this situation (Yes/No) and to rate how easy, comfortable, and awkward it would be for a reasonable person to say no to this request (1 = Not at all; 7 = Extremely). They also rated how pressured or free a reasonable person would feel to decline the request (1 = Not at all; 7 = Extremely). Next, Forecasters answered the same questions as applied to themselves. For instance, they were asked, "Would you hand over your phone in this scenario?" and "How free do you think you would feel to say 'no' to this request?"

Participants in the Experiencing condition followed a similar protocol, except that before they began the questionnaire, the experimenter approached

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91. We used a between-subjects design rather than a within-subjects design because in the relevant legal context, experiencers (suspects) and forecasters (judges) are different people. In addition, we were concerned that asking the same individuals to serve as both Experiencers and Forecasters sequentially could bias the results.

them and asked, "Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things." Thus, Experiencers encountered the same request that Forecasters were asked to imagine.

If the Experiencer complied, then the experimenter took the phone out of the room, waited for five seconds, and brought the phone back. If the Experiencer at any point said "no" or otherwise declined to hand over the phone, the experimenter immediately moved on to the questionnaire phase of the study.

Following this interaction, Experiencers filled out a questionnaire asking whether they had agreed to hand over their phone in response to the experimenter's request moments before (which was reprinted verbatim in the instructions). Experiencers also rated how easy, comfortable, and awkward it was for them to say "no" to this request and how free and pressured they felt. Finally, Experiencers were presented with an open-ended question asking them to explain their reasons for agreeing or declining to hand over their phone.

For each participant in the Experiencing condition, the experimenter filled out a form reporting whether the participant had hesitated, asked questions, expressed unease, or apologized during their encounter. The experimenter also noted whether the participant in fact handed over his or her phone (Yes/No) and whether the participant seemed uncomfortable (1 = Not at all; 7 = To a great extent). The experimenter also reported any noteworthy comments or behaviors by participants.

Before exiting the study, all participants filled out a survey indicating whether they use their phone for various purposes, including banking, personal email, personal photos, and storing sensitive information such as passwords. Finally, they filled out a demographic survey, received $5 for their participation, and were fully debriefed.

B. Results

1. Compliance Behavior

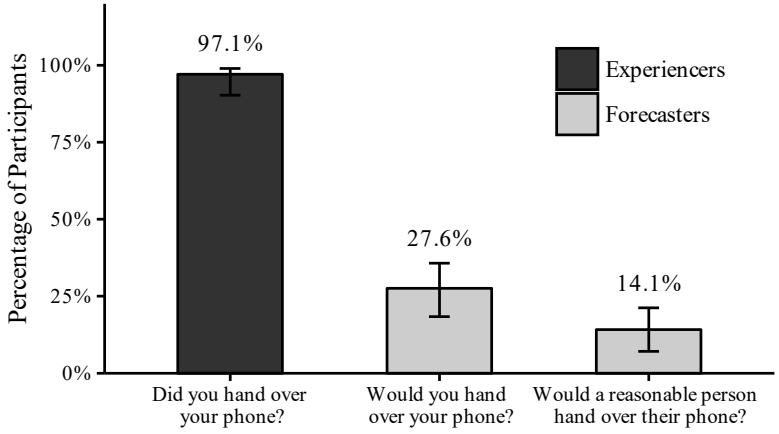
As detailed in our preregistration, we compare the rate of *actual compliance* observed among Experiencers (What did you do?) to the rate of *predicted compliance* among Forecasters (What would you do?). We also compare the rate of actual compliance against judgments of *reasonable compliance* (What would a reasonable person do?). Finally, within Forecasters, we compare predicted compliance to reasonable compliance.

As predicted, chi-square tests reveal that actual compliance among Experiencers exceeded predicted compliance among Forecasters, $\chi^2(1, N = 201) =$

101.42, $p < .001$, $\phi = .72$.[92] Actual compliance also exceeded judgments of reasonable compliance, $\chi^2(1, N = 202) = 137.91$, $p < .001$, $\phi = .84$.

Among Forecasters, McNemar's chi-square test showed that predicted compliance was higher than judgments of reasonable compliance, $\chi^2(1, N = 97) = 13.07$, $p < .001$, $\phi = .61$. Forecasters were more likely to say that they personally would comply than that a reasonable person would comply.[93] This result was unexpected; we had no hypothesis that judgments about one's hypothetical self would differ from judgments about a reasonable person.

FIGURE 1.
COMPLIANCE BEHAVIOR.



Note. Experiencers ($n = 103$) were asked to hand over their phone, while Forecasters ($n = 100$) contemplated the situation hypothetically. Most Experiencers complied with the request, whereas most Forecasters said a reasonable person would not comply and that they personally would not comply. Error bars represent bootstrapped 95% confidence intervals.

92. A chi-square test allows us to determine whether the frequencies of compliance versus noncompliance that we observed differ significantly from the frequencies we would expect to see if Forecasters and Experiencers were no different from one another. The chi-square test is appropriate here because the outcome of interest (compliance) consists of observations that fall into one of two categories (yes or no) that are not ordered. *See generally* DAVID C. HOWELL, STATISTICAL METHODS FOR PSYCHOLOGY 137-76 (8th ed. 2012) (explaining the application of the chi-square methodology to categorical data).

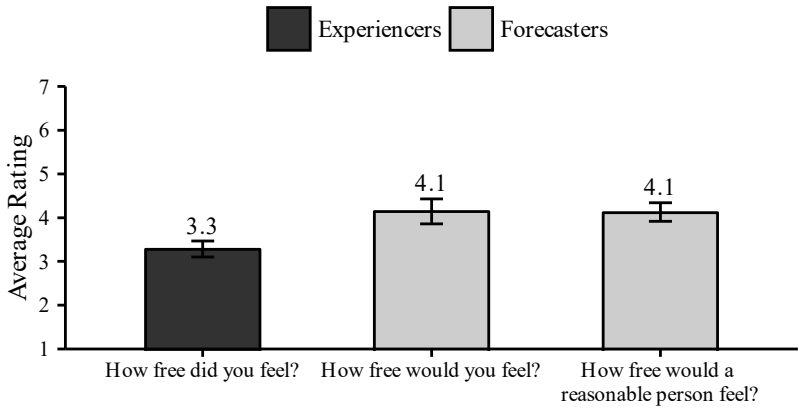
93. This finding did not replicate in Study 2. *See infra* Section II.B.1.

2. How Free People Feel

We next examine participants' judgments about how easy it would be to say no to the experimenter, as well as how awkward, comfortable, pressured, and free they would feel or felt in this situation. These questions displayed high interitem reliability ($\alpha > .70$), so we combined these ratings to create one composite scale representing feelings of freedom.

Consistent with our predictions, we found that feelings of freedom were significantly lower among Experiencers ($M = 3.28$, $SD = .95$) than among Forecasters contemplating how they personally would feel ($M = 4.14$, $SD = 1.44$), $t(166.95) = 4.97$, $p < .001$, $d = .70$.[94] Experiencers' feelings of freedom were also lower than feelings attributed to a reasonable person, ($M = 4.11$, $SD = 1.10$), $t(201) = 5.79$, $p < .001$, $d = .81$. We observed no difference between Forecasters' judgments of how free they would feel versus how a reasonable person would feel, $t_{paired}(97) < .001$, $p = .91$, $d = .01$.

FIGURE 2.
FEELINGS OF FREEDOM



Note. Experiencers reported feeling less free to refuse the search request than Forecasters indicated a reasonable person would feel and that they personally would feel if confronted with the same request. Scales ranged from 1 (not at all) to 7 (extremely). We averaged ratings of "awkward" (reverse-scored); "comfortable"; "pressured" (reverse-scored); "free"; and "easy" to create a composite measure of "feelings of freedom." Error bars represent bootstrapped 95% confidence intervals.

94. Here we use Welch's two-sample *t*-test because the variances of the two items were not equal, $F_{97, 102} = 2.29$, $p < .001$.

3. Experimenters' Notes

According to the experimenters' notes, 56 Experiencers handed over their phones without hesitation. Another 15 hesitated but did not say anything before handing over their phones. Another 28 asked at least one question before handing over their phones. Many of these questions pertained to clarifying the instructions, such as "Unlock it?" and "Do I take the passcode off?" Fewer than 10 Experiencers asked about the purpose or justification for the request.[95] In the end, only 2 Experiencers made a remark expressing unease, skepticism, or objection, and only 3 ultimately declined to hand over their phones. The experimenters' notes confirm that 100 out of 103 Experiencers handed over their phones when asked.

C. Summary of Study 1 Findings

Ninety-seven percent of participants faced with an onerous and intrusive request complied, mostly without hesitation or demurral. Yet the vast majority of participants who were sitting in the exact same seat and looking at the exact same experimenter averred that a reasonable person would refuse to hand over their phone if asked. They also stated that they themselves would refuse to grant such a request.

The gulf between Experiencers and Forecasters was enormous: participants mispredicted behavior by a degree of 69 percentage points. Judgments of the "reasonable person" misaligned with actual behavior by 83 percentage points. The "empathy gap"[96] extended to judgments of psychological pressure: Experiencers reported feeling less free to refuse than Forecasters predicted. In the most legally consequential judgment, Forecasters' determinations of how free a reasonable person would feel in the situation significantly overestimated how free Experiencers actually felt.

D. Underestimation of Compliance Outside of the Laboratory

Some might wonder whether Study 1 overstates the gap between Forecasters and Experiencers because behavior was measured in a laboratory setting. Perhaps people have a more realistic sense of how others will behave in response to

95. To these participants, the experimenter was instructed to reply, "I have a list of illegal apps I'd like to check for." If the participant asked what apps, the experimenter replied, "I can't tell you, I just have a list I'm checking for." If the participant asked whether they were required to surrender their phone, the experimenter replied, "You can do the study either way, but I have a list of illegal apps I'd like to check for."

96. *See supra* notes 67-68 and accompanying text (explaining the concept of the "empathy gap").

the *police* than they do about how people will behave in response to an experimenter. Put differently, is it possible that people are particularly bad at appreciating the coercive effect of the laboratory environment, and that this accounts for the large gap between Forecasters and Experiencers?

To address this concern, we collected additional data examining whether people underestimate the rate of compliance among motorists stopped by police. Publicly available data from the Los Angeles Police Department (LAPD) show that in one six-month period in 2006, police asked 16,228 motorists to consent to a search, and 16,225 (99.98%) agreed.[97]

We recruited online participants (n = 99) from Amazon Mechanical Turk[98] and asked them to imagine that "the police in LA stop 16,228 drivers and ask if they can have permission to search their cars." We then asked, "Of the 16,228 drivers who are asked, how many do you think agree to allow the police to search their car?" Participants were incentivized with a $1.00 bonus for guessing within 3 of the correct number. Appendix B reproduces the full stimulus.

We compared participants' guesses against the correct answer. Participants' average guess was 10,586, or a 65.23% compliance rate.[99] The 95% confidence interval on their guesses ranged from 57.90% to 71.69%. Thus, they significantly underpredicted "real world" compliance,[100] even when incentivized to guess accurately.[101]

This result suggests that the main finding from Study 1—that people systematically underestimate compliance with intrusive search requests—extends beyond the laboratory. It holds true even though police wield more authority than our experimenters: compliance is still high, and outside observers still underestimate it. Indeed, the finding holds true even though motorists may feel more reluctant to permit a search (for example, because they have contraband on them) than our participants did. In short, people are not uniquely bad at anticipating how laboratory participants will respond to experimenter demands; rather, they are generally bad at determining compliance levels.

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97. Bar-Gill & Friedman, *supra* note 3, at 1662.

98. Amazon Mechanical Turk is an online labor pool commonly used by researchers to recruit study participants. *See* Krin Irvine et al., *Law and Psychology Grows Up, Goes Online, and Replicates*, 15 J. EMPIRICAL LEGAL STUD. 320 (2018) (finding that Amazon Mechanical Turk samples are highly reliable and useful and showing that the results of three canonical studies in law and psychology replicate in these samples).

99. Their median guess was 13,000, or an 80.11% compliance rate.

100. $t(98) = 9.82$, $p < .001$, $d = .98$.

101. Eight participants (8%) earned the $1.00 bonus for guessing a number between 16,222 and 16,228.

In Study 2, we seek to explore whether Study 1's findings hold true when the experimenter explicitly informs participants that they can refuse the request. This intervention mirrors a reform commonly proposed by critics of consent searches: *Miranda*-for-search.

II. STUDY 2: *MIRANDA*-FOR-SEARCH

A chorus of scholars, advocacy groups, and judges has called for police to notify suspects when a search is optional, much as they are required to notify suspects in custody that they have the right to remain silent.[102] The dispute over *Miranda*-like warnings for consent searches dates back to *Schneckloth*, when a six-Justice majority held that knowledge of the right to withhold consent is merely "one factor to be taken into account" in determining whether consent is voluntary and rejected the notion that "such knowledge [is] the *sine qua non* of an effective consent."[103] This sentiment prompted an incredulous dissent from Justice Brennan, who wrote: "It wholly escapes me how our citizens can meaningfully be said to have waived something as precious as a constitutional guarantee without ever being aware of its existence."[104]

Although the Supreme Court has repeatedly ruled that the Federal Constitution does not require *Miranda*-for-search, state and local law enforcement agencies are increasingly adopting the reform voluntarily. For example, in 2016, the New York Police Department began requiring officers to "[f]ollow up [consent

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102. *E.g.*, Carbado, *supra* note 56, at 1030 ("[R]equiring police officers to inform every suspect of her right to refuse consent would help to equalize people's vulnerability to consent searches."); Lynch, *supra* note 3, at 245 ("It is not a bad thing, and it is not a small thing, that the first words a person about to be subjected to interrogation hears are, 'You have a right . . . .' I believe it would be an equally good thing if similar words accompanied police requests for consent to search."); Rebecca A. Stack, *Airport Drug Searches: Giving Content to the Concept of Free and Voluntary Consent*, 77 VA. L. REV. 183, 205-08 (1991) (arguing that "the Court should follow the implications of its decision in *Miranda* and require that warning a suspect of his right not to consent is a necessary component" of legally valid consent); Carol S. Steiker, *"How Much Justice Can You Afford?"—A Response to Stuntz*, 67 GEO. WASH. L. REV. 1290, 1294 (1999) ("Requiring police officers, when seeking consent to search, to advise all suspects of their right to refuse to consent would help to close the information and power gap currently existing between the rich and poor in their encounters with law enforcement agents."); Barrio, *supra* note 75, at 248 (arguing that a *Miranda*-like warning would help a suspect "make a reflective decision that, post-warnings, would have been based not on the legitimacy of police authority but on the weight he attached to issues of personal privacy"); *see also* Nadler, *No Need to Shout*, *supra* note 3, at 204 ("Several commentators have supported a requirement that the police warn citizens of their right to refuse a request to search.").

103. Schneckloth v. Bustamonte, 412 U.S. 218, 227 (1973).

104. *Id.* at 277 (Brennan, J., dissenting).

search requests] by explicitly saying, *I can only conduct a search if you consent*."[105] Similar policies exist in other municipalities.[106]

Yet while many commentators clamor for *Miranda*-like warnings, and many localities have begun to require them, few empirical studies have measured their effects. One exception is a longitudinal study by Illya Lichtenberg that examined highway stops conducted in Ohio between 1987 and 1997. During that time period, the state introduced a law requiring police, before they requested consent, to inform motorists that they were free to leave.[107] Analyzing data collected by the Ohio Highway Patrol, Lichtenberg found no decrease in consent rates among motorists before versus after the reform was adopted.[108]

Lichtenberg was not able to control for several factors that may have contributed to the null result, however, such as unrelated trends occurring over the same time period.[109] An experiment with random assignment and high internal validity is needed to determine the causal relationship between introduction of an

105. *Operations Order: Consent to Search Guidelines for Uniformed Members of the Service Assigned to the Detective Bureau and Other Investigatory Commands/Units*, N.Y.C. POLICE DEP'T 2 (Oct. 11, 2016), https://www1.nyc.gov/assets/nypd/downloads/pdf/analysis_and_planning/patrol_guide/00_50_16.pdf [https://perma.cc/M3J5-L6HD].

106. For instance, the Philadelphia Police Department requires police to inform citizens of the right to refuse consent before executing a consent search. *Philadelphia Police Department Directive 5.7*, PHILA. POLICE DEP'T 16 (Apr. 29, 2016), http://www.phillypolice.com/assets/directives/D5.7-SearchWarrants.pdf [https://perma.cc//SQN8-DGWR]. Similarly, as of 2014, motorists in Durham, North Carolina must attest that "I have been advised of my right to refuse consent to this search" before police may perform a consent search. *See, e.g.*, FRANK R. BAUMGARTNER ET AL., SUSPECT CITIZENS: WHAT 20 MILLION TRAFFIC STOPS TELL US ABOUT POLICING AND RACE 247 (2018); Jim Wise, *Police Will Need Written Consent for Most Searches Come Oct. 1*, NEWS & OBSERVER (Sept. 18, 2014, 5:59 PM), https://www.newsobserver.com/news/local/community/durham-news/article10064414.html [https://perma.cc/6DCF-RD2Q].

107. Illya Lichtenberg, Miranda *in Ohio: The Effects of* Robinette *on the "Voluntary" Waiver of Fourth Amendment Rights*, 44 HOW. L.J. 349 (2001) (describing the impact of *State v. Robinette*, 653 N.E.2d 695 (Ohio 1995), *rev'd*, 519 U.S. 33 (1996)). One problem with Lichtenberg's analysis is that the warning that was implemented in Ohio pertained to *seizures*—they informed motorists when they were legally free to go—instead of *searches*, which would inform motorists of their legal right to refuse the search. *Id.* at 358-60.

108. *Id.* at 374 (concluding that Ohio's warning requirement "appears to have had little effect on the rates at which motorists gave consent").

109. Lichtenberg could not rule out the possibility that the police-citizen encounters in pre-*Robinette* Ohio differed systematically in unobservable ways from those conducted post-*Robinette*. With random assignment, by contrast, we can expect that the two groups (warning and no warning) do not differ systematically on unobservable traits. Random assignment thus enhances internal validity, allowing us to attribute any observed group differences in consent rates to the intervention: the warning.

advisory and compliance behavior. Study 2 will provide this experimental control.

Nor was Lichtenberg able to determine whether the advisory made people *feel* freer to refuse consent, whatever its effect on actual refusal rates. Interestingly, in postincident interviews, he discovered that many motorists reportedly consented because they simply did not believe the advisory. That is, despite being told that the search was optional, they assumed it would be performed even if they declined.[110] In Study 2, we systematically examine the effect an advisory has on people's feelings of freedom and their beliefs about what would happen if they refused. We also investigate whether the advisory affects compliance behavior.

A. Method

1. Participants

As in Study 1, participants were undergraduates at a university in the Northeast. We precommitted in our preregistration[111] to offering the study until May 10, 2017 or until we reached 200 participants, whichever came first. Ultimately, we ran 207 participants (65% female; ages 18-32 years, M_{age} = 20.09, SD_{age} = 2.25; 38% White, 35% Asian, 11% Black, 6% Hispanic, 10% other), including 7 who were excluded from analyses because they did not have a functioning phone (n = 2) or knew the experimenter (n = 5). In addition, 6 participants indicated that they had heard something about the study before participating.[112] In the footnotes, we report the findings with these nonnaive participants excluded from the dataset.

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110. Nadler, *No Need to Shout*, *supra* note 3, at 201-03 (citing Lichtenberg, *supra* note 75). And some of these motorists' suspicions were correct: they refused consent and were searched anyway. *Id.* at 203.

111. Vanessa Bohns, Roseanna Sommers & Lauren DeVincent, *The Effect of Disclosure on a Phone Search Request (#3316)*, AsPredicted (Aug. 21, 2018 2:36 PM PST), https://aspredicted.org/cv84v.pdf [https://perma.cc/BL23-QBAK].

112. The first 96 participants were recruited through a paid-participant pool; the last 111 participants were a mix of paid participants and participants who completed the study in exchange for academic credit. Because we learned that the for-credit participant pool had been affected by participant crosstalk in past studies, we began administering a debriefing questionnaire asking participants whether they had heard about the study previously. The last 111 participants completed this questionnaire, and 6 indicated they had heard about the study before participating.

2. Procedure

Study 2 followed the same procedure as Study 1, with a few key changes. Most importantly, Study 2 added an orthogonal factor: the presence or absence of an advisory notifying participants of their right to refuse to surrender their phones. Participants in the No Notification condition received the same protocol as in Study 1, while participants in the Notification condition were told, "Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things. *You have the right to refuse and it will not affect your participation or payment in the study*." Study 2 thus used a 2 (Notification vs. No Notification) × 2 (Hypotheticality: Forecasting vs. Experiencing) between-subjects design.

Study 2 also added a manipulation check to all conditions, asking participants whether they could have refused to hand over their phones and still have participated in the study without penalty. Finally, Study 2 asked both groups — not just Forecasters — what a reasonable person would do. Study 2's full materials are reported in Appendix C.

3. Defining Compliance

We defined compliance as surrendering one's personal cell phone with the passcode unlocked. According to the experimenters' notes, 3 participants handed their phones over with the passcodes still on. We decided to err on the side of finding less compliance among Experiencers and categorized these participants as noncompliant. We think this conservative measure of compliance is appropriate given that compliance was very high (over 97%) in Study 1.

4. Manipulation Check: Beliefs About the Consequences of Refusal

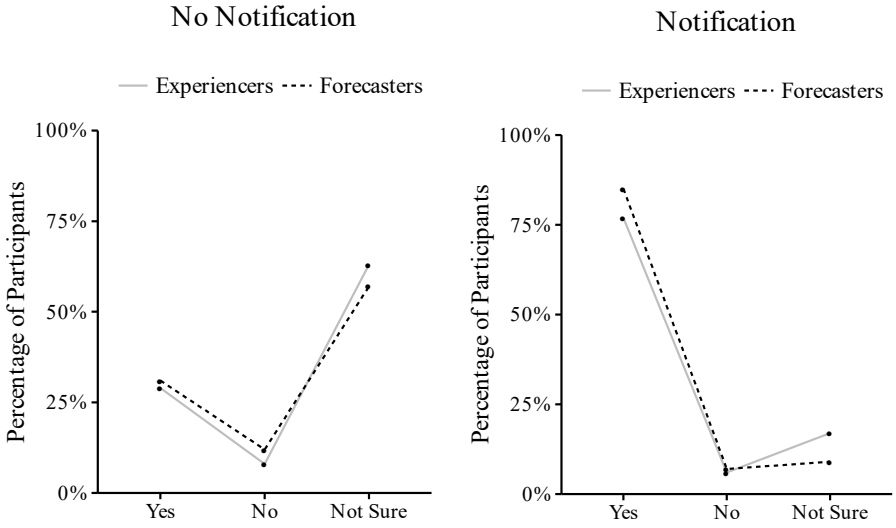
After the initial task, we asked participants to indicate whether they could have refused the search and still have been allowed to participate in the study. Participants were asked: "Could you have refused to hand over your phone and still have participated in — and received full payment for — this study?" They were given three options: "Yes," "No," and "Not Sure."

Most participants in the No Notification condition were either unsure of what the consequences were (60%) or believed they could refuse without penalty (30%); fewer than 10% mistakenly perceived that they were required to comply. Participants in the Notification condition, by contrast, were largely certain they could refuse without penalty (81%); only 13% were unsure and only 6% mistakenly believed they were required to comply. The notification made a

difference in participants' beliefs about the consequences of refusal, $\chi^2(2, N = 200) = 54.85$, $p < .001$, indicating that our manipulation was successful.

Critically, beliefs about the consequences of refusal did not differ between Forecasters and Experiencers, $\chi^2(2, N = 200) = 1.14$, $p = .57$ (Figure 3). Thus, the empathy gap between actual and predicted compliance cannot be attributed to differing beliefs about the consequences of refusal.

FIGURE 3.



Note. All participants were asked, "Could you have refused to hand over your phone and still have participated in—and received full payment for—this study?" and were asked to answer "Yes," "No," or "Not Sure." Participants in the Notification condition were told, "You have the right to refuse and it will not affect your participation or payment in the study." The advisory succeeded in shifting beliefs about the consequences of refusal. Notably, Experiencers and Forecasters did not differ in their responses; this indicates that the gap between them is not explained by differing beliefs about the consequences of refusal.

B. Results

1. Compliance Behavior

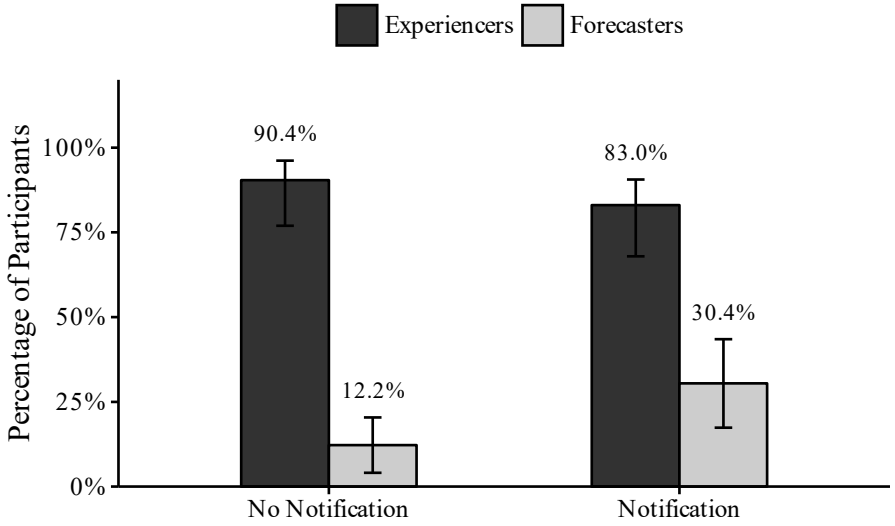
a. Oneself

Absent notification, most Experiencers complied with the request, while most Forecasters averred that they would refuse if asked. We thus replicated the findings from Study 1: we observed a 78 percentage-point gap between what

Forecasters projected doing (12% compliance) and what Experiencers actually did (90% compliance), $\chi^2(1, N = 101) = 58.67$, $p < .001$, $\phi = .78$.

This gap persisted among participants who were told they could refuse the request without penalty: most Forecasters still believed they would refuse (30% predicted compliance) while most Experiencers still complied (83% actual compliance), $\chi^2(1, N = 99) = 25.94$, $p < .001$, $\phi = .53$. A logistic regression reveals a significant interaction between Hypotheticality and Notification, indicating that notification reduces the size of the gap between actual and predicted compliance, $b = .26$, $SE = .11$, $p = .016$ (Figure 4).

FIGURE 4.
WOULD YOU/DID YOU HAND OVER YOUR PHONE?



Note. Actual compliance among Experiencers greatly exceeded predicted compliance among Forecasters. The gap between actual and predicted compliance persisted, albeit attenuated, when the experimenter stated, "You have the right to refuse and it will not affect your participation or payment in the study." Simple effects reveal that actual compliance among Experiencers was not significantly affected by the presence of the notification, but predicted compliance among Forecasters was marginally increased by the notification. Error bars represent bootstrapped 95% confidence intervals.

We committed in our preregistration to examining the simple effects of the notification among both Experiencers and Forecasters. Among Experiencers, the notification reduced compliance from 90.38% to 83.02%, a difference that is not

statistically significant, $\chi^2(1, N = 105) = .68$, $p = .41$, $\phi = .11$. The effect size of issuing the notification was small, with a phi coefficient of only .11.[113]

Unexpectedly, among Forecasters, the notification actually *increased* predicted compliance from 12.24% to 30.43%.[114] This increase was significant at the 10% confidence level, but not at the 5% confidence level, $\chi^2(1, N = 95) = 3.69$, $p = .055$, $\phi = .22$.[115] Thus, notification made no difference to actual compliance, but it weakly increased predicted compliance.

b. Reasonable Person

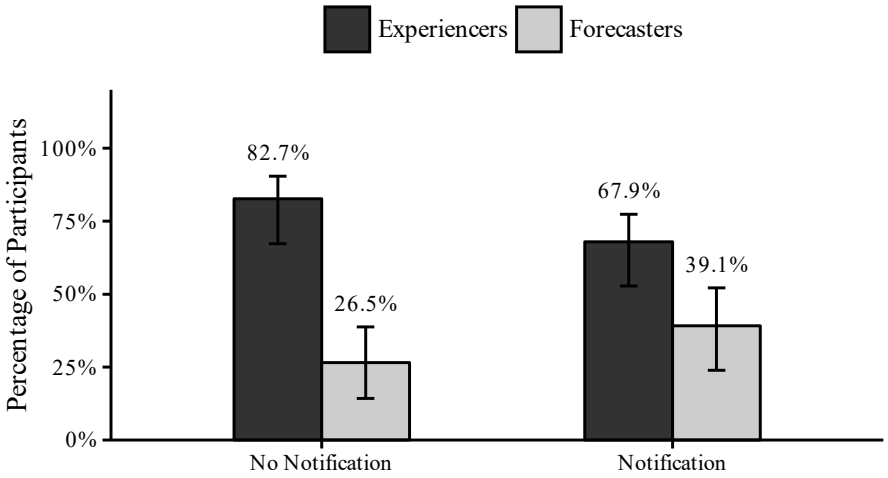
After participants indicated their own behavior, they judged what a reasonable person would do. Most Experiencers reported that a reasonable person would comply with the request, while most Forecasters judged that a reasonable person would refuse the request (Figure 5).

113. Conventionally, a phi coefficient of .10 is "small"; .30 is "medium"; and .50 is "large" when there is 1 degree of freedom. *See, e.g.*, HUGH COOLICAN, RESEARCH METHODS AND STATISTICS IN PSYCHOLOGY 497 (6th ed. 2014).

114. We had expected that if the rights notification had any effect on Forecasters' imagined responses, it would have been in the direction of making refusal seem more likely. But the notification had the opposite effect: Forecasters thought they would be *more* willing to hand over their phones. For a potential explanation of this unexpected finding, see *infra* text accompanying notes 194-195.

115. Depending on which participants we exclude, the *p*-value ranges from $p = .088$ to $p = .030$.

FIGURE 5.
WOULD A REASONABLE PERSON HAND OVER THEIR PHONE?



Note. Experiencers largely believed a reasonable person would comply; Forecasters largely believed a reasonable person would not. The gap between Experiencer and Forecaster judgments remained significant, but was narrower, among participants who received the advisory. We found no simple effects of the advisory on Experiencers' judgments or on Forecasters' judgments. Error bars represent bootstrapped 95% confidence intervals.

Among participants who received no notification of rights, we observed a 56 percentage-point gap between what Experiencers and Forecasters predicted a reasonable person would do, $\chi^2(1, N = 101) = 29.98$, $p < .001$, $\phi = .57$. Among participants who received a notification of rights, we observed a 29 percentage-point gap, $\chi^2(1, N = 99) = 7.11$, $p = .007$, $\phi = .29$. The interaction was significant, indicating that the empathy gap was narrower among participants given a notification than among participants given no notification, $b = .27$, $SE = .13$, $p = .033$.

We next examined the simple effects of notification among Experiencers and Forecasters. Among Experiencers, notification reduced judgments of reasonable compliance from 82.69% to 67.92%. This difference is not significant, $\chi^2(1, N = 105) = 2.33$, $p = .13$, $\phi = .17$. Among Forecasters, notification increased judgments of reasonable compliance from 26.53% to 39.13%; this difference is also not significant, $\chi^2(1, N = 95) = 1.19$, $p = .28$, $\phi = .13$. Thus, for both Experiencers and Forecasters, notification of rights made no difference to judgments of what a reasonable person would do. The notification affected each group weakly in opposite directions, which accounts for the significant interaction.

c. Comparing Oneself Versus a Reasonable Person

We conducted a 2 × 2 × 2 logistic regression to determine whether there was a three-way interaction between hypotheticality, notification, and whether people were judging their own compliance versus that of a reasonable person. We found no significant three-way interaction, $p = .91$. We observed a two-way interaction between Hypotheticality and whether participants were judging their own feelings versus a reasonable person's feelings, $b = .24$, $SE = .12$, $p = .043$.

Experiencers believed a reasonable person would be less likely to comply than they themselves did, $\chi^2(1, N = 105) = 5.52$, $p = .019$, $\phi = .36$ (McNemar's test).[116] Seventeen Experiencers who handed their phones over thought a reasonable person would not do so (and 5 Experiencers who refused thought a reasonable person would comply). By contrast, Forecasters believed that a reasonable person would be more likely to comply than they themselves would be, $\chi^2(1, N = 95) = 4.76$, $p = .029$, $\phi = .47$ (McNemar's test). Sixteen Forecasters indicated that whereas they would refuse, a reasonable person would comply (and 5 Forecasters thought that a reasonable person would refuse but that they would comply).

To summarize, Experiencers and Forecasters were closer together in their predictions of a reasonable person's behavior than they were in their indications of their own behavior.[117] This is both because Experiencers thought a reasonable person would be significantly less likely to comply than they themselves had been *and* because Forecasters thought a reasonable person would be significantly more likely to comply than they would be.[118]

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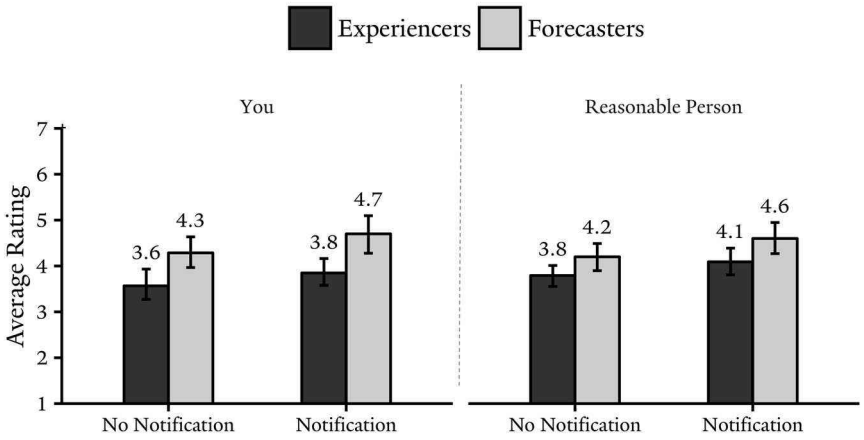
116. A McNemar's test, which is applied when the same individuals respond at two different points, examines whether there is a systematic *change* in responses. Specifically, it asks whether the number of participants who switch from Yes to No is offset by the number who switch from No to Yes (as we would expect if there were no significant difference between the two questions). *See generally* HOWELL, *supra* note 92, at 154-56.

117. Still, their reasonable-person predictions were significantly divergent, with most Experiencers (75%) reporting that a reasonable person would surrender their phone and most Forecasters (67%) reporting that a reasonable person would refuse, $\chi^2(1) = 10.32$, $p < .001$, $\phi = .45$.

118. Recall that in Study 1 we found that Forecasters thought a reasonable person would be marginally *less* likely to comply than they personally would be. *See supra* Section I.C. In Study 2 we found the opposite.

2. How Free People Feel

FIGURE 6.
FEELINGS OF FREEDOM



Note. How free did/would you feel? Experiencers felt less free to refuse the request than Forecasters anticipated feeling. The notification weakly increased feelings of freedom among all participants pooled together ($p = .074$), but it did not make Experiencers feel significantly freer ($p = .21$). How free would a reasonable person feel? Experiencers imputed a lower level of freedom to the reasonable person than did Forecasters. The notification increased perceptions that a reasonable person would feel free to refuse, but the effect seems to be driven primarily by Forecasters ($p = .086$). The notification did not make Experiencers significantly more likely to say a reasonable person would feel free to refuse ($p = .12$). Error bars represent bootstrapped 95% confidence intervals.

a. Oneself

We next examined participants' judgments of how free, pressured, awkward, and comfortable they felt or would feel, as well as how easy it was or would be to say no to the experimenter's request. These five measures form a coherent scale ($\alpha > .7$); they were combined into a single measure of feelings of freedom.

As Figure 6 shows, a 2 × 2 analysis of variance (ANOVA) examining the effect of Hypotheticality × Notification on feelings of freedom revealed no significant interaction, $F_{1, 196} = .14$, $p = .71$, $\eta^2 < .001$.[119]

119. ANOVA is a hypothesis-testing procedure that examines the mean differences between two or more populations. (Here, there are four populations whose means are compared.) The procedure compares the variance between populations to the variance within populations. *See generally* FREDERICK J. GRAVETTER & LARRY B. WALLNAU, STATISTICS FOR THE BEHAVIORAL SCIENCES 366 (2016).

We observed a significant main effect of Hypotheticality, $F_{1, 196} = 19.66$, $p < .001$, $\eta^2 = .093$: Forecasters thought refusal would be easier ($M = 4.49$, $SD = 1.33$) than Experiencers reported it being ($M = 3.71$, $SD = 1.16$). This was consistent with our preregistered directional hypothesis, $t(198) = 4.41$, $p < .001$, $d = .62$.

We also observed a main effect of Notification, $F_{1, 196} = 3.88$, $p = .050$, $\eta^2 = .019$.[120] Those who were notified of their rights reported feeling freer to refuse ($M = 4.24$, $SD = 1.33$) than did those who were not notified ($M = 3.92$, $SD = 1.26$). This difference was not significant at the 5% level, although it was significant at the 10% level, $t(198) = 1.80$, $p = .074$, $d = .25$. We next deviate from our preregistration to examine the simple effects. Notification did not make a difference to Experiencers' feelings of freedom, $t(103) = 1.25$, $p = .21$, $d = .24$; nor did it make a difference to Forecasters' predicted feelings of freedom, $t(93) = 1.53$, $p = .13$, $d = .31$.

b. Reasonable Person

Participants also judged how easy it would be for a reasonable person to refuse. We conducted a 2 × 2 ANOVA examining the effect of the interaction between Hypotheticality and Notification on feelings of freedom. We found no significant interaction, $F_{1, 196} = .12$, $p = .73$, $\eta^2 < .001$.

We observed a main effect of Hypotheticality, $F_{1, 196} = 9.23$, $p = .003$, $\eta^2 = .046$. Experiencers determined that a reasonable person would feel less free ($M = 3.94$, $SD = .98$) than did Forecasters ($M = 4.39$, $SD = 1.14$). This difference was consistent with our directional hypothesis, $t(198) = 3.01$, $p = .001$, $d = .43$.

We also observed a main effect of Notification, $F_{1, 196} = 5.47$, $p = .02$, $\eta^2 = .027$. Participants thought a reasonable person who received an advisory would feel more free ($M = 4.33$, $SD = 1.15$) than would a reasonable person who did not receive an advisory ($M = 3.99$, $SD = .98$), $t(198) = 2.23$, $p = .027$, $d = .32$.

We then deviated from our preregistration to examine the simple effects. Notification made a weak difference to Forecasters' judgments of how free a reasonable person would feel. The effect was significant at the 10% confidence level but not at the 5% confidence level, $t(93) = 1.73$, $p = .086$, $d = .36$.[121] Notification did

120. Depending on which participants we exclude from our sample, p-values range from $p = .046$ (when we exclude just the 2 participants without phones and include everyone else) to $p = .064$ (when we exclude everyone, including the 6 participants who reported knowing about the study; the 5 participants who recognized the experimenter; and the 2 participants without phones).

121. Depending on which participants we exclude from our sample, p-values range from $p = .066$ (when we exclude just the 2 participants without phones and including everyone else) to $p = .086$.

not make a difference to Experiencers' judgments of how free a reasonable person would feel, $t(103) = 1.57$, $p = .12$, $d = .31$.

c. *Comparing Oneself Versus a Reasonable Person*

We conducted a 2 ×2 × 2 mixed-effect ANOVA to examine whether there was a three-way interaction between hypotheticality, notification, and whether people were judging their own feelings of freedom versus those of a reasonable person. We found no significant three-way interaction, $p = .95$. We observed no two-way interactions or main effect of whether participants were judging their own feelings versus a reasonable person's feelings.

3. *Experimenters' Notes*

Out of the 105 Experiencers, 91 handed their phones over unlocked. According to the experimenters' notes, 71 Experiencers surrendered their phones without question or complaint. An additional 17 handed over their phones after seeking further clarification about the purpose or justification for the request.[122] In the end, only 14 refused: 9 who were notified of their right to refuse and 5 who were not.

C. *Summary of Study 2 Findings*

Like Study 1, Study 2 found that Forecasters drastically underpredicted compliance with an invasive search request and underappreciated how difficult it was to refuse the request. This finding held true even when the requester explicitly told participants that they could say no.

We found that the advisory did not affect Experiencers' compliance rates, which remained quite high. Most notably, we did not find evidence that the advisory made Experiencers feel freer to refuse the request. It changed their beliefs about the consequences of refusal, but it did not change their self-reported feelings of freedom. This result is consistent with Lichtenberg's finding that a warning did not change the rates at which motorists consented to vehicle searches in Ohio.[123]

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122. For 3 Experiencers who surrendered their phones, we lack observational data about whether they asked questions before complying.

123. *See supra* notes 107-108 and accompanying text.

III. GENERAL DISCUSSION

Our participants did something they said they personally would not do—something they believed would be unreasonable: allow an experimenter to search through their unlocked smartphones. These results raise three questions. The first is why so many Experiencers complied with the request, assuming it was as inappropriate and unreasonable as Forecasters seemed to think. Another is why Forecasters so badly misjudged compliance. The third question is what these findings mean for Fourth Amendment doctrine. We address each question in turn.

A. Why Is Compliance So High?

Perhaps the most surprising discovery was just how many participants unlocked their phones and relinquished them to the experimenter. While we consider our main finding to be the stark divergence between imagined and actual behavior, the results are also notable because nearly everyone in the Experiencing condition submitted to a highly invasive privacy intrusion. In this Section, we speculate about various psychological processes that may have contributed to the high compliance rates.

One explanation for the high rates of compliance is that participants were deferring to authority. As Milgram famously showed, people are willing to endure highly uncomfortable activities if an authoritative experimenter directs them to do so.[124] Our study, however, made less of a show of authority than Milgram's did. In Milgram's study, participants who wanted to stop were urged to continue. By contrast, in our study, we simply wanted to see if people protested in the slightest. In Milgram's study, the experimenter was a 31-year-old man wearing a lab technician's coat; in our study, the experimenters were all undergraduates aged 22 or younger, dressed in their regular clothing.[125] Still, it is possible that participants viewed the experimenter as a figure of authority and complied for that reason.

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124. Milgram, *supra* note 76.

125. The experimenter's appearance and clothing may have influenced the extent to which participants saw the experimenter as an authority figure. *See, e.g.*, United States v. Rodney, 956 F.2d 295, 297 (D.C. Cir. 1992) (holding that an officer's plain clothes were a factor tending to show consent was voluntary); *see also* Leonard Bickman, *The Social Power of a Uniform*, 4 J. APPLIED SOC. PSYCHOL. 47 (1974) (finding that people tend to be more obedient to authority figures dressed in uniforms than in street clothes).

Alternatively, the high compliance rate among Experiencers could be due to the social imperative to maintain harmonious relationships by avoiding offense.[126] Turning down a direct request constitutes a potentially face-threatening act, implying that the requester is untrustworthy or that the request is inappropriate. One of us (Bohns) has explained:

> In essence, by refusing a request, one risks offending one's interaction partner—a violation of intrinsic social norms that would ultimately embarrass both parties. As a result, many people agree to do things—even things they would prefer not to do—simply to avoid the considerable discomfort of saying no.[127]

There has been some debate about whether Milgram's findings are attributable to obedience to authority, or to face-based dignitary concerns. John Sabini and colleagues have argued for the latter interpretation: that participants failed to stand up to Milgram's experimenter because it would have been mortifying to confront him with the immorality of his demands.[128] Notably, fewer participants were willing to go through with Milgram's grisly task when they received the experimenter's instructions by phone instead of in person.[129] This discrepancy suggests that the high compliance rates Milgram observed in his baseline procedure were driven in part by the in-person nature of the interaction.

Applying this debate to our study, we might ask which psychological mechanism—obedience to authority or avoidance of embarrassment—explains the high compliance rates we observed among Experiencers. Previous work by Bohns and colleagues sheds some light on this question.[130] Across several studies, Bohns and colleagues asked participants to approach over 14,000 strangers

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126. *See, e.g.*, PENELOPE BROWN & STEPHEN C. LEVINSON, POLITENESS: SOME UNIVERSALS IN LANGUAGE USAGE 61-62 (1978); ERVING GOFFMAN, *On Face-Work: An Analysis of Ritual Elements in Social Interaction*, *in* INTERACTION RITUAL 5, 8-15 (1967).

127. Vanessa K. Bohns, *(Mis)Understanding Our Influence over Others: A Review of the Underestimation-of-Compliance Effect*, 25 CURRENT DIRECTIONS PSYCHOL. SCI. 119, 120 (2016).

128. John Sabini et al., *The Really Fundamental Attribution Error in Social Psychological Research*, 12 PSYCHOL. INQUIRY 1, 3 (2001) ("[W]e think that the participants' obedience had something to do with their having a difficult time confronting the experimenter with his immorality . . . . It is undeniably true that attacking the morality of an experimenter is a face-threatening act, which would typically lead to embarrassment. Do participants refrain from forcefully disobeying the experimenter because to do so they must threaten his face and experience embarrassment?").

129. *Id.* (citing MILGRAM, *supra* note 65).

130. Bohns, *supra* note 127, at 119-21.

on the street with various requests: Will you lie for me? Could you please vandalize this library book? Can I borrow your phone?[131] The direct, face-to-face request, the researchers found, is more difficult to refuse than people anticipate—even though the requesters in these studies had little apparent authority and the requests took place outside of the laboratory.[132] Notably, compliance was lower when the request came in the form of a flyer or email, rather than a face-to-face request.[133]

In future research, we plan to test the hypothesis that the face-to-face nature of the request explains the high compliance rates, by manipulating whether consent is sought face-to-face or with a written form. If participants are given the opportunity to decline privately by checking a "no" box on a form, they might be more likely to withhold consent. Relatedly, we would expect a written consent form to have little effect if the requester hovers expectantly the entire time because the request is essentially still face-to-face.

A third explanation for the Experiencers' high compliance rates is that they handed over their phones without thinking. Robert Cialdini called this the "click, whirr" response: activate a person with a certain social cue and she will mechanically go through the motions associated with that cue.[134] Recall that participants were asked a favor and given a vague explanation: "[C]an you please unlock your phone and hand it to me? *I'll just need to take your phone outside of the room for a moment to check for some things*." It is possible that this justification for the request, empty as it was, still served to induce compliance.

In early research on mindlessness, Ellen Langer and colleagues showed that people are inclined to grant small favors when the request comes in a familiar syntactic structure ("Favor *X* + Reason *Y*"), regardless of the information conveyed.[135] People waiting to use a photocopier were equally willing to allow a member of Langer's research team to cut in line when he gave a placebo rationale ("Excuse me, I have 5 pages. May I use the Xerox machine, *because I have to make copies*?") as when he gave a real rationale ("Excuse me, I have 5 pages. May I use

131. *Id.* at 121.

132. *Id.*

133. *See* Francis J. Flynn & Vanessa K.B. Lake (Bohns), *If You Need Help, Just Ask: Underestimating Compliance with Direct Requests for Help*, 95 J. PERSONALITY & SOC. PSYCHOL. 128, 138-42 (2008); M. Mahdi Roghanizad & Vanessa K. Bohns, *Ask in Person: You're Less Persuasive than You Think over Email*, 69 J. EXPERIMENTAL SOC. PSYCHOL. 223, 223-24 (2017).

134. ROBERT B. CIALDINI, INFLUENCE: SCIENCE AND PRACTICE 2-4 (5th ed. 2009).

135. Ellen Langer et al., *The Mindlessness of Ostensibly Thoughtful Action: The Role of "Placebic" Information in Interpersonal Interaction*, 36 J. PERSONALITY & SOC. PSYCHOL. 635, 637 (1978).

the Xerox machine, *because I'm in a rush*?").[136] Both requests were more successful than simply asking to use the Xerox machine without providing any justification. The authors found that requests for favors have "certain script dimensions"[137] and argued that compliance depends more on syntax evoking these familiar scripts than on the particular content of the request.[138]

In our study, it is possible that Experiencers were mindlessly following a familiar social script. They handed their phones over without registering that the content of the justification we gave them (in order to "check for some things") was meaningless.

B. Why Did Forecasters Fail to Anticipate High Compliance and Low Feelings of Freedom?

Across both studies, we found strong support for our two main hypotheses: (1) Experiencers comply more often than Forecasters predict (behavioral measure); and (2) Experiencers report feeling less free to refuse than Forecasters indicate (psychological measure).

The empathy gap we observed is consistent with a long line of social psychology experiments showing that social and environmental factors profoundly affect behavior, though their influence tends to be overlooked and underappreciated.[139] In the most widely cited social psychology article of the 1980s,[140] Lee Ross argued that what makes canonical experiments on obedience,[141] bystander intervention,[142] and cognitive dissonance[143] so important is that their findings are counterintuitive.[144] Consumers of the research fail to anticipate how the study participants will act, Ross noted, making the research results surprising

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136. *Id.*

137. *Id.* at 636.

138. *Id.*

139. *See, e.g.*, Edward E. Jones & Victor A. Harris, *The Attribution of Attitudes*, 3 J. EXPERIMENTAL SOC. PSYCHOL. 1, 1 (1967); Lee Ross, *The Intuitive Psychologist and His Shortcomings: Distortions in the Attribution Process*, 10 ADVANCES EXPERIMENTAL SOC. PSYCHOL. 173, 174-79 (1977).

140. Ross, *supra* note 139; *see* LEE ROSS & RICHARD E. NISBETT, THE PERSON AND THE SITUATION: PERSPECTIVES OF SOCIAL PSYCHOLOGY, at v (1991).

141. MILGRAM, *supra* note 65.

142. John M. Darley & C. Daniel Batson, *"From Jerusalem to Jericho": A Study of Situational and Dispositional Variables in Helping Behavior*, 27 J. PERSONALITY & SOC. PSYCHOL. 100, 106 (1973).

143. Leon Festinger & James M. Carlsmith, *Cognitive Consequences of Forced Compliance*, 58 J. ABNORMAL & SOC. PSYCHOL. 203, 203 (1959).

144. Ross, *supra* note 139.

and revealing.[145] He termed this tendency to overlook situational forces the "fundamental attribution error."[146] The phenomenon, also known as correspondence bias, has been hailed as "a candidate for the most robust and repeatable finding in social psychology."[147]

A key insight from social psychology, then, is that we tend to underappreciate the effect of situational forces. "Actors can be weighed and behaviors can be filmed, but when one tries to point to a situation, one often stabs at empty air," a now-classic essay observes.[148] As discussed earlier, this bias means that we often misjudge what a reasonable person would do when placed in a challenging social environment.

All of this suggests that being asked to surrender one's unlocked phone piques some kind of emotional or social effect that is absent when one is merely sitting in the same room reading the same words. Those effects are difficult to simulate, it seems, when one is not actually being asked.

Indeed, hot/cold empathy gaps emerge even when the task requires simulating an emotion that is quite familiar. We have all been hungry before, yet we are somehow unable to call upon our prior experiences with hunger to make accurate predictions about what we will do when hungry. The present research, by contrast, asks participants to imagine handing over their phones with the screen unlocked—something people tend not to have much experience with. Many of us know what it feels like to surrender a backpack or a purse to a security guard, but most of us have never encountered a request to unlock our phones so that someone can thumb through them out of view. Thus, we might expect the empathy gap to be exacerbated here, where the task is so unfamiliar. If Forecasters were unable to call upon even a single memory to simulate how this novel experience might feel, that perhaps explains why we observed such a dramatic divergence between Forecasters and Experiencers.

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145. *Id.* at 186; *see also* ROSS & NISBETT, *supra* note 140, at 17-18.

146. Ross, *supra* note 139, at 183-87.

147. EDWARD E. JONES, INTERPERSONAL PERCEPTION 138 (1990).

148. Daniel T. Gilbert & Patrick S. Malone, *The Correspondence Bias*, 117 PSYCHOL. BULL. 21, 25 (1995).

IV. LEGAL IMPLICATIONS

A. Limitations

Before discussing the legal implications of our findings, we begin with some cautionary remarks regarding the limitations of our methodology. An undergraduate experimenter is different from a police officer, and our study participants—predominantly Asian and Caucasian female college students—are a far cry from the people who tend to be stopped and asked to submit to consent searches.[149] In myriad ways, the laboratory is different from the outside world. Here, we contemplate some of the largest differences between our study and the police search context.

Several factors point to the conclusion that our studies possibly *overestimate* compliance rates in police searches. First, the consequences of allowing the police to search one's phone are likely greater than allowing an experimenter to do the same; more people might refuse consent when they could potentially face legal consequences.[150] Second, our laboratory is housed within an esteemed, trusted university where an institutional review board assures a base level of safety and ethicality. Participants may have been willing to hand over their phones because they implicitly knew that nothing terribly damaging could happen. Third, our participants may have mistakenly believed that they would not receive their compensation if they refused. (This last explanation would not apply to participants

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149. *See, e.g.*, Maggie Fox, *Black People More Likely to Be Stopped by Cops, Study Finds*, NBC NEWS (July 26, 2016, 8:39 PM EST), https://www.nbcnews.com/health/health-news/black-people-more-likely-be-stopped-cops-study-finds-n616546 [https://perma.cc/PP5F-LFCT] ("Blacks, Native Americans and Hispanics had higher stop/arrest rates per 10,000 population than white non-Hispanics and Asians."); Gorner & Walberg, *supra* note 18 ("In Chicago, African-American and Latino motorists were more than four times more likely to have their vehicles searched during traffic stops last year than white motorists, even though officers found contraband in the vehicles of twice as many white drivers, according to the [ACLU's] report.").

150. Strauss argues that there is "obviously a distinction between the willingness to endure some degree of emotional trauma or minor inconvenience [as participants in Milgram's and Bickman's studies did] and facing the tangible, severe consequences of arrest and likely conviction." Strauss, *supra* note 8, at 239. Strauss goes on to defend her use of data from psychological experiments:

> While the magnitude of harm to individuals in situations where police request to search may provide some hesitation in applying the lessons of the experiments, I believe the studies can still provide useful insight. The point is that people follow or obey a "request" made by police officers in authority positions in situations where there is not only no ostensible benefit to do so, there is likely harm.

Id.

in the Notification condition of Study 2, who knew they would still receive their payment regardless of how they answered.)

At the same time, several differences between our study and the police search context point to the opposite conclusion: that our research *underestimates* compliance rates. First, police officers convey more authority than our experimenters likely did; our experimenters were college-aged peers dressed in street clothes, whereas police officers are government agents who wear badges and carry weapons. Second, in the policing context, citizens might feel that they are admitting guilt or acting suspiciously if they refuse a police officer's request. It is not clear that our participants would have felt it was self-incriminating to refuse the experimenter's request. Third, to the extent our participants were aware of the policies regulating university research, they would have known that their participation was completely voluntary and that they were free to quit at any time. Most people stopped by the police, by contrast, do not believe they can just walk away.[151]

In addition, the university population from which our study pool was drawn is not representative of the population of individuals affected by consent searches. As described earlier, consent searches are disproportionately performed on black and Latino motorists, whereas our study participants were mostly Caucasian and Asian. The two populations may also differ in other relevant ways: education, age, cell phone usage, trust in authority, attitudes toward privacy, and so on.

Thus, for various reasons, we cannot assume that the in-lab compliance rate will generalize to the police search context. But existing data from traffic studies suggest that real-world compliance among motorists asked to submit to a search is about as high as we saw in the lab. Oren Bar-Gill and Barry Friedman report that "between 85 and 90% of drivers consent to searches of their vehicle."[152] As Tracey Maclin observes, "[M]ost of us do not have the chutzpuh or stupidity to tell a police officer to 'get lost.'"[153] This may be especially true for black and Latino men who have been given "the talk" urging them to exhibit extreme deference when dealing with the police, as described earlier.[154] Some have conjectured

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151. *See generally* David K. Kessler, *Free to Leave? An Empirical Look at the Fourth Amendment's Seizure Standard*, 99 J. CRIM. L. & CRIMINOLOGY 51 (2009) (finding, in a survey of 406 Boston residents, that persons stopped by police on public sidewalks and on buses would not feel free to end their encounters with the police).

152. Bar-Gill & Friedman, *supra* note 3, at 1662 & n.219 (summarizing the results of other studies).

153. Maclin, *supra* note 58, at 250.

154. *See, e.g.*, Utah v. Strieff, 136 S. Ct. 2056, 2070 (2016) (Sotomayor, J., dissenting) ("For generations, black and brown parents have given their children 'the talk'—instructing them never to run down the street; always keep your hands where they can be seen; do not even think of

that "blacks have a stronger incentive than whites" to comply with search requests by police, as a means to "signal cooperation/non-criminality."[155]

Surprisingly, however, the data on traffic stops do not show a clear pattern whereby racial minorities comply at higher rates. Lichtenberg's analysis of police stops in Maryland (1995-1997) and Ohio (1987-1991; 1995-1997) found that age, race, and gender had "virtually no effect" on rates of consent.[156] Recent data from Illinois (2017) similarly show no race-based difference in consent rates.[157]

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talking back to a stranger—all out of fear of how an officer with a gun will react to them."); Carbado, *supra* note 56, at 1014 (arguing that refusing to consent to a search "can racially aggravate or intensify the encounter [with police], increasing the person of color's vulnerability to physical violence, arrest, or both"); *supra* notes 56-57 and accompanying text.

155. Carbado, *supra* note 56, at 1019.

156. Lichtenberg, *supra* note 75, at ii, 238-39 ("[C]onsistent with the Milgram findings, those factors which are suspected to influence consent did not appear to have any impact worth noting. All of the demographic variables analyzed had little or no effect on the rates of consent, despite the large differences in attitudes towards the police.").

157. The rates of consent were as follows: White, 85%; African American, 87%; Hispanic, 90%; Asian, 90%; American Indian, 93%; and Native Hawaiian or Pacific Islander, 86%. Alexander Weiss Consulting, LLC, *Illinois Traffic and Pedestrian Stop Study: 2017 Annual Report*, ILL. DEP'T TRANSP. 10, http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2017/2017%20ITSS%20Executive%20Summary.pdf [https://perma.cc/JSS9-V32T]. The same general pattern was observed the prior five years: "the decision to permit consent does not vary much by race" but "African American and Hispanic drivers are more likely to be the subject of a vehicle consent search than other drivers, relative to how frequently they are stopped." *Id.* at 10; *see Illinois Traffic Stop Study*, ILL. DEP'T TRANSP., http://www.idot.illinois.gov/transportation-system/local-transportation-partners/law-enforcement/illinois-traffic-stop-study [https://perma.cc/F3Z9-MYNN] (listing annual traffic-stop statistical studies). Illinois began collecting data on consent rates in 2007. *See* Alexander Weiss, *Illinois Traffic Stop Statistics Act: Report for the Year 2006*, NW. U. CTR. FOR PUB. SAFETY 9 (June 22, 2007), http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2006/2006%20Illinois%20Traffic%20Stop%20Summary.pdf [https://perma.cc/9RWH-J7SK] ("Beginning with the 2007 data we will know whether consent was requested, and whether it was refused."). Before then, the state collected data only on the total number of consent searches conducted. *See* Alexander Weiss & Aviva Grumet-Morris, *Illinois Traffic Stop Statistics Study: 2005 Annual Report*, NW. U. CTR. FOR PUB. SAFETY 14-15 (June 27, 2006), http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2005/2005%20Illinois%20Traffic%20Stop%20Summary.pdf [https://perma.cc/MT5A-VPA9]. Since 2007, Illinois has observed racial differences in refusal rates in only three years: 2009, 2010, and 2011. *See* Alexander Weiss & Dennis P. Rosenbaum, *Illinois Traffic Stops Statistics Act 2010 Annual Report: Executive Summary*, U. ILL. CHI. CTR. FOR RES. L. & JUST. 10 (July 1, 2011), http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2010/2010%20Illinois%20Traffic%20Stop%20Summary.pdf [https://perma.cc/Q5RD-Z9NG] (White, 78%; African American, 86%; Hispanic, 90%; Asian, 91%; American Indian, 95%; Native Hawaiian or Pacific Islander, no data); Alexander Weiss & Dennis P. Rosenbaum, *Illinois Traffic Stops Statistics Study: 2009 Annual Report*, U. ILL. CHI.

The problem, it seems, is not necessarily that racial minorities are more likely to comply with an officer's request to search but that they are more likely to be asked,[158] and nearly everyone who is asked complies. This results in racial disparities in who is ultimately searched pursuant to consent. But importantly, these statistics ameliorate the concern that the in-lab compliance rates we observed are skewed due to the racial makeup of the study population.

B. Implications of High Compliance Levels

What can we infer from high compliance rates about the voluntariness of consent? Some commentators have taken high compliance rates as an indication that consent is all but impossible. "[P]eople consent so often that it undermines . . . the meaningfulness of the consent," argue Bar-Gill and Friedman.[159] The Alaska Court of Appeals once observed that "[m]otorists are giving consent in such large numbers that it is no longer reasonable to believe that they are making the kind of independent decision that lawyers and judges typically have in mind when they use the phrase 'consent search.'"[160] The court ultimately imposed limitations on when police can request consent to search during routine traffic stops.[161]

Other courts, however, have argued that high compliance rates do not necessarily imply low voluntariness.[162] In *Ohio v. Robinette*, the Supreme Court con-

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CTR. FOR RES. L. & JUST. 13 (July 1, 2010), http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2009/2009%20Illinois%20Traffic%20Stop%20Summary.pdf [https://perma.cc/Y3UD-J4S5] (White, 85%; African American, 89%; Hispanic, 92%; Asian, 85%; American Indian, 92%; Native Hawaiian or Pacific Islander, no data); Alexander Weiss Consulting, LLC, *Illinois Traffic Stop Study: 2011 Annual Report*, ILL. DEP'T TRANSP. 13, http://www.idot.illinois.gov/Assets/uploads/files/Transportation-System/Reports/Safety/Traffic-Stop-Studies/2011/2011%20Illinois%20Traffic%20Stop%20Summary.pdf [https://perma.cc/J8DJ-2PQP] (White, 73%; African American, 83%; Hispanic, 90%; Asian, 91%; American Indian, 85%; Native Hawaiian or Pacific Islander, no data).

158. *See supra* notes 18-19 and accompanying text.

159. Bar-Gill & Friedman, *supra* note 3, at 1662.

160. Brown v. State, 182 P.3d 624, 631 (Alaska Ct. App. 2008).

161. *Id.* at 626 (holding that the state constitution prohibits consent-based search requests where the search is "unrelated to the basis for the stop" and "not otherwise supported by a reasonable suspicion of criminality").

162. *See, e.g.*, State v. Stankus, 582 N.W.2d 468, 473 (Wis. Ct. App. 1998) ("[J]ust because the sergeant has never failed to gain consent by employing [a procedure in which two officers approach a car on both sides] does not mean he purposefully uses the tactic to create a coercive atmosphere. And it does not mean that a coercive atmosphere is thereby created."). This kind

sidered a case in which a driver was stopped for speeding, given a verbal warning, and then asked if he would allow a search of his car.[163] During oral argument, the defense counsel pointed out that the police officer who stopped Robinette had conducted 786 consent searches in a single year and had not once seen a motorist refuse consent.[164] Justice Scalia responded: "Well, good for him, so long as he hasn't violated the Federal Constitution. I mean, the fact that it's effective doesn't show that it's unlawful."[165]

We found that 97% of our participants acceded to a request that was designed to be unnerving and intrusive. We think the best explanation is psychological pressure: people have trouble saying no, even though they would prefer to. While we cannot rule out the possibility that Experiencers handed over their phones because they genuinely *wanted* to do so, we think this explanation is unlikely. Experiencers thought that a reasonable person would show less compliance than they had shown and would feel slightly freer to refuse than they had felt.[166] This suggests that Experiencers wound up feeling they had done something unreasonable, and it was because they felt pressured to do it.[167]

Additionally, Forecasters largely said they would refuse and that a reasonable person would refuse the request, suggesting that they find the idea of handing over their phones unappealing. We think it is likely that Experiencers felt the

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of reasoning has similarly been applied to the "free to leave" analysis in Fourth Amendment seizure cases. *See, e.g.*, United States v. Drayton, 536 U.S. 194, 205 (2002) ("[T]he fact that in Officer Lang's experience only a few passengers have refused to cooperate does not suggest that a reasonable person would not feel free to terminate the bus encounter.").

163. 519 U.S. 33 (1996).

164. Transcript of Oral Argument at 33-34, *Robinette*, 519 U.S. 33 (1996) (No. 95-891).

165. Chanenson, *supra* note 75, at 439 (citing Transcript of Oral Argument, *supra* note 164, at 33). Justice Stevens, dissenting in *Robinette*, disagreed. "The fact that this particular officer successfully used a similar method of obtaining consent to search roughly 786 times in one year indicates that motorists generally respond in a manner that is contrary to their self-interest," he wrote. 519 U.S. at 48 (Stevens, J., dissenting) (citation omitted). "Repeated decisions by ordinary citizens to surrender that interest cannot satisfactorily be explained on any hypothesis other than an assumption that they believed they had a legal duty to do so." *Id*.

166. *See supra* Section II.B.2.c (reporting that 17 Experiencers who handed their phones over thought a reasonable person would refuse, while only 5 Experiencers who refused thought a reasonable person would comply).

167. The levels of freedom Experiencers report feeling are fairly low (ranging 3.28 to 3.85 on a 1-7 scale), suggesting they find it difficult—but not impossible—to refuse. Unfortunately, we do not know where the constitutional bar is set on a 1-7 scale (for example, is a 3.5 on a 1-7 scale "coercive"?). Moreover, while we can use the survey item as a window into participants' subjective experiences, we do not claim that our Likert scale can capture precisely the legal notion of coercion. Recall that we asked participants to rate how easy, comfortable, awkward, pressured, and free they felt to refuse the request. *See infra* Appendix A.

same way and that something about facing the actual request made them feel unable to act on their wishes.

The contrary explanation is that Forecasters were wrong and Experiencers demonstrated their true attitudes when they relinquished their phones. While it is possible that people actually value privacy less than they say, other behavioral measures support our view that people care deeply about their cell phone privacy. Cell phone usage studies, for example, find that the vast majority of smartphone users lock their phones with passcodes or thumbprints,[168] despite the considerable hassle that these security measures impose. The average smartphone user unlocks her phone 110 times per day and spends about 1.2 hours per month unlocking the screen.[169] These figures suggest that smartphone users are willing to endure frequent inconveniences to secure their privacy.

Ultimately, our experimental design cannot resolve the normative question of whose opinion—Forecasters' or Experiencers'—reflects participants' "true preferences."[170] We will merely point out that the disjunction between what people do, on the one hand, and what they say, on the other, raises deep questions that can cause mischief in many other areas of law that implicate consent, such as medical consent and consent to partake in research.

C. Implications of the Empathy Gap

Our main finding is that a large gap exists between what people say a reasonable person would do and what people actually do. Judges evaluating consent searches must take account of the totality of the circumstances to determine whether consent was given voluntarily.[171] In making such determinations,

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168. A 2016 Pew Research Center survey of 1,040 American adults found that 71% of smartphone users lock their screens. Kenneth Olmstead & Aaron Smith, *Americans and Cybersecurity*, PEW RES. CTR. 38 (Jan. 26, 2017), https://assets.pewresearch.org/wp-content/uploads/sites/14/2017/01/26102016/Americans-and-Cyber-Security-final.pdf [https://perma.cc/W28Y-KLGP].

169. Marian Harbach et al., *It's a Hard Lock Life: A Field Study of Smartphone (Un)Locking Behavior and Risk Perception*, TENTH SYMP. ON USABLE PRIVACY & SECURITY (SOUPS) 213-14, 220 (July 9-11, 2014), https://www.usenix.org/system/files/conference/soups2014/soups14-paper-harbach.pdf [https://perma.cc/2KLM-3355] (citing research by Locket, a lock-screen advertising provider, and providing original data showing that participants spent an average of 1.17 hours unlocking their phones during a 27-day study period).

170. *See, e.g.*, Barry Schwartz & Roseanna Sommers, *Affective Forecasting and Well-Being*, *in* THE OXFORD HANDBOOK OF COGNITIVE PSYCHOLOGY 704, 709 (Daniel Reisberg ed., 2013) (summarizing research showing that our preferences are often "*constructed* rather than consulted, and that construction is heavily influenced by the context in which choices are made").

171. *See supra* note 7 and accompanying text.

judges refer to features of the situation, such as how many officers were present, whether they carried guns, and how easy it was to exit the setting (for example, a bus is considered harder to leave than an open sidewalk).[172] Our Forecasters had firsthand access to important details about the search context, such as what the experimenter was wearing and what the laboratory setting looked like. Yet their predictions about what a reasonable person would do were off by over 80 percentage points.

We cannot know if judges would get it as wrong as our Forecasters did. It is possible that judges are able to draw on their expertise to make more accurate judgments. But with effect sizes this large, it seems unlikely that the empathy gap would fall to zero when it is a judge sitting in chambers simulating the emotions of a motorist stopped by police.

In fact, we might expect the empathy gap to be larger than we observed in our experiments. Our Forecasters and Experiencers were demographically similar—they were drawn from the same subject pool and randomly assigned to their roles. By contrast, the decision makers in consent search cases are often demographically dissimilar from the defendants they judge, who are disproportionately racial minorities from neighborhoods with high police presence.[173] As described earlier, many commentators have testified to the particular, racialized fear that suspects of color feel when dealing with police—and have objected that white judges often seem to ignore the ways in which "race shapes people's trust of, and sense of vulnerability with respect to, the police."[174] Previous research on the psychology of empathy underscores that power can diminish perspective taking, making it more difficult for those with power to empathize with the experiences of those who have less power.[175] Power leads people to pay less attention to low-status individuals[176] and to "anchor too heavily on their own vantage point, insufficiently adjusting to others' perspectives."[177] For these reasons, the empathy gap between judges and defendants may be wider than the gap between Forecasters and Experiencers in our study.

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172. Nadler, *Scattershot Policing*, *supra* note 3, at 98.

173. *See, e.g.*, Nadler, *No Need to Shout*, *supra* note 3, at 220 n.244.

174. *See, e.g.*, Carbado, *supra* note 56, at 1018.

175. *See, e.g.*, Adam D. Galinsky et al., *Power and Perspectives Not Taken*, 17 PSYCHOL. SCI. 1068, 1072 (2006) ("Across four experiments, we found that power was associated with a reduced tendency to comprehend how other individuals see the world, think about the world, and feel about the world.").

176. Susan T. Fiske, *Controlling Other People: The Impact of Power on Stereotyping*, 48 AM. PSYCHOLOGIST 621, 627 (1993) (describing a simulated hiring task in which "power decreased decision makers' attention" to the applicants they were assessing).

177. Galinsky et al., *supra* note 175, at 1068.

Assuming an empathy gap between judges and defendants does exist, is it constitutionally significant? Some commentators may argue that it is not because the voluntariness inquiry has never genuinely been about inquiring into the minds of the accused, whatever judges may say.[178] In this Essay, we have taken consent search doctrine at face value and examined whether it holds up on its own terms. Our findings suggest that even if the voluntariness test were not a legal fiction, it would still be problematic because it requires uninvolved third parties to judge how it would feel to be faced with a request by police. This is a task that decision makers will tend to perform inaccurately, even if they are trying their best to simulate the experience of being confronted by police.

Moreover, the errors are lopsided: we tend to overestimate voluntariness, not underestimate it. This implies that the voluntariness inquiry in consent search doctrine skews in favor of police and against citizens. While we cannot determine which individual suspects are giving consent voluntarily and which involuntarily, we can say that the test is subject to an overall bias, thanks to the psychological nature of the inquiry.

The findings bolster the position of reformers who would like to see consent searches abandoned or limited to cases involving individualized suspicion,[179] as they have been in Hawaii, Minnesota, New Jersey, and Rhode Island.[180] The ACLU has been working to pass legislation in other states that would prevent police from performing searches without particularized probable cause or reasonable suspicion.[181] Our findings support these critics' contention that the voluntariness standard provides too little protection for citizens against routine intrusions into their privacy.

Even if consent searches are not banned outright, it might be worth reconsidering how they are evaluated. In particular, the results presented here suggest that judges should be mindful of the potential for bias when applying the vol-

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178. *See supra* notes 42-44.

179. *See, e.g.*, Christo Lassiter, *Eliminating Consent from the Lexicon of Traffic Stop Interrogations*, 27 CAP. U. L. REV. 79, 83 (1998) ("[T]he bottom line is that consent should be removed as a basis to search and seize in traffic stops."); Simmons, *supra* note 2, at 823 ("[I]t is high time to get rid of the voluntariness paradigm altogether."); Strauss, *supra* note 8, at 252 (advocating for "eliminating consent"); Note, *supra* note 8, at 2188 n.10 (citing efforts to ban consent searches of homes).

180. Note, *supra* note 8, at 2187-88 ("Hawaii, Minnesota, New Jersey, and Rhode Island banned the use of consent searches 'after controversies about racial profiling,' and the California Highway Patrol voluntarily adopted a policy prohibiting its officers from requesting consent from motorists." (footnote omitted) (quoting Sylvia Moreno, *Race a Factor in Texas Stops*, WASH. POST, Feb. 25, 2005, at A3)).

181. *See, e.g.*, *2018 State Legislative Session Report*, ACLU MD. (June 12, 2018), https://www.aclu-md.org/en/publications/2018-state-legislative-report [https://perma.cc/5QXA-93F6] (describing support for a bill that "would have banned consent searches during traffic stops").

untariness standard. Whenever they find themselves thinking that it would have been easy enough for someone in the defendant's situation to refuse consent, they should remind themselves that it may seem that way only because they are imagining the situation instead of experiencing it. They should take note of the research on the psychology of compliance and ask themselves whether they are underestimating the psychological pressure to comply. Of course, it can be difficult to know when one's judgment is affected by bias, and it can be more difficult still to determine how far to go in compensating for the bias. In future research, we plan to explore debiasing strategies to determine if there are ways to help decision makers more accurately assess the voluntariness of consent.

D. Implications of the Failure of Miranda*-for-Search*

Commentators have generally assumed that warnings enable people to feel free to refuse search requests. The Eleventh Circuit imposed a warning requirement, later abrogated by the Supreme Court in *Drayton*, because "[w]ithout such notice in this case, we do not feel a reasonable person would have felt able to decline the agents' requests."[182] Justice Marshall, dissenting in *Florida v. Bostick*, expected warnings to "dispel the aura of coercion and intimidation" inherent in encounters with the police.[183]

Our study findings cast doubt on this line of thinking. We find no evidence that *Miranda*-for-search enhances feelings of freedom or reduces compliance with invasive search requests. This result is consistent with evidence from the police-interrogations context showing that *Miranda* warnings have had only a "negligible" effect on confessions.[184] Not only do more than 80% of Mirandized suspects ultimately waive their rights and submit to police questioning,[185] but "large numbers of innocent individuals have been prosecuted and wrongfully convicted" on the basis of false confessions they gave to police after hearing and waiving their *Miranda* rights.[186] Summarizing 50 years' worth of empirical re-

182. United States v. Washington, 151 F.3d 1354, 1357 (11th Cir. 1998), *abrogated by* United States v. Drayton, 536 U.S. 194 (2002).

183. 501 U.S. 429, 450 (1991) (Marshall, J., dissenting).

184. 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, 177 (2007).

185. *See* Anthony J. Domanico et al., *Overcoming* Miranda*: A Content Analysis of the* Miranda *Portion of Police Interrogations*, 49 IDAHO L. REV. 1, 2, 8 & n.48 (2012) (citing previous studies that have found that "approximately 80% of suspects waived their *Miranda* rights" and presenting new research showing a 93% waiver rate).

186. Laura Smalarz et al., Miranda *at 50: A Psychological Analysis*, 25 CURRENT DIRECTIONS PSYCHOL. SCI. 455, 455 (2016); *see also* Patrick A. Malone, "*You Have the Right to Remain Silent":*

search on the effects of the decision, a recent report concludes that "*Miranda* has failed as a safeguard."[187]

Why do people confess, even after having been told they have a right to remain silent? Why do people accede to privacy intrusions, after learning they may decline the search? The easy answer is that people disregard or fail to understand the warning. This was Lichtenberg's explanation for the failure of the "first-tell-then-ask" rule in Ohio. The motorists Lichtenberg interviewed said they thought the police would search them anyway; notifying them of their rights seemed not to change their beliefs about what would happen if they refused.[188] In our study, however, we found that our advisory succeeded in altering participants' beliefs about what the consequences of refusal would be.[189] They understood, and believed, the advisory. Still, we found that the warning did little to change their behavior or feelings of freedom.

We contend that warnings are ineffective because they fail to address the psychology of compliance. Warnings are designed to address informational deficits. They operate on the theory that people say yes because they lack knowledge of their right to say no; once armed with this knowledge, they will assert the right if they want to. But the reason people comply, we believe, is *social*, not informational. The social aspects of the request—the authority of the requester, the awkwardness of refusal, the imperative to save face—persist even when requestees are provided with information about the material consequences of refusal. Accordingly, informing people that they have certain rights is not enough to make them feel empowered to assert those rights.

Of course, people *think* warnings matter. When the *Miranda* decision was issued in 1966, it quickly became "one of the most praised [and] most maligned" Supreme Court cases in American history.[190] Critics immediately denounced the decision as "handcuffing the police" and "favoring the criminal forces over the peace forces."[191] But by the early 1970s, it had become "widely accepted" among academics and law enforcement alike that *Miranda* warnings "posed no barrier to effective law enforcement."[192] Indeed, Justice Clark, who dissented fiercely in

Miranda *After Twenty Years*, 55 AM. SCHOLAR 367, 368 (1986) ("Next to the warning label on cigarette packs, *Miranda* is the most widely ignored piece of official advice in our society.").

187. Smalarz et al., *supra* note 186, at 455.

188. *See supra* notes 107-110 and accompanying text.

189. *See supra* Figure 3 and accompanying text.

190. Kamisar, *supra* note 184, at 163.

191. Stephen J. Schulhofer, *Reconsidering* Miranda, 54 U. CHI. L. REV. 435, 435 (1987).

192. *Id.* at 456; *see also* Kamisar, *supra* note 184, at 177 ("[W]ith one conspicuous exception (Paul Cassell), there is wide agreement that *Miranda* has had a negligible impact on the confession rate." (footnote omitted)). For a recent argument that *Miranda* hinders law enforcement, see

the case, later acknowledged "error" in his "appraisal of [its] effect upon the successful detection and prosecution of crime."[193]

Participants displayed a similar dynamic in Study 2: Forecasters' imagined responses were affected by the advisory in a way that was at odds with Experiencers' real responses. In fact, the advisory slightly *increased* Forecasters' sense that they would comply.[194] One potential explanation for this increase is that Forecasters viewed the request more favorably when it included a friendly notice of rights. Perhaps they were less turned off by the invasive request as a result.[195] This unexpected finding suggests that the notification makes the intrusive search request seem more palatable to outside observers, who do not appreciate that it has little effect on actual requestees. This may mean that judges might expect *Miranda*-for-search to have a greater impact on feelings of pressure than it actually does, resulting in inaccurate determinations of voluntariness.

Given the dim prospects for *Miranda*-like warnings, what can be done? We suggest that reformers might study the trajectory New Jersey followed during its forty-year quest to safeguard motorists from excessive policing.[196] The state initially tried imposing a warning requirement as a way to ensure consent searches would be truly voluntary. In a 1975 case called *State v. Johnson*, the state supreme court ruled that under the New Jersey Constitution, voluntary consent requires individuals to know of their right to refuse consent.[197] The New Jersey State Police subsequently adopted a *Miranda*-like "first-tell-then-ask" rule and began deploying written consent forms in all consent searches.[198]

Paul G. 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 (2017).

193. Tom C. Clark, *Observations: Criminal Justice in America*, 46 TEX. L. REV. 742, 745 (1968).

194. It also boosted, albeit to a lesser degree, their sense that a reasonable person would comply.

195. The fact that the advisory not only increased predictions of compliance but also improved Forecasters' feelings of freedom (though not significantly) bolsters this hypothesis. In other words, the Forecasters say that they would feel more free *and* that they would be more likely to comply. This suggests that the notification is causing them to feel more positively inclined toward the request.

196. New Jersey State Police were on record using coercive tactics in violation of a 1999 federal consent decree and state-police policy. *See, e.g.*, State v. Carty, 790 A.2d 903, 911 (N.J. 2002) (citing "widespread abuse" of existing New Jersey law). The consent decree was prompted by an incident in which New Jersey state troopers shot three unarmed African American men during a highway stop. The order was lifted in 2009 after monitors found that State Police had complied consistently for several years. *See* Associated Press, *Oversight of New Jersey State Police Is Ended*, N.Y. TIMES (Sept. 21, 2009), https://www.nytimes.com/2009/09/22/nyregion/22profile.html [https://perma.cc/TK6D-QWMU].

197. 346 A.2d 66, 68 (N.J. 1975).

198. *Carty*, 790 A.2d at 907.

Approximately thirty years later, the New Jersey Supreme Court revisited consent searches in *State v. Carty*. The court took stock of all that had happened in the decades since *Johnson*, noting that recent traffic-stop data showed that 95% of New Jersey motorists were still consenting to vehicle searches.[199] It also cited scholarly articles describing the psychological insights gleaned from the Milgram experiments, observing that "[i]n the context of motor vehicle stops, . . . it is not a stretch of the imagination to assume that [drivers] feel[] compelled to consent."[200]

Based on these concerns, the *Carty* court took the remarkable step of prohibiting consent searches unless they were supported by "reasonable and articulable suspicion."[201] The court wrote,

> The cumulative effect has been that we no longer have confidence that a consent to search under *Johnson* truly can be voluntary . . . . [D]espite the use of the first-tell-then-ask rule or the voluntary and knowing standard adopted in *Johnson*, consent searches following valid motor vehicle stops are either not voluntary because people feel compelled to consent for various reasons, or are not reasonable because of the detention associated with obtaining and executing the consent search.[202]

In other words, after requiring police to notify citizens of their right to refuse consent, New Jersey realized that these efforts had been insufficient to prevent unreasonable intrusions. Thus, the high court decided to go further and prevent police from asking for consent in certain contexts.

We submit that a similar shift in thinking may be warranted in other jurisdictions where consent forms and *Miranda*-like warnings are the go-to solution. We suggest that advocates should require empirical evidence showing that warnings are effective before embracing these reforms. Without such evidence, advocates may find themselves in the situation faced by New Jersey: thirty years of warnings and no difference in the practical realities of consent searches.[203]

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199. *Id.* at 911.

200. *Id.* at 910 (citing Oliver, *supra* note 75, at 1465; and Barrio, *supra* note 75, at 233-40).

201. *Id.* at 905.

202. *Id.* at 911.

203. Of course, New Jersey's solution of imposing a "reasonable and articulable suspicion" requirement may come with problems of its own. As Jeffrey Fagan and others have argued, "reasonable suspicion" requirements are easily met by pointing to factors such as "furtive movements" and "high crime areas." *See* Jeffrey Fagan, Terry*'s Original Sin*, 2016 U. CHI. LEGAL F. 43, 44-45; *see also* Floyd v. City of New York, 959 F. Supp. 2d 540, 578-83 (S.D.N.Y. 2014) (summarizing expert testimony from Jeffrey Fagan on how often the New York Police Department's stops lack reasonable suspicion); Andrew Guthrie Ferguson & Damien Bernache,

It is worth mentioning that the rights notification in our study did narrow the gap between Experiencers and Forecasters significantly (albeit to a gap of 53 percentage points). If the empathy gap were the primary concern with consent searches, then this could be a reason to adopt *Miranda*-for-search. But those who have championed the reform have plainly embraced it for a different reason: they hope it will combat psychological coercion and enable more people to withhold consent.[204] Despite acknowledging that warnings are no panacea for police coercion, several commentators still maintain that educating people is a step in the right direction.[205] Steven Chanenson insists that warnings are at worst ineffective: "Ultimately, there appears to be at least some potential advantages and negligible potential harm in police departments voluntarily adding these warnings. Police should try warnings because 'like chicken soup, [they] can't hurt but may well help.'"[206]

But there are underappreciated costs to asking police to use consent forms or to issue warnings. These measures can have practical effects that alter the legal status of the search. As the New Jersey court in *Carty* intimated, a rigorous consent process can unacceptably prolong the length of time motorists are stopped.[207] More fundamentally, warnings have legal significance in and of themselves.[208] Courts tend to take the presence of a warning as conclusive proof

The "High-Crime Area" Question: Requiring Verifiable and Quantifiable Evidence for Fourth Amendment Reasonable Suspicion Analysis, 57 AM. U. L. REV. 1587, 1591 (2008) (arguing that the "high-crime area designation is hardly ever empirically supported with factual evidentiary proof"). We might expect that if police are required to establish reasonable and articulable suspicion in order to perform a consent search, they will respond by finding such suspicion in a greater number of cases. So, the requirement New Jersey imposed may prove no real barrier to performing routine, ubiquitous consent searches. The State would do well to continue reviewing the empirical evidence to understand how its constitutional strictures affect policing in practice.

204. *See, e.g.*, Barrio, *supra* note 75, at 218.

205. *See, e.g.*, Strauss, *supra* note 8, at 255 ("[R]equiring police officers to tell a person that he has a right to refuse consent is a step in the right direction toward alleviating coercion, but does not go far enough.").

206. Chanenson, *supra* note 75, at 466 (alteration in original) (quoting Stephen Fraidin & Jon D. Hanson, *Toward Unlocking Lockups*, 103 YALE L.J. 1739, 1745 (1994)). Similarly, Daniel Steinbock argues that *Miranda*-like warnings, even if ineffective, "can bring nothing but benefit, however small." Daniel J. Steinbock, *The Wrong Line Between Freedom and Restraint: The Unreality, Obscurity, and Incivility of the Fourth Amendment Consensual Encounter Doctrine*, 38 SAN DIEGO L. REV. 507, 561 (2001).

207. *Carty*, 790 A.2d at 911 (criticizing as unreasonable the "detention associated with obtaining and executing the consent search" when using the "first-tell-then-ask" rule).

208. *E.g.*, United States v. Mendenhall, 446 U.S. 544, 558-59 (1980) ("[I]t is especially significant that the respondent was twice expressly told that she was free to decline to consent to the

that consent was given voluntarily.[209] The presence of a warning—even an ineffective one—is likely to dash any hope a defendant has of arguing ex post that his consent was given involuntarily. *Miranda*-for-search thus comes with significant risks for citizens, while doing little to empower them. In this way, *Miranda*-for-search may ultimately backfire.

CONCLUSION

The study results presented in this Essay reveal a systematic bias whereby neutral third parties view consent as more voluntary, and refusal easier, than actors experience it to be. Even when given monetary incentives to provide their best guess of how often motorists comply with police search requests in the real world, people significantly underpredict compliance. Moreover, notifying requestees of their right to withhold consent alters their factual beliefs about the consequences of refusing the search, but it does not significantly reduce their tendency to comply or enhance their feelings of freedom.

Refusal is harder, and rarer, than we realize. This psychological reality suggests that the Fourth Amendment voluntariness test may need to be reconsidered so that biases in social perception do not undercut citizens' civil rights.

search, and only thereafter explicitly consented to it. Although the Constitution does not require 'proof of knowledge of a right to refuse as the *sine qua non* of an effective consent to a search,' such knowledge was highly relevant to the determination that there had been consent. And, perhaps more important for present purposes, the fact that the officers themselves informed the respondent that she was free to withhold her consent substantially lessened the probability that their conduct could reasonably have appeared to her to be coercive." (citations omitted)); Schneckloth v. Bustamonte, 412 U.S. 218, 248-49 (1973) (noting that "the subject's knowledge of a right to refuse is a factor to be taken into account" when determining voluntariness).

209. 4 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 8.2(i) (4th ed. 2004) ("[P]roof by the prosecution that the consenting party was warned of his rights . . . is often a significant factor leading to a finding that the consent was voluntary." (footnotes omitted)). The same holds true for interrogees who have been Mirandized. *See, e.g.*, Kamisar, *supra* note 184, at 182 ("In practice . . . it appears that as long as the warnings are given and the suspect exhibits no overt signs of a lack of capacity to understand them, his waiver will be upheld." (quoting Mark Berger, *Compromise and Continuity:* Miranda *Waivers, Confession Admissibility, and the Retention of Interrogation Protections*, 49 U. PITT. L. REV. 1007, 1063 (1988))); Lynch, *supra* note 3, at 235 (noting that a *Miranda* warning "does not formally preclude a challenge to the voluntariness of a waiver given after warning (although such claims are extremely difficult in the face of the strong presumptive value of the warnings)").

APPENDIX

A. *Study 1 Materials*

1. *Experiencers*

Introduction:

Researchers at [redacted] are planning to conduct a study in which we will be searching participants' phones. Before we invest resources into this study, we are asking participants in a pilot study (you!) to provide us with an honest assessment of the likelihood that study participants would voluntarily hand over their phones to an experimenter. To this end, please read the following description of the interaction that took place between you and the experimenter today.

As you were seated in the psychology lab, the experimenter came in and said to you:

> Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things.

Questions:

1. **Did you agree to hand over your phone? (Please circle yes or no.)**

Yes No

2. **How easy was it to say "no" to this request? (Please circle a number.)**

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

3. **How awkward did you feel/would you have felt saying "no" to this request? (Please circle a number.)**

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

4. How pressured did you feel/would you have felt to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

5. How free did you feel/would you have felt to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

6. Please explain your reasons for agreeing or declining to hand over your phone.

2. *Forecasters*

Introduction:

Researchers at [redacted] are planning to conduct a study in which we will be searching participants' phones. Before we invest resources into this study, we are asking participants in a pilot study (you!) to provide us with an honest assessment of the likelihood that study participants would voluntarily hand over their phones to an experimenter. To this end, please read the following description of how we anticipate the interaction between experimenter and participant would go. Imagine that the experimenter in this scenario is the same experimenter whom you met for the study you are currently participating in.

Imagine that you were seated in a psychology lab, similar to the one you are in now, and an experimenter came in and said to you:

> Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things.

Questions:

1. **Would a reasonable person hand over their phone in this scenario? (Please circle yes or no.)**

Yes No

2. **How easy do you think it would be for a reasonable person to say "no" to this request? (Please circle a number.)**

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

3. **How comfortable do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)**

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

4. How awkward do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

5. How pressured do you think a reasonable person would feel to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

6. How free do you think a reasonable person would feel to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

7. Would you hand over your phone in this scenario? (Please circle yes or no.)

Yes No

8. How easy do you think it would be for you to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

9. How comfortable do you think you would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

10. How awkward do you think you would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

11. How pressured do you think you would feel to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

12. How free do you think you would feel to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

3. *Experimenters' Form*

Experimenter Form

SCRIPT: "Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things."

Participant #_____ **Experimenter Name:**_____

Handed over phone? Yes No

Response to request (Circle response that most accurately describes the interaction):

1- No hesitation after initial request (regardless of whether said "yes" or "no")

2- Hesitated, but asked no questions and made no remarks expressing unease, skepticism, or objection

3- Asked question about purpose of or justification for the request

4- Asked question clarifying what experimenter will do with the phone

5- Asked question clarifying the consequences of deciding one way or the other

6- Asked multiple questions (e.g., questions #3-5) before making a decision

7- Made some remark expressing unease, skepticism, or objection

8- Apologized or made conciliatory remark

Notes (comments, quotes, behaviors, etc.)

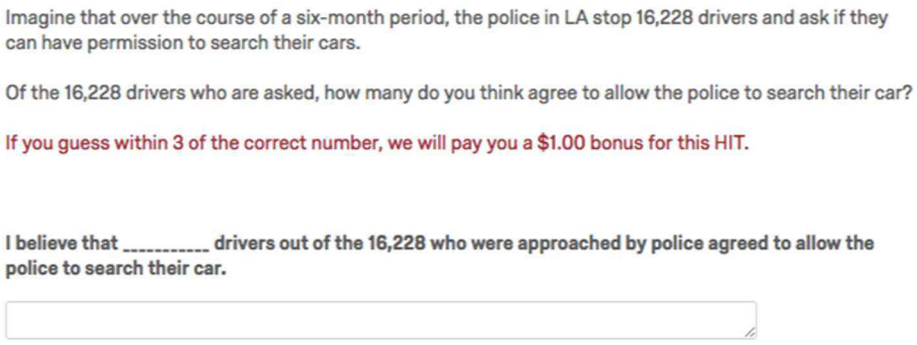
_____

_____

_____

B. Materials for Incentivized Study

Online participants were recruited from Amazon Mechanical Turk to perform a human intelligence task (HIT) that asked them to guess how often motorists in Los Angeles submit to searches by police.



C. Study 2 Materials

Here we show the materials for the Notification condition. The No Notification materials were identical except they omitted the line, "You have the right to refuse and it will not affect your participation or payment in the study."

1. *Experiencers*

Introduction:

Researchers at [redacted] are planning to conduct a study in which we will be searching participants' phones. Before we invest resources into this study, we are asking participants in a pilot study (you!) to provide us with an honest assessment of the likelihood that study participants would voluntarily hand over their phones to an experimenter. To this end, please read the following description of the interaction that took place between you and the experimenter today.

As you were seated in the psychology lab, the experimenter came in and said to you:

> Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things. You have the right to refuse and it will not affect your participation or payment in the study.

Questions:

1. **Did you agree to hand over your phone? (Please circle Yes or No.)**

   Yes No

2. **Could you have refused to hand over your phone and still have participated in—and received full payment for—this study? (Please circle Yes, No, or Not Sure.)**

   Yes No Not Sure

3. **How easy was it to say "no" to this request? (Please circle a number.)**

   1----------2----------3----------4----------5----------6----------7
   Not at all Extremely

4. How comfortable did you feel/would you have felt saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

5. How awkward did you feel/would you have felt saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

6. How pressured did you feel/would you have felt to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

7. How free did you feel/would you have felt to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

8. Please explain your reasons for agreeing or declining to hand over your phone.

9. Would a reasonable person hand over their phone in this situation? (Please circle Yes or No.)

Yes No

10. How easy do you think it would be for a reasonable person to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

11. How comfortable do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

12. How awkward do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

13. How pressured do you think a reasonable person would feel to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

14. How free do you think a reasonable person would feel to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

2. Forecasters

The experimenters are collecting pilot data on an experiment we are planning to conduct in the future. To that end, please read the following scenario and answer the question that follows.

Imagine that you were seated in a psychology lab, similar to the one you are in now, and the same experimenter who just handed you this form came in and said to you:

> Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things. You have the right to refuse and it will not affect your participation or payment in the study.

Would you hand over your phone in this scenario? (Please circle Yes or No.)

Yes No

Introduction:

Researchers at [redacted] are planning to conduct a study in which we will be searching participants' phones. Before we invest resources into this study, we are asking participants in a pilot study (you!) to provide us with an honest assessment of the likelihood that study participants would voluntarily hand over their phones to an experimenter. To this end, at the beginning of the study we asked you to read the following description of how we anticipate the interaction between experimenter and participant would go. We would now like to ask you some additional questions about this scenario. Imagine that the experimenter in this scenario is the same experimenter whom you met for the study you are currently participating in.

Imagine that you were seated in a psychology lab, similar to the one you are in now, and an experimenter came in and said to you:

> Before we begin the study, can you please unlock your phone and hand it to me? I'll just need to take your phone outside of the room for a moment to check for some things. You have the right to refuse and it will not affect your participation or payment in the study.

Questions:

1. **Did you indicate that you would hand over your phone in this scenario? (Please circle Yes or No.)**

   Yes No

2. **Could you have refused to hand over your phone and still participated in-and received full payment for-this study in this scenario? (Please circle Yes, No, or Not Sure.)**

   Yes No Not Sure

3. How easy do you think it would be for you to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

4. How comfortable do you think you would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

5. How awkward do you think you would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

6. How pressured do you think you would feel to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

7. How free do you think you would feel to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

8. Would a reasonable person hand over their phone in this situation? (Please circle yes or no.)

Yes No

9. How easy do you think it would be for a reasonable person to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

10. How comfortable do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

11. How awkward do you think a reasonable person would feel saying "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

12. How pressured do you think a reasonable person would feel to say "yes" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

13. How free do you think a reasonable person would feel to say "no" to this request? (Please circle a number.)

1----------2----------3----------4----------5----------6----------7
Not at all Extremely

Experimenters in Study 2 used the same Experimenters' Form as in Study 1.