

Defining the Boundaries of Marketing Influence: Public Perception and Unfair Trade Practices in the Digital Era

Monika Leszczyńska
*Columbia Law School
Maastricht University*

Working Draft: 9/20/2023

Abstract

Companies are deploying increasingly sophisticated techniques to influence consumer choices and preferences in the digital environment. As yet, however, it is unclear whether and how consumer law should respond to such practices.

This paper explores a valuable benchmark to inform an answer to this question: public norms and perceptions regarding online marketing practices. Understanding such perceptions is a crucial factor in assessing the legitimacy of consumer protection law and potential areas for reform.

Based on an experimental vignette study, I examine the moral acceptability of several of online marketing practices, as well as factors that underlie these judgments. I demonstrate that practices leading to privacy harms are perceived as less morally acceptable than those causing no harm. Additionally, I show that some practices specifically invite moral condemnation relative to a neutral choice design, independent of the presence and type of harm involved.

My findings suggest that there may well be a reason to expand the scope of unfair trade practices laws to include the scrutiny of online marketing strategies targeting consumer decisions that could potentially result in privacy harms. If strategies pose a significant threat to consumer autonomy, the requirement to demonstrate tangible harm for classifying a practice as unfair should be eliminated. Furthermore, I suggest that the notion of unfairness should indeed encompass the potential threat to freedom of choice, with its assessment closely linked to consumers' perspectives.

Introduction	3
I. Online marketing strategies – definitions and problems.....	8
II. Unfair trade practices laws and online marketing strategies.....	13
A. Federal level.....	15
B. State level.....	19
C. Redefining the scope of the unfairness standard based on the views of the public	22
III. Empirical study	25
A. Hypotheses.....	26
B. Methods.....	30
i. Participants.....	30
ii. Materials and Procedure.....	30
C. Results.....	34
i. Demographics and descriptive statistics	34
ii. Presence and nature of harm	35
iii. The type of strategy.....	37
iv. Interaction	38
v. Additional observations and control analysis	39
D. Discussion.....	41
IV. Implications of the findings	43
A. Which online marketing practices should be deemed unfair?.....	44
i. Practices targeting decisions leading to privacy harms.....	44
ii. Practices undermining consumers’ freedom of choice	45
B. When should consumers be given a private right of action to challenge online marketing practices?	47
V. Conclusions.....	48
Appendix 1	50
Appendix 2	52
Appendix 3	68
Appendix 4	69
Appendix 5	69

Introduction

Do you remember the constant stream of notifications from websites or mobile applications asking you to share your geolocation? Have you recently purchased a flight ticket and encountered an offer for travel insurance where the decline option was barely noticeable? Or perhaps you subscribed to a free trial of a movie streaming service, only to find it turned into a paid subscription, leaving you struggling to find a way to unsubscribe? If so, you have been targeted by online marketing strategies known as “dark patterns”, that is “user interfaces whose designers knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions.”¹

Scholars, legislators, and enforcers have recognized the risks that these practices may pose to consumers.² On one hand, these strategies have the potential to detrimentally impact consumer welfare by influencing them to make choices that do not align with their best interests. Additionally, they can erode consumer autonomy, posing a threat to their freedom of choice. As a result, consumers may

¹ Jamie Luguri & Lior Jacob Strahilevitz, *Shining a Light on Dark Patterns*, 13 JOURNAL OF LEGAL ANALYSIS 43, 44 (2021). In this paper, I have chosen to refrain from utilizing this term as it inherently encompasses a normative assessment, even though it remains uncertain whether all of those tactics should truly be subjected to disapproval.

² Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995(2013); Christoph Bösch, et al., *Tales from the dark side: privacy dark strategies and privacy dark patterns*, 2016 PROC. PRIV. ENHANCING TECHNOL. (2016); Daniel Susser, et al., *Technology, autonomy, and manipulation*, 8 INTERNET POLICY REVIEW (2019)(hereinafter Susser Technology); Daniel Susser, et al., *Online Manipulation: Hidden Influences in a Digital World*, 4 GEO. L. TECH. REV. 1(2019)(hereinafter Susser Online Manipulation); Gregory Day & Abbey Stemler, *Are Dark Patterns Anticompetitive?*, 72 ALA. L. REV. 1(2020); Shaun B. Spencer, *The Problem of Online Manipulation*, 2020 U. ILL. L. REV. 959(2020); Ari Ezra Waldman, *Cognitive biases, dark patterns, and the 'privacy paradox'*, 31 CURRENT OPINION IN PSYCHOLOGY 105(2020); Lauren E. Willis, *Deception by Design*, 34 HARV. J. L. & TECH. 115(2020); Alison Hung, *Keeping Consumers in the Dark: Addressing "Nagging" Concerns and Injury Notes*, 121 COLUM. L. REV. (2021); Jamie Luguri & Lior Jacob Strahilevitz, *Shining a Light on Dark Patterns*, 13 JOURNAL OF LEGAL ANALYSIS 43(2021); Kirsten Martin, *Manipulation, Privacy, and Choice*, 23 N.C. J.L. & TECH. 452(2021); N. Helberger, et al., *Choice Architectures in the Digital Economy: Towards a New Understanding of Digital Vulnerability*, 45 JOURNAL OF CONSUMER POLICY 175(2022); Cass R. Sunstein, *Manipulation as theft*, 29 JOURNAL OF EUROPEAN PUBLIC POLICY 1959(2022); Michal Lavi, *Manipulating, Lying, and Engineering the Future*, 33 FORDHAM INTELLECTUAL PROPERTY, MEDIA & ENTERTAINMENT LAW JOURNAL 221(2023); European Commission, *Behavioural study on unfair commercial practices in the digital environment: dark patterns and manipulative personalisation: final report* (May 2022), <https://data.europa.eu/doi/10.2838/859030>; Competition and Market Authority, *Online Choice Architecture, Discussion Paper* (April 2022), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1066524/Online_choice_architecture_discussion_paper.pdf; Deceptive Experiences to Online Users Reduction Act, S. 1084, 116th Cong. (2019); FTC Staff Report, *Bringing Dark Pattern to Light* (September 2022), <https://www.ftc.gov/reports/bringing-dark-patterns-light>.

be compelled to allocate significant time, effort, and attention to resist these online marketing strategies and to avoid making undesirable decisions. Over time, these tactics can further undermine consumer trust and confidence in the overall online marketplace.³ Importantly, it is unlikely that the market itself will adequately address these issues, which underscores the need for legal intervention.

The legal status of these practices is, however, unclear. When an online marketing practice involves deception, the law addresses it through tort or contract law doctrines such as fraud or misrepresentation. Such practices may also fall under deceptive trade practices covered by federal and state consumer protection laws. However, in cases where a practice does not involve deception, as exemplified in the scenarios above, formulating a clear legal response becomes less apparent. This is due to the challenge of drawing a distinct line between acceptable means of influencing consumers, such as persuasion, and influences that cross the threshold towards non-deceptive manipulation.⁴

One approach to confront these strategies is to consider them as unfair under unfair trade practices laws. In this article, I begin by examining federal and state unfair trade practices laws to identify the criteria used for assessing the fairness of

³ See, e.g., Arunesh Mathur, et al., *What Makes a Dark Pattern... Dark? Design Attributes, Normative Considerations, and Measurement Methods*, PROCEEDINGS OF THE 2021 CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 16 (2021) (“Dark patterns can undermine consumer trust in markets and hurt companies who engage in legitimate and honest practices”); European Commission Report, *supra* note 2 at 6 (“Dark patterns and manipulative personalisation practices can lead to financial harm, loss of autonomy and privacy, cognitive burdens, mental harm, as well as pose concerns for collective welfare due to detrimental effects on competition, price transparency and trust in the market.”). It is important to note that none of these studies provide empirical evidence to support such a conclusion. However, I have conducted my own study which demonstrates that words which has been frequently used in a misleading way (such as “free”) generate consumer suspicion when they encounter that word even in a clearly beneficial offer, Monika Leszczynska, et al., *Why do people reject free beneficial offers?* (manuscript on file with the author).

⁴ Willis, *supra* note 2 at 120 (“Limiting the analysis here to deception rather than analyzing all dark patterns sets aside thorny questions about when marketing crosses from fair persuasion to unfair or abusive manipulation. This is not to say that non-deceptive manipulation is not a problem, but rather that we lack societal consensus on where to draw the line. A focus on deception is also warranted because it is one of the most commonly pleaded claims in consumer protection cases. In part, this is because the boundaries of deception prohibitions are relatively noncontroversial.”) Tal Z. Zarsky, *Privacy and Manipulation in the Digital Age*, 20 THEORETICAL INQUIRIES IN LAW 157, 159 (2019) (“First, regarding definitions, it is important to distinguish the manipulation here discussed from marketing actions and solicitations premised on fraud, misrepresentation or simple coercion. These latter instances are already prohibited in most cases, and their prohibition is quite easy to justify theoretically. Yet making a similar case to prohibit manipulation is far from simple. Even defining the term manipulation in this specific context is a complicated (and perhaps futile) task.”) Certainly, also among deceptive practices there are some instances where distinguishing between what should be lawful or unlawful also pose challenges: see, e.g., David A Hoffman, *The best puffery article ever*, 91 IOWA L. REV. 1395(2005).

online marketing strategies.⁵ My analysis shows that states and, historically, the Federal Trade Commission (FTC) have taken moral norms into account while determining unfairness of trade practices. This implies that online marketing strategies deemed immoral could also be categorized as unfair.

An alternative standard for unfairness, established by the FTC in the 1980s and adopted by some states, incorporates three key factors. For a practice to be deemed unfair, it must cause or be likely to cause significant harm to consumers, which consumers cannot reasonably avoid and is not outweighed by countervailing benefits.⁶ A consumer is considered unable to reasonably avoid injury when a company “creates or takes advantage of an obstacle to the free exercise of consumer decision-making.”⁷ Moreover, the concept of significant harm primarily pertains to physical and financial harm, while “subjective types of harms,” such as emotional harm, are not recognized as sufficient grounds to classify a practice as unfair.⁸

While unfair trade practices laws offer a potential response to problematic online marketing strategies, the interpretation of unfairness, which requires demonstrating monetary harm, may prove too restrictive to capture practices leading to non-monetary harms such as privacy violations or interference with consumer autonomy.⁹ Even in states where the definition of unfairness does not encompass monetary harms, consumers are still required to demonstrate economic injury when they initiate a private action against a company engaging in unfair trade practices.¹⁰ Additionally, the extent to which these strategies do indeed restrict consumers' freedom of choice and thus satisfy the “reasonable avoidability” criterion is also a matter of debate.¹¹ Finally, in those states that consider the immorality of a given trade practice when evaluating its unfairness, it might pose a challenge for state attorneys general and the courts to determine which of those practices genuinely violate moral norms.

This article primarily adopts a normative and prescriptive framework that places value on legal rules aligning with public perceptions.¹² It evaluates legal rules that do not align with people’s views on online marketing strategies as

⁵ See section II.

⁶ FTC, FTC POLICY STATEMENT ON UNFAIRNESS (1980), *appended to Int'l Harvester Co.*, 104 F.T.C. 949, 1072 (1984).

⁷ *Id.*, at 1074.

⁸ *Id.*, at 1073.

⁹ Danielle K. Citron & Daniel J. Solove, *Privacy Harms*, 102 B.U. L. REV. 793(2022)(hereinafter Citron 2022); Woodrow Hartzog & Daniel J. Solove, *The Scope and Potential of FTC Data Protection*, 83 GEO. WASH. L. REV. 2230(2014); Daniel J. Solove & Woodrow Hartzog, *The FTC and the New Common Law of Privacy*, 114 COLUM. L. REV. 583(2014); Hung, *supra* note 2 at 2507 - 2508; Martin, *supra* note 2 at 521

¹⁰ See section II B.

¹¹ Calo, *supra* note 2 at 1043; Luguri, *supra* note 1 at 87-90.

¹² See section II C.

candidates for reform.¹³ While this framework is consistent with regulatory mandates in many state and federal jurisdictions, it is important to note that it is not the sole normative viewpoint one could embrace within the context of consumer law. Alternative viewpoints exist. For example, one may argue that legal rules hold the most value when consumer norms fail to condemn or discipline online marketing practices due to consumers' cognitive failures.¹⁴ Another perspective is a dynamic theory of law-norms dialogue, positing that norms can evolve based on the nature of the law itself.¹⁵ These various normative perspectives, among others, offer valid ways for evaluating consumer law. However, each of these perspectives also hinges on understanding of consumer preferences and norms as they manifest in real-world scenarios. This is where my experimental results could prove beneficial, even for scholars who adhere to normative frameworks differing from the one applied in this project.¹⁶

To define the scope of the unfairness standard based on individuals' views, I conducted an experimental vignette study addressing three questions. Firstly, I identified which practices are perceived as more threatening to individuals' freedom of choice and less morally acceptable compared to a neutral choice design. Secondly, I tested whether non-monetary damages, such as privacy harms, resulting from the manipulated decision increase the perceived threat to freedom of choice and unacceptability of online marketing strategies as compared to situations where no harm is involved, or if such an increase is only observed in cases involving monetary damages. Finally, I explored whether certain practices are universally seen as more threatening to freedom of choice and less acceptable than a neutral choice design, regardless of the presence or type of harm.

Drawing upon prior research on psychological reactance, nudges and privacy attitudes,¹⁷ my hypothesis was that online marketing practices vary in how they influence individuals' perceived threat to their freedom of choice and moral acceptability. The perceived threat and unacceptability, however, is likely greater when such aspects as privacy or money are involved, than when they are unlikely to lead to any harm.¹⁸

To test these hypotheses, I conducted a between-subjects online experimental vignette study where I presented a nationally representative sample of participants with various potentially manipulative practices employed by a dating app. The

¹³ See section IV.

¹⁴ See section I and section IV A.

¹⁵ See, e.g., Elizabeth S. Anderson & Richard H. Pildes, *Expressive Theories of Law: A General Restatement*, 148 UNIVERSITY OF PENNSYLVANIA LAW REVIEW (2000); RICHARD H MCADAMS, *THE EXPRESSIVE POWERS OF LAW: THEORIES AND LIMITS* (2015).

¹⁶ For a similar approach, but with respect to price gauging laws, see Christopher Buccafusco, et al., *The Price of Fairness*, 84 OHIO STATE LAW JOURNAL 389(2023).

¹⁷ See section III A.

¹⁸ See section III A.

study focused on three commonly used practices in digital services described above: nagging, aesthetic design, and “roach motel,”¹⁹ which I expected to differ in their perceived impact on freedom of choice. As a control group, I employed a neutral scenario where user choices were presented without any potentially manipulative practice. Additionally, I introduced another factor into the study: the presence and type of injury that could potentially arise from the decision targeted by a practice. One treatment involved a decision unlikely to cause harm, another treatment involved a decision likely to result in privacy harms, and the third treatment involved a decision likely to lead to monetary damages.

In the first part of the experiment, each participant viewed one scenario randomly selected from twelve scenarios in which I manipulated the type of practice and the outcome of the targeted decision. Participants then responded to a set of questions designed to evaluate the perceived threat to freedom of choice posed by the described practices. A few days later, I invited the same participants to take part in the second phase of the experiment. I presented them with the same scenario as before, but this time, I posed questions to determine whether they think the practice is morally right or wrong (moral acceptability).²⁰

The findings of the study demonstrate that participants perceived practices that had the potential to result in privacy harms as more detrimental to their freedom of choice and less morally acceptable compared to practices targeting decisions unlikely to cause harm. Additionally, while participants indeed perceived the “roach motel” tactic as less morally acceptable compared to a neutral design, this was not the case with nagging and aesthetic design. Both nagging and aesthetic design were evaluated as equally acceptable as a scenario with no influence strategy. Yet, the modification of aesthetic design was perceived as more

¹⁹ Nagging involves sending repeated messages through pop-ups or notifications to persuade users to make a specific choice, such as visiting another website or enabling geolocation. The aim is to compel users to comply simply to avoid ongoing disruptions, *see* Hung, *supra* note 2. “Roach motel” approach is another non-deceptive strategy, where making a particular choice is easy but changing it later becomes difficult. For instance, subscribing to a service may be effortless, but unsubscribing can be challenging due to hidden options or complex processes, *see* Colin M Gray, et al., *The dark (patterns) side of UX design*, PROCEEDINGS OF THE 2018 CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 1(2018). Modification of the aesthetic design of websites and mobile applications involves emphasizing certain choices while making others less visible, *see id.* The legality of nagging and aesthetic design choices, which result in monetary harm, remains uncertain. However, when the “roach motel” practice is combined with negative option marketing and leads to financial damage, it is clearly unlawful under federal law, *see* Restore Online Shoppers' Confidence Act, 15 U.S.C. §§8401–05 (prohibiting imposing recurring charges on consumers without a clear affirmative action and “simple mechanisms for consumers to stop recurring charges.”) Furthermore, it is unclear whether these strategies would be deemed unlawful if, instead of causing monetary harms, they result in non-monetary privacy harms or solely undermine consumer autonomy.

²⁰ For further details about the experimental design, *see* section III B.

threatening to the freedom of choice than the neutral choice design. Furthermore, the “roach motel” tactic was found to be more threatening and less acceptable than a neutral design regardless of whether it resulted in no harm, privacy harm, or monetary harm.²¹

Based on these results, I develop several normative implications.²² If we presume that the agencies and courts should consider people’s moral perspectives when enforcing unfair trade practices laws, online marketing strategies that lead to privacy harms should be classified as unfair. Moreover, certain strategies, such as the “roach motel” strategy, should be deemed unfair irrespective of whether the targeted decision leads to tangible harm. If we posit that the law on unfair trade practices should safeguard consumer sovereignty, it should encompass not only practices perceived as less morally acceptable but also those practices that evoke a greater perceived threat to freedom of choice than a neutral option, such as aesthetic design modifications.

I. Online marketing strategies – definitions and problems

Companies have always strived to influence consumer choices. However, online marketing strategies differ from their offline counterpart in crucial ways, making it particularly problematic.²³ Companies can now systematically test the effectiveness of design choices in influencing consumer behavior on their websites or mobile applications.²⁴ Unlike traditional brick-and-mortar marketing testing, online experimentation allows for unparalleled scalability, as implementing new design solutions is remarkably straightforward. Furthermore, tracking consumers' reactions to these design choices is considerably easier in the digital realm, enabling companies to uncover previously unknown and highly effective tactics for influencing users' behavior.²⁵

Another crucial distinction that sets current online marketing practices apart from their brick-and-mortar counterparts is their high level of individualization. Companies can now tailor their messages and choice designs based on data about consumers' behavior, making the influence even more personalized and targeted to a specific individual's characteristics.²⁶ This individualized approach increases the

²¹ The results of the study are further discussed in section III C.

²² See section IV.

²³ Calo, *supra* note 2.

²⁴ See Willis, *supra* note 4 at 127 (“Although marketers have long used testing to predict which advertisements will be most effective, the difference between offline human-directed and online real-time machine-controlled experimentation is profound. The speed, scale, and thoroughness of machine experimentation ‘make[s] accessible a vast design space that ordinary human iteration wouldn't be able to explore.’”)

²⁵ See Luguri, *supra* note 1 (showing effectiveness of various online marketing strategies).

²⁶ Calo, *supra* note 2, Martin, *supra* note 2.

likelihood of success in influencing consumers' decisions, as companies can fine-tune their strategies to better align with each consumer's preferences and decision-making patterns.²⁷

The unique combination of scale, speed, and tracking capabilities makes online marketing a powerful and potentially problematic tool for influencing consumer choices. Such design choices have been called “dark patterns” or “deceptive patterns” and has been defined as “user interfaces whose designers knowingly confuse users, make it difficult for users to express their actual preferences, or manipulate users into taking certain actions.”²⁸

Social proof is an example of a marketing tactic that has been employed in offline marketing, but its effectiveness has been significantly enhanced through large-scale online field experiments.²⁹ Facebook, for instance, was interested in determining the most effective design for displaying information about likes under third-party advertisements. To test this, Facebook exposed users to ads containing messages with the names of peers who had recently liked the content.³⁰ Some users saw one name, others saw two or three names of their friends, and yet another group saw the same content with the total number of likes received from all users. By measuring clicks and likes, Facebook was able to determine which intervention was most effective in increasing user engagement with ads. This example illustrates how digital environments make such testing much easier than in the offline world. Design features can be implemented by simply adjusting a few lines of code, and user behavior can be easily tracked online, allowing for quick and accurate measurement of their reactions to different treatments.

Digital marketing strategies often rely on deception, such as misrepresenting facts, displaying misleading statements, or omitting important information. For example, social proof tactic may feature the names of users who have recently purchased a product, even if such users do not actually exist. Countdown timers that show the time remaining until the end of a promotion may reset to zero,

²⁷ The extent to which personalization truly enhances the effectiveness of an online marketing strategy remains uncertain. For example, the efficacy of personalized messages is subject to intense debate and could hinge on various factors, *see, e.g.*, Cong Li, *When does web-based personalization really work? The distinction between actual personalization and perceived personalization*, 54 COMPUTERS IN HUMAN BEHAVIOR 25(2016).

²⁸ *Supra* note 1, at 41.

²⁹ Whether such A/B testing with online users without their consent is acceptable and lawful is a question that I do not address here but that has been subject of ethical discussions and potential legislative intervention, *see* James Grimmelmann, *The Law and Ethics of Experiments on Social Media Users*, 13 COLO. TECH. L.J. 219(2015). DETOUR Act deems unlawful “to subdivide or segment consumers of online services into groups for the purposes of behavioral or psychological experiment or research of users of an online service, except with the informed consent of each user involved”, *see supra* note 2 at sec. 3.

³⁰ Eytan Bakshy, et al., *Social influence in social advertising: evidence from field experiments*, PROCEEDINGS OF THE 13TH ACM CONFERENCE ON ELECTRONIC COMMERCE 146(2012).

misleading consumers about the actual duration of a special offer. Scarcity tactics may inform consumers of low availability of flight seats or hotel rooms, even if this information does not reflect true availability. However, online marketing practices are not always based on deception.³¹

This article focuses on non-deceptive strategies, which can potentially be considered unlawful. Whereas the illegality of deceptive or coercive marketing practices have been rather firmly established both theoretically and doctrinally,³² identifying clearly which types of non-deceptive strategies should be deemed unacceptable and unlawful have posed significant challenges for philosophers and legal scholars.³³ This paper focuses on three of such non-deceptive strategies that has been found problematic, yet their legal and ethical status is not entirely clear.

Nagging is one example of such a non-deceptive strategy. This tactic involves repeatedly exposing users to messages in the form of pop-up windows or notifications on their phones, asking them to make a specific choice, such as visiting another website to view additional products or agreeing to turn on geolocation. The purpose of this strategy is to get users to agree to what they are being asked for simply to avoid being constantly disturbed.³⁴ Another example of a non-deceptive strategy is the “roach motel” approach, where it is easy to make a particular choice but very difficult to change it later. One common example is when consumers subscribe to a service but then find it challenging to unsubscribe, either because they cannot find the option or must answer several tricky questions to do so. Businesses also often modify the aesthetic design of their websites to make specific choices more visible and intuitive to click, while making others less apparent and hidden.³⁵

It is evident that businesses will consistently endeavor to shape consumer choices in a manner that maximizes their own profitability,³⁶ but there are multiple concerns regarding those online marketing strategies. One significant risk involves potential financial losses. For example, consumers might enroll in a free trial that unknowingly transitions into a paid subscription, resulting in unexpected charges that can be challenging to cancel. Additionally, privacy can be compromised when

³¹ For categorization and a more thorough overview and description of the most current online marketing strategies, see Gray, *supra* note 15; Bösch, *supra* note 2; Arunesh Mathur, et al., *Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites*, 3 PROC. ACM HUM.-COMPUT. INTERACT. (2019).

³² See *supra* note 4.

³³ See, e.g., Susser Online Manipulation, *supra* note 2; Martin, *supra* note 2, Zarsky, *supra* note 4; Cass R Sunstein, *Fifty Shades of Manipulation*, 1 JOURNAL OF MARKETING BEHAVIOR 213(2016).

³⁴ See Hung, *supra* note 2.

³⁵ See Gray *supra* note 15.

³⁶ See GEORGE A AKERLOF & ROBERT J SHILLER, PHISHING FOR PHOOLS: THE ECONOMICS OF MANIPULATION AND DECEPTION (2015); Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: The Problem of Market Manipulation*, 74 N.Y.U. L. REV. 630(1999).

consumers are repeatedly nagged into agreeing to share their geolocation data, which may lead to unwarranted exposure of personal information. Considering that consumers typically value their privacy,³⁷ this loss can negatively impact their individual welfare.³⁸

Another risk arises from the cognitive burden imposed on consumers by these online marketing strategies. Engaging with these tactics may require consumers to exert additional time, energy, and effort to resist being influenced by companies. This cognitive load can result in increased stress and frustration, contributing to a decrease in individual welfare. Even seemingly benign tactics, such as modifying aesthetic design, can contribute to cognitive load when consumers need to be attentive and resist automatically clicking on highlighted options.³⁹

Online marketing strategies, such as nagging, “roach motel,” or aesthetic design alterations, can also raise concerns about individual autonomy, which refers to people's “right to act on their own reasons when making decisions.”⁴⁰ Unlike the individual welfare perspective that focuses on the outcome of decision-making, this view emphasizes the process of decision-making itself. For instance, when consumers agree to purchase additional travel insurance when buying a flight ticket because the “I agree” button was prominently displayed in green and the “No, thank you” option was presented in a small grey font (an example of aesthetic design modification), many of them may feel that it was not truly their choice, as they were influenced by the design without being fully aware of it or able to provide clear reasons for their decision.

Finally, some online marketing strategies may negatively impact not only consumers individually but the society as a whole. Though there is still lack of empirical evidence to support those claims, it has been argued that selected online marketing strategies may harm competition and undermine trust in the market. Using online marketing strategies that “erodes users' ability to act rationally (...) empowers platforms to extract wealth and build market power without doing so on the merits.”⁴¹ Relatedly, “users who become aware of [dark patterns] may become skeptical of and resistant to interface elements that look like dark patterns. (...) This

³⁷ See, e.g., Alessandro Acquisti, et al., *What Is Privacy Worth?*, 42 THE JOURNAL OF LEGAL STUDIES 249(2013); Alessandro Acquisti, et al., *Privacy and human behavior in the age of information*, 347 SCIENCE 509(2015); A. G. Winegar & C. R. Sunstein, *How Much Is Data Privacy Worth? A Preliminary Investigation*, 42 JOURNAL OF CONSUMER POLICY (2019).

³⁸ For an overview of the impact of ‘dark patterns’ on consumer welfare, see Mathur, *supra* note 2; Zarsky, *supra* note 4; Calo, *supra* note 2.

³⁹ On online marketing strategies and cognitive load, see Hung, *supra* note 2; Waldman, *supra* note 2.

⁴⁰ Mathur, *supra* note 3 at 18, see also Susser Online Manipulation, *supra* note 2.

⁴¹ Day, *supra* note 2 at 2.

increased skepticism in users may lead them to miss out on genuine deals from honest retailers and hurt the business of those companies.”⁴²

Despite these risks, it is unlikely that market forces will be capable of addressing them. Firstly, many of the online marketing strategies currently implemented by companies are challenging for consumers to recognize and realize while making purchase decisions or other choices in the online environment.⁴³ During decision-making, consumers may not be cognizant of the fact that they have just been influenced by a company employing tactics like aesthetic design modification, for instance. They might only perceive such alterations when presented with them outside the moment of purchasing decision, prompting them to contemplate their appropriateness and potential impact on their choices.⁴⁴ This implies that if we expect consumers to react to online marketing strategies, such as avoiding companies using them, firms seeking a competitive advantage by abstaining from such practices would need to invest in educating consumers about these tactics and instructing them in recognizing these influences. Yet, these educational campaigns are costly, and it's improbable that their benefits would outweigh the expenses.⁴⁵

Secondly, companies can now personalize the strategies they employ and refrain from targeting consumers who are likely to detect and respond to them. This implies the likelihood of market segmentation, where certain consumers are subjected to online marketing strategies while others are not.⁴⁶ Finally, even consumers who are aware of online marketing strategies influencing their behavior, disapprove of these tactics, and are prepared to counteract them, will still incur the costs of time and effort required to evade the impact of these strategies or seek out companies not employing them.⁴⁷ In sum, the combination of the improbability of the market naturally rectifying problematic online marketing strategies and the

⁴² Mathur, *supra* note 3 at 16.

⁴³ Calo, *supra* note 2, Zarsky, *supra* note 4.

⁴⁴ Kerstin Bongard-Blanchy, et al., “*I am Definitely Manipulated, Even When I am Aware of it. It’s Ridiculous!*” - *Dark Patterns from the End-User Perspective* (Designing Interactive Systems Conference 2021), <https://doi.org/10.1145/3461778.3462086> (showing that people are aware of being influenced by the companies’ marketing strategies and able to recognize those tactics when presented with them while not making a specific choice, yet they are not able to counter them).

⁴⁵ OREN BAR-GILL, *SEDUCTION BY CONTRACT: LAW, ECONOMICS, AND PSYCHOLOGY IN CONSUMER MARKETS* 30-32 (2012) (discussing how consumers’ learning and education about products and contractual terms may fail to correct for behavioral market failures. In particular, businesses are unlikely to undertake efforts to educate consumers because of collective-action problems).

⁴⁶ Yonathan A. Arbel & Roy Shapira, *Theory of the Nudnik: The Future of Consumer Activism and What We Can Do to Stop It*, 73 *VAND. L. REV.* 929 (2020) (showing how companies could use predictive analytics to identify consumers who are likely to complain about businesses’ practices and either avoid selling to them or treat them in a preferential way compared to other consumers).

⁴⁷ Calo, *supra* note 2, Zarsky, *supra* note 4.

potential externalities affecting consumers wishing to evade these tactics underscore the necessity for legal intervention.

However, navigating the demarcation between online marketing strategies that should be classified as unlawful versus those deemed lawful poses significant challenges. Below, I delineate the factors that would be considered under unfair trade practices law when assessing whether a practice is unfair. Nonetheless, as we will see, reaching a clear conclusion regarding the strategies examined in this paper – nagging, aesthetic design, and “roach motel” – remains far from straightforward.

II. Unfair trade practices laws and online marketing strategies

In this section, I analyze federal and state laws related to unfair trade practices to determine when online marketing strategies might be considered unfair. Furthermore, I contend that it's important to consider individuals' opinions on online marketing strategies when formulating the criteria for designating such practices as unfair.

When online marketing strategies involve deception or fraud, legal doctrines such as fraud and misrepresentation within tort and contract law can be utilized against the manipulator. In cases where deception is not present, as is the focus here, individuals who have been influenced by online marketing strategies can invoke the doctrines of unconscionability or undue influence to render the contract voidable. To rely on the doctrine of unconscionability, the individual would need to demonstrate that the terms of the contract are unreasonably oppressive or unfair.⁴⁸ Additionally, they would have to establish procedural unconscionability, indicating a “gross inequality” in the bargaining power or knowledge of the stronger party that they had insufficient opportunity to understand the terms of the contract.⁴⁹ On the other hand, invoking the doctrine of undue influence requires

⁴⁸ “It has often been suggested that a finding of a procedural abuse, inherent in the formation process, must be coupled as well with a substantive abuse, such as an unfair or unreasonably harsh contractual term which benefits the drafting party at the other party's expense.” Williston on Contracts § 18:10 (4th ed. 1993)

⁴⁹ RESTATEMENT (SECOND) OF CONTRACTS §208 (1981) cmt. d. Under the Restatement of Consumer Contracts, a ‘high degree of procedural unconscionability’ might be sufficient to deem a contract unconscionable, RESTATEMENT OF CONSUMER CONTRACTS §6(b) (2022). The interpretation of procedural unconscionability would encompass many non-deceptive online marketing strategies. In fact, Illustration 18 describes the ‘roach motel’ tactic. Nonetheless, relying on the unconscionability doctrine to challenge non-deceptive online marketing strategies would pose several difficulties. Firstly, it can only be enforced through private means. Given that online marketing strategies often result in small damages, consumers' motivation to initiate such actions might be affected. Secondly, even in a successful class action, consumers might struggle to demonstrate standing if the online marketing strategy does not lead to clear monetary damages. Finally, the effect of unconscionability is that an unconscionable contract or term becomes unenforceable, which might not be an adequate remedy in cases involving privacy harms.

demonstrating a relationship with or domination by the business employing online marketing strategies.⁵⁰ This can prove challenging in the case of many of those tactics where the relationship is often impersonal and remote.

Given those challenges, unfair trade practices laws seem to be the best-suited to address current online marketing practices that do not involve deception. Unlike the unconscionability doctrine, these laws do not require proving the unfairness of specific contract terms. Additionally, unlike the undue influence doctrine, they do not necessitate demonstrating an existing relationship or domination. Furthermore, unfair trade practices laws are publicly enforced, which is particularly crucial in situations where individual harm may be minimal but can accumulate among a large number of consumers.

In the following discussion, I examine the interpretation and implementation of unfair trade practices laws at both the federal and state levels, emphasizing their consistent reliance on moral norms. I start by showing that the legislative intent behind establishing a ban on unfair trade practices at the federal level was to ensure that the market aligns with the general public's perception of fair dealing. This underscores the aim of these laws to reflect moral principles within commercial activities. Secondly, although the Federal Trade Commission, which is responsible for the enforcement of the unfair and deceptive trade practices law (Section 5 of the FTC Act), revised the unfairness standard in the 1980s by eliminating the explicit reference to morality, it maintained that the factors considered in the new standard do, in fact, overlap with moral standards. This indicates that moral considerations remain relevant in determining unfairness. It, however, also raises the question of whether the factors incorporated into the new standard truly align with moral assessments of trade practices.

Thirdly, while many states' unfair trade practices laws and the courts interpreting them seek guidance from FTC decisions, some (e.g., North Carolina, Connecticut, Massachusetts) still adhere to the older definition that includes morality as one of the factors that can render a practice unfair. This highlights the ongoing significance of moral considerations in assessing unfair trade practices under state law.

Furthermore, the analysis demonstrates an increasing emphasis on establishing consumer injury when assessing whether a practice is unfair. Despite recent developments,⁵¹ both the federal and numerous state laws primarily consider

⁵⁰ RESTATEMENT (SECOND) OF CONTRACTS § 177 (1981) cmt. a, *see also* Luguri, *supra* note 1 (discussing the application of undue influence doctrine to 'dark patterns').

⁵¹ FTC POLICY STATEMENT ON UNFAIRNESS, *supra* note 6. This has been changing in the last 20 years. Since 2004, the Commission started to rely on the unfairness standard to challenge various trade practices leading to privacy harms: Hartzog & Solove, *supra* note 9; Solove & Hartzog, *supra* note 9; C.J. HOOFNAGLE, FEDERAL TRADE COMMISSION PRIVACY LAW AND POLICY (Cambridge University Press. 2016). *See also* section IV.

monetary, health, and safety injuries, giving less or no weight to privacy and other non-monetary harms. As a result, privacy-related harms are generally not deemed sufficient grounds for declaring a practice unfair or granting consumers a private right of action. This is an important restriction given that many online marketing strategies target privacy decisions and often result in non-monetary harms.⁵²

A. Federal level

The Commission's enforcement was initially limited to deceptive and unfair methods harmful to competition. When establishing the Commission, the legislator decided to give the Commission a broad mandate in defining unfairness. Yet, the drafters of the Commission did have in mind what constitute unfair competition noting that it “covers every practice and method between competitors upon the part of one against the other that is against public morals.”⁵³ Such an understanding of unfairness was also supported by the courts, which read FTC’s duties very broadly, including the enforcement of “those unexpressed standards of fair dealing which the conscience of the community may progressively develop.”⁵⁴

In 1938, the Wheeler-Lea Act broadened the FTC's authority to encompass unfair and deceptive trade practices, expanding beyond addressing only unfair and deceptive methods of competition. Congress again left the definition of unfairness open-ended, granting the Commission discretion in determining which practices fell under this category. The Commission established an unfairness standard in the Cigarette Rule of 1964.⁵⁵ This rule included morality as one of the criteria for assessing a trade practice as unfair, alongside violation of public policy and “substantial injury to consumers.”⁵⁶ While it was unclear whether all these factors

⁵² For a systematization of privacy harms *see* Citron 2022, *supra* note 9.

⁵³ LEGISLATIVE HISTORY OF THE FEDERAL ANTITRUST LAWS AND RELATED STATUTES 4414 (Earl W. Kintner ed., 1978). Senator Newland, who drafted the bill, responding to a critique that public morals is a broad term: "I think it is a very good test. I think there are certain practices that shock the universal conscience of mankind, and the general judgment upon the facts themselves would be that such practices are unfair.", *id.* at 4414.

⁵⁴ *F.T.C. v. Standard Educ. Soc.*, 86 F.2d 692, 696 (2d Cir. 1936), modified, 302 U.S. 112, 58 S. Ct. 113, 82 L. Ed. 141 (1937)

⁵⁵ Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking, Statement of Basis and Purpose, 29 Fed. Reg. 8324 (July 2, 1964). The rule was later recognized in *F.T.C. v. Sperry & Hutchinson Co.*, 405 U.S. 233, 244 (1972).

⁵⁶ These factors are as follows: “(1) whether the practice, without necessarily having been previously considered unlawful, offends public policy as it has been established by statutes, the common law, or otherwise—whether, in other words, it is within at least the penumbra of some common-law, statutory, or other established concept of unfairness; (2) whether it is immoral, unethical, oppressive, or unscrupulous; (3) whether it causes substantial injury to consumers (or competitors or other businessmen). If all three factors are present, the challenged conduct will surely violate Section 5 even if there is no specific precedent for proscribing it. The wide variety of decisions interpreting the elusive concept of unfairness at least makes clear that a method of selling violates Section 5 if it

needed to be present cumulatively, the Commission recognized that a practice is unfair whenever it causes “a substantial and unjustifiable public injury.”⁵⁷

After facing criticism for excessive regulation based on the unfairness test, the Commission addressed concerns in the 1980s by issuing a Policy Statement on Unfairness. This statement emphasized the importance of “unjustified consumer injury” as the primary criterion for evaluating whether a practice is unfair.⁵⁸ While consumer harm alone may justify deeming a practice unfair, the Commission outlined three specific criteria that must be met: Firstly, the injury must be substantial. Secondly, any benefits to consumers or competition resulting from the practice must not outweigh the harm caused. Lastly, the harm must be such that consumers “could not reasonably have avoided” it on their own.⁵⁹

When further clarifying these criteria, the Commission specified that substantial injury will typically involve monetary harm or unwarranted health and safety risks. Emotional or subjective types of harm, such as offending social beliefs or personal tastes, are not usually considered grounds for a practice to be deemed unfair.⁶⁰ At the same time, an injury will also be substantial “if it does a small harm to a large number of people, or if it raises a significant risk of concrete harm”.⁶¹

Regarding the second criterion, the Commission acknowledged that most business practices involve a combination of costs and benefits, and considers the net impact of the practice before deeming it unfair. In assessing whether a practice is unfair, the Commission also takes into account the costs involved in implementing any remedy, including the impact on society, such as increased paperwork, regulatory burdens, and reduced innovation incentives.⁶²

Finally, when it comes to reasonable avoidability of harm, the Commission recognized that while the marketplace is expected to be self-regulating, there are situations where certain sales techniques may prevent consumers from making free and informed decisions, and the Commission may need to take corrective action. Most cases brought before the Commission under the unfairness standard involve

is exploitive or inequitable and if, in addition to being morally objectionable, it is seriously detrimental to consumers or others. Beyond this, it is difficult to generalize.”, *id.* at 8355.

⁵⁷ *Id.* at 8355. For a history of the FTC and the development of unfair trade practices standard, *see, e.g.*: Luke Herrine, *The Folklore of Unfairness*, 96 N.Y.U. L. REV. 431(2021); Stephen Calkins, *FTC Unfairness: An Essay*, 46 WAYNE L. REV. 1935(2000); Matthew W. Nelson Sawchak, Kip D., *Defining Unfairness in Unfair Trade Practices*, 90 N.C. L. REV. 2033(2011); Hoofnagle, *supra* note 51.

⁵⁸ FTC POLICY STATEMENT ON UNFAIRNESS, *supra* note 6 at 1073.

⁵⁹ *Id.* at 1074.

⁶⁰ *Id.* at 1073.

⁶¹ *Id.* at 1073.

⁶² *Id.* at 1073 – 1074.

seller behavior that unreasonably creates or takes advantage of obstacles to consumer decision-making.⁶³

In contrast to the Cigarette Rule, the new test explicated in the Policy Statement does not include the morality criterion anymore. Although the Commission acknowledged that the morality criterion could help address “conduct that violates generally recognized standards of business ethics,” it noted that it was often redundant because actions that are truly immoral or unethical usually also result in consumer injury.⁶⁴ This raises the question of whether the FTC's understanding of consumer harm and morality truly overlap, especially considering the recent expansion in the scope of consumer injury.

This shift has been observed particularly in data breach cases. Initially, both the Commission and the courts considered a data breach an unfair trade practice only when it resulted in financial losses to consumers.⁶⁵ However, in *LabMD v FTC* the Eleventh Circuit Court of Appeals aligned with the FTC's perspective that a failure to implement reasonable security measures could constitute an unfair trade practice, even if it had not yet caused any monetary injuries.⁶⁶ The court recognized the invasion of consumers' privacy as a substantial injury, stating that “negligent failure to design and maintain a reasonable data-security program invaded consumers' right of privacy and thus constituted an unfair act or practice.”⁶⁷

A series of the FTC's recent decisions further demonstrate a broadening understanding of consumer injury. Harms now encompass reduced control over personal or proprietary information,⁶⁸ using personal data for unsolicited commercial purposes,⁶⁹ substantial injury due to the time and effort required to

⁶³ FTC POLICY STATEMENT ON UNFAIRNESS *supra* note 6 at 1074.

⁶⁴ *Id.* at 1076; The definition of unfairness that the Commission included in its policy statement got codified by the Congress in 1994 by adding sec. 15 U.S.C.A. § 45 (n) to the FTC Act. Accordingly, the Commission cannot find a practice unfair “unless the act or practice causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition.”, sec. 15 U.S.C.A. § 45 (n). The morality or unethicity criterion, which could reflect public opinion, was not included in the 1994 revision of the FTC act as a criterion of unfair practice.

⁶⁵ *F.T.C. v. Wyndham Worldwide Corp.*, 799 F.3d 236 (3d Cir. 2015)

⁶⁶ *LabMD, Inc. v. F.T.C.*, 894 F.3d 1221, 1231 (11th Cir. 2018)

⁶⁷ “We will assume *arguendo* that the Commission is correct and that LabMD's negligent failure to design and maintain a reasonable data-security program invaded consumers' right of privacy and thus constituted an unfair act or practice.” *LabMD, Inc. v. Fed. Trade Comm'n*, 894 F.3d 1221, 1231 (11th Cir. 2018)

⁶⁸ *F.T.C. v. FrostWire LLC*, No. 1:11-cv-23643, §31 (Complaint for Permanent Injunction and Other Equitable Relief Oct. 11, 2011),

<https://www.ftc.gov/sites/default/files/documents/cases/2011/10/111011frostwirecmpt.pdf>

⁶⁹ *F.T.C. v. ReverseAuction.com*, §22 (Complaint for Permanent Injunction and Other Equitable Relief Jan. 6, 2000),

https://www.ftc.gov/sites/default/files/documents/cases/2000/01/www.ftc_.gov-reversecmp.htm

remove unwanted software,⁷⁰ and emotional harm resulting from the acquisition of telephone records, sometimes leading to stalking or harassment.⁷¹ This development is particularly interesting considering that many online marketing strategies specifically target consumers' decisions about sharing of personal data.⁷²

The developments in the FTC's understanding of whether consumer injury can be “reasonably avoidable” are also significant, especially in light of sophisticated strategies used in online marketing. Two recent cases shed light on the FTC's interpretation of this aspect of the unfairness test. In *In re Sony BMG Music Entertainment*, the Commission determined that harmful software was not readily identifiable by consumers, being buried in obscure folders, making it unreasonable for consumers to avoid the resulting harm.⁷³ This scenario is comparable to the so-called “roach motel” technique, where consumers have to navigate multiple pages to unsubscribe or locate an unsubscription option hidden in settings or emails. In the case of *FTC v. FrostWire, LLC*, the FTC considered default settings and concluded that it was unreasonable for consumers to avoid injury when they were required to uncheck multiple boxes or deselect folders to prevent sharing by default.⁷⁴ These cases illustrate the FTC's perspective that if a company designs software or app architecture in a way that demands significant time, effort, and attention to avoid harm, it may be unreasonable to expect consumers to successfully avoid such harm.

In certain situations, Congress has taken action to clarify which tactics are prohibited, such as with negative option marketing. The Restore Online Shoppers' Confidence Act is a law that the Commission is responsible for enforcing, which explicitly prohibits unauthorized charges for automatically renewed subscriptions unless consumers are offered simple mechanisms to stop recurring charges.⁷⁵ This provision can address many instances where “roach motel” techniques are used, at least as long as they involve money.

Despite these developments, it is uncertain whether the unfair trade practices standard will apply to other non-deceptive online marketing practices. For example, aesthetic design elements that obscure or subvert privacy choice were deemed by

⁷⁰ *In re Sony BMG Music Entertainment*, No. C-4195, §20 (Complaint Jun. 29, 2007), <https://www.ftc.gov/sites/default/files/documents/cases/2007/06/0623019cmp070629.pdf>

⁷¹ *F.T.C. v. Accusearch Inc.*, 570 F.3d 1187, 1194 (10th Cir. 2009).

⁷² For a more detailed overview of FTC cases concerning privacy harms and relying on unfairness standard, see Solove & Hartzog, *supra* note 9, Hartzog & Solove, *supra* note 9, Terrell McSweeney, *Psychographics, Predictive Analytics, Artificial Intelligence, & Bots: Is the FTC Keeping Pace?*, 2 *GEO. L. TECH. REV.* 514(2018).; Citron, *supra* note 9.

⁷³ *In re Sony BMG Music Entertainment*, *supra* note 70.

⁷⁴ *F.T.C. v. FrostWire LLC*, *supra* note 68.

⁷⁵ Restore Online Shoppers' Confidence Act, 15 U.S.C.A. §§ 8401 to 8405.

the FTC to provide illusory choices.⁷⁶ Similarly, nagging was found to be problematic since it only provides consumers with an illusory choice and can lead to annoyance by repeatedly prompting consumers until they acquiesce and hit “accept.” These observations, however, were made only in FTC Staff Report⁷⁷ and the FTC has not yet reported any cases where companies using these tactics were indeed found to engage in unfair trade practices.

Whereas historically FTC has relied on morality to assess whether a trade practice is unfair, since 1980s it has relied on three factors ((1)substantial injury (2) that is not reasonably avoidable and (3) outweighed by countervailing benefits) to deem a practice unfair, claiming that they will overlap with moral assessment of trade practices. Importantly, though it has recently broadened its understanding of consumer injury, in principle, this includes only monetary, safety and health harm rather than non-monetary emotional or privacy harms. This raises a question whether online marketing strategies that does not target decisions which can result in economic harm, but rather solely undermine consumer autonomy or influence decisions related to privacy, will also be considered unfair under the current unfairness standard.

B. State level

Unfair and deceptive trade practices are regulated not only at the federal but also at the state level. Differently from federal law, however, state laws are enforced both publicly and privately. The 50 state survey of unfair and deceptive trade practices laws, I report here, has a dual purpose.⁷⁸ Firstly, it aims to determine whether state Unfair and Deceptive Practices Acts (UDPA) could effectively address non-deceptive online marketing strategies, even in cases where they only resulted in non-monetary harms, such as privacy violations, rather than financial injury.⁷⁹ Secondly, the survey sought to investigate whether state acts and courts take moral norms into consideration when interpreting their unfairness standards.

In this examination, I thoroughly explore state laws to understand their stance on prohibiting unfair practices and investigate the definitions they adopt for such

⁷⁶ Aesthetic design elements can also be deceptive as in *F.T.C. v Commerce Planet*, where the Court found that “the district court did not clearly err in finding that consumers were likely to be deceived. The negative option disclosure was buried in a thicket of “Terms and Conditions” accessible primarily through a link on the web page, which appeared in small text in blue font on a blue background on an otherwise busy web page.” *F.T.C. v. Com. Planet, Inc.*, 642 F. App'x 680, 682 (9th Cir. 2016)

⁷⁷ FTC Staff Report 2022, *supra* note 2.

⁷⁸ The results are summarized in Appendix 1. Here, I provide the general conclusions.

⁷⁹ State consumer protections laws go beyond Unfair and Deceptive Trade Practices Acts. Many states have separate laws covering industries such as consumers finances, insurance, utilities or real estate. A survey of those laws go beyond the scope of this paper, but it might be that they also include specific provisions that could potentially address online marketing strategies.

practices. I also analyze whether state UDPAs draw guidance from FTC and federal court decisions for interpreting the scope of their ban on deceptive and unfair trade practices. An in-depth analysis of each state's case law, which relies on FTC and federal courts decisions, reveals whether they adhere to the older Cigarette Rule unfairness standard or have transitioned to the more recent FTC's 1980s Policy Statement on Unfairness. Finally, I assess whether UDPAs require consumers to demonstrate monetary injury caused by a practice to be able to bring a private action against the company utilizing such a practice.

When it comes to regulating unfair trade practices, state laws typically adopt one of three approaches. First, some states include a general clause similar to the FTC Act, which broadly prohibits “unfair or deceptive acts or practices in or affecting commerce.” Second, certain states focus on prohibiting only deceptive or deceptive and unconscionable practices, as exemplified by New York.⁸⁰ Finally, some states employ a “laundry list” that may cover either deceptive or unfair practices, or both. However, these lists often include a catch-all phrase, such as in the Virginia Consumer Protection Act, which targets only deceptive practices.⁸¹ Alternatively, as in Colorado, a catch-all provision is very narrow and encompasses only intentional or reckless acts that are “unfair, unconscionable, deceptive, deliberately misleading, false, or fraudulent.”⁸²

Twenty-eight UDPAs explicitly reference FTC decisions and/or federal courts as a source of guidance when interpreting their unfair and deceptive trade practices acts. Four of those states do not prohibit unfair practices. Therefore, in twenty-four states the influence of FTC and federal court decisions is evident in shaping the application of their unfairness standards. Additionally, even in the seven states (one of them – New York – does not ban unfair practices) that do not explicitly mention the FTC or federal courts in their statutes, the courts within those states rely on FTC and federal court decisions as a persuasive authority when interpreting and applying their unfairness standards. Examples of such states include California⁸³ and Pennsylvania.⁸⁴ Alternatively, some state laws incorporate a definition of unfair trade practices that aligns with the definition put forth by the FTC in its Policy

⁸⁰ ‘Deceptive acts or practices in the conduct of any business, trade or commerce or in the furnishing of any service in this state are hereby declared unlawful.’ NY GEN BUS § 349 (a).

⁸¹ ‘The following fraudulent acts or practices committed by a supplier in connection with a consumer transaction are hereby declared unlawful: (...) 14. Using any other deception, fraud, false pretense, false promise, or misrepresentation in connection with a consumer transaction;’ Va. Code Ann. § 59.1-200.

⁸² Colo. Rev. Stat. Ann. § 6-1-105.

⁸³ *Camacho v. Auto. Club of S. California*, 142 Cal. App. 4th 1394, 1404 (Cal. Ct. App 2006)

⁸⁴ *Commonwealth, by Creamer v. Monumental Props., Inc.*, 459 Pa. 450, 461 (Pa. 1974).

Statement on Unfairness. North Dakota⁸⁵ and Iowa⁸⁶ are among the states that have adopted this approach.

Among the thirty states that include a prohibition of unfair trade practices and rely on the interpretation of the unfairness standard developed by the FTC and federal courts, fourteen (such as North Carolina, Rhode Island, and Massachusetts) do not follow the most current interpretation as formulated in the Policy Statement on Unfairness; rather, they still refer to the Cigarette Rule. Additionally, three states (Missouri, Nebraska, and Wyoming) interpret their unfairness standard just like the Cigarette Rule, even though they do not officially follow the FTC and federal court decisions. Furthermore, in some states, there is a split between appellate courts on which definition to follow (e.g., California or Florida).⁸⁷ This demonstrates that a substantial number of states still rely on morality when assessing whether a trade practice is unfair.

When a state follows the Cigarette Rule, it means that an act or practice could be deemed unfair even without the need to show consumer injury. In such cases, it is sufficient for the court to find that a practice violates public policy or is considered immoral, unethical, oppressive, or unscrupulous. However, in twenty-six states, consumers are required to demonstrate loss of money or property to bring

⁸⁵ Interestingly, North Dakota Unlawful Sales or Advertising Act forbids practices that are defined just as unfair practices in the FTC Act, yet they are not called unfair (“The act, use, or employment by any person of any act or practice, in connection with the sale or advertisement of any merchandise, which is unconscionable or which causes or is likely to cause substantial injury to a person which is not reasonably avoidable by the injured person and not outweighed by countervailing benefits to consumers or to competition, is declared to be an unlawful practice.”) N.D. Cent. Code Ann. § 51-15-02.

⁸⁶ Unfair practice “means an act or practice which causes substantial, unavoidable injury to consumers that is not outweighed by any consumer or competitive benefits which the practice produces.” Iowa Code Ann. § 714.16. *But see*: “Section 714.16(1)(n) defines “unfair practice as an act or practice which causes substantial, unavoidable injury to consumers that is not outweighed by any consumer or competitive benefits which the practice produces.” We have recognized that many courts consider an unfair practice to be “nothing more than conduct a court of equity would consider unfair.” Accordingly, ‘statutes that prohibit “unfair practices” are designed to infuse flexible equitable principles into consumer protection law so that it may respond to the myriad of unscrupulous business practices modern consumers face.’” State ex rel. Miller v. Vertrue, Inc., 834 N.W.2d 12, 36 (Iowa 2013)(citations omitted). *See also*: “A course of conduct contrary to what an ordinary consumer would anticipate contributes to a finding of an unfair practice.” State ex rel. Miller v. Vertrue, Inc., 834 N.W.2d 12, 41 (Iowa 2013)

⁸⁷ Such a situation can be observed in Florida, despite the fact that the Supreme Court of Florida in *PNR, Inc. v. Beacon Prop. Mgmt., Inc.* found that “‘unfair practice,’ within meaning of the Florida Deceptive and Unfair Trade Practices Act, is one that offends established public policy and one that is immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers” thus following closely the Cigarette Rule, *PNR, Inc. v. Beacon Prop. Mgmt., Inc.*, 842 So. 2d 773, 777 (Fla. 2003).

a private action against a company engaging in an unfair or deceptive practice.⁸⁸ This restriction implies that even though the expansive definition might encompass online marketing practices that result in privacy violations or no harm other than eroding consumer autonomy, consumers are not empowered to challenge such practices in courts.

As a consequence, consumers in these states may face challenges in seeking legal redress for online marketing practices they find unacceptable, particularly when non-monetary harms are involved. Nevertheless, in these states, state attorneys general could potentially enforce unfair trade practices prohibition against online marketing tactics that lead to privacy harms. Indeed, in several states attorneys general have become proactive and relied on state consumer protection laws to enforce privacy regulations.⁸⁹ Additionally, ten states have enacted comprehensive laws specifically designed to safeguard consumer privacy, such as the California Consumer Privacy Act or the Virginia Consumer Data Protection Act. Notably, five of these states, including California, Connecticut, Colorado, Montana, and Texas, stipulate that consumer agreement to data collection and processing “obtained through the use of dark patterns does not constitute consent.”⁹⁰ In this legislation, dark patterns are defined as “a user interface designed or manipulated with the substantial effect of subverting or impairing user autonomy, decision-making, or choice.”⁹¹

C. Redefining the scope of the unfairness standard based on the views of the public

From the preceding examination of unfair trade practices laws, it becomes evident that both federal and the majority of state legislators, instead of enumerating specific practices deemed unfair, opted to establish a broad standard of unfairness or included an open-ended clause within a non-exhaustive list of unfair practices. This strategic decision was made in recognition of the ever-changing dynamics of markets and the inventive approaches businesses employ to introduce novel practices aimed at influencing consumer preferences and decisions. Consequently, the responsibility of delineating the extent of the unfairness standard was delegated to agencies and the judiciary.

Notably, as demonstrated by the aforementioned analysis, in some cases legislators, regulatory agencies, and the courts turned to moral norms to delineate the boundaries of unfairness. In others, the unfair trade practices were defined as

⁸⁸ See, e.g., Connecticut where an action can be brought by “any person who suffers any ascertainable loss of money or property, real or personal” Conn. Gen. Stat. Ann. § 42-110g.

⁸⁹ Danielle Keats Citron, *The Privacy Policymaking of State Attorneys General*, 92 NOTRE DAME L. REV. 747(2016)(hereinafter Citron 2016).

⁹⁰ Cal. Civ. Code § 1798.140.

⁹¹ *Id.*

those leading or likely to lead to consumer injury, often understood narrowly as including only monetary injury, and restricting consumers' freedom of choice. This definition was supported by a claim that “[c]onduct that is truly unethical or unscrupulous will almost always injure consumers.”⁹² In the context of online marketing strategies, this approach to defining unfairness raises a couple of questions: which of those strategies are indeed immoral? Are there strategies that do not result in monetary harm but are still immoral? Which of those strategies affect consumers' freedom of choice to the extent that they are considered unfair?

The determination of how these questions should be addressed depends on the democratic theory we embrace. It can be argued that this responsibility rests within the domain of the FTC, which derives its legitimacy from the democratically elected Congress, responsible for establishing it and delineating its authority.⁹³ Regarding state attorneys general responsible for enforcing state UDPA's, their legitimacy could stem from the fact that the extent of their actions has been defined by democratically elected state legislatures. Moreover, in most states, these attorneys general are elected through direct voting, further reinforcing their democratic mandate.⁹⁴

The manner in which these questions are answered at the federal level will ultimately be subject to judicial review, which, however, grants a high degree of deference to the FTC.⁹⁵ Nevertheless, courts could contribute to identifying strategies that are immoral and those that undermine consumers' freedom of choice, particularly when they adjudicate cases initiated by state attorneys general and private parties under state unfair trade practices laws. Thus, the inclusion of public perspectives could be guaranteed through court proceedings while making decisions in such cases. However, the essential questions remain: Do the moral standards set forth by these agencies and courts truly mirror the moral perspectives of society? Can agencies and courts effectively recognize the practices that undermine consumers' sense of freedom of choice, as perceived by the consumers themselves?⁹⁶

⁹² FTC POLICY STATEMENT ON UNFAIRNESS, *supra* note 6 at 1076.

⁹³ See Luke Herrine, *What Is Consumer Protection for?*, 34 LOY. CONSUMER L. REV. 1, 50 (2022), referring to Robert Post, *Theorizing Disagreement: Reconceiving the Relationship Between Law and Politics*, 98 CALIFORNIA LAW REVIEW 1319(2010).

⁹⁴ For how state attorneys general are elected in different states, see BALLOTPEDIA, [https://ballotpedia.org/Attorney_General_\(state_executive_office\)](https://ballotpedia.org/Attorney_General_(state_executive_office)) (last visited Aug. 20, 2023).

⁹⁵ See Hoofnagle, *supra* note 51 at 110 – 111.

⁹⁶ See Jeremy Waldron, *Judges as moral reasoners*, 7 INTERNATIONAL JOURNAL OF CONSTITUTIONAL LAW 2(2009); Joshua D. Wright & Angela M. Diveley, *Do expert agencies outperform generalist judges? Some preliminary evidence from the Federal Trade Commission*, 1 JOURNAL OF ANTITRUST ENFORCEMENT 82(2013); William J. Novak, *The Progressive Idea of Democratic Administration*, 167 UNIVERSITY OF PENNSYLVANIA LAW REVIEW 1823(2019).

Here, I propose that we can define the scope of the unfairness standard and the lawfulness of online marketing strategies by considering individuals' views of these tactics. While this approach has inherent limitations (as will be further discussed below), it can yield significant insights that contribute to achieving the goals of consumer law by advancing consumer sovereignty.⁹⁷ Moreover, it will enhance the legitimacy of decisions made by the FTC, state attorneys general responsible for enforcing state UDPA's, and courts reviewing the decisions of administrative agencies or adjudicating the cases brought by private parties. Ultimately, it will empower consumers to have a democratic influence on defining the boundaries of the unfairness standard.⁹⁸

Looking at people's views on online marketing strategies is even more important given a lack of agreement among scholars as to which features of influence exerted by companies over consumers make it morally unacceptable.⁹⁹ Interestingly, Allen Wood seems to suggest that influence becomes manipulative and thus unacceptable when it "undermine[s] or disrupt[s] the ways of choosing that [people] themselves would critically endorse if they considered the matter in a way that is lucid."¹⁰⁰ This suggests that whether a company's behavior is classified as manipulative and unacceptable depends on people's preferences for how they would like to make decisions. This approach to defining manipulation is similar to Tal Zarsky's definition, which characterizes manipulation as a process in which firms strive to motivate and influence individuals to make specific decisions in a manner that is considered socially unacceptable.¹⁰¹

⁹⁷ Consumer sovereignty can be understood as "the state of affairs in which consumers are truly 'sovereign,' having the power to define their own wants and the opportunity to satisfy those wants at prices not greatly exceeding the costs borne by the providers of relevant goods and services." Neil W. Averitt & Robert H. Lande, *Consumer Sovereignty: A Unified Theory of Antitrust and Consumer Protection Law*, 65 ANTITRUST L.J. 713, 715 (1996). I discuss it further in section IV.

⁹⁸ I do not intend to assert here that every aspect of consumer protection law must be shaped exclusively through democratic participation or deliberation. It is the inherent nature of online marketing strategies and the challenges associated with evaluating their appropriateness that make this matter particularly necessitous of input from consumers.

⁹⁹ Several characteristics of influence exerted by companies towards consumers have been identified as problematic from an ethical standpoint. These characteristics include the impact on decision-making process, hiddenness, exploitation of vulnerabilities, and divergence of interests between the influencer and the influenced. See Calo, *supra* note 2; Martin, *supra* note 2; Susser Online Manipulation, *supra* note 2; Sunstein, *supra* note 2; Willis, *supra* note 4, Michael Klenk, (*Online manipulation: sometimes hidden, always careless*, 80 REVIEW OF SOCIAL ECONOMY 85(2022);Sunstein, JOURNAL OF MARKETING BEHAVIOR, (2016);Shmuel I. Feldman Becher, Yuval, *Manipulating, Fast and Slow: The Law of Non-Verbal Market Manipulations*, 38 CARDOZO L. REV. (2016).

¹⁰⁰ Allen W. Wood, *Coercion, Manipulation, Exploitation*, in MANIPULATION: THEORY AND PRACTICE 35 (Christian Coons & Michael Weber eds., 2014).

¹⁰¹ Tal Z. Zarsky, *supra* note 4.

In this paper, I endorse the view that the distinction between acceptable and unacceptable online marketing strategies can be determined by considering people's perspectives. However, I also acknowledge that this approach has certain limitations that need to be addressed. Firstly, people's views on online marketing strategies may be influenced by how these strategies are presented to them. The manner in which the tactics are presented, as well as individuals' understanding of these strategies and their belief in their ability to resist them, can impact their acceptability and perceived threat to freedom of choice. Secondly, people's attitudes towards online marketing strategies are affected by factors beyond the interference with the decision-making process, such as the consequences of the targeted choice itself. Indeed, psychological research suggests that individuals consider the potential outcomes and implications associated with a choice when evaluating the acceptability of influence attempts.¹⁰²

Given those limitations, in this paper, I specifically focus on the factors that may impact the acceptability of online marketing strategies, particularly those that have legal implications. I propose an experimental design in which participants are provided with a neutral description of various online marketing strategies, presented alongside graphical representations, and are then asked to evaluate these strategies from a third-party perspective. I also implement questions designed to measure participants' understanding of the underlying mechanisms of these strategies, as well as their perceived ability to resist them.¹⁰³ Finally, in my analysis, I control for socioeconomic features to check if the acceptability of online marketing strategies varies between different groups.

III. Empirical study

Using an experimental vignette study, I explore which practices are perceived as more threatening to individuals' freedom of choice and less morally acceptable compared to a neutral choice design. Secondly, I test whether non-monetary damages, such as privacy harms, resulting from the manipulated decision increase the perceived threat to freedom of choice and unacceptability of online marketing strategies as compared to situations where no harm is involved, or if such an increase is only observed in cases involving monetary damages. Finally, the study investigates whether certain practices are universally seen as more threatening to freedom of choice and less acceptable than a neutral choice design, regardless of the presence or type of harm.

To formulate my hypothesis regarding the expected relationship between injury, threat to freedom of choice, and the acceptability of manipulative tactics, I will review relevant psychological literature. This will help addressing a question

¹⁰² See section III for more details.

¹⁰³ See section III for more details on the experimental design and its limitations.

as to whether it is likely that people's views correspond or rather contradict the standard for evaluating online marketing strategies as unfair trade practices.

A. Hypotheses

Psychological reactance theory helps understand people's reactions to any influence attempts. This influence can be social in form of, for instance, communication from a seller. Psychological reactance theory predicts that people who feel that their freedom has been threaten will take actions to restore it.¹⁰⁴ The theory, however, also predicts that the threat to freedom will result in formation of negative attitudes towards the source of threat.¹⁰⁵ The more severe the threat, the greater the reactance.¹⁰⁶ As such this theory may help predict how people evaluate online marketing practices (understood as influence attempts) and whether they will indeed consider the type of injury when assessing acceptability of online marketing practices.

Two assumptions of psychological reactance theory will be crucial here. First, the theory assumes that in order for psychological reactance to occur people need to expect that they should have a freedom to choose in a specific situation.¹⁰⁷ In a business consumer relationship, consumers are assumed to have an expectation that they have a freedom to decide whether and how much they are going to pay for a product. At the same time, for example, they may not expect that they have a freedom to choose the terms of contract since these are usually presented as non-negotiable.

Second, the psychological reactance will depend on the importance of freedom which is assumed to be driven by several factors.¹⁰⁸ For a freedom to be important, people need to feel competent in a given area in order to have an expectation of behavioral freedom. If they do not know which product to choose and are uncertain about their knowledge of this product, they will have a higher threshold to feel that their freedoms have been violated, than if they feel competent in this area. The importance of a freedom to choose will also be related to the relevance of the need that will be fulfilled by the choice. For instance, the freedom to choose will be more important if we are making health related choices than if we are choosing clothing.

Translating these propositions into the context of online marketing strategies, it would first need to be analyzed if they are implemented in situations where

¹⁰⁴ SHARON S. BREHM & JACK WILLIAMS BREHM, *PSYCHOLOGICAL REACTANCE A THEORY OF FREEDOM AND CONTROL* (1981).

¹⁰⁵ Stephen A. Rains, *The Nature of Psychological Reactance Revisited: a Meta-Analytic Review*, 39 HUMAN COMMUNICATION RESEARCH 47(2013)..

¹⁰⁶ Benjamin D. Rosenberg & Jason T. Siegel, *A 50-year review of psychological reactance theory: Do not read this article*, 4 MOTIVATION SCIENCE 281(2018).

¹⁰⁷ Mona A Clee & Robert A Wicklund, *Consumer behavior and psychological reactance*, 6 JOURNAL OF CONSUMER RESEARCH 389(1980).

¹⁰⁸ *Id.*

consumers have freedom of choice and feel competent. The examples of online marketing strategies show that these are in fact the situations where consumers should expect to make a free decision and feel competent about those decisions: Nagging that occurs when asking for access to geolocation, roach motel that prevents unsubscribing, hidden costs with costs appearing at the moment of checking out after a long process of selecting, bait and switch offering a different product than the one we were shopping for, aesthetic manipulation where we are explicitly asked to make a choice but one option is clearly highlighted, confirmshaming when we decide about not registering an account when browsing a website, default when we are asked if we want to be provided with newsletter. All these strategies apply to situations where consumers should expect to have a freedom of choice.¹⁰⁹

In this study, I aim to examine the acceptability of various online marketing strategies implemented in situations where it is assumed that consumers should perceive that they have a freedom to choose. These situations include deciding whether to download or use an app, subscribing to use an app, or sharing personal data with it. It is further assumed that consumers will feel competent in these areas. I anticipate that consumers' reactions will be influenced by the potential consequences of the targeted decision, which will determine the relevance of the need that will be fulfilled by the choice. When the decision pertains to privacy or payment,¹¹⁰ people will be less likely to accept the marketing practice as it threatens their freedom of choice with regard to a relevant need. On the other hand, if the decision relates to, for instance, continuing a free trial of an app, it will be met with less opposition since it does not negatively affect any important needs (except for saving space on a phone). Therefore, I propose the following hypothesis:¹¹¹

¹⁰⁹ It could be argued that when consumers do not expect to have a freedom of choice when deciding about their privacy. Research has shown that consumers experience, so called, privacy fatigue – “a sense of futility, ultimately making them weary of having to think about online privacy.” Hanbyul Choi, et al., *The role of privacy fatigue in online privacy behavior*, 81 *COMPUTERS IN HUMAN BEHAVIOR* 42, 42 (2018).

¹¹⁰ I do not specify any hypotheses as to potential differences when a strategy affects a decision that may lead to privacy or monetary harm. Testing such a hypothesis would require a different experimental design to make sure that participants value of the privacy outcome corresponds to the potential monetary loss. If these features are held constant, it is likely that strategies targeting privacy decisions will be perceived as less freedom threatening and, thus, more acceptable. This is because, due to existing practices, people may be less likely to perceive that they have freedom of choice when deciding about their personal data. They may also feel less competent with respect to these choices, since it is difficult to predict harms resulting from sharing of personal data.

¹¹¹ All hypotheses were preregistered on [Open Science Framework](#). The study and the preregistration also encompassed additional hypotheses exploring the distinctions between social, moral, and legal acceptability. However, the findings related to these hypotheses will be presented separately in another paper. This decision was made to align with my broader research agenda, which focuses on examining variances between moral beliefs (pertaining to what individuals

H1: The acceptability of online marketing strategies is dependent on the consequences of the targeted decision. When the decision concerns privacy or payment, the practice will be perceived as more threatening to consumers' freedom of choice and, thus, will be less acceptable than when it pertains to the decision about a free trial of a product.

What is interesting about the online marketing tactics described above is that none of them completely restricts people's freedom of choice. Yet, they also do not leave the freedom of choice completely unaffected. People's reactions to these tactics, including the formation of attitude towards them, will depend on the extent to which they believe the tactics restrict their freedoms. While psychological reactance theory is useful in predicting how people respond to threats, it falls short in providing precise insights into which aspects of marketing strategies that alter the choice architecture will be perceived as more threatening. Previous studies have only focused on manipulating the formulation of messages or the magnitude of requested behavior to test the intensity of the threat, and have consistently shown that psychological reactance increases with higher threat intensity.¹¹² However, recent research on the acceptability of nudges as policy solutions has revealed that people are less likely to accept Type 1, arational, and covert nudges, compared to Type 2, rational, and overt nudges.¹¹³ This suggests that strategies which engage people's deliberate reasoning and employ more understandable mechanisms of influence are more likely to be perceived as acceptable.¹¹⁴

The impact of different types of online marketing strategies on their acceptability remains unclear. While strategies such as nagging or roach motel engage deliberate reasoning and are fairly transparent, the same cannot be said for

perceive as right or wrong) and legal beliefs (concerning whether individuals consider a specific behavior to be legally acceptable or warranting legal remedies), *see also* Stefanie Jung er Krebs & Monika Leszczynska, *Does it matter what people lie about?* (Working Paper 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3916340

¹¹² James Price Dillard & Lijiang Shen, *On the Nature of Reactance and its Role in Persuasive Health Communication*, 72 COMMUNICATION MONOGRAPHS 144(2005); Stephen A. Rains & Monique Mitchell Turner, *Psychological Reactance and Persuasive Health Communication: A Test and Extension of the Intertwined Model*, 33 HUMAN COMMUNICATION RESEARCH 241(2007); Madeline E. Heilman, *Oppositional behavior as a function of influence attempt intensity and retaliation threat*, 33 JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY 574(1976).

¹¹³ Janice Y. Jung & Barbara A. Mellers, *American attitudes toward nudges*, 11 JUDGMENT AND DECISION MAKING 62(2016); Sunstein, *JOURNAL OF MARKETING BEHAVIOR*, (2016); Romain Cadario & Pierre Chandon, *Viewpoint: Effectiveness or consumer acceptance? Tradeoffs in selecting healthy eating nudges*, 85 FOOD POLICY 1(2019); Gidon Felsen, et al., *Decisional enhancement and autonomy: public attitudes towards overt and covert nudges*, 8 JUDGMENT AND DECISION MAKING 202(2013); Fay Niker, et al., *Perceptions of Undue Influence Shed Light on the Folk Conception of Autonomy*, 9 FRONTIERS IN PSYCHOLOGY (2018).

¹¹⁴ Natalie Gold, et al., *'Better off, as judged by themselves': do people support nudges as a method to change their own behavior?*, 7 BEHAVIOURAL PUBLIC POLICY 25(2023).

strategies that rely on aesthetic manipulation, which mechanisms of influence are less transparent. However, transparent techniques also require high cognitive and time effort to avoid their influence, as demonstrated by Luguri and Strahilevitz who found that more aggressive practices such as obstruction of choice (which are transparent but potentially require more effort to avoid) trigger more negative affect than milder techniques such as defaults.¹¹⁵

Interestingly, there seems to be a mismatch between how autonomy-threatening and intrusive the nudges are perceived and their acceptability. Although both measures are good predictors of approval rates, there are still many people who accept nudges although they think that they restrict freedom of choice. Finally, attitudes towards nudges do depend on their objectives and whether those are compatible with people's values. For instance, pro-self nudges get higher acceptance than pro-social nudges.

All this research suggests that when assessing acceptability of nudges people do face a trade-off between the effects of nudges (i.e., whether they are likely of achieving their goals and what goals they are supposed to achieve) and their impact on autonomy and freedom of choice. In case of online marketing strategies implementing tactics similar to nudges, this trade-off is of a less importance. Whereas the motivation of governments or employers introducing nudges is to increase citizens' or employees welfare, the goal of companies introducing online marketing strategies is to increase their profits. It might be, however, that some people perceive companies' profit making activity as legitimate regardless of the type of tactics this company implements.

Due to these discrepancies, it is more appropriate to formulate a neutral hypothesis rather than a directional one regarding the impact of the type of online marketing strategy on its acceptability.

H2: Online marketing strategies will differ with respect to their impact on the perceived threat to freedom and, thus, their acceptability.

It is anticipated that the type of online marketing strategy and the consequences resulting from a consumer's decision will interact, meaning that the difference in acceptability between more and less understandable and reason-engaging strategies will vary depending on whether the targeted decision results in no, privacy or monetary damages. Based on this premise, the following hypothesis can be formulated:

H3: There is an interaction between the type of online marketing strategy and the consequences of the targeted decision in how they affect the acceptability of the strategy.

¹¹⁵ Luguri, *supra* note 1.

B. Methods

i. Participants

One thousand one hundred and ninety one participants from the United States completed both parts of the experiment.¹¹⁶ The study took place in June 2023 on Prolific.¹¹⁷ Prolific is a UK-based platform that recruits people from various countries willing to participate in research in exchange for a monetary reward.¹¹⁸ One participant failed both attention checks in the second part of the experiment and was dropped from further analysis. Participants in the study received a fixed payment of \$0.80 for completing the first part of the experiment, which took approximately 4 minutes. They then received \$1.00 for completing the second part of the experiment, which lasted approximately 5 minutes. Additionally, 422 participants received a bonus payment of \$0.25 contingent on their answers to one of the questions in the second part of the experiment.

ii. Materials and Procedure

The study was conducted using the Qualtrics survey tool. Participants were presented with a hypothetical scenario that outlined a strategy implemented by a company operating a dating mobile application, with the aim of influencing users' choices. The study consisted of two stages, which were separated by a six-day interval. During the first stage, participants read the scenario and answered specific questions designed to measure their perceived threat to freedom of choice, as well as their understanding of the mechanism employed by the strategy. Moving on to the second stage of the experiment, participants were presented with the same scenario once again and were asked three questions. These questions aimed to gauge the acceptability of the strategies from social,¹¹⁹ moral, and legal

¹¹⁶ The planned pre-registered sample size was $N=1704$. This sample size has been determined based on the effect specified in hypothesis H1. Since no previous studies have been conducted looking at the impact of this specific decisions' outcome on the acceptability of the selected online marketing strategies, the sample size was calculated assuming a small effect size of $d=0.2$. Using a between-subject design, I needed $N = 1704$ for a power of $1-\beta = .95$. The final number of observations collected was smaller because of the drop-outs between the first and the second part of the experiment as well as lack of participants from specific demographic groups that would allow for collecting a sample representative for the US population with regard to sex, age, and ethnicity.

¹¹⁷ This study has been reviewed by Columbia University Institutional Review Board (IRB-AAAU7100).

¹¹⁸ PROLIFIC, <https://www.prolific.co/> (last visited Aug. 20, 2023)

¹¹⁹ Responses to this question were incentivized following the method introduced in Erin L Krupka & Roberto A Weber, Erin L Krupka & Roberto A Weber, *Identifying social norms using coordination games: Why does dictator game sharing vary?*, 11 JOURNAL OF THE EUROPEAN ECONOMIC ASSOCIATION 495(2013). Participants received additional \$0.25 if their answer to this question matched the most frequent answer among other participants. Monetary incentives are introduced to ensure that participants honestly respond based on their genuine beliefs about what

perspectives. The exact wording of the scenarios and questions can be found in Appendix 2.

By incorporating two stages in the study, I ensured that participants' acceptability ratings were not influenced by the initial prompt to consider the threat to freedom of choice and the mechanisms of influence used by the dating app. This approach allowed for a more accurate assessment of the strategies' acceptability. The perceived threat to freedom of choice was measured, since I employed the psychological reactance theory discussed earlier to generate my predictions regarding the acceptability of strategies. This theory suggests that the acceptability of strategies varies based on their impact on the perceived threat to freedom of choice.

The study followed a 3x4 between-subject design. Two factors were manipulated: the type of strategy employed and the type of consequences resulting from consumers' choices targeted by the strategy. The table below presents an overview of the treatments and the number of observations collected in each condition. This study design allowed for an assessment of the effects of each factor independently as well as their interaction, as hypothesized.

Table 1 Overview of the treatments and the number of participants in each condition

		Harm		
		No harm	Privacy harm	Monetary harm
<i>Strategy</i>	Baseline	98	101	106
	Graphics	93	104	97
	Nagging	91	99	99
	Roach motel	107	96	99

In each scenario presented to participants, they were informed about a company offering a free trial of a dating app, which required users to sign up and provide their email address and credit card information. After the 7-day free trial period, users would receive a notification indicating that the services can be extended for an additional month. Here, I introduced the experimental manipulations.

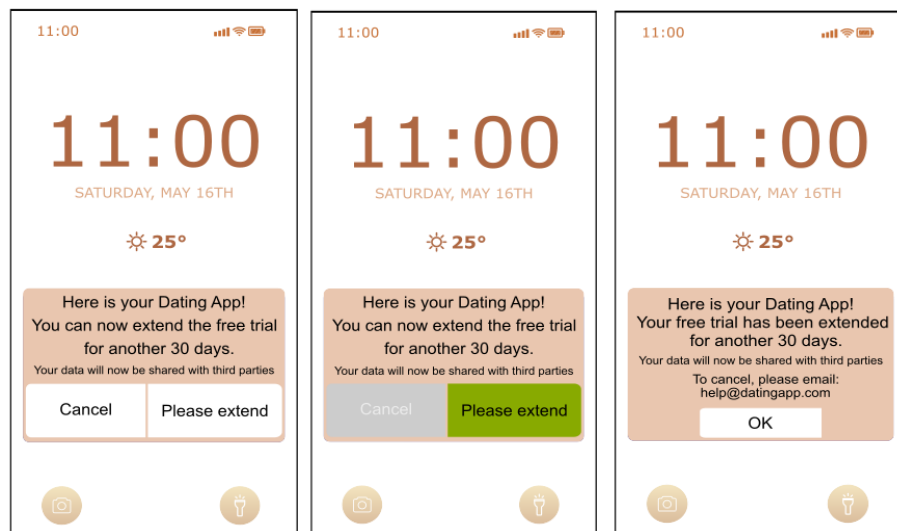
Regarding the type of consequences resulting from the targeted decision, participants were exposed to three different treatments. In the No Harm treatments, users were informed that the app could be extended for another month at no cost. In the Privacy treatments, users were informed that in addition to collecting their email address and credit card information, the app would also gather information

society considers an acceptable practice, rather than conforming to what they might perceive as expected from them, for instance. However, this approach becomes unfeasible when dealing with personal, as opposed to societal, beliefs, as we lack alternative methods to observe individuals' true personal beliefs beyond directly asking participants to report them

about their interests and sexual orientation, which would be shared with third parties once the 7-day free trial period ended. In the Money treatments, users were informed that the services would be now extended for a fee of \$9.99 per month.

Four distinct treatments were implemented to explore the diverse strategies employed by the app in influencing consumers' decisions to continue using the app

Figure 1 Graphical representation of the strategies used by the app to influence users' choices



Note: The first image depicts the notification displayed in the Baseline and Nagging Privacy treatments. The second image illustrates the notification used in the Graphics Privacy treatment. Lastly, the third image showcases the notification presented to participants in the Roach motel Privacy treatment.

beyond the 7-day free trial period. In the Baseline treatments, the design of the choice whether to extend the application was kept as neutral as possible, where users had the option to accept the extension or cancel it. If they chose to cancel, the app would be immediately removed from their phone, and their account would be deleted. In the Graphics treatments, the option to approve the app's extension was highlighted in green, while the cancellation option was displayed as a gray button. In the Nagging treatments, participants were informed that the app would send users daily notifications about the extension. Lastly, in the Roach Motel treatments, participants were informed that the app would be extended, and to cancel, users would need to send an email to customer service. Once the cancellation request was processed, the app and the account would be deleted. Each of these descriptions was accompanied by graphical representations of the app and the notification (see Figure 1 for the strategies in Privacy treatments).

After being provided with the description of the dating app, participants were presented with four statements that described the app's practices. These statements were specifically designed to gauge the perceived threat to freedom of choice. Participants were then instructed to indicate their level of agreement with each statement using a 7-point Likert scale.¹²⁰ Following this, participants encountered three questions aimed at assessing their understanding of the mechanisms underlying the app's practices,¹²¹ as well as their perception of the expected time and effort required to avoid being influenced by the app's tactics. Responses to these questions were also measured on a 7-point Likert scale. In addition to these measures, the first part of the study incorporated three items intended to evaluate participants' need for autonomy as an individual trait.¹²²

In the second part of the experiment, participants were once again presented with the same scenario as in the first part. They were then asked to assess the acceptability of the scenario from three different perspectives: social, moral, and legal. This assessment was conducted using a 6-point Likert scale, ranging from "very unacceptable" to "very acceptable." Towards the conclusion of the study, participants were asked to provide demographic information, including their gender, age, ethnicity, education level, and financial situation. These questions were aimed at gathering additional background information about the participants that could be then used for control analysis.

Two attention checks were implemented to make sure that participants read and were focused on the instructions. In both parts of the experiment, after obtaining consent, participants were asked to provide their Prolific ID and complete an attention task that requires them to click on the screen at least three times before proceeding. Those who failed the attention check were immediately notified and given the option to quit the study. In the second stage of the study, the second attention check was included as one of the items among final demographic questions. In this attention check, participants were asked to indicate how often they participate in negotiations and to click "Sometimes" instead of the actual frequency they participate in negotiations in order to demonstrate that they have read this question.

¹²⁰ These items were adapted from Dillard, *supra* note 112.

¹²¹ This question was adapted from Patrik Michaelsen and co-authors, Patrik Michaelsen, et al., *Experiencing default nudges: autonomy, manipulation, and choice-satisfaction as judged by people themselves*, BEHAVIOURAL PUBLIC POLICY 1(2021).

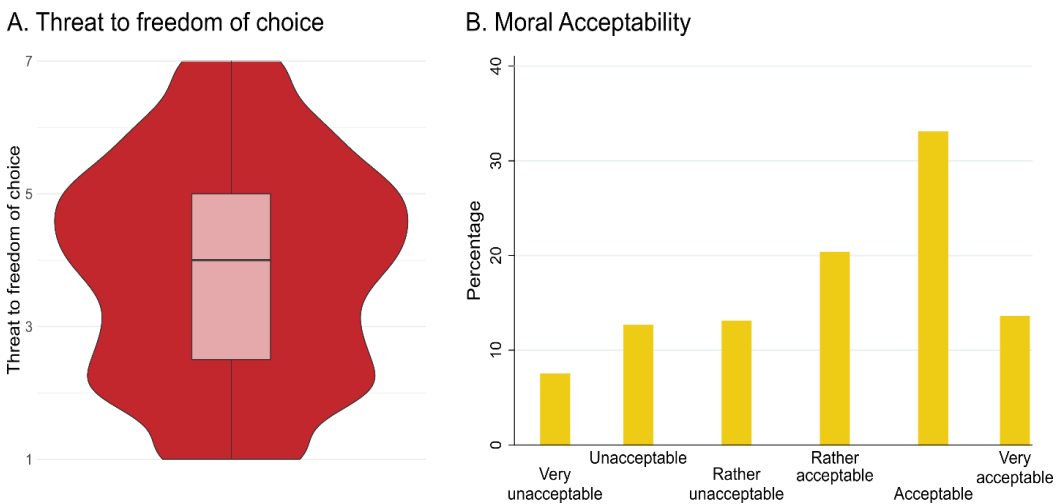
¹²² These items were adapted from Kennon M Sheldon and co-authors, Kennon M Sheldon, et al., *What is satisfying about satisfying events? Testing 10 candidate psychological needs*, 80 JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY 325(2001).

C. Results

i. Demographics and descriptive statistics

The study aimed to collect data from a sample representative of the US adult population in terms of age, gender, and race.¹²³ Table 2 in Appendix 3 presents the distribution of these demographic characteristics within each treatment group and the overall sample. The overall sample was gender-balanced, with 50% men. The age groups roughly mirrored the US adult population, although there was a slightly higher representation of individuals aged 45-64, resulting in an underrepresentation of individuals aged 65 and older. The racial composition closely followed the composition of the US adult population with a slight oversampling of participants identifying as white alone.¹²⁴ The sample also very well reflected the income distribution of the US population with 12% earning less than \$25k, 24% between \$25-\$49k, 20% between \$50-74k and 17% between 75-99k and 24% over \$100k. Importantly, there were no statistically significant differences in the distribution of gender, age, and race across the various treatments.

Figure 2 Overall distribution of responses measuring perceived threat to freedom of choice and moral acceptability



Note: Figure A illustrates the distribution (density plot) of average responses to the four items measuring the perceived threat to freedom of choice posed by the app's strategy in all treatments. The box in the graph represents the 25th, 50th, and 75th percentile of these responses. Figure B displays the distribution of responses to the question concerning the moral acceptability of the app's strategy in all treatments.

¹²³ See [pre-registration report](#).

Figure 2 shows the distribution of responses to the questions about the threat to freedom of choice¹²⁵ and moral acceptability regardless of the treatment.¹²⁶ Whereas participants' perceptions' of the threat to freedom of choice seem to be evenly distributed along the scale (M = 3.89, Mdn = 4, SD = 1.62), most of the participants (76.9%) found the practices described in the scenarios acceptable (i.e., responding with "rather acceptable", "acceptable" or "very acceptable").

ii. Presence and nature of harm

To recap, this study aims to investigate how individuals evaluate online marketing strategies based on the potential harm resulting from the targeted decisions influenced by these strategies. Specifically, I examined the acceptability of these strategies in different treatment groups. The No Harm treatments focused on scenarios where consumer choices that the business is trying to influence had no consequences beyond continued usage of a free application. In contrast, the Privacy treatments explored situations where consumer decisions influenced by the app's strategy could potentially lead to privacy harms. Similarly, the Money treatments examined conditions where consumer decisions had the potential to result in monetary damages. By comparing these treatments, I sought to understand any variations in the perceived acceptability of the strategies employed depending on the type of harm that they can lead to.

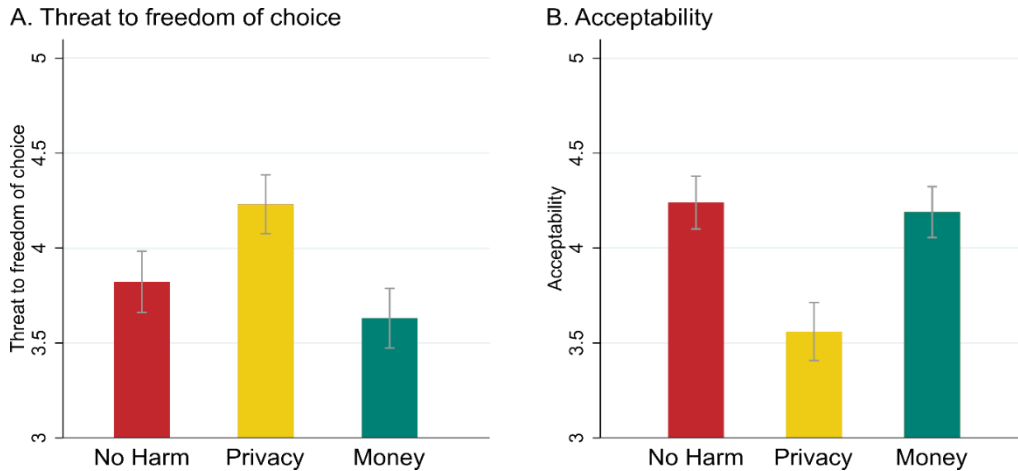
¹²⁴ The sampling procedure was not designed to draw a sample that would be also representative with regarding to ethnicity. Therefore, we had only 6% participants who identified as Hispanic. Most of them also identified as White. For the data on adult population by race and ethnicity, see: DATACENTER, <https://datacenter.aecf.org/data/tables/6539-adult-population-by-race-and-ethnicity#detailed/1/any/false/1095,2048,574,1729,37,871,870,573,869,36/68,69,67,12,70,66,71,2,800/13517,13518> (last visited Jul. 15, 2023).

¹²⁵ This measure was constructed by calculating the mean of responses to four items specifically designed to gauge perceived threat to freedom of choice. The reliability of the measure was assessed using Cronbach's alpha, which yielded a high value of 0.92. Depending on the item, only 8-12% of participants decided to select the middle response indicating "Neither agree nor disagree". This means that most of participants were able to provide a clear answer to these questions.

¹²⁶ As mentioned earlier, the study also assessed acceptability from both a social and legal perspective. However, for the sake of simplicity, the results from these perspectives are not included here and will be presented in a separate paper. It is worth noting that although there were significant differences in acceptability responses based on the perspective considered, all the statistically significant differences found among the treatments regarding moral acceptability were also observed when examining the results from the legal and social perspectives.

Figure 3 presents the results for perceived threat to freedom of choice and moral acceptability. Contrary to Hypothesis 1 (H1), there were no statistically significant differences in the perceived threat to freedom of choice or moral

Figure 3 Perceived threat to freedom of choice and moral acceptability depending on the presence and type of injury



Note: Participants' responses indicate that when the targeted decision had the potential to result in privacy harm, the app tactics designed to influence user decisions were perceived as more threatening to the users' freedom of choice and less morally acceptable than when no harm is involved. However, no significant differences were found between scenarios where no harm or monetary harm were the potential outcomes. The error bars in the figures represent 95% confidence intervals.

acceptability when comparing the No Harm treatments to the Money treatments.¹²⁷ However, when the app strategy targeted decisions that could potentially lead to privacy harms, participants perceived these tactics as more threatening to their freedom of choice and also less acceptable from a moral perspective.¹²⁸ This finding challenges the prevailing interpretation of unfair trade practices laws, which typically focus on monetary injury as a requirement for deeming a practice unfair. Instead, it suggests that it is the aspect of privacy harm, rather than monetary harm, that significantly decreases people's acceptance of businesses' practices intended to influence their choices.

¹²⁷ All comparisons were conducted using two-sample Wilcoxon rank-sum tests and followed the analysis included in the pre-registration report. Threat to freedom of choice: $z = 1.61, p = .11$, moral acceptability: $z = 0.69, p = .49$.

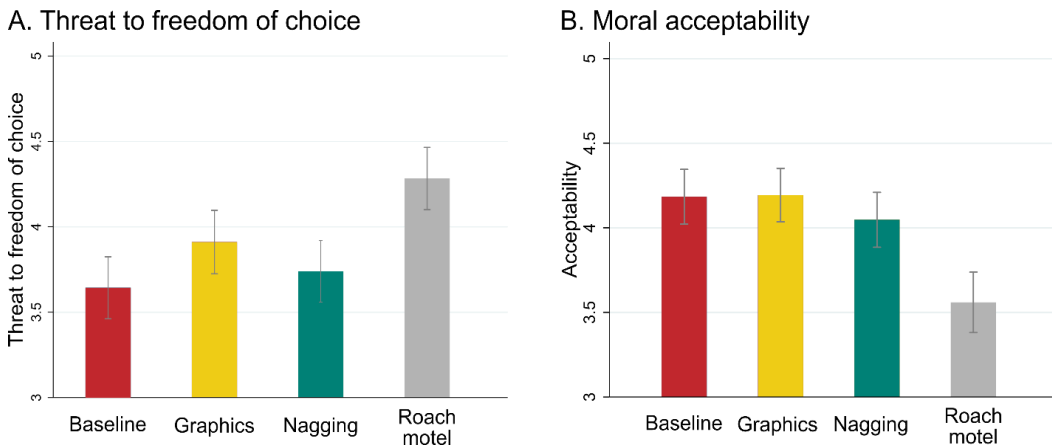
¹²⁸ Threat to freedom of choice: $z = -3.62, p < .001$, moral acceptability: $z = 6.20, p < .001$.

This insight highlights the importance of considering privacy-related concerns alongside monetary considerations when evaluating the fairness of business practices. It indicates that individuals may be more sensitive to potential privacy infringements and consider them as a key factor in determining the acceptability of such practices.

iii. The type of strategy

In addition to the first question, the study also aimed to explore how different strategies implemented by online businesses affect the perceived threat to freedom of choice and acceptability. This was addressed through three different treatment conditions: Graphics, Nagging, and Roach motel. The Graphics treatments involved a straightforward tactic of altering the aesthetic design of the app and emphasizing a choice that aligned more with the interests of the business but not necessarily with the consumer's interests. In the Nagging treatments, participants were instructed that the app repeatedly prompts users to make a choice that might potentially be detrimental to their own interests. Lastly, the Roach motel strategy was implemented to create difficulty for users in getting rid of the app. In the control conditions (Baseline treatments), consumer choice to extend the use of the app was presented in a neutral way. These treatments were designed to examine how each

Figure 4 Perceived threat to freedom of choice and moral acceptability depending on the tactic



Note: Participants' responses indicate that the roach motel strategy employed to influence users' choices is perceived as posing the larger threat to freedom of choice than a neutral strategy. It is also less acceptable. No significant differences were found between neutral presentation of users' choice and graphical influence or nagging, except that the graphical influence was found to be more threatening to the freedom of choice. The error bars in the figures represent 95% confidence intervals.

strategy impacted the perceived threat to freedom of choice and acceptability among participants.

Figure 4 presents the average acceptability and perceived threat to freedom of choice, depending on the type of strategy employed by the app, but regardless of the type and presence of harm. It was observed that participants' responses and assessments significantly varied across all the strategies.¹²⁹ However, when comparing each tactic to the Baseline treatments, the results revealed that this variation was primarily driven by the Roach motel treatments. Participants assessed this tactic as significantly more threatening to users' freedom of choice and less acceptable compared to the baseline neutral presentation of users' choice.¹³⁰ Furthermore, the perceived threat to freedom of choice was significantly higher in the Graphics treatment than in the Baseline treatment, but no significant differences were found in the acceptability of these strategies.¹³¹ No significant differences were found between Nagging and Baseline treatments.¹³²

These findings indicate that individuals do not necessarily perceive all strategies used by companies to influence user choices as less acceptable than a neutral choice design. Notably, tactics such as aesthetic manipulation and nagging, which have been extensively discussed in the literature and addressed by regulatory bodies like the FTC, were found to be equally acceptable to individuals when compared to a neutral design.

iv. Interaction

The study also examines whether the differences between evaluations of various strategies are influenced by the type of harm involved. For example, if the Roach motel strategy is generally seen as more detrimental to freedom of choice and less acceptable than a neutral design, does this reaction intensify when privacy or

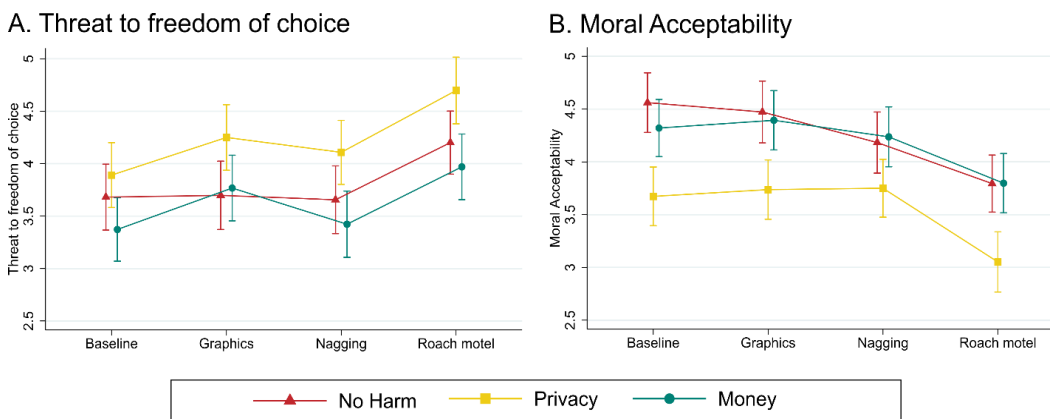
¹²⁹ Kruskal-Wallis equality-of-populations rank tests were employed to compare the dependent variables across all four strategies. Threat to freedom of choice: $\chi^2(3)=27.67, p <.001$, moral acceptability: $\chi^2(3)=32.55, p <.001$.

¹³⁰ Again, two sample Wilcoxon rank-sum tests were employed for all planned comparisons: Threat to freedom of choice: $z = -4.80, p <.001$, moral acceptability: $z=4.99, p <.001$.

¹³¹ Threat to freedom of choice: $z=-2.12, p=.03$, moral acceptability: $z=0.12, p=.90$.

¹³² Threat to freedom of choice: $z=-0.75, p=.45$, moral acceptability: $z=1.46, p=.14$.

Figure 5 Perceived threat to freedom of choice and acceptability depending on both - the presence and type of injury and the strategy



Note: Participants' responses revealed that the differences in the evaluation of the app's strategies, particularly the comparison between the Roach motel and the Baseline, was not influenced by the type of harm involved. Specifically, the Roach motel strategy was consistently perceived as significantly more threatening to freedom of choice and less acceptable compared to the neutral choice framing, regardless of whether the targeted decision was likely to result in harm or not. The error bars in the figures represent 95% confidence intervals.

monetary harm is at stake compared to no harm? Surprisingly, this is not the case. The findings indicate that there were no significant interaction effects between the type of harm and the strategy used by the app (see also Figure 5).¹³³

The perceived threat to freedom of choice and acceptability of the Roach motel strategy, as compared to the neutral choice design, does not seem to vary based on whether the targeted decision results in any harm or what type of harm it is. Through further exploratory analysis, I discovered that the Roach motel strategy is perceived as significantly more threatening to freedom of choice and less acceptable than a neutral design of consumer choice even when the targeted decision results in no harm.¹³⁴ This result should be interpreted with caution as it is based on a preliminary exploratory analysis and would require additional testing to validate its findings.

v. Additional observations and control analysis

As mentioned in Section II, assessing people's perception of online marketing strategies may have certain limitations. For instance, individuals may not fully understand the underlying mechanisms of these practices and how they influence their decisions. To address these challenges, in the study I included additional

¹³³ See regression results reported in Appendix 4.

¹³⁴ Threat to freedom of choice: $z=-2.13, p=.03$, moral acceptability: $z=3.79, p<.001$.

questions, asking participants about their ease in identifying how the app's practices would change user behavior, as well as their anticipated effort and time required to resist the app's influence beyond the 7-day trial period.

In Appendix 4, I present the results of an OLS regression analysis predicting both the perceived threat to freedom of choice and the moral acceptability, considering the presence and type of injury and the type of strategy implemented by the app (models 1 and 5). Additionally, in models 3 and 7, I controlled for the participants' understanding of the described strategies. The results show that even after accounting for these measures, the main conclusions of the paper remain unchanged. Specifically, when the app's strategies have the potential to cause privacy harm, they are perceived as more threatening to freedom of choice and less acceptable compared to strategies that are less likely to cause harm. The 'roach motel' strategy is perceived as more threatening to freedom of choice and less acceptable than a neutral design of a choice. Importantly, the coefficients representing these conditions remain consistent even after considering the participants' understanding of the strategies and their impact.

Interestingly, I observed that the participants' ability to understand how a strategy works and the anticipated effort required to resist its influence were positively correlated with perceiving it as more threatening. In other words, the easier it was for participants to identify how the strategy operates and how much effort it would take to resist, the more they found it threatening. However, when it came to acceptability, a different pattern emerged. Only the expected effort and time needed to resist the app's influence predicted the responses. Specifically, the more effort participants anticipated, the less acceptable they found the app's practice. Conversely, when it came to time, the opposite was observed – the more time participants expected it would take to resist the app's influence, the more acceptable it was. Given the exploratory nature of these analysis and the unintuitive contradictory findings with regard to the relationship between expected effort and acceptability as well as expected time and acceptability, the results need to be taken with caution.

One further question I addressed through planned control analyses was whether the results hold while controlling for various socio-economic characteristics of the participants. Indeed, as models 4 and 8 in Table 5 (Appendix 4) show, the two main findings were observed even after controlling for age, gender, race, income, and education. Again, the coefficients of the 'Privacy' and 'Roach Motel' treatments barely changed in comparison to Model 1 and 5, which do not include those predictors.

Finally, according to the psychological reactance theory I relied on to generate my hypotheses, the perceived threat to freedom of choice mediates the impact of both the type of harm and the type of strategy on acceptability. To explore this further, I conducted a mediation analysis using structural equation modeling. The

results (reported in detail in Appendix 5) revealed that, indeed, although not fully, the effect of Privacy treatments compared to No Harm treatments on acceptability is mediated by the perceived threat to freedom of choice. Similarly, the impact of Roach motel treatment compared to Baseline treatments on acceptability was also mediated through the perceived threat to freedom of choice.

D. Discussion

The empirical study's findings indicate that individuals perceive business tactics concerning privacy-related decisions as more threatening to freedom of choice and less morally acceptable compared to tactics that have minimal or no harm to consumers. However, when it comes to decisions involving monetary aspects, no distinctions were observed in the assessment of practices that are unlikely to cause harm compared to practices that could result in monetary damages. This result is remarkable, considering the legal approach, which contradicts the views of individuals. At the federal level, despite recent developments, trade practices are deemed unfair when they cause or are likely to cause substantial consumer injury, understood as monetary or physical harm. Privacy-related harms have only recently become a basis for FTC decisions, and it remains uncertain how the courts will approach this expanded application of the unfair trade practices standard.¹³⁵

Intriguingly, even when users make choices in a neutral manner, participants still perceive scenarios involving the collection and sharing of personal data as less acceptable compared to scenarios where the only harm is the extension of a free app on users' phones. However, I observed no differences when comparing the No harm Baseline scenario with a situation where users pay for the app with money and make a choice a neutral way.¹³⁶ This contrast suggests that people may find it less acceptable to exchange personal data for the app rather than paying with money, regardless of whether this involves any type of influence on consumer decision-making exerted through the app's design.

Moreover, I observed significant differences between the neutral choice design and the 'roach motel' when comparing only the treatments where the app's tactics could potentially result in privacy harms.¹³⁷ This finding is crucial because it shows that even if people do not accept of apps collecting and sharing their personal information with third parties, the way how people's consent to this is obtained, does matter – it makes the app's practice even less acceptable.

¹³⁵ See Citron 2022 *supra* note 9.

¹³⁶ These are only exploratory analysis looking at simple effects between the treatments: Two sample Wilcoxon rank-sum test comparing acceptability in No Harm Baseline vs Privacy Baseline: $z = 4.28$, $p < .001$, No Harm Baseline vs Money Baseline: $z = 1.21$, $p = .23$.

¹³⁷ Privacy Baseline vs Privacy Roach motel: $z = 2.63$, $p = .009$.

One could argue that this result depends significantly on the context, particularly considering that privacy decisions are highly context-dependent.¹³⁸ Yet, this argument holds true but only for the absolute levels of acceptability in Privacy treatments and not when comparing the impact of different influence strategies within those treatments. I do not see any plausible reason to believe that the context would interact with how people react to strategies targeting decisions that could result in potential privacy harms. However, this limitation could be addressed by further studies looking at different contexts, different types of personal information as well as different practices related to personal information (in the current study, personal information was shared with third parties).

Another interesting finding is that there were no overall differences in the assessment of the app's strategies when it could potentially lead to monetary injury compared to situations where the app's tactics were unlikely to cause any harm. Importantly, participants were generally approving of practices such as nagging or graphical design that can manipulate some consumers into spending money on something they might not have chosen if not for the manipulative practice. Here, I can only speculate as to potential explanations of this finding. One could argue, for instance, that people may blame the users for falling into those practices. They may also overestimate people's ability to resist the app's influence and expect the users to be able to resist to some practices, in particular, when those decisions involve money. Whereas this indeed might be the case, it is still surprising why people would expect this only if the potential harm refers to money but not when it relates to privacy.

Comparing various influence tactics, I found that only the Roach motel tactic is consistently found less acceptable than a neutral design choice – this is regardless of the consequences of the targeted decision. Even if the decision results in no harm, 'roach motel' tactic is found less acceptable. Nagging and changing the graphical design so that it is more likely for a user to pick an option that aligns with the app's interests were found, in general, as acceptable as a neutral choice design. Though as a null effect, it should be interpreted with caution, it does indicate that there might be some tactics that are as acceptable as a neutral design.

Finally, all main results hold when controlling for participants' understanding of the strategies and their potential impact on users' decisions, as well as for various socio-economic characteristics. Though the current study does not test it directly, this finding suggests that the differences between various marketing strategies and the variations found depending on the type of harm that those strategies can lead to

¹³⁸ For a theoretical framework of privacy and context, see Helen Nissenbaum, *Privacy as contextual integrity*, 79 WASH. L. REV. 119(2004); HELEN NISSENBAUM, *PRIVACY IN CONTEXT: TECHNOLOGY, POLICY, AND THE INTEGRITY OF SOCIAL LIFE* (2020). For empirical findings supporting the theory, see, for instance Kirsten Martin & Helen Nissenbaum, *Measuring privacy: An empirical test using context to expose confounding variables*, 18 COLUM. SCI. & TECH. L. REV. 176(2016).

remain unaffected by the transparency of those tactics and hold true for various societal groups. However, this result will require further testing, for instance, by providing participants with a clear explanation of the mechanisms of those strategies or data on how they influence users' behavior.

The study does have a few limitations. First, it is important to note that there was a relatively high drop-out rate between the first and the second part of the study (ca. 30%) which could introduce selection bias, potentially skewing the results. The characteristics and preferences of those who dropped out may differ from those who completed the study, which could impact the observed effects. Furthermore, the reasons for drop-out were not systematically documented, making it challenging to assess the potential biases introduced by this issue. Future studies should strive to minimize drop-out rates and carefully document the reasons for non-participation to ensure the validity and reliability of the findings.

Secondly, in the study, participants did not experience the app's strategies firsthand; instead, they assessed them from a third-party perspective. Theoretically, this should not greatly affect the results because previous studies have found that psychological reactance occurs even in the case of vicarious responses.¹³⁹ Additionally, exposing participants to these strategies could have its own downsides – for example, people's perceived threat to freedom of choice, as well as acceptability, could have varied greatly depending on whether they fell for a given tactic. Finally, to avoid deception in the study, the design would indeed need to involve potential privacy harms, which could raise ethical concerns.

IV. Implications of the findings

In this section, I outline the potential and preliminary implications of my findings for consumer protection law.¹⁴⁰ These implications may vary depending on the normative framework one adopts. However, as this section will illustrate, my study's contributions are valuable to discussions in consumer law, irrespective of the specific normative perspective employed.

¹³⁹ See Sandra Sittenthaler, et al., *Observing the restriction of another person: vicarious reactance and the role of self-construal and culture*, 6 FRONTIERS IN PSYCHOLOGY (2015); Sandra Sittenthaler, et al., *Explaining Self and Vicarious Reactance: A Process Model Approach*, 42 PERSONALITY AND SOCIAL PSYCHOLOGY BULLETIN 458(2016).

¹⁴⁰ To ensure the generalizability and reliability of my findings, additional empirical studies, as proposed in Section III, must be conducted. These studies will help validate the results across various contexts and ascertain the robustness of the measures used. It is also essential to assess whether the understandability of the app's influence mechanisms impacts participants' responses, warranting further investigation.

A. Which online marketing practices should be deemed unfair?

i. Practices targeting decisions leading to privacy harms

Some states, along with the FTC in its earlier days, have relied on immorality as an indicator of unfairness, labeling certain trade practices as unfair due to their immorality.¹⁴¹ In the Policy Statement on Unfairness, where the criterion of immorality for deeming a practice unfair was abandoned, the FTC stated that such a criterion is unnecessary because practices found to be immoral will be those that result in consumer injury. Consumer injury, however, was defined very narrowly as predominantly encompassing monetary harm, but not subjective types of harms such as emotional or non-monetary privacy harms.

In the last 10-20 years, faced with a lack of comprehensive privacy or data protection laws, consumer protection law has emerged as a legislative framework that also offers protection for consumers' privacy. Since 2004,¹⁴² the FTC has been utilizing its authority to monitor unfair trade practices that impact consumers' privacy. A similar trend can be observed in several states, where attorneys general have become proactive and relied on state consumer protection laws to enforce privacy regulations.¹⁴³ Despite these developments, the majority of states still require consumers to demonstrate actual monetary damages in order to file a legal action against a company's unfair trade practices.¹⁴⁴ While the FTC appears to have expanded its interpretation of the unfairness standard to include non-monetary harms, it remains uncertain whether the courts will endorse such a broadened interpretation of unfair trade practices and consumer injury by the FTC.¹⁴⁵

My findings show that they should. The study demonstrates that the presence of consumer injury in the form of privacy harm significantly impacts consumers' assessment of the moral acceptability of online marketing strategies designed to influence consumers' privacy choices, resulting in lower acceptability when privacy harm is involved. Specifically, I found that when these strategies are utilized to influence consumers' decisions about continuing to use an application that sells their data to third parties, the moral acceptability is considerably lower compared to when the decision involves merely extending the use of a free application.¹⁴⁶

If the normative goal of unfair trade practice laws is to prohibit immoral practices and if we assume that consumer protection law should consider people's

¹⁴¹ See section II.

¹⁴² In the Matter of Gateway Learning Corp., No. 0423047 (Complaint, Sept. 17, 2004), <https://www.ftc.gov/sites/default/files/documents/cases/2004/09/040917comp0423047.pdf>

¹⁴³ Citron 2016, *supra* note 89. See also section III B.

¹⁴⁴ See section II.

¹⁴⁵ Similar doubts were raised by Citron 2022, *supra* note 9.

¹⁴⁶ See section III.

views, it becomes crucial to acknowledge that a practice should be deemed unfair when it leads to or is likely to lead to privacy harms. This suggests that in jurisdictions relying on immorality as a criterion for determining the unfairness of a practice, strategies that target decisions which might lead to privacy infringements should be categorized as immoral and thus, unfair.

For states adhering to the FTC's Policy Statement, as well as the FTC and federal courts, this implies that in order to genuinely reflect moral standards, the definition of consumer harm should be expanded. Alongside financial harm, it should also encompass privacy violations.

ii. Practices undermining consumers' freedom of choice

In addition to consumer harm, the Commission also considers whether practices impact consumers' freedom of choice when evaluating their fairness. This approach is also adopted by several states. In this study, I examined whether variations exist in the perceived threat to freedom of choice among different online marketing strategies and whether this factor influences the moral acceptability of these strategies. The results indicated that disparities in moral perspectives were indeed influenced by the perceived threat to freedom of choice presented by the online marketing strategies investigated in the study. This discovery implies that considering the infringement on freedom of choice is indeed relevant when appraising the fairness of a practice, aligning with the FTC's approach. For jurisdictions that consider immorality as a criterion when assessing the unfairness of trade practices, this implies that they should examine the impact of a given strategy on consumers' freedom of choice when determining whether it aligns with moral standards.

Another important result carrying normative implications is that one of the tested strategies – the 'roach motel strategy' – was perceived as more threatening to consumers' freedom of choice and less acceptable compared to a neutral choice design, regardless of the presence of harm. In other words, even when the practice targeted a decision about extending a free app, participants perceived it as more threatening and less acceptable than a neutral choice design. The same effect was observed when a practice targeted privacy and money-related decisions. This result demonstrates that for consumers to perceive a practice as less acceptable, it is sufficient that it undermines their decision autonomy without necessarily leading to any further injuries resulting from a decision targeted by the tactic.

These results suggest that, in order to align with people's moral perspectives, the definition of unfairness, as proposed by the Federal Trade Commission and adopted by certain states, which requires a significant consumer injury, should be reevaluated. In the case of certain strategies, it might suffice to demonstrate that a tactic constrains consumers' freedom of choice without needing to establish that the decision itself could lead to or is likely to result in substantial injury. Alternatively,

one could argue for expanding the definition of consumer injury to include negative outcomes, such as the time, effort, and attention invested in order to evade the repercussions of a marketing strategy. For those states that incorporate moral standards into their evaluation of the unfairness of trade practices, this implies that the concept of consumer injury, understood as the harm stemming from a decision influenced by a trade practice, may not always be indispensable in deeming a practice as immoral.

The results regarding the impact of various online marketing strategies on the perceived threat to freedom of choice can also provide insights for recommendations if we embrace the perspective that the goal of consumer law is to safeguard consumer sovereignty. As briefly discussed in section II, consumer sovereignty can be interpreted as 'the state of affairs in which consumers are truly 'sovereign,' having the power to define their own wants and the opportunity to satisfy those wants at prices not greatly exceeding the costs borne by the providers of relevant goods and services.' Under this viewpoint, consumer law aims to empower consumers to make rational choices to the extent they desire. This approach assumes that by safeguarding consumer sovereignty, consumer welfare can be maximized.¹⁴⁷

To ascertain whether specific online marketing strategies might curtail consumers' sovereignty and thereby merit regulation, it is crucial to evaluate whether consumers perceive a limitation to their freedom of choice due to these strategies. In essence, we need to determine whether consumers feel that they could make alternative choices if they wished. In the study, participants identified two strategies—graphic design and the roach motel tactic—as posing a greater threat to their freedom of choice compared to a neutral design.¹⁴⁸

These findings indicate that, to ensure the preservation of consumers' sovereignty, aesthetic manipulations of choice design that highlight certain options, along with strategies that enforce default choices and impede consumers from altering them, ought to be deemed as unfair. Such practices could potentially restrict consumers' capacity to exercise authentic sovereignty in their decision-making processes, thereby potentially diminishing their well-being.

The normative implications discussed thus far have centered on the study's results that exhibited significant differences. However, a question remains regarding how to interpret the null effects—comparisons that reveal no significant impact, such as those between strategies leading to no monetary harm and those resulting in monetary harm, or between a neutral choice design, aesthetic alterations, and nagging techniques.

Setting aside statistical considerations that complicate drawing conclusions from null effects, some might argue that the reason people do not appear to morally

¹⁴⁷ Averitt, *supra* note 97.

¹⁴⁸ See Section III.

condemn strategies like aesthetic design modifications or nagging is due to their lack of understanding of their underlying mechanisms. Others may contend that consumers' evaluations are influenced by biases.¹⁴⁹ Consumers could also hold the belief that such practices are justified considering the existing hierarchies in our society¹⁵⁰ (powerful businesses exploiting consumers) or the perception that the system simply functions in this manner.¹⁵¹ In light of these perspectives, the fact that consumers rate these strategies as equally morally acceptable as a neutral choice design should not necessarily lead to the conclusion that such practices are fair.

Here, I propose that a definitive conclusion concerning these practices should be reached after a more comprehensive empirical analysis of people's perspectives. For instance, we could investigate whether consumers' views change when they are informed about the effectiveness of these tactics in influencing consumer decisions. Additionally, we could explore how people's attitudes towards these practices evolve as they become more exposed to them, potentially altering both their descriptive and normative expectations.

B. When should consumers be given a private right of action to challenge online marketing practices?

Striking the right balance between private and public enforcement of consumer protection law requires considering many different factors such as how it affects incentives for companies to obey the law, resources of public enforcers and consumers, or a risk of over- or underdeterrence.¹⁵² Here, I would like to only highlight potential insights that the results of my study could bring to this discussion.

Although not directly tested in the current study, psychological reactance theory posits that the perceived threat to freedom of choice will trigger not only negative assessment of the threatening practice but also individual's behavioral

¹⁴⁹ For instance, consumers evaluations as to how likely they are to fall for these strategies might be subject to overoptimism bias, see Michael D. Grubb, *Overconfident Consumers in the Marketplace*, 29 JOURNAL OF ECONOMIC PERSPECTIVES (2015).

¹⁵⁰ JIM SIDANIUS & FELICIA PRATTO, SOCIAL DOMINANCE: AN INTERGROUP THEORY OF SOCIAL HIERARCHY AND OPPRESSION (2001).

¹⁵¹ Ido Liviatan & John T Jost, *System justification theory: Motivated social cognition in the service of the status quo*, 29 SOCIAL COGNITION 231(2011); Tess Wilkinson-Ryan, *Justifying Bad Deals*, 169 U. PA. L. REV. 193(2020).

¹⁵² For an overview of these factors and generally the interplay between public and private enforcement in consumer protection law, see, e.g., Stephen B. Burbank, et al., *Private Enforcement*, 17 LEWIS & CLARK L. REV. 637(2013); Dee Pridgen, *Wrecking Ball Disguised as Law Reform: Alec's Model Act on Private Enforcement of Consumer Protection Statutes*, 39 N.Y.U. REV. L. & SOC. CHANGE 279(2015); Dee Pridgen, *The Dynamic Duo of Consumer Protection: State and Private Enforcement of Unfair and Deceptive Trade Practices Laws Symposium: Unfair and Deceptive Trade Practices Laws*, 81 ANTITRUST L.J. 911(2016).

reactions.¹⁵³ Specifically, people who perceive that their freedom of choice is threatened will take action to restore this freedom. In case of consumers, this could include avoiding the business, posting a negative review, filing a complaint or taking a legal action if only given a right to do so.

The analyses run in this study reveals that indeed people’s acceptability of online marketing practices is driven to a large extent by how they perceive the threat to freedom of choice pose by those practices. This suggests that we should also expect people to be more likely to take behavioral action in case of the practices that are leading to a higher perceived threat to freedom of choice such as practices targeting decisions related to privacy as well as aesthetic design modification and “roach motel” techniques regardless of the presence and type of harm.¹⁵⁴

Broadening the private right of action on consumer cases to include those practices that are designed to influence people into sharing more of their personal data will have a twofold effect. Combining private and public enforcement will increase the chances that practices which are threatening consumers autonomy and run against consumers moral norms will be litigated, thus providing incentives for companies to avoid employing such practices in their business activities. Public enforcers, as shortly discussed in section II C, may not be willing or able to pursue action against companies targeting privacy-related decisions with their marketing strategies. Providing consumers with a private right of action when companies' practices target privacy-related decisions will also serve an expressive function, validating a norm that companies should not trick consumers into sharing their personal data.¹⁵⁵

V. Conclusions

This study contributes in three significant ways – descriptively, empirically, and normatively – to the ongoing discourse on online marketing strategies that leverage individuals' cognitive biases to influence their decisions, often referred to as “dark patterns.” It starts by delineating the existing interpretation of the unfairness criterion as applied to trade practices. It reveals that many state laws continue to draw upon moral norms when evaluating the fairness of trade practices. In contrast, other states and federal law emphasize consumer injury, primarily conceived as

¹⁵³ See section III A.

¹⁵⁴ In my future studies, I intend to directly test whether people take action when exposed to online marketing practices that threaten their freedom of choice. Some preliminary results are provided by Luguri and Strahilevitz who showed that when people decide in a neutral way they declare to be more willing to interact again with the same researcher than when they are exposed to mild and aggressive dark patterns, Luguri, *supra* note 1.

¹⁵⁵ See Lauren Henry Scholz, *Private Rights of Action in Privacy Law*, 63 WM. & MARY L. REV. 1639(2021). More generally on the expressive function of law, see MCADAMS. 2015.

financial harm, as well as the impairment of consumer decision-making freedom as criteria for assessing the unfairness of a practice.

Given that online marketing strategies frequently involve decisions related to privacy, where demonstrating financial harm can be challenging, this prevailing interpretation of unfairness standard might exclude many potentially problematic strategies from its purview. Moreover, such a standard could omit practices that erode consumer autonomy, where proving direct monetary harm is equally challenging. Lastly, within states relying on moral benchmarks, there exists uncertainty about whether the criteria set forth by enforcement agencies and courts accurately mirror the standards held by the consumers targeted by these strategies.

Hence, I empirically studied people's moral judgments of online marketing strategies. I also discern the underlying factors that influence these moral perceptions, namely, the perceived threat to freedom of choice and the existence and nature of potential harm stemming from the decisions influenced by these strategies.

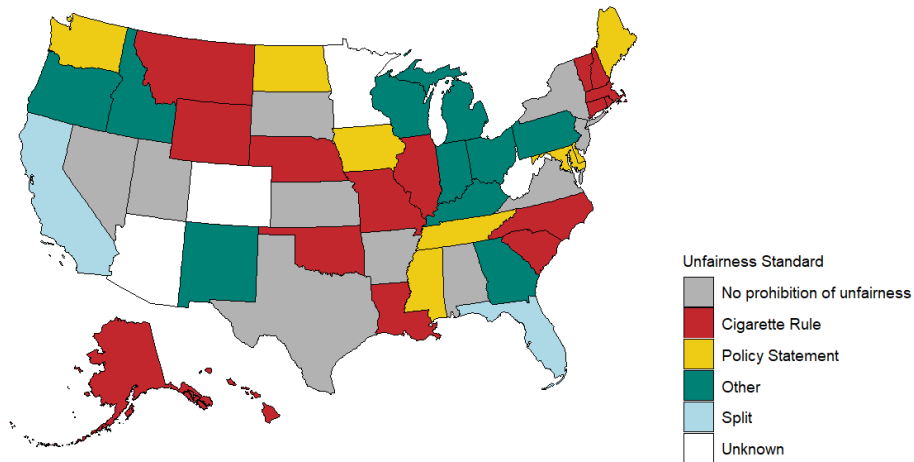
The results indicate that participants regarded solely the "roach motel" tactic as less acceptable when compared to a neutral design. This perception remained consistent irrespective of whether the tactic was anticipated to yield no harm, privacy-related harm, or monetary harm. Importantly, strategies that could potentially lead to privacy-related harms were perceived as posing a greater threat to users' freedom of choice and were deemed less acceptable than practices resulting in no harm.

These findings carry substantial implications for unfair trade practices law. If consumer protection law is presumed to address practices that are morally objectionable to consumers, then practices that are likely to lead to privacy harms should be subject to challenge by both consumers and public enforcers, without necessarily requiring the demonstration of monetary harm. Alternatively, focusing on practices perceived as posing a greater threat to consumer freedom of choice compared to a neutral choice design (such as aesthetic design modifications and "roach motel" tactics) would contribute to achieving the objectives of consumer laws, namely, safeguarding consumer sovereignty.

In conclusion, this research sheds light on the acceptability and fairness of online marketing strategies, providing valuable insights for consumer protection law. By considering the perceptions of consumers, regulators can ensure that policies address practices that genuinely concern users, protecting their autonomy and fostering fair market practices in the digital age.

Appendix 1

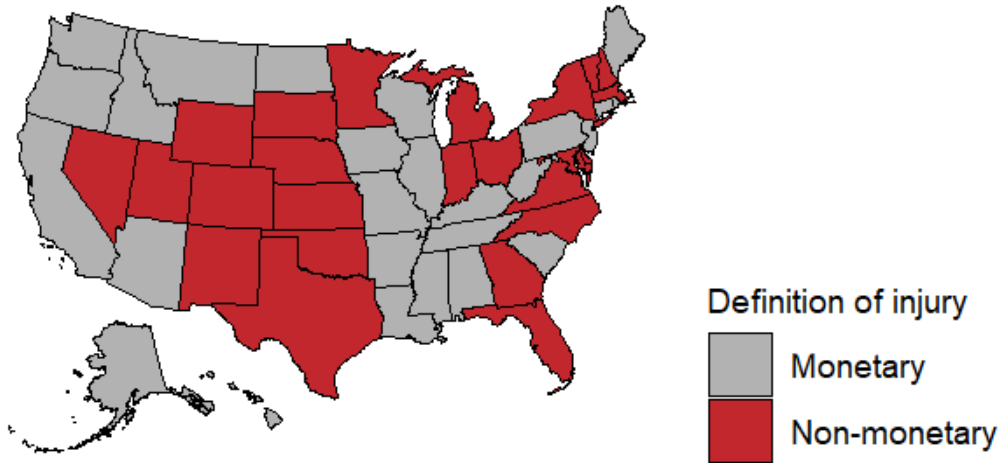
Figure 6 Interpretation of the unfairness standard by state



Note: States were categorized based on their interpretations of the unfairness standard:

1. No Prohibition Category: States like Texas and New York do not address unfair trade practices but only prohibit deceptive and sometimes unconscionable practices.
2. Cigarette Rule Category: States, such as Alaska, Connecticut, North Carolina, and Rhode Island, that adhere to the FTC's Cigarette Rule for defining unfairness.
3. Policy Statement Category: States that follow the FTC's Policy Statement interpretation of the unfairness standard.
4. Other Category: States that developed their own interpretation of the unfairness standard. States like Pennsylvania feature an open-ended clause targeting only deceptive practices, whereas Wisconsin ties the concept of unfairness to violations of other statutes.
5. Split Category: Florida and California have courts divided between different interpretations, either Cigarette Rule vs. Policy Statement in Florida and Policy Statement, balancing, or tethering tests in California.
6. Unknown Category: States such as Arizona and Colorado lack relevant case law on the interpretation of the unfairness standard.

Figure 7 Required injury type for initiating a private action under state UDPA law.

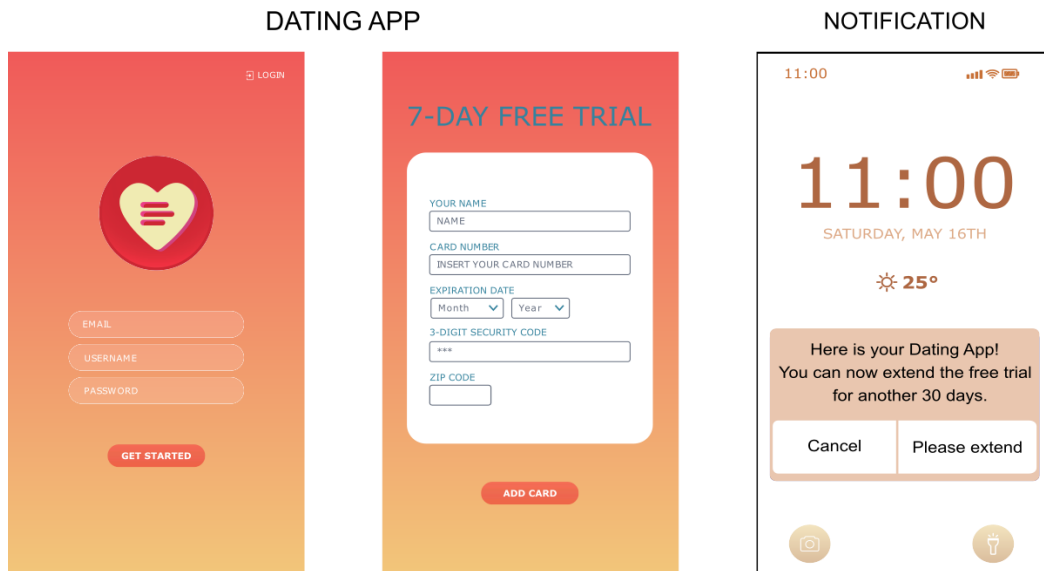


Appendix 2

The appendix includes the text of each of the scenarios and the graphics as well as the wording of the measures used in stage 1 and 2 of the experiment.

Baseline + continued use of a free application

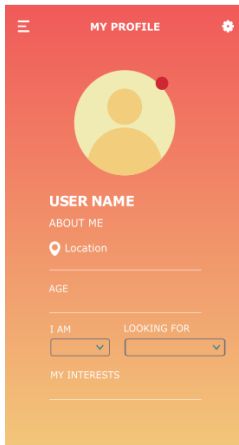
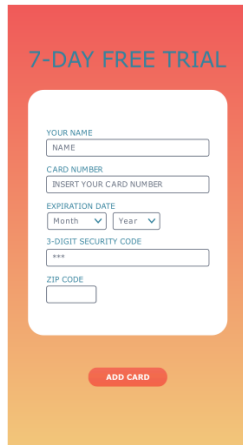
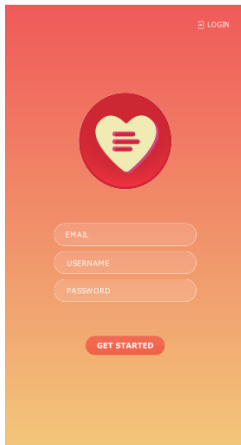
Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.



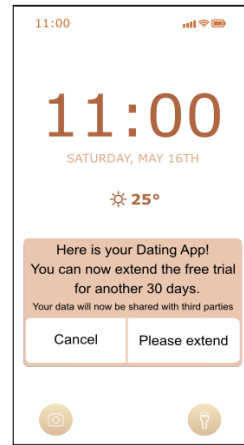
Baseline + privacy harm

Company A offers a free trial of its dating app, which requires users to sign up and provide their email address, credit card information, and detailed personal information, including their interests and sexual orientation. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. The notification informs them that their data will now be shared with third parties. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.

DATING APP



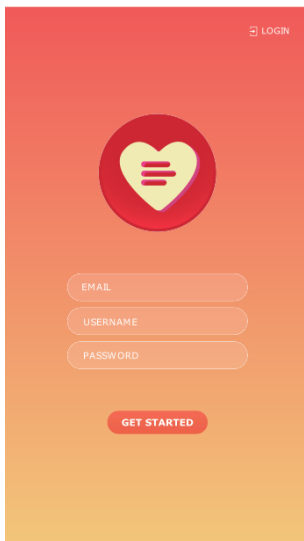
NOTIFICATION



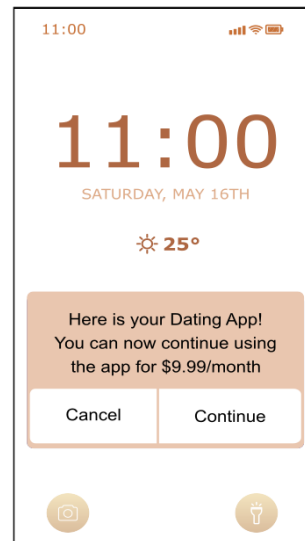
Baseline + monetary harm

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone offering them the option to extend the services for \$9.99 per month. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.

DATING APP

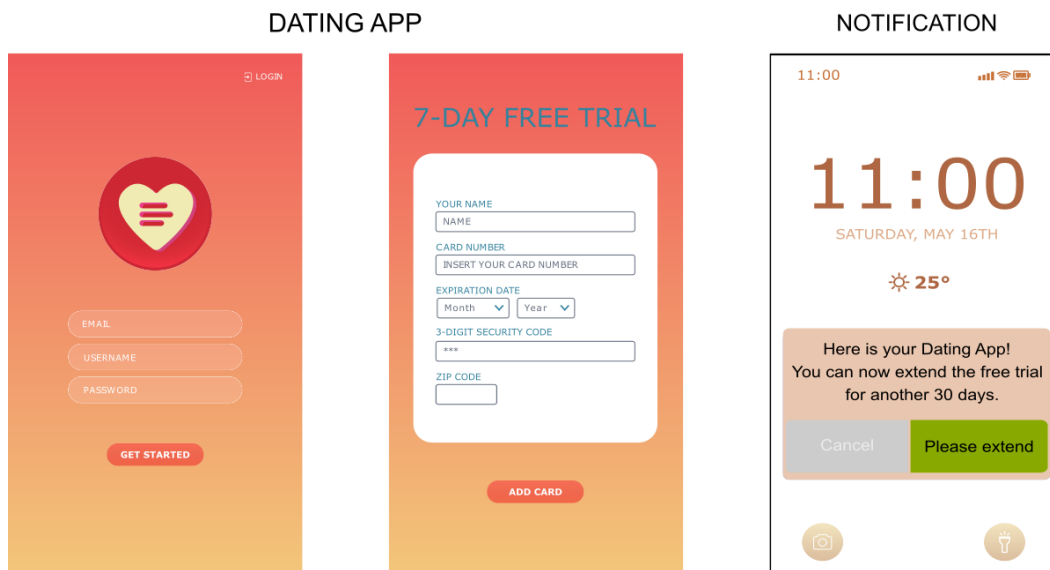


NOTIFICATION



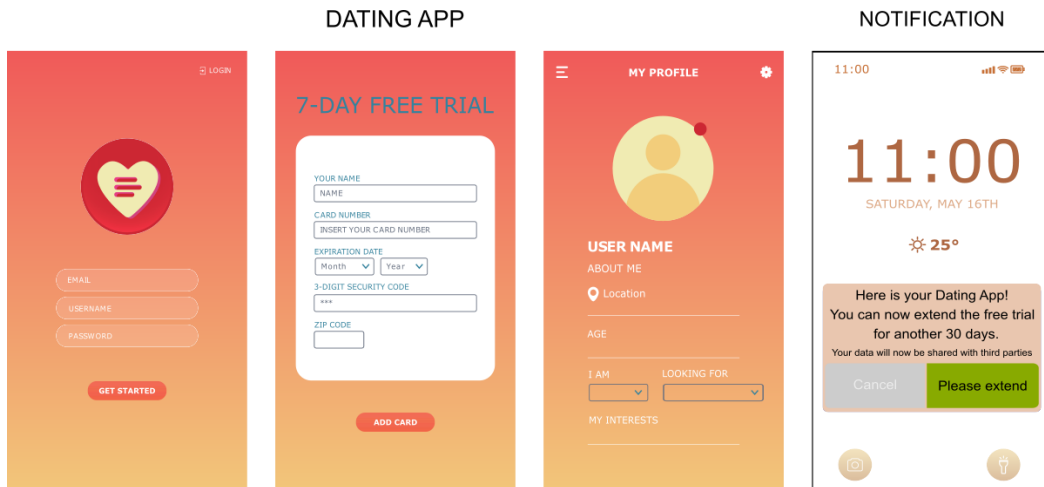
Graphical design + continuous use of a free application

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. The notification includes two buttons. The "Cancel" button is positioned on the left-hand side and displayed in a white font on a grey background, while the "Please extend" button is positioned on the right-hand side and displayed in a black font on a green background. If users agree, they can continue using the app. If they decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.



Graphical design + privacy harm

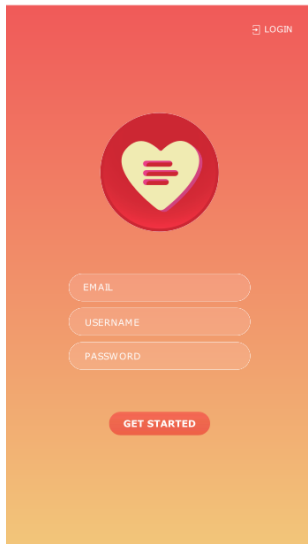
Company A offers a free trial of its dating app, which requires users to sign up and provide their email address, credit card information, and detailed personal information, including their interests and sexual orientation. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. The notification informs them that their data will now be shared with third parties. The notification includes two buttons. The "Cancel" button is positioned on the left-hand side and displayed in a white font on a grey background, while the "Please extend" button is positioned on the right-hand side and displayed in a black font on a green background. If users agree, they can continue using the app. If they decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.



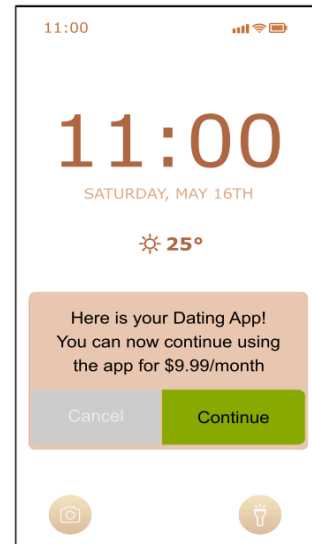
Graphical design + monetary harm

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone offering them the option to extend the services for \$9.99 per month. The notification includes two buttons. The "Cancel" button is positioned on the left-hand side and displayed in a white font on a grey background, while the "Please extend" button is positioned on the right-hand side and displayed in a black font on a green background. If users agree, they can continue using the app. If they decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.

DATING APP



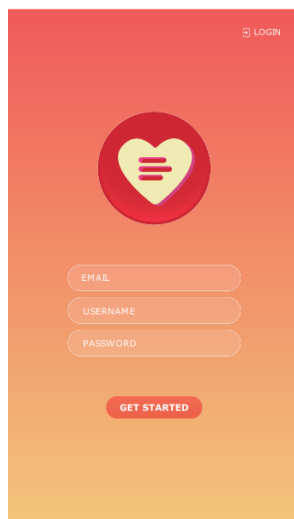
NOTIFICATION



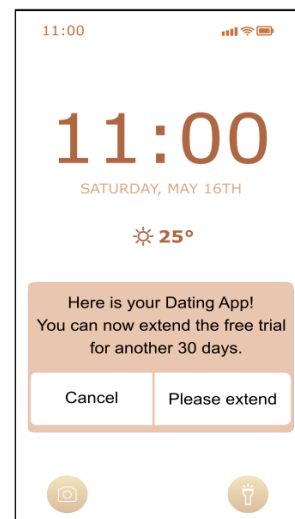
Nagging + continuous use of a free application

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. The company sends push notifications every day to users who have not yet agreed to the extension. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.

DATING APP

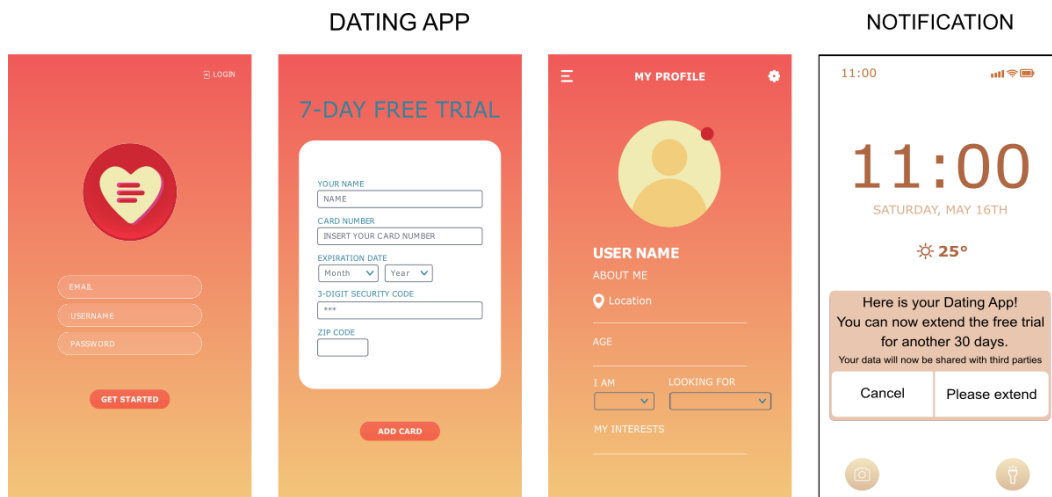


NOTIFICATION



Nagging + privacy harm

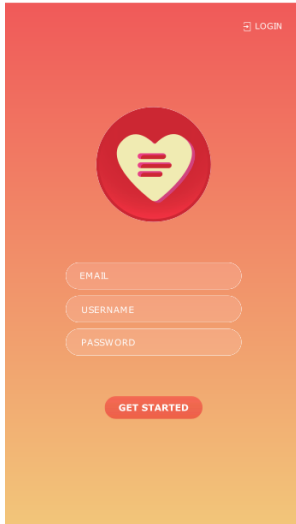
Company A offers a free trial of its dating app, which requires users to sign up and provide their email address, credit card information, and detailed personal information, including their interests and sexual orientation. Once the 7-day trial period ends, users receive a notification on their phone, giving them the option to extend the free services for another month. The notification informs them that their data will now be shared with third parties. The company sends push notifications every day to users who have not yet agreed to the extension. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.



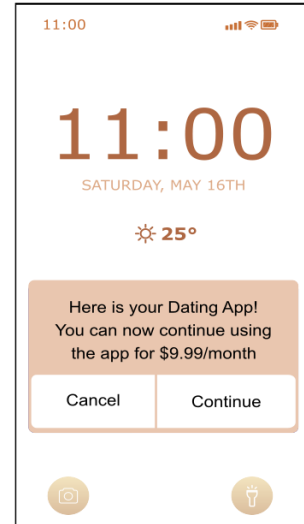
Nagging + monetary harm

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone offering them the option to extend the services for \$9.99 per month. The company sends push notifications every day to users who have not yet agreed to the extension. If they agree, they can continue using the app. If users decide to cancel the service, the app will be immediately removed from their device, and their account will be deleted.

DATING APP



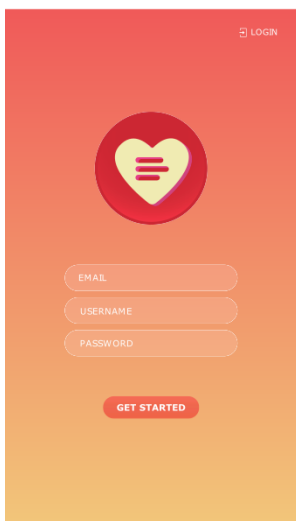
NOTIFICATION



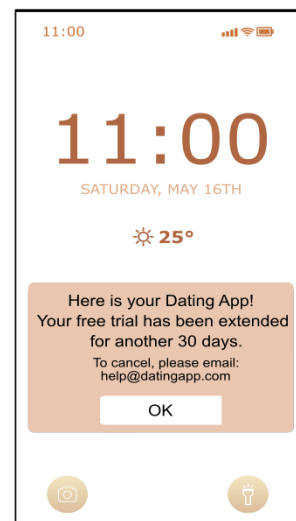
Roach motel + continuous use of a free application

Company A provides a free trial of their dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone informing them that the free services are extended for another month. To cancel the service, users need to send an email to customer service. Once the request is processed, both the app and the account will be deleted.

DATING APP

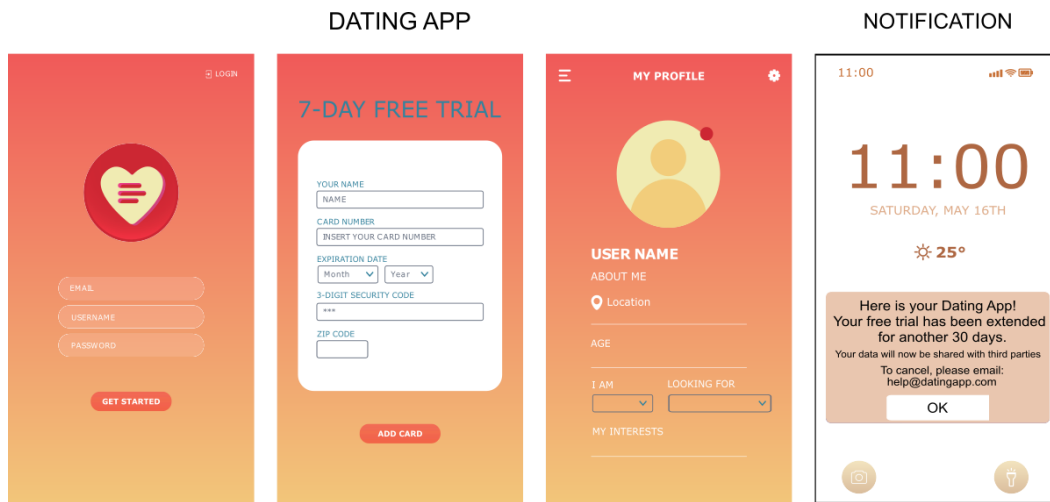


NOTIFICATION



Roach motel + privacy harm

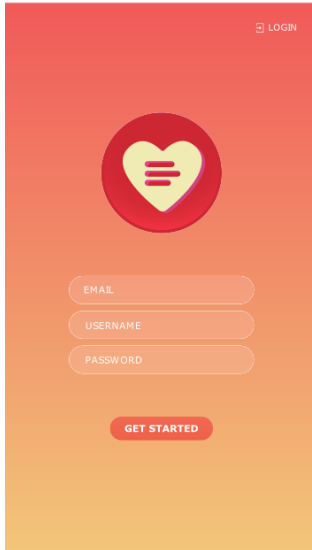
Company A offers a free trial of its dating app, which requires users to sign up and provide their email address, credit card information, and detailed personal information, including their interests and sexual orientation. Once the 7-day trial period ends, users receive a notification on their phone informing them that the free services are extended for another month. The notification informs them that their data will now be shared with third parties. To cancel the service, users need to send an email to customer service. Once the request is processed, both the app and the account will be deleted.




Roach motel + monetary harm

Company A offers a free trial of its dating app, which requires users to sign up and enter their email address and credit card information. Once the 7-day trial period ends, users receive a notification on their phone informing them that the services are extended for \$9.99 per month. To cancel the service, users need to send an email to customer service. Once the request is processed, both the app and the account will be deleted.

DATING APP



LOGIN



EMAIL

USERNAME

PASSWORD

GET STARTED



7-DAY FREE TRIAL

YOUR NAME

NAME

CARD NUMBER

INSERT YOUR CARD NUMBER

EXPIRATION DATE

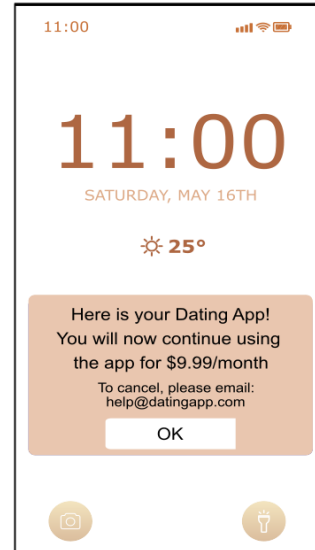
Month Year

3-DIGIT SECURITY CODE

ZIP CODE


ADD CARD

NOTIFICATION



11:00



SATURDAY, MAY 16TH

 25°

Here is your Dating App!
You will now continue using
the app for \$9.99/month

To cancel, please email:
help@datingapp.com

OK

Measures

Stage 1:

In the first stage of the experiment, participants will be presented with the following questions after each scenario.

Consider again the description of the app. Please indicate the extent to which you agree or disagree with the following statements.

1. The app's practices threaten users' freedom to choose.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

2. The app tries to make a decision for the users.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

3. The app tries to manipulate the users.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)
- Strongly agree (7)

4. The app tries to pressure the users.

- Strongly disagree (1)
- Disagree (2)
- Somewhat disagree (3)
- Neither agree nor disagree (4)
- Somewhat agree (5)
- Agree (6)

- Strongly agree (7)

Considering the description of the app, please answer the following questions.

1. To what extent is it easy for you to identify HOW the users' behavior is going to be changed by the app's practices?

- 1 = I cannot easily identify how the user's behavior is changed by the app's practices (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 = I can easily identify how the user's behavior is changed by the app's practices (7)

2. How much effort do you anticipate it would take to resist the influence of the app's practices and refrain from using it beyond the 7-day trial period?

- 1 = None at all (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 = A great deal (7)

3. How much time do you anticipate it would take to resist the influence of the app's practices and refrain from using it beyond the 7-day trial period?

- 1 = None at all (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)
- 6 (6)
- 7 = A great deal (7)

Please indicate how well the following statements describe you.

1. Interests I feel that my choices are based on my true interests and values.

- Strongly disagree (1)

- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

2. I feel free to do things my own way.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

3. I feel that my choices express my “true self”.

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

What are the practices employed by the app?

Stage 2:

In the second stage of the experiment, participants will see the same scenario as in the first stage as well as three questions designed to measure social, personal moral and personal legal norms. Those questions were presented in a randomized order. Before reading the scenario, participants were first be presented with the following instructions:

You will now be asked to evaluate the app's practice according to social and your personal moral standards. You will also be asked whether you think such practice should be legally acceptable.

When asked to evaluate the app’s practice according to your personal moral standards, you should evaluate it according to your own personal opinion and independently of the opinion of others, whether it is acceptable or not for the app to implement such a practice. “Acceptable” practice means the practice that you personally consider to be “correct” or “moral”.

When asked to indicate whether you think such a practice should be legally acceptable, you should evaluate it according to your own personal opinion and

independently of the opinion of others. “Acceptable” practice means the practice that you personally consider should not give a right to a legal remedy.

When evaluating the app's practice according to social standards you should evaluate according to the opinion of the society and independently of your own opinion, whether it is acceptable or not for the app to implement such a practice. “Acceptable” practice means the practice that you consider most people would agree upon as being “correct” or “moral”. The standard is, hence, not your personal opinion, but your assessment of the opinion of the society.

We kindly ask you to answer as precisely as possible.

For evaluating the app’s practice according to social standards, you can earn up to \$0.25 on top of your participation fee of \$1.00, depending on your answers. The answers of the other participants will influence your payment in this part. At the end of the study, we will determine which answer most of the other participants gave. You will obtain \$0.25 if you gave the same answer as most of the other participants.

Note: only the answers of other participants in this part count. All other participants have received the same instructions. Also, they get \$0.25 if they give the same answer as most other participants. To show you how your payment in this part is calculated, we now give you an example:

Person A is sitting in a cafe near the university. Person A notices that another person has left his wallet on the table. Person A decides to give the wallet to the manager of the cafe. Evaluate according to the opinion of the society and independently of your own opinion, whether Person’s A behavior is acceptable. “Acceptable” behavior means the behavior that you consider most people would agree upon as being “correct” or “moral”. Note: you earn \$0.25 if your answer matches the most frequent answer of the other participants in this second part. You can choose from a scale with six points:

- Very unacceptable
- Unacceptable
- Rather unacceptable
- Rather acceptable
- Acceptable
- Very acceptable

Assume, for example, that you evaluate Giving the wallet to the manager of the cafe as very acceptable. Assume the other participants gave the following evaluations:

- Very unacceptable – 0%
- Unacceptable – 0%
- Rather unacceptable – 0%
- Rather acceptable – 10%
- Acceptable – 30%
- Very acceptable – 60%

How much additional money (in cent) would you get for this answer?

- \$0.00
- \$0.50
- \$0.60
- \$0.25

Please evaluate according to the opinion of the society and independently of your own opinion, whether the app's practice is acceptable or not. "Acceptable" practice means the practice that you consider most people would agree upon as being "correct" or "moral". Note: you earn \$0.25 if your answer matches the most frequent answer of the other participants in this part.

- Very unacceptable
- Unacceptable
- Rather unacceptable
- Rather acceptable
- Acceptable
- Very acceptable

Please evaluate according to your own personal opinion and independently of the opinion of others, whether the app's practice is acceptable or not. "Acceptable" practice means the practice that you personally consider to be "correct" or "moral".

- Very unacceptable
- Unacceptable
- Rather unacceptable
- Rather acceptable
- Acceptable
- Very acceptable

Please evaluate according to your own personal opinion and independently of the opinion of others, whether the app's practice should be legally acceptable. "Acceptable" practice means the practice that you personally consider should not give a right to a legal remedy.

- Very unacceptable
- Unacceptable
- Rather unacceptable
- Rather acceptable
- Acceptable
- Very acceptable

Please answer the questions below.

Is English your native language?

- Yes
- No

What is your age?

What is your gender?

- Male
- Female
- Non-binary
- Other (Please specify):

-
- Rather not say

Are you of Spanish, Hispanic, or Latino origin?

- Yes
- No

Choose one or more races that you consider yourself to be

- White or Caucasian
- Black or African American
- American Indian/Native American or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Other

- Prefer not to say

What is the highest level of education you have completed?

- Some high school or less
- High school diploma or GED
- Some college, but no degree
- Associates or technical degree
- Bachelor's degree
- Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)
- Prefer not to say

What was your total household income before taxes during the past 12 months?

- Less than \$25,000
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$149,999
- \$150,000 or more
- Prefer not to say

What is your US Zip Code?

How often do you participate in negotiations? In order to demonstrate that you have read this question, please click "Sometimes" instead of the actual frequency you participate in negotiations.

- Never
- Rarely
- Sometimes
- Often
- Very often

Appendix 3

Table 2 Demographic distribution in each treatment

	No harm				Privacy				Money				Total
	Baseline	Graphics	Nagging	RM ¹⁵⁶	Baseline	Graphics	Nagging	RM	Baseline	Graphics	Nagging	RM	
Gender:													
Women	47%	46%	55%	50%	58%	53%	48%	48%	50%	42%	49%	41%	49%
Men	51%	54%	45%	48%	39%	44%	49%	51%	50%	55%	51%	59%	50%
Non-binary	2%	0%	0%	2%	3%	0%	2%	1%	0%	2%	0%	0%	1%
Age:													
18-44	51%	47%	44%	45%	45%	47%	51%	37%	48%	46%	43%	46%	46%
45-64	30%	37%	45%	36%	53%	40%	37%	50%	37%	41%	41%	43%	40%
65 years and older	19%	15%	11%	20%	13%	13%	12%	12%	15%	12%	15%	10%	14%
Race: ¹⁵⁷													
White alone	82%	75%	73%	87%	82%	78%	77%	83%	79%	79%	77%	83%	80%
Black or African American alone	10%	15%	16%	8%	9%	17%	15%	6%	12%	11%	14%	10%	12%
Asian alone	7%	9%	8%	3%	4%	1%	5%	6%	7%	6%	3%	2%	5%
Two or more	1%	0%	3%	2%	2%	2%	2%	4%	0%	1%	1%	3%	2%

¹⁵⁶ RM stands for Roach Motel.

¹⁵⁷ 1% indicated “other” or preferred not to report their race.

Appendix 4

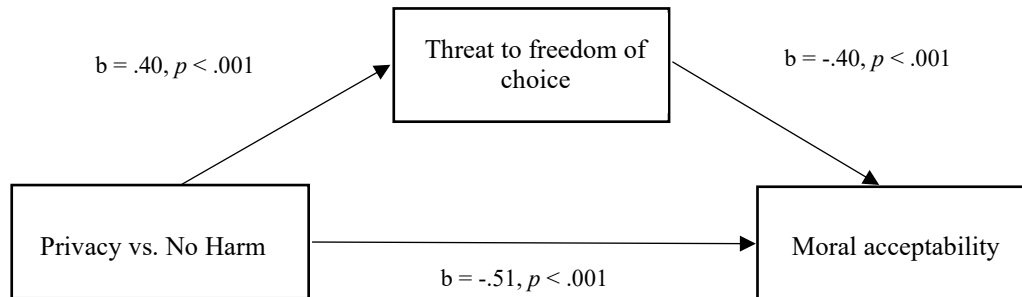
Table 3 Linear regression results

	Threat (1)	Threat (2)	Threat (3)	Threat (4)	Moral (5)	Moral (6)	Moral (7)	Moral (8)
Privacy	0.43*** (0.11)	0.21 (0.22)	0.42*** (0.11)	0.39*** (0.12)	-0.70*** (0.10)	-0.89*** (0.20)	-0.71*** (0.10)	-0.67*** (0.10)
Money	-0.18 (0.11)	-0.31 (0.22)	-0.16 (0.11)	-0.20 (0.12)	-0.07 (0.10)	-0.24 (0.20)	-0.08 (0.10)	-0.08 (0.10)
Graphics	0.26* (0.13)	0.02 (0.23)	0.24 (0.13)	0.26 (0.13)	0.02 (0.12)	-0.09 (0.21)	0.01 (0.12)	-0.00 (0.12)
Nagging	0.08 (0.13)	-0.03 (0.23)	0.11 (0.13)	0.09 (0.13)	-0.12 (0.12)	-0.38 (0.21)	-0.12 (0.12)	-0.15 (0.12)
Roach Motel	0.64*** (0.13)	0.52* (0.22)	0.61*** (0.13)	0.62*** (0.13)	-0.63*** (0.12)	-0.77*** (0.20)	-0.65*** (0.12)	-0.62*** (0.12)
Privacy*Graphics		0.34 (0.32)				0.15 (0.29)		
Privacy*Nagging		0.24 (0.32)				0.46 (0.29)		
Privacy*Roach motel		0.29 (0.32)				0.15 (0.28)		
Money*Graphics		0.38 (0.32)				0.16 (0.29)		
Money*Nagging		0.08 (0.32)				0.29 (0.29)		
Money*Roach motel		0.08 (0.31)				0.24 (0.28)		
Understandability			0.07** (0.03)				-0.02 (0.02)	
Effort			0.17*** (0.04)				-0.11** (0.03)	
Time			0.02 (0.04)				0.10** (0.04)	
Age				-0.01 (0.00)				0.01** (0.00)
Female				-0.25** (0.10)				-0.15 (0.09)
Black				-0.29* (0.15)				0.34** (0.13)
Asian				0.29 (0.22)				0.12 (0.20)
Education				0.05 (0.04)				-0.03 (0.03)
Income				-0.05 (0.03)				0.06* (0.03)
Constant	3.56*** (0.11)	3.68*** (0.16)	2.69*** (0.16)	3.91*** (0.24)	4.44*** (0.10)	4.56*** (0.14)	4.57*** (0.15)	4.06*** (0.22)
Observations	1190	1190	1189	1122	1190	1190	1189	1122
R ²	0.048	0.050	0.104	0.061	0.077	0.079	0.088	0.088

Note: Models 1-4 report the results of an OLS regression analysis predicting participants' perceived threat to freedom of choice. Models 5-8 report the results of OLS regression analyses predicting participants' acceptability. The 'No Harm' treatment serves as a reference category for 'Privacy' and 'Money.' The 'Baseline Treatment' serves as a reference category for 'Nagging,' 'Graphics,' and 'Roach motel.' 'Understandability' represents a measure of how easy it was for participants to identify how the strategy influenced users' decisions. 'Effort' and 'Time' represent participants' responses to questions asking how much effort/time they expect to need to resist the app's strategy influencing their choices. 'Male' serves as a reference category for the 'Female' predictor. 'White' serves as a reference category for 'Black' and 'Asian.' 'Education' and 'Income' stand for the education and income levels. Standard errors reported in parentheses. * $p < .05$ ** $p < .01$ *** $p < .001$.

Appendix 5

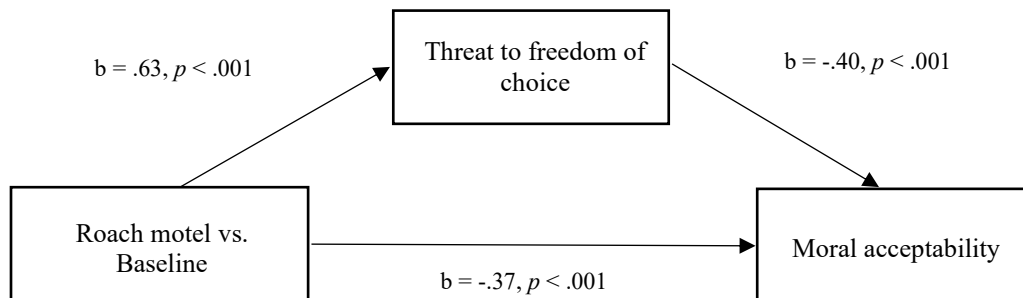
Figure 8 Mediation analysis of Privacy vs No Harm treatment on moral acceptability



Indirect effect: $b = -.16, p < .001$

Total effect: $b = -.68, p < .001$

Figure 9 Mediation analysis of Roach motel vs. Baseline on moral acceptability



Indirect effect: $b = -.25, p < .001$

Total effect: $b = -.62, p < .001$

Notes: Both mediation analysis were run using a general structural equation model. Standard errors were bootstrapped.