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Being observed in the digital era: Conceptualization and scale development of the perception of being observed

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Abstract

This research details the development of the perception of being observed scale. Consumers may think that their actions are being observed (i.e., seen, watched, recorded, tracked) by other parties (i.e., companies, governments, people) regardless of the actual knowledge about the existence of it. We develop a 10-item, uni-dimensional perception of being observed scale. Following the assessments of the scale, we conduct a series of studies to test the scale's convergent, discriminant, nomological, and predictive validity. We show that technology anxiety, self-consciousness and privacy concerns predict the perception of being observed. Further, people who experience the perception of being observed are more conservative in information disclosure.

KEYWORDS

artificial intelligence, consumer technology interaction, online tracking, perception of being observed, privacy, scale development, social influence

1 | INTRODUCTION

At the time of writing, WhatsApp, one of the major mobile messaging applications, announced that it would share user data with Facebook, which evoked a consumer outcry, decreased the number of application downloads, and led to brand switching (Murphy, 2021). In fact, WhatsApp had been sharing data with Facebook to a certain extent, and consumers did not actually know the scope of data being acquired by companies. The major element that changed with the recent events was the consumers' perception, rather than their actual experience of being observed.

Research exploring the consequences of being actually observed by others in an organizational setting showed that being observed can have a negative impact on individuals' wellbeing, increasing stress levels, decreasing employees' performances and productivity, and even changing the perceived trust and justice (e.g., Aiello & Kolb, 1995; Alge, 2001; Irving et al., 1986; Smith et al., 1992; Stanton & Barnes-Farrell, 1996). In a household setting, being observed through video cameras, microphones, and wireless systems, induces negative feelings such as anger and anxiety, and makes people concerned and annoyed (Aalto University, 2012). At a societal level, being observed increases one's tendency to conform to others and limits their autonomy, leads to a loss of privacy and trust among the members of a society (Abrams et al., 1990; Maras, 2012). Here, we focus on how individuals think that they are being observed by others rather than actually being observed.

Exemplified with this recent event of WhatsApp that had negative outcomes for both consumers and companies, the perception of being observed is a concept born out of the consumer-technology interaction. Despite the prevalence of technology and the urgency to explore consumers' side of the story, academic research regarding the identification and measurement of the consumer-related outcomes of these interactions, such as the perception of being observed, has fallen behind. Addressing this gap in the

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literature, this research has two main objectives. First, we identify a novel phenomenon, the perception of being observed, which has grown out of the state-of-the-art recording technologies and their use in the marketplace. Second, we develop a psychometric scale to measure the perception of being observed which can be considered as the first step that incorporates the consumers' perspective towards the data collection practices. Following the suggested scale development steps (Boateng et al., 2018; DeVellis, 2017; Nunnally, 1967), we conduct 7 studies with more than 1800 responses, showing the reliability and validity of our scale. In Studies 1a and 1b, we generate items and conduct preliminary analysis. In Studies 2a and 2b, we purify the scale items. In Studies 3a and 3b, we test convergent and divergent validities. Finally, in Study 4, we show the predictive validity of our scale.

The remainder of this article is structured as follows. First, we develop a conceptualization of our construct through reviewing the literature on the perception of being observed. Then, we report 7 studies conducted for developing the perception of being observed scale. Finally, we discuss the results, the implications of which can open new research in the field.

2 | CONCEPTUALIZATION OF THE PERCEPTION OF BEING OBSERVED

Dating back to the 18th century, being observed, or even the feeling of being observed, has been explored in various disciplines and evolved in accordance with the changes in the society and technology. A close inspection of today's marketplace reveals that companies have started extensively collecting data on consumers that is potentially relevant as a consequence of the technological advancements in recording and storage (Diebold, 2012). For instance, using big data for targeting consumers, orbitz.com displayed more expensive hotel options for the consumers who used Mac computers as opposed to PC counterparts, as the company discovered through tracking their customers that the Mac users tended to spend 30% more for a night at a hotel (Mattioli, 2012). Similarly, Target developed an algorithm that calculated the consumers' pregnancy scores by analyzing their purchase patterns and used customized promotion strategies for them (Duhigg, 2012). Trackers used for learning and predicting consumers' browsing habits (Federal Trade Commission, 2016), surveillance cameras (Satariano, 2019) and technologies used for face-recognition (Feng, 2019) track consumers' online and offline actions. These incidents and practices suggest that companies can observe even the simplest actions that consumers take regardless of their awareness.

Living in an age characterized by technological advancements and experiencing a rapid transformation of social life due to the extensive use of recording, tracking, and targeting practices, consumers are trying to find a way to adapt to the changing dynamics (Hoyer et al., 2020; Plangger & Montecchi, 2020). They send messages in encrypted platforms that are untraceable (i.e., Telegram, Signal), purchase specially designed products that cover built-in cameras (i.e., CamPatch, Panzer Glass), and use services to clear their online presence (i.e., DeleteMe, Deseat. me, Vanish). Even when their health is at stake, people do not desire to be tracked as research has shown that Covid-19 concerns increase privacy concerns and decrease people's willingness to download contact tracing apps (Chan & Saqib, 2021). So, consumers' demand for untraceable products and services, and their reluctance to be tracked for any reason suggest an awareness of being observed and indicate the need for further investigation.

Academic research has explored how people behave when they are observed by others (e.g., Froming et al., 1982; Gangestad & Snyder, 2000; Steinmetz et al., 2016; Triplett, 1898; Zajonc, 1965) through examining the actual presence or virtual indicators of other people. However, in the modern marketplace, people may feel observed due to the pervasiveness of the tracking technologies (Zwebner & Schrift, 2020) without the presence of other actors. Therefore, the perception of being observed scale could be a useful tool to measure the extent to which people think that they are being observed especially in technology-induced settings. We define the perception of being observed as the phenomenon in which consumers think that their actions are being observed (i.e. seen, watched, recorded, tracked) by other parties (i.e., companies, governments, people) even when they are not sure about the existence of the other parties. The perception of being observed captures the anticipation of being observed instead of others' actual observations and incorporates a non-social aspect introduced by the extensive use of technology in society.

3 | ANTECEDENTS AND CONSEQUENCES OF THE PERCEPTION OF BEING OBSERVED

The perception of being observed emerges out of consumer-technology interaction. It captures the extent to which an individual anticipates that they are the focus of the attention of other parties. Based on these critical notions, we propose technology anxiety, self-consciousness, and privacy concerns as potential antecedents of the perception of being observed. Further, we predict that higher levels of the perception of being observed can elicit privacy protective behavior.

3.1 | Technology anxiety

Technology anxiety is about the user's state of mind related to technology, capturing people's ability and willingness to engage with technological devices (Meuter et al., 2003). Nowadays, consumers are exposed to various manifestations of big data technologies and recording practices (i.e., recommendations based on prior use, customized campaigns, product suggestions), which can increase their anxiety about technology. There is no escape from using technology regularly in everyday life (i.e., smart tickets for public transportation, ATM or POS devices, loyalty cards, and applications). Even when people do not actively use it, they are exposed to it in one

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way or another (i.e., security cameras, passwords for ID verification). Despite the prevalent use of technology and recording practices, people do not know how these systems operate. The lack of knowledge can influence one's ability and willingness to use technology, evoking technology anxiety.

Research showed that technology anxiety can negatively influence user experience (Hsu et al., 2019; Lin et al., 2016). It can decrease the acceptance and the use of various forms of technology in the marketplace (Demoulin & Djelassi, 2016; Gelbrich & Sattler, 2014) such as automated shopping assistants (Chen & Chang, 2013) or self-service technologies (Meuter et al., 2003). However, social influence has an impact on individuals' attitudes towards technology and their consequent behavior (Cooper & Zmud, 1990). For instance, it can increase the adoption of mobile payments (Slade et al., 2015; Thakur, 2013). However, this impact of social influence on technology is not unidirectional. In fact, technology anxiety and its related consequences can also shape the social life of individuals. Burkhardt and Brass (1990) showed that technology adoption can change the social structure as early adopters of technology become more central and powerful in the organization. More critical for our research, Yang and Forney (2013) showed that people who experience a high level of technology anxiety are more likely to be susceptible to social influence. Taking a step back from being influenced by the others, we predict that technology anxiety can increase the anticipation of the presence of others. As individuals experiencing technology anxiety are more likely to rely on social influence which requires the actual or imagined presence of others, they will think that that their actions are being observed by other parties. Thus, we expect to see a positive correlation between technology anxiety and the perception of being observed.

3.2 | Self-consciousness

Self-consciousness is defined as "the consistent tendency of persons to direct attention inward or outward" (Fenigstein et al., 1975; p.522), and several research streams imply an association between self-consciousness which refers to the extent to which an individual attends to their inner processes and the perception of being observed that captures the anticipation of other parties' attention.

Self-consciousness is considered as a trait as some people tend to attend to their selves more than others; however, certain situations can make people more self-conscious such as seeing one's reflection on a mirror, being in front of an audience or being recorded by a camera (Carver & Scheier, 1978; Duval & Lalwani, 1999). These situations can be frequently encountered in the marketplace; Pham et al. (2010) suggested that service providers influence customers' self-consciousness through using certain elements in the store such as mirrors or cameras or engaging in certain activities such as asking personal questions, addressing by their names, or even watching them like an audience. Considering the manipulation practices of self-consciousness, we can predict that the conditions in which consumers direct their attention to the self can also make people think that they are being observed by others.

Through self-consciousness, social cues have an influence on one's self-perception (Hull et al., 1988). Research showed that self-consciousness increases one's tendency to make internal attributions and consider themselves as the cause of events (Buss & Scheier, 1976; Duval & Wicklund, 1973). It leads customers to claim a greater share of credit when they have a positive or a negative experience with a service provider, which influences their ultimate satisfaction (Pham et al., 2010). These findings suggest that consumers who have higher level of self-consciousness are not only at the center of their attentions, but also consider themselves as capable of influencing the outer world.

Another research stream showed that "people tend to believe that the social spotlight shines more brightly on them than it really does," which is referred to as *the spotlight effect* (Gilovich et al., 2000; p.211). Individuals overestimate how much their appearances, actions, or even performances are discerned, evaluated, and remembered. Further, as self-consciousness increases, people tend to overperceive their selves as the target of an event (Fenigstein, 1984). These findings provide additional evidence for our prediction that people have a tendency to think that they are being observed by other parties, and if an individual has a greater tendency to attend to their inner processes, they will be more likely to think that other people observe them and pay attention to their thoughts or feelings. Thus, we expect to see a positive correlation between self-consciousness and the perception of being observed.

3.3 | Privacy, privacy concerns and privacy paradox

Privacy is a multidisciplinary construct. From psychology to information systems, many disciplines have aimed to conceptualize privacy and related notions from their own perspective. Historically, privacy was considered to be the right to be alone (Brandeis & Warren, 1890). Later, it was defined as a commodity bound by economic principles that can be of value (Bennett, 1995). Altman (1975) described privacy allowance as "the selective control of access to self" (p.24), while Margulis (1977) noted that one's actions with others can be controlled with the goal of enhancing autonomy in addition to minimizing vulnerability. Other views include that a privacy is a continuum from complete openness to secrecy (Petronio, 2002), and one's right to control the flow of personal information (Nissenbaum, 2009). Anticipation of the potential risk of information disclosure and its negative consequences create privacy concerns (Cho et al., 2010; for a review; Smith et al., 2011). Recently scholars have demonstrated that privacy concerns can be a predictor or an outcome of a variety of constructs. It can influence the virality of a Tweet (Visentin et al., 2021), effectiveness of personalization (Song et al., 2021), perceived creepiness of a chatbot (Rajaobelina et al., 2021), and social media engagement (Bright et al., 2021). For a sample of recent research exploring predictors or consequences of privacy concerns in diverse settings, please see the table in the Appendix C.

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We predict that individuals who have high privacy concerns will be more likely to experience the perception of being observed. Being worried about losing control of their information or potential violations of privateness of one's data implies that other parties may observe them and even have access to their personal information. Thus, we expect to see a positive correlation between privacy concerns and the perception of being observed. Although privacy concerns have important outcomes for both consumers and marketers, they may not always correspond to privacy protective behavior. On the one hand, people report that they are extremely worried about companies knowing the details of their lives (Hoffman Donna and Novak, 1997; Taylor, 2003); however, they keep disclosing personal data (Acquisti & Grossklags, 2005). This incongruity between people's attitudes and behavior in privacy issues is referred to as the privacy paradox (Norberg et al., 2007). For instance, research showed that environmental cues can increase information disclosure. Simply the way a question is asked influences individuals' concerns about privacy issues; people become more willing to disclose private information when they are asked indirectly (vs. directly) (John et al., 2011). Unless privacy concerns are made salient, consumers are comfortable sharing private information in unprofessional (vs. professional) websites even when the content of the information is socially undesirable (John et al., 2011). People's ability to control the release of or access to private information does not protect them from being vulnerable as enhancing individuals' control over privacy increases their willingness to divulge sensitive information through creating an illusory sense of security (Brandimarte et al., 2013). These findings clearly demonstrate that contextual factors can influence the extent to which people are concerned about their privacy (Harborth & Pape, 2021), and even inversely related cues can lead people to voluntarily disclose more information.

Individuals are not good at judging how protective they should be about personal information, and they are oblivious to the extent to which their personal data is collected, used, or shared with other parties (Acquisti et al., 2020), disregarding the possibility of privacy violation. Consumers are naive not only about the data collection process, but also about the other parties. Jagadish (2020) argues that individuals' thoughts, feelings, and actions in the domain of privacy have been aligned with the idea that privacy includes disclosing information to other humans. However, this is not the case anymore as the other party has been replaced with corporations. The former case can be considered a symmetrical, reciprocal, and even normative process. If an individual misuses the other party's private information, they can do it, too. The amount of information that people can store is also bounded by the limited capacities of humans. Nevertheless, the latter case is asymmetrical and limitless as consumers do not know the extent to which they are being recorded by companies. Further, companies investing in data collection and analysis technologies, can acquire and process more data which increases the asymmetry of information (Jagadish, 2020). The reason why individuals are comfortable with disclosing information and their actions do not match their concerns can be driven by this information asymmetry.

In addition to being comfortable with disclosing sensitive personal information either to other people or corporations, people seem to underestimate the value of their data. Interestingly, they do not prefer paying for privacy (Beresford et al., 2012). For a price discount, they are willing to share personal information and, even without it, they are equally likely to choose between a retailer that requires sharing sensitive information and a privacy-friendly retailer. Further, individuals estimate that the monetary value of one's online browsing history is only 7 Euros, which is equivalent to a Big-Mac Meal (Carrascal et al., 2013). For data privacy, they are willing to pay $5 per month, but they demand $80 for others' access (Winegar & Sunstein, 2019). This disparity between the amount people are willing to pay and accept demonstrates that they seem to fail in understanding the importance of disclosing information despite their concerns, resulting from the advancements in the technologies of data collection and usage (Rainie & Duggan, 2016). These advancements have also blurred the line between private and public spaces (Tene & Polonetsky, 2013), suggesting that every decision an individual makes or every action that they take has a potential to be made public, known, and observed by other parties.

Particularly related to our topic of interest, Zwebner and Schrift (2020) have shown that this publicization of individuals' decision-making processes, in other words, being observed, threatens individuals' autonomy and leads to an aversion. Similarly, predicting consumers' preferences, a prevalent practice known as microtargeting, threatens their sense of free will, and make them deviate from their own preferences (Schrift et al., 2019). These findings have three main suggestions for our research. First, autonomy, which is considered to be one of the main functions of privacy (Westin, 1967), is violated when individuals' think that they are being observed by other parties. Second, certain practices existing in the marketplace can evoke this perception of being observed without the actual existence of other people. Third, this perception can elicit behavioral consequences aiming to terminate or counteract this state. Based on these suggestions, we propose that the perception of being observed may help explain the privacy paradox as it can convert one's concerns regarding privacy into actual behavior. As abovementioned studies and public surveys suggest, people's actions do not match their concerns about privacy. To take precautions or be protective against potential privacy violations, people should anticipate other parties' attention. Only when they think that they are being observed by other parties will they act in line with their concerns. Therefore, we predict that the perception of being observed can be an antecedent of privacy-protective behavior as people need to think about other parties potentially recording their behavior to take action against it (Figure 1).

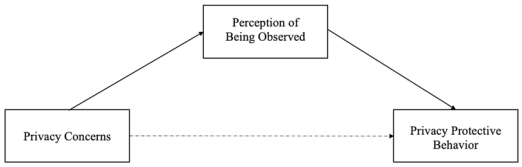


FIGURE 1 Conceptual model

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4 | METHOD

We propose that consumers think about the possibility that their actions could be observed by other parties even when there is no one around and they are not being recorded. Incorporating individuals' perception of the practices existing in the marketplace, we conducted a series of studies to develop and validate a scale that measures the perception of being observed (Table 1). In Studies 1, 2, and 3, we aimed to identify the potential antecedents of the perception of being observed that we proposed in the conceptual development. The sample sizes for our studies have been determined based on the number of items. As suggested by the literature, we assigned 10 participants for every item in the scale and collected data accordingly (Boateng et al., 2018; DeVellis, 2017; Nunnally, 1967). In Study 4 (and Study 5 reported in the Appendix D), we tested our scale's predictive validity in an experimental setting, demonstrating one of the numerous consequences of this perception.

4.1 | Study 1

4.1.1 | Study 1A: Item generation and content validity

The main objective of Study 1A was to generate an initial pool of items for measuring the perception of being observed. With this goal, 40 undergraduate students from a European university were asked to fill an open-ended questionnaire in exchange for a course credit. Respondents were asked to report the extent to which they feel being observed. The survey included questions such as "Do you think that your actions are being recorded or observed by other parties?," "Are there any specific occasions in which you experience it?," "Do you take precautions against it?". To explore whether the answers vary across different ages, we asked 8 middle aged professionals to complete our survey. We analyzed the responses of the participants to identify the common themes and diverse occasions which evoke this perception. By integrating the results of the conceptualization of the construct and the qualitative study, we generated a scale with 42 items.

In item generation, we aimed to be as inclusive as possible in terms of representing various contexts and capturing the temporal aspects. With this goal, we represented the settings in the items we generated that were mentioned by the respondents such as making purchases, receiving advertisements, and doing something different than usual as these contexts reflected the actual experience of consumers. Further, we presented similar activities in a way that pertained to past experiences, current events, and expectations about the future in two ways. First, we explicitly mentioned the time period using the phrases "in the future," "right now," "at that time," and "any time." Second, we used different verbs to denote the temporal aspect of the perception of being observed such as being seen, watched, and recorded. We assumed that "being watched" captured the present moment as it entailed simultaneity, "being seen" implied an event that happened in the past, and "being recorded" points towards the future as the records could be accessed by other parties in future. Moreover, we predict that the perception of being observed emerges out of consumers' increasing interactions with technology. Therefore, any evident technological cue in an environment can trigger the perception of being observed. However, it is also possible that consumers have learned about the recording, tracking, observing, and manipulation practices that are done in the

TABLE 1 Data samples used for scale development

Study	Sample	Sample size	Age (Mean)	Perception of Being Observed (Mean)	Perception of being observed (*SD*)
Item generation and content validity					
Study 1a: Item generation and content validity	Undergraduate and graduate students, university faculty	54	–	–	–
Study 1b: Preliminary scale assessment	Undergraduate students	295	21.9	4.62	0.99
Item reduction and scale purification					
Study 2a: Exploratory Factor analysis	General US population	450	43.5	4.34	1.31
Study 2b: Confirmatory Factor Analysis	General US Population	143	43.2	3.97	1.49
Nomological and discriminant validity					
Study 3a: Nomological validity	General US population	545	43.6	3.65	1.13
Study 3b: Discriminant Validity	General US population	354	41.5	4.02	1.39
Predictive validity					
Study 4: The Perception of Being Observed and Information Disclosure	General US population	192	44.1	4.48	1.5

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marketplace. To capture this aspect of the perception of being observed, we generated items that refer to the existing practices such as customized advertisements. However, even when consumers do not encounter a form of technology, they may experience the perception of being observed. Technology has provided the means to learn and control people's both digital and physical experiences (Banerjee, 2019) as consumers can be tracked by companies and other people even when they are not online. Therefore, we included items that does not include a specific cue but explore individuals' general beliefs about the extent to which they are being observed.

To ensure the content validity of the scale, we delegated six judges who are competent in both scale development and the topic itself. These judges consisted of graduate students in the marketing or psychology departments and two professors of marketing. They were provided with the operational definition of the construct, asked to read the scale items and identify the problems related to the items such as ambiguity, similarity, and mismatch with the conceptual definition of the construct. Based on their feedback, one item was removed due to being semantically identical to another item, leaving 41 remaining items.

4.1.2 | Study 1B: Preliminary scale assessment

The first sample consisted of 295 undergraduate students from a European university (61% female, $M_{age} = 21.88$). As it is recommended to use additional data to eliminate concerns that the results found are due to chance (Churchill Jr, 1979), we made our preliminary assessments with the student sample. 41 items were presented to the respondents on a 7-point Likert scale ("1" = *strongly disagree*, "7" = *strongly agree*). Cronbach's alpha for the overall scale was high, suggesting a high internal consistency ($\alpha = 0.94$). We identified the items to be eliminated; however, we did not make any changes before collecting data from a larger, more representative sample.

4.2 | Study 2a: Factor analysis

4.2.1 | Sample and reliability

We recruited participants from Cloud Research for scale assessment (Litman et al., 2017). All participants were asked to indicate the extent to which they agreed with the 41 items on a 7-point Likert Scale ("1" = *strongly disagree*, "7" = *strongly agree*). Seven participants failed to pass the attention check questions, and the test was terminated for them. After this exclusion, the validity and reliability analyses of the scale were made using the data obtained from the responses of 450 participants (58.44% female, $M_{age} = 43.46$, $SD_{age} = 13.69$). First, we ran Kaiser-Meyer-Olkin (KMO) and Bartlett tests. We found that the KMO value was 0.958, and Bartlett's test was significant ($p < 0.001$), suggesting that our sample was appropriate for factor analysis. Second, we checked the reliability results to explore the correlations among the items. The initial version of the scale had an alpha of 0.96, suggesting a high internal consistency.

4.2.2 | Principal component analysis (PCA)

We performed a PCA to reduce the number of items as suggested for item reduction (Preacher & MacCallum, 2003). Acknowledging that high internal consistency may also imply redundancy, the following analysis aimed to create the most reliable and valid scale with the fewest number of items.

In this analysis, the Eigenvalue was used to decide the number of dimensions or sub-scales; factors with an Eigenvalue that was greater than 1 were treated as a sub-dimension (Kaiser, 1960, 1970). This initial analysis, supported by the Scree test (Cattell, 1966), yielded 2 factors, and further analyses were conducted to reduce the redundant items. We eliminated the items based on psychometric rules. First, we removed items, the communalities of which were below 0.4 as these items did not have a substantial load on their factor (Osborne et al., 2008). Then, we examined the inter-item correlations. If an item was loading on multiple factors, and the difference between loading values were smaller than 0.20, we removed the item (Stamper & Masterson, 2002). After this analysis, to make sure that there was no redundancy, we eliminated one of the versions of the items that were differentiated based on their temporal features as mentioned above. To illustrate, if an activity, such as "doing something different than usual" had two versions, one of them was eliminated based its factor loading. The one with the highest factor loading was retained, while the other item was removed from the scale. In addition to this reduction, we also eliminated the reverse coded item to minimize the risk of redundancy. Finally, we checked the inter-item correlation and deleted one more item due to its high correlation with two other items ($r > 0.07$) (Streiner et al., 2015).

As a result, 24 items were removed from the scale. After the extractions of the items, the new scale consisted of 17 items with two factors. By running a principal component analysis, we ensured that the scale was improved through removing the items which did not contribute significantly to any factor.

As we conceptualize the perception of being observed as a phenomenon that emerges upon engaging in various activities especially in technology- induced settings, we decided to remove four items that represent general beliefs about the recording practices (i.e., "In general, I think that everyone is being recorded," "Institutions (companies, governments etc.) are regularly recording my online activities").

4.2.3 | Exploratory factor analysis (EFA)

After the item reduction, we conducted an EFA with the Maximum Likelihood approach (Fabrigar et al., 1999) with Direct Oblimin Rotation as suggested (Preacher & MacCallum, 2003) to be able to determine the exact number of factors. EFA resulted in two factors in which all of the items' factor loadings were higher for the first factor. Exploring inter-item correlations, we identified two groups of similar items with high correlations. The first group consisted of the items that were about doing something unusual or inappropriate and diverging from society, while the second group was about certain

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practices existing in the marketplace such as receiving advertisements and suggestions and accepting cookies. We decided to retain the items in the group that have the highest loading on a factor and the highest difference between their loadings on two factors which would explain a greater variance, and we opted to remove the remaining four items.

After these reductions, EFA yielded in one factor with 10 items, the Eigenvalue of which was greater than 1. The total explained variance percentage of the scale was 48.14% and the current version of the scale (Table 2) had an alpha of (0.90), which suggested a high internal consistency. To confirm these results, we performed a confirmatory factor analysis (CFA) on the retained items. The model fit was satisfactory ($\chi^2(35) = 172$, root mean square error of approximation [RMSEA]= 0.09, Tucker-Lewis index [TLI] = 0.92, and confirmatory fit index [CFI] = 0.93). The details are provided in the Appendix E.

4.3 | Study 2b: Confirmatory factor analysis

We administered our 10-item perception of being observed scale to an independent sample consisting of 143 participants for examining its robustness. The EFA (principal component with oblimin rotation) on the perception of being observed items yielded one factor with an eigenvalue greater than 1 that explained 59.06% of the variance. As confirmation, we ran a CFA on the retained items, which also yielded a satisfactory model fit ($\chi^2(35) = 104$, RMSEA = 0.1, TLI = 0.91, and CFI = 0.93) (Appendix D). The Cronbach's alpha for the items was 0.93.

4.4 | Study 3

4.4.1 | 3A: Nomological validity

We expected that technology anxiety and self-consciousness will increase one's perception of being observed. Study 3A aimed to test these proposed antecedents, establish nomological validity, test the reliability of the perception of being observed scale, and replicate the factor structure.

4.4.2 | Study 3A: Sample and results

Five hundred forty-five participants from the Cloud Research online panel completed this study in exchange for small payment. Participants were asked to complete the perception of being observed, technology anxiety, and self-consciousness scales, the order of which was randomized. After eliminating 11 participants who either failed to pass the attention check or did not complete the survey, we ran our analysis with the data collected from 534 participants (58.8% female, $M_{age} = 43.60$, $SD_{age} = 12.16$). To assess the association between technology anxiety and the perception of being observed, we used Meuter et al.'s technology anxiety scale (Meuter et al., 2003) ($\alpha = 0.769$). The results showed that technology anxiety significantly predicted the perception of being observed ($b = 0.26$, $t(532) = 4.97$, $p < 0.001$). To measure self-consciousness, we used the Self-Consciousness scale developed by Fenigstein et al., (1975), which had a strong reliability ($\alpha = 0.874$). The results showed that self-consciousness predicted the perception of being observed ($b = 0.29$, $t(532) = 5.40$, $p < 0.001$). These findings suggest that one's level of self-consciousness and technology anxiety increased one's perception of being observed, and they are different but conceptually related constructs.

4.4.3 | Study 3B: Discriminant validity

We hypothesized that individuals' privacy concerns would increase their perception of being observed. Study 3B tested this hypothesis and aimed to differentiate these related constructs.

TABLE 2 The perception of being observed scale

Items	Item loadings
I have concerns that when I am using technological devices, I am being watched.	0.80
I believe that I am being recorded even when I do not give consent.	0.77
Even our simplest actions are being watched.	0.77
I think my current online activities will be the focus of the other parties' attention in the future.	0.72
In general, I think that everyone is being watched while they are making purchases.	0.70
Whenever I do something different than usual, I feel like I am being watched.	0.68
Coming across advertisements after I talk about a product makes me think that I am being recorded.	0.63
What I share privately in my online networks can be seen by anyone.	0.63
When I take a selfie, I can't help thinking about whether someone can connect to my phone and see my photos at that time.	0.62
I think that I cannot control the extent to which I am being watched.	0.58

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4.4.4 | Study 3B: Sample and results

Three hundred sixty-one participants from the Cloud Research online panel completed this study in exchange for minimal payment. As 7 participants were removed from the analysis for failing to pass the attention check questions, our sample consisted of 354 participants (55.93% female, $M_{age} = 41.46$, $SD_{age} = 13.17$). Privacy concerns were measured using a widely used scale measuring individuals' concerns about organizational information privacy practices (Smith et al., 1996). The reliability index of the perception of being observed scale was 0.92, and it was 0.91 for the privacy concern scale. We asked participants to complete the scales. To prevent potential spillover effects, we asked them to complete self-esteem (Rosenberg, 1965) and narcissism (Konrath et al., 2014) scales in between. The order of the privacy concern and the perception of being observed scales was counterbalanced. Controlling for the order of the scales, privacy concern significantly predicted the perception of being observed ($F_{(2,\ 351)} = 12.79$, $p < 0.001$, $R^2 = 0.068$). The more concerned consumers became, the more they experienced the perception of being observed ($b = 0.41$, $t(351) = 4.962$, $p < 0.001$). As we expected, self-esteem did not explain a significant amount of variance in the perception of being observed ($p = 0.15$) while narcissism had a small significant effect on it ($b = 0.13$, $t(351) = 3.156$, $p < 0.05$).

These findings suggest that privacy concern is a related construct as it increased the perception of being observed. However, as the correlation among them is low, they are different from each other.

4.5 | Study 4: Predictive validity: The perception of being observed and information disclosure

Our main objective in Study 4 was to test the predictive ability of the perception of being observed scale. We predicted that individuals experiencing the perception of being observed at a higher level would be more protective of their data. To test our prediction, we randomly assigned participants to one of the two conditions (Recording: Salient vs Not Salient). Participants were asked to imagine that they went to grocery shopping and the ones in the salient condition learned that the store tracked consumers using geolocation services. While they were checking out, they learned that, as a part of the loyalty program, the more they disclosed information, the more campaigns they would receive. Thus, they were asked to click on the types of information they were willing to provide (e.g., address, phone number, income favorite brands). Our dependent measure was the total number of information type they would be willing to provide.

4.5.1 | Study 4: Results

A total of 192 respondents participated in our study (60% female, $M_{age} = 44.14$). We ran a one-way analysis of variance to explore the influence of the salience of recording practices on the willingness to disclose information. In line with the privacy paradox, the results were not significant ($p > 0.05$). In line with our predictions, we found a significant interaction between the recording salience and the perception of being observed controlling for age and gender ($F_{(1,\ 186)} = 3.992$, $p = 0.047$). Pairwise comparisons showed that when the recording practices were salient, individuals who had higher levels of the perception of being observed were more reluctant to provide various types of information than those who had lower perception of being observed scores ($M_{high\ perception\ of\ being\ observed_salient\ recording} = 4.59$, $SD_{high\ perception\ of\ being\ observed_salient\ recording} = 4.44$; $M_{low\ perception\ of\ being\ observed_salient\ recording} = 6.83$, $SD_{low\ perception\ of\ being\ observed_salient\ recording} = 4.86$; ($F_{(1,\ 186)} = 7.227$, $p = 0.008$). This finding suggests that consumers who experience the perception of being observed are more sensitive to the recording practices of companies, which influences their sharing behavior (Figure 2).

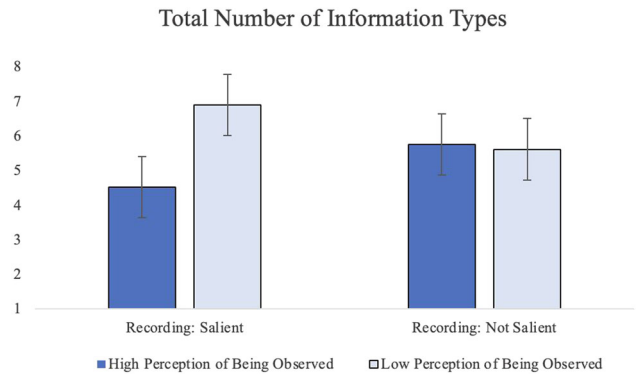


FIGURE 2 Interaction of the perception of being observed and recording salience on willingness to disclose information

5 | GENERAL DISCUSSION

Exploring consumers' experiences living in the age of artificial intelligence, this paper has aimed to identify a novel phenomenon, the perception of being observed, and it has developed and validated a scale, and demonstrated its predictive ability. Our results contribute to existing literature and establishes grounds for future research.

First and foremost, the perception of being observed is an important and timely phenomenon. Consumers are living in the age of artificial intelligence in a post-Covid world. In the last couple of years, technological corporations have been able to advance their ability to track, record and monitor people around the world, and governments have collaborated with them, especially during the times of pandemic for reducing the spread of virus (Scott et al., 2020). Brough and Martin (2021) suggested that this extensive and even intrusive surveillance activities done by firms and governments may have reduced the extent to which consumers be careful about whether their data are collected or how and for which reasons they are used. In a way, being observed has become the default, and not

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being observed has become a privilege that only a few people have (DeParle, 2020). Extending these findings, we demonstrated that individuals think that they are being observed by other parties which influences their attitudes and behaviors and developed a scale to measure it. As the perception of being observed can increase consumers vulnerability, the norms of surveillance should be changed, and individuals should be given the opportunity to not to be observed.

Our findings have major implications for privacy literature. We hypothesized and showed the association between privacy concerns and the perception of being observed. In Study 3B, our findings demonstrate that as the privacy concerns increase, individuals are more likely to think that they are being observed by other parties. Further, with an experimental design in Study 4, we showed that consumers who experience the perception of being observed at greater levels are more sensitive to the recording practices and more protective of their privacy through limiting their information disclosure. These results suggest that many consumers who think that they are being observed by the companies are not willing to provide information to them, and they can even be more defensive of their data against them. As consumer data are an invaluable resource, companies should find ways to address the concerns of consumers who experience the perception of being observed and identify methods that can improve consumer wellbeing. Further, intrusive data collection practices can negatively affect consumers' relationship with companies. For instance, consumers who experience the perception of being observed are more likely to decrease their trust in brands that use recording practices (please see Appendix D). Companies should consider the downstream consequences of the perception of being observed while designing and implementing marketing practices.

In addition to the privacy concerns, we show that self-consciousness and technology anxiety can increase the perception of being observed. These findings suggest that individuals who experience higher levels of the perception of being observed may have a limited understanding of the world. Either because of their tendency to attend their own experiences more than the outside world, or the anxiety they experience while using different forms of advanced technologies, they have a lack of knowledge about the data collecting practices. Therefore, the information asymmetry between companies and consumers regarding how they collect data can trigger the perception of being observed. In the marketplace, consumers are not aware of the extent to which their personal data are collected, and companies have extensive knowledge about processing consumers' information, which puts consumers in a vulnerable position (Van de Waerdt, 2020). In such an environment with a lack of transparency, even adults who are expected to engage in a calculation of costs and benefits they would receive while sharing personal data (Laufer & Wolfe, 1977) are susceptible to the potential harms. Therefore, policy makers should implement interventions that aim to inform individuals with a special focus on elderly and children that may not have a deeper understanding of the costs and benefits they would receive when they are being observed.

6 | LIMITATIONS AND FUTURE RESEARCH

Despite providing important insights, this paper has some limitations that suggests areas for future research. Data for our studies were collected from samples living in countries with high mobile penetration rates and social media usage (Statista, 2022; Unsal, 2020), which suggests that our sample has already been used to interacting with technology. Future research can explore this topic with a sample that has different characteristics in terms of age, education, and technology literacy. For consumers who are novices in technology use can experience the perception of being observed more as it may be triggered by the lack of knowledge regarding the underlying mechanics of technology, and anxiety, which can lead to more severe outcomes. Another possibility is that they may experience the perception of being observed at a lower level as it may be driven by a learning process in which consumers associate technological cues with marketing, selling or manipulation techniques.

Apart from the individual differences that may have an impact, decision-making setting can also influence the perception of being observed. For instance, recent research suggests that asking for personal data at the end of consumer purchase journey or observing them after they construct their preferences could lead to favorable results (Aiello et al., 2020; Zwebner & Schrift, 2020). Relatedly, consumers may have higher levels of the perception of being observed at the first steps of the consumer purchase journey as they may think about the possibility that their actions might be recorded and shape their behavior accordingly. However, people who experience the perception of being observed at the end of the journey may be more reactive to the companies because of the sense of vulnerability triggered from not having a chance to change their behavior. Future research can identify when consumers experience higher levels of the perception of being observed and interventions that can improve consumer wellbeing.

Research showed that cultural factors can influence individuals' attitudes towards privacy (e.g., Cao & Everard, 2008; Krasnova & Veltri, 2010; Lowry et al., 2011). For instance, individualistic cultures tend to have a higher levels of privacy concerns than people in collectivistic cultures (Krasnova & Veltri, 2010; Marshall et al., 2008; Wang et al., 2011). Various cultural factors can also influence the perception of being observed. In line with the research suggesting that people in collective cultures are more self-consicous (Gudykunst et al., 1987), we would expect that consumers in collective cultures experience higher levels of the perception of being observed which can be tested in future studies.

Our main goal in this study was to identify the perception of being observed, develop a scale to measure it and demonstrate some of its consequences. Although we speculate on potential mechanisms

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through which the perception of being observed operates, future research can demonstrate the psychological processes it activates and its behavioral outcomes.

The perception of being observed can trigger affective processes by evoking positive or negative feelings. Consumers may be content thinking that they are being observed by other parties as they may experience potential benefits from the recording of their purchases such as customized advertisements and coupons or they may feel secure. However, they may experience negative feelings such as anxiety, uneasiness, or hesitation as they may be uncertain about whether they are being observed or not and whether and how the data will be used in the future. Further, there may be other cases in which the perception of being observed triggers ambivalent feelings in consumers. They may be happy that they are being recorded for certain purposes such as security of their personal belongings, quality control of the employees working in the store, or failure of the POS machines. At the same time, they may worry about the potential use of their personal information by third parties, the judgment of unknown audiences regarding their purchases, or even the impression that such an audience might have. As people attend to their feelings and consider them as sources of information (Schwarz, 2011), different emotions triggered by the perception of being observed can have various outcomes. Thus, future research can explore the affective consequences.

The perception of being observed also entails a lack of knowledge regarding how long the data will be stored. Consumers may wonder how long they are going to be targeted by companies based on a product they purchased several years ago. Exploring the impact of duration knowledge, research has shown it can intensify affective reactions; knowing the duration of an experience improves pleasant experiences and worsens the negative experiences regardless of the duration length and people's expectations about the duration (Zhao & Tsai, 2011). However, a feeling of uncertainty reverses the effect of duration knowledge and reduces enjoyment (Bar-Anan et al., 2009; Wilson et al., 2005). Similarly, uncertainty regarding the duration of the records may negatively influence consumers and lead to discomfort. Disclosing duration knowledge can eliminate negative consequences potentially triggered by the perception of being observed. This issue can be a subject of future investigation which would inform policy makers. If knowing the deadline of the existence of one's records improves one's wellbeing, privacy notices implemented by GDPR law can be designed in a way that includes the duration information.

Although the perception of being observed can have negative outcomes both for consumers' and brands, it can increase one's self-worth and sense of control in certain contexts. Rather than being an insignificant part of a group, it can make individuals feel that they are "somebody" who is important for companies. Identifying the contexts in which the perception of being observed can improve consumers wellbeing is important as it will enhance the current state of consumers and companies.

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DATA AVAILABILITY STATEMENT

Data available on request from the authors

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APPENDIX A

Perception of being observed scale

1- Whenever I do something different than usual, I feel like I am being watched.
2- Even our simplest actions are being watched.
3- I think my current online activities will be the focus of the other parties' attention in the future.
4- I think that I cannot control the extent to which I am being watched.
5- When I take a selfie, I can't help thinking about whether someone can connect to my phone and see my photos at that time.
6- In general, I think that everyone is being watched while they are making purchases.
7- I have concerns that when I am using technological devices, I am being watched.
8- What I share privately in my online networks can be seen by anyone.
9- I believe that I am being recorded even when I do not give consent.
10- Coming across advertisements after I talk about a product makes me think that I am being recorded.

Note: We randomized the order of the items in our scale development studies. For the ease of reporting the inter-item correlations, we assigned numbers to the items as seen above and created the correlation matrices accordingly.

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APPENDIX B

Descriptive statistics and Pearson correlation coefficients of the variables

Scale	*n*	# items	Mean	*SD*	α	The perception of being observed
Technology Anxiety (Meuter et al., 2003)	534	9	3.07	0.93	0.77	0.211*
Self-Consciousness (Fenigstein et al., 1975)	534	23	4.46	0.88	0.87	0.228*
Privacy Concern Scale (Smith et al., 1996)	354	15	5.81	0.89	0.91	0.261**
Self-Esteem (Rosenberg, 1965)	354	10	5.24	1.47	0.95	Not significant
Narcissism (Konrath et al., 2014)	354	1	2.24	1.79	-	0.166**

Note: ** = Correlation is significant at the 0.01 level (2-tailed).

APPENDIX C

A sample of recent research exploring privacy concerns

Author(s) and year	Major findings
Bright et al. (2021)	Privacy concerns decrease social media engagement, especially for people who have low levels of trust in the social media and who have low social media fatigue, and the effect is more pronounced when users do not commit to privacy protection behaviors.
Cloarec et al. (2022)	Among established privacy-related concepts including trust and risk, happiness with the internet is the strongest predictor of users' willingness to disclose information for personalization.
Cowan et al. (2021	In social media, privacy concerns decrease one's intention to use an augmented reality face filter and word of mouth.
Ioannou et al. (2021)	Mindfulness, as a personality trait, influences privacy concerns. Mindful consumers are likely to display lower privacy concerns.
Maseeh et al. (2021)	Perceived risk increases privacy concerns while perceived benefits, trust, privacy policy, reputation and familiarity can mitigate them.
Massaraet al. (2021)	Alongside the perceived privacy risks, mental accounting of the risks and benefits of data disclosure, and familiarity of the party that collects data influence consumer consent.
Rajaobelina, Tep, Arcand and Ricard, (2021)	In an interaction with a chatbot, privacy concerns increase the sense of creepiness, which decreases loyalty.
Schmidt et al. (2020)	Accepting a cookie notice which highlights that one's behavior can be tracked increases the perceived fairness of a price change as consumers attributes the cause of change to themselves rather than the company. This, in turn, increases one's willingness to purchase.
Shahidi et al. (2022)	Privacy concerns decreases individuals' willingness to use contact tracing application.
Song et al. (2021)	Consumers who are highly concerned about privacy can decrease the enhancing effect of personalization on the intention to use.
Visentin et al. (2021)	On Twitter, expressing privacy concerns on a Tweet prevents it from becoming viral.
Chen et al. (2022)	Privacy concerns determine whether web personalization leads to website loyalty.
This research	Privacy concerns increase one's perception of being observed. This can translate the concerns into privacy protective behavior.

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APPENDIX D

Correlation Matrix Tables (Tables D1, D2, D3, D4, D5).

TABLE D1 Inter-item correlation matrix for Study 2a

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.										
2.	0.58**									
3.	0.57**	0.60**								
4.	0.34**	0.43**	0.39**							
5.	0.51**	0.44**	0.46**	0.27**						
6.	0.39**	0.55**	0.48**	0.45**	0.39**					
7.	0.56**	0.60**	0.54**	0.43**	0.56**	0.54**				
8.	0.46**	0.53**	0.51**	0.38**	0.39**	0.41**	0.50**			
9.	0.46**	0.56**	0.53**	0.53**	0.46**	0.62**	0.60**	0.44**		
10.	0.31**	0.44**	0.39**	0.46**	0.36**	0.50**	0.55**	0.33**	0.57**	

Note: $N = 450$ $^{**}p < 0.01$.

TABLE D2 Inter-item correlation matrix for Study 2b

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.										
2.	0.71**									
3.	0.50**	0.59**								
4.	0.50**	0.61**	0.51**							
5.	0.73**	0.69**	0.45**	0.41**						
6.	0.55**	0.67**	0.47**	0.64**	0.50**					
7.	0.66**	0.69**	0.59**	0.56**	0.61**	0.72**				
8.	0.64**	0.65**	0.56**	0.49**	0.67**	0.58**	0.58**			
9.	0.56**	0.70**	0.54**	0.69**	0.54**	0.63**	0.60**	0.59**		
10.	0.55**	0.55**	0.45**	0.56**	0.49**	0.62**	0.61**	0.56**	0.58**	

Note: $N = 143$ $^{**}p < 0.01$.

TABLE D3 Inter-item correlation matrix for study 3a

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.										
2.	0.49**									
3.	0.39**	0.48**								
4.	0.38**	0.44**	0.38**							
5.	0.47**	0.41**	0.41**	0.29**						
6.	0.40**	0.53**	0.42**	0.45**	0.34**					
7.	0.57**	0.58**	0.46**	0.43**	0.51**	0.52**				
8.	0.41**	0.49**	0.42**	0.40**	0.38**	0.36**	0.43**			
9.	0.43**	0.54**	0.45**	0.49**	0.40**	0.57**	0.59**	0.36**		
10.	0.35**	0.49**	0.32**	0.45**	0.34**	0.43**	0.54**	0.33**	0.50**	

Note: $N = 534$ $^{**}p < 0.01$.

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TABLE D4 Inter-item correlation matrix for Study 3b

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.										
2.	0.57**									
3.	0.50**	0.54**								
4.	0.46**	0.56**	0.46**							
5.	0.55**	0.48**	0.47**	0.38**						
6.	0.42**	0.64**	0.54**	0.56**	0.40**					
7.	0.60**	0.61**	0.53**	0.53**	0.56**	0.61**				
8.	0.51**	0.56**	0.51**	0.45**	0.43**	0.47**	0.50**			
9.	0.52**	0.71**	0.52**	0.55**	0.54**	0.61**	0.63**	0.50**		
10.	0.37**	0.54**	0.46**	0.45**	0.47**	0.60**	0.59**	0.40**	0.60**	

Note: $N = 354$. $^{**}p < 0.01$.

TABLE D5 Inter-item correlation matrix for Study 4

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.										
2.	0.59**									
3.	0.44**	0.36**								
4.	0.42**	0.35**	0.32**							
5.	0.57**	0.46**	0.38**	0.30**						
6.	0.36**	0.50**	0.33**	0.48**	0.38**					
7.	0.53**	0.47**	0.43**	0.53**	0.45**	0.53**				
8.	0.41**	0.42**	0.37**	0.38**	0.33**	0.35**	0.49**			
9.	0.46**	0.59**	0.44**	0.52**	0.35**	0.70**	0.60**	0.54**		
10.	0.43**	0.47**	0.34**	0.48**	0.37**	0.59**	0.54**	0.40**	0.58**	

Note: $N = 200$ $^{**}p < 0.01$.

APPENDIX E: CONFIRMATORY FACTOR ANALYSES

(Tables E1, E2, E3, E4, E5, E6, E7, E8).

TABLE E1 Test for Exact Fit for Study 2a

χ^2	*df*	*p*
172	35	<0.001

TABLE E2 Fit Measures for Study 2a

			RMSEA % 90 CI	
CFI	TLI	RMSEA	Lower	Upper
0.93	0.92	0.09	0.080	0.107

Abbreviations: CFI, comparative fit index; CI, confidence interval; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

TABLE E3 Test for Exact Fit for Study 2b

χ^2	*df*	*p*
104	35	<0.001

TABLE E4 Fit Measures for Study 2b

			RMSEA % 90 CI	
CFI	TLI	RMSEA	Lower	Upper
0.93	0.91	0.1	0.09	0.14

Abbreviations: CFI, comparative fit index; CI, confidence interval; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

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TABLE E5 Test for Exact Fit for Study 3a

χ^2	*df*	*p*
125	35	<0.001

TABLE E6 Fit Measures for Study 3a

			RMSEA % 90 CI	
CFI	TLI	RMSEA	Lower	Upper
0.96	0.95	0.07	0.057	0.083

Abbreviations: CFI, comparative fit index; CI, confidence interval; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

TABLE E7 Test for Exact Fit for Study 3b

χ^2	*df*	*p*
93	27	<0.001

TABLE E8 Fit Measures for Study 3b

			RMSEA % 90 CI	
CFI	TLI	RMSEA	Lower	Upper
0.96	0.95	0.08	0.065	0.102

Abbreviations: CFI, comparative fit index; CI, confidence interval; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

APPENDIX F

Supplementary Study on Brand Trust

The goal of this study was to explore how the perception of being observed influences brand evaluations. Recent research has shown that being observed could lead to an aversion (Zwebner & Schrift, 2020) and influence consumers' preferences (Schrift et al., 2019). These studies suggest that the perception of being observed can shape consumer behavior. In line with these studies showing that being observed could lead to negative consequences, we expected that consumers who have higher levels of the perception of being observed would be more sensitive to the recording practices existing in the marketplace, and their attitudes will be more negative towards the companies upon learning that they have been observing consumers. To explore our hypothesis and test the predictive validity of the perception of being observed scale, we conducted an experiment.

Pretest

The pretest was designed to ensure that we selected the brands that consumers considered to be using recording practices. We asked the participants ($N = 50$) to name a brand that recorded consumer data. Apart from technology companies such as Google and Amazon, the most frequently reported brand name was Nike. Therefore, we used the Nike brand in our experiment.

Method

We recruited 200 participants from Cloud Research (55% female, $M_{age} = 45.46$, $SD_{age} = 12.58$). Participants were randomly assigned to one of the two conditions in which we manipulated the information about recording practices. Participants read the following text:

> Companies are using multiple methods and sources to capture and process customer data. However, most of the time, consumers do not even know that some companies are collecting information about their location, activity, preferences, demographics, attitudes, and behaviors. Certain brands in the marketplace make announcements regarding their recording practices. Recently Nike has announced that the brand has been collecting consumer data for various purposes. [Recently, Nike has announced that the brand has not collected consumer data for any purpose.]

Upon reading this text, participants were asked to complete the Brand Trust scale (Chaudhuri & Holbrook, 2001) and report the extent to which they believed that Nike would record consumer data. Afterwards, they were asked to complete the perception of being observed scale.

Results

We ran a one-way analysis of variance to explore the influence of our manipulation on brand trust. The findings showed that the participants who learned that the brand was recording consumer data gave lower brand trust ratings ($M = 3.63$, $SD = 1.554$) compared to the ones who learned that the brand was not recording data ($M = 4.45$, $SD = 1.480$; $F_{(1,\ 198)} = 0.14{,}404$, $p < 0.001$). There was not a significant difference between the perception of being observed scores depending on the condition ($p > 0.05$). However, we found a significant interaction between the recording information and the perception of being observed ($F_{(3,\ 196)} = 4.687$, $p = 0.032$). The floodlight analysis (Johnson-Neyman technique) showed that participants who experienced higher levels of the perception of being observed were more influenced by the recording practices of the brands and decreased their brand trust more ($b = -0.6507$, $SE = 0.1512$). This result supports our findings that that consumers experiencing the perception of being observed are more sensitive towards recording technologies.

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