# THE INFLUENCER DISSONANCE MODEL

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## ABSTRACT

This research introduces the Influencer Dissonance Model (IDM) to explain how influencer attributes, group conformity, psychological discomfort, and task type compliance interact to drive attitudinal shifts that ultimately influence purchase intention in followers exposed to counter-normative recommendations from social media influencers (SMIs). Through a series of experimental studies, this work explains why and how unconventional recommendations are an effective way for influencers to change follower attitudes and incite behaviors that ultimately have the power to generate revenue for brands.

This research builds on the Social Identity Model of Deindividuation Effects (SIDE model) and Vicarious Dissonance Theory (VDT) to develop a new model that explains the underlying mechanisms driving attitudinal shifts, specifically in online influencer contexts. Results suggest that influencer type (micro- vs. celebrity-influencer) may no longer play a significant role in today's online influence landscape. Additionally, this study validates two new constructs—influencer attributes and group conformity—for use specifically in influencer contexts. Notably, counter to classic VDT findings, which suggest that individuals who perceive free will in task completion exhibit stronger attitudinal shifts, this research found that pressured sharing in online environments triggers stronger attitudinal shifts, which in turn predict purchase intention.

These findings offer novel insights into the psychological dynamics of online influence and provide recommendations for influencers, marketers, and brands navigating the ethical and strategic implications of counter-normative recommendations in online spaces.

This dissertation is dedicated to my family, whose unwavering love and support made this journey possible. To my husband and lifelong partner, John, whose belief in me never wavered and whose steadfast encouragement carried me through even the most challenging moments. To my son, Gavin, for always inspiring me to chase my dreams with determination and passion. To my son, Liam, whose strength and perseverance remind me that the impossible can be achieved. To my daughter, Audrey, whose humor, beauty, and laughter bring endless joy to my life.

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| | |
|---|---|
| ACA | Affordable Care Act |
| CFA | Confirmatory factor analysis |
| CFI | Comparative fit index |
| CMC | Computer-mediated communication |
| ELM | Elaboration Likelihood Model |
| H | Hypothesis |
| IDM | Influencer Dissonance Model |
| MLR | Maximum likelihood estimation |
| RMSEA | Root mean square error of approximation |
| RQ | Research question |
| SEM | Structural Equation Modeling |
| SIDE | Social Identity Model of Deindividuation Effects |
| SMI | Social media influencer |
| SRMR | Standardized root mean square residual |
| VDT | Vicarious Dissonance Theory |

## Introduction

The widespread accessibility of social media, coupled with its addictive nature, has reshaped how individuals interact, communicate, and engage with content, providing influencers with powerful opportunities to shape their followers' attitudes and behaviors (Farivar et al., 2022; Gottfried, 2024; Qian, 2025). As a result, social media influencers (SMIs) have emerged as dominant agents of persuasion, leveraging their platforms to promote products, brands, and ideas—some of which challenge societal norms or carry potential risks (Azizkhonovna, 2023; Park et al., 2021; Ali et al., 2024; Alruwaily et al., 2020; Hudders & Lou, 2023; Pryde et al., 2024).

The potential harm social media influencers (SMIs) can inflict on their followers and the public remains an understudied topic. While research has explored negative outcomes such as child influencers promoting unhealthy foods (Alruwaily et al., 2020), the psychological toll of influencer culture (Hudders & Lou, 2023), and misleading fitness advice from influencers (Pryde et al., 2024), little attention has been given to how counter-normative recommendations shape followers' attitudes into complying with a suggestion. Much of the existing literature focuses on SMIs' ability to drive product sales (Chekima et al., 2020; Hermanda et al., 2019; Jang et al., 2021), partner with brands for strategic endorsements (Breves et al., 2019; Hermanda et al., 2019; Rathjens et al., 2024), or establish credibility for their own personal brands (Belanche et al., 2021a). However, research lacks on how influencers shift attitudes through recommendations that may be unethical, damaging to brands, or even harmful to their followers. Sometimes, the backlash against an influencer's recommendation can be so severe that it triggers reputational damage or cancellation (Bakhtiari, 2020; Kaur & Kvåle, 2024; Lee & Abidin, 2024). Given these gaps, this research examines the psychological mechanisms behind how SMIs influence their

followers through counter-normative recommendations, driving attitudinal shifts that ultimately shape purchase intention.

This research builds on two key theoretical frameworks: the Social Identity Model of Deindividuation Effects (SIDE model; Lea & Spears, 1991; Postmes & Spears, 1998) and Vicarious Dissonance Theory (VDT; Cooper & Hogg, 2007; Norton et al., 2003). These theories inform the development of the Influencer Dissonance Model (IDM), which explains the underlying mechanisms driving attitudinal change in online influencer contexts. In addition, beyond the traditional source credibility factors commonly examined in influencer research, such as attractiveness, trust, and expertise (Source Credibility Model; Ohanian, 1990), this study introduces new components to better reflect the realities of modern online influencer contexts, forming the new encompassing construct of influencer attributes. Additionally, this research expands the concept of group identity into a new construct, group conformity, which captures how followers align with the norms and behaviors of an influencer's collective community–not just fellow individual in-group members.

Perhaps most importantly, the IDM provides a framework for understanding the effectiveness of counter-normative recommendations in online influencer contexts. This research investigates the following overarching research question:

RQ: What are the underlying mechanisms that drive attitudinal change in response to counter-normative recommendations by influencers?

To explore this, the Pilot Study tested a counter-normative beauty recommendation to confirm its deviation from accepted norms. Study 1 focused on developing and validating measurement scales for two new constructs—influencer attributes and group conformity—designed to capture influencer-driven persuasion more accurately than existing measures. Two

Confirmatory Factor Analyses (CFAs) were conducted to refine these measurement models. Additionally, Study 1 examined whether influencer type moderated the relationship between influencer attributes and group conformity, assessing if different types of influencers (micro- vs. celebrity influencers) influence the likelihood of compliance in SMI counter-recommendation contexts.

Study 2 applied the full IDM to test how counter-normative recommendations influence attitudinal and resulting purchase intention change. This comprehensive approach offers novel insights into the psychological mechanisms that drive attitude shifts when influencers employ counter-normative persuasion strategies. Building on this foundation, the following literature review explores the theoretical basis of the IDM, drawing from components of the SIDE model and VDT while examining key constructs such as psychological discomfort, anonymity, and task type compliance in shaping attitudinal change, which can ultimately affect purchase intention.

## Influencers as Persuasive Agents

Social media influencers (SMIs) have become a focal point for researchers due to their persuasive power and widespread appeal (Azizkhonovna, 2023; Park et al., 2021). Recent academic research comparing different types of influencers, such as micro- and celebrity influencers, has found that micro-influencers tend to be more effective persuasive agents, largely due to their perceived authenticity (Lee & Eastin, 2021; Park et al., 2021). Much of the existing influencer literature focuses on specific influencer characteristics, including credibility (Liu & Zheng, 2024), trustworthiness (Cabeza-Ramírez et al., 2022; Ohanian, 1990), expertise (Ohanian, 1990), perceived similarity (Shoenberger & Kim, 2023), attractiveness (Filieri et al., 2023), and parasocial relationships (Conde & Casais, 2023). These studies consistently demonstrate the significant persuasive power of influencers, with findings suggesting that micro-influencers, in particular, hold greater sway over their followers than their celebrity-influencer counterparts (Park et al., 2021).

Understanding the power differences between influencer types has been a fundamental component in assessing the persuasive effectiveness of influencers. Celebrity influencers, such as recording artists, movie stars, athletes, and public figures, possess traditional star power and widespread recognition (Park et al., 2021; Yang et al., 2023; Zhang & Wei, 2021). In contrast, micro-influencers typically begin as everyday individuals who develop expertise in a specific niche, such as fitness, beauty, or travel, and publish related content online. Over time, they acquire a dedicated online following, positioning them as trusted authorities within their category (Himelboim & Golan, 2023; Park et al., 2021; Yang et al., 2023; Zhang & Wei, 2021). Their followers rely on their recommendations, which can significantly impact opinions, attitudes, and purchase decisions (Himelboim & Golan, 2023; Rathjens et al., 2024).

Celebrity influencers have demonstrated their effectiveness in generating revenue and driving purchase intention due to their recognizability and fame alone. In the hospitality sector, recording artists Saweetie and Travis Scott collaborated with McDonald's to promote co-branded meals, leading to notable increases in sales (Coley, 2022; Rathjens et al., 2024). Similarly, Rihanna and Lady Gaga have leveraged their celebrity status to build highly profitable beauty brands in the beauty industry. Lady Gaga's Haus Labs generated approximately $141.7 million in revenue in 2020 (Manso, 2021), while Rihanna's Fenty Beauty leads the celebrity beauty market with an estimated $555 million in revenue (Manso, 2021).

Beauty influencers have become some of the most prominent social media personalities in the digital landscape. In the United States, these influencers typically have an audience exceeding 500,000 followers on platforms like Instagram and YouTube. At the same time, their TikTok followers often surpass 1.5 million, reflecting their widespread appeal and influence (Geyser, 2022). Most of their audience consists of women, accounting for 82% of their followers, with half of this demographic falling between 25 and 34 of age (Geyser, 2022). Furthermore, engagement levels differ based on gender, as posts recommended by beauty influencers tend to receive more than twice as many likes from female users compared to male users, indicating greater interest and interaction among women (Geyser, 2022). This data highlights that women aged 34 and under represent the primary and most engaged audience for beauty influencers.

Beyond influencer type (e.g., micro- vs. celebrity) and genre (i.e., beauty influencers), research by Daimi and Tolunay (2021) explored additional factors that contributed to an SMI's persuasive impact. Their study takes a more holistic approach, examining not only influencer-related elements related to source credibility but also characteristics of social media posts and

follower-specific factors that influence purchase intent. Their findings suggest that, besides trustworthiness, an influencer's authenticity plays a critical role in shaping consumer purchase decisions (Daimi & Tolunay, 2021). This broader perspective underscores the complexity of influencer persuasion, demonstrating that SMI effectiveness extends beyond influencer-specific characteristics and influencer type alone.

## Counter-Normative Recommendations

An often ignored or overlooked research area is the type of influencer recommendations that could harm their followers (i.e., counter-normative recommendations), such as promoting extreme dieting trends, unverified health treatments, or reckless financial advice. These types of suggestions can create psychological or emotional discomfort in followers, potentially disrupting the persuasive process. While much of the published academic research has focused on the positive outcomes of influencer recommendations (e.g., revenue generation, the role of attractiveness in persuasion, influencer popularity), it is equally important to consider the significant persuasive power SMIs wield and the potential consequences when that influence is misused or misdirected in the form of harmful suggestions.

Demonstrating the persuasive power of SMIs, in 2024, 53% of SMI followers reported that they specifically counted on SMI recommendations before making a purchase decision (Traackr, 2024). SMIs were estimated to be responsible for 24 billion dollars of market share worldwide in 2024, up from only 1.7 billion in 2016, an impressive growth of 1,311.8% in just eight years (Statista Research Department, 2024a). With the persuasive power of SMIs being very clear and consequence-ridden, what implications does this have for the five billion worldwide social media users (Statista Research Department, 2024b) when an SMI provides a harmful or counter-normative recommendation backed by their persuasive power and enormous legions of followers? First, let us start by understanding social norms and the effect researchers believe they have in persuasion, specifically in social situations.

Social norms have been found to affect consumer behavior directly (Rimal & Lapinski, 2015). Norms are socially negotiated and contextually dependent, meaning they emerge and evolve through our interactions depending on the setting (Rimal & Lapinski, 2015). In addition,

norms are communication phenomena negotiated through social interaction with others (Rimal & Lapinski, 2015). This concept is important to understand, as the social norms deemed acceptable for a group can explain why certain behaviors in one social situation are embraced (e.g., sports fans storming the field after a championship win) but in another, that same behavior is discouraged or penalized (e.g., fans rushing the field during a regular game and being removed by security). Social norms are stable and socially negotiated; however, they can also be dynamic as they are formed during human communication practices (Rimal & Lapinski, 2015).

Counter-normative recommendations (also referred to as antinormative behavior by some researchers) are suggestions or endorsements that challenge a group's widely accepted social norms, expectations, or values (Postmes & Spears, 1998; Rathbone et al., 2023). These recommendations disrupt conventional thinking, provoke engagement, and often trigger psychological discomfort (i.e., dissonance) by creating a conflict between established norms that the individual has adopted and the behaviors promoted in the group. Further, counter-normative recommendations are most effective when a person is considered "deindividuated" (i.e., more aware of the group's social norms than being accountable to their own norms or set of standards; Postmes & Spears, 1998). Within the context of influencer-driven communication, counter-normative recommendations are uniquely positioned to leverage the attention-capturing and polarizing dynamics of digital environments to get the most attention and have the biggest effects.

In online environments, the effects of counter-normative recommendations may be further amplified by anonymity, as posited by the SIDE model (Reicher et al., 1995). Anonymity reduces personal accountability while intensifying adherence to group norms, which are the shared expectations and informal rules that guide behavior within a particular social group. This

dynamic makes individuals more likely to engage with or adopt counter-normative behaviors endorsed by persuasive influencers or figures (Huang & Li, 2016; Nitschinsk et al., 2023). When paired with the psychological discomfort described by Vicarious Dissonance Theory (VDT; Cooper & Hogg, 2007), which is, in essence, the vicarious dissonance generated when an in-group member asks another in-group member to do something that is out of alignment with the individual's own accepted norms, these dynamics help explain the attitudinal shifts that may be observed in response to these types of recommendations as the individual attempts to resolve their dissonance.In this research, *counter-normative recommendations* refer to an SMI's recommendation that does not align with socially established standards or expectations that typically guide an individual's behavior. Counter-normativity thus provides a reference point for understanding the mechanisms through which influencers challenge and reshape their followers' attitudes. While these recommendations can generate action or engagement and foster attitudinal change, they also raise ethical considerations, particularly for brands, as their effectiveness relies on leveraging psychological discomfort and group dynamics in ways that may exploit vulnerable audiences.

**Psychological Mechanisms of Attitude Change**

Counter-normative recommendations play an important role in provoking psychological discomfort (i.e., dissonance) by challenging preexisting attitudes, norms, or beliefs. When individuals encounter recommendations that conflict with their internalized values or perceived socially accepted norms, they experience a cognitive inconsistency that triggers discomfort; this discomfort, as posited by VDT, serves as a motivational force, compelling individuals to resolve the tension through attitudinal change. The author's preliminary research highlighted the mechanisms through which counter-normative recommendations drive these psychological

processes in online contexts. Specifically, the author's studies found that observing influencer-endorsed behaviors that defy established norms intensified psychological discomfort, particularly in environments where individuals were shielded by anonymity (Rathjens et al., 2025). These findings align with the SIDE model (Nitschinsk et al., 2023; Reicher et al., 1995), underscoring how anonymity amplifies group norm salience, making the conflict between the recommended antinormative behavior and the individual's internalized norms more pronounced.

This psychological discomfort often compels individuals to resolve the inconsistency by adjusting their attitudes to align with the recommendation. For instance, the author's preliminary findings revealed that the task condition the follower was assigned (pressured sharing vs. free will) played a significant role in this process. Under conditions of pressured sharing, participants were more likely to adopt attitudinal changes, demonstrating how task compliance can precede and facilitate the resolution of psychological discomfort (Rathjens et al., 2025).

The power of counter-normative recommendations to drive change lies in their ability to exploit the psychological tension between the accepted or perceived group norms in the influencer community and the individual's own beliefs. This tension can become particularly potent in polarized or ethically charged contexts, where the emotional stakes are high, and the need for resolution becomes urgent (Norton et al., 2003). This process was precisely witnessed in research conducted by Cooper and colleagues (2019) when the researchers used the controversial Affordable Care Act (ACA, also known as "Obamacare") in their experimental scenarios. The ACA was signed into law by President Barack Obama and widely promoted as a Democratic policy. In the study, Republicans who imagined a fellow Republican voluntarily supporting the ACA (high choice condition) reported significantly higher support for the ACA compared to those in the low choice condition. This finding suggests that imagining voluntary counter-

attitudinal advocacy aroused vicarious dissonance and influenced attitude change since Republicans would not typically support a Democrat-led initiative. Conversely, Democrats showed marginally lower support for the ACA in the high-choice condition than in the low-choice condition. This discovery indicates a weaker vicarious dissonance effect for Democrats in this context. Interestingly, participants in the high choice condition reported feeling less identified with and less representative of their political party, highlighting the dissonance (i.e., psychological discomfort) experienced when imagining a fellow party member acting counter to the accepted or perceived group norms. These findings demonstrate how vicarious dissonance can change attitudes and influence identification with group norms across political parties. Besides politically charged topics, the author's preliminary research demonstrated that even ethically questionable recommendations—such as those involving controversial health and beauty practices—successfully motivated attitudinal shifts by leveraging the discomfort the counter-normative recommendations provoked (Rathjens et al., 2025).

## The SIDE Model and Online Anonymity

The SIDE model is a theoretical framework that explains how anonymity in computer-mediated communication (CMC) environments influences behavior, communication, and group dynamics. Developed by Lea and Spears (1991), the SIDE model emphasizes the relationship between visual anonymity, group identity, and conformity. Specifically, it posits that anonymity enhances the salience of group norms by reducing the visibility of an individual's personal characteristics. This process thereby shifts the individual to focus on the perceived collective group identity and away from identifying with their own individual identity (Lea & Spears, 1991; Postmes & Spears, 1998).

When individuals interact online in anonymous settings, the absence of readily identifiable information reduces the personal accountability they would typically have in face-to-face communication. This absence enhances the significance of group identity, which refers to a person's sense of belonging to a social group and the extent to which they define themselves in relation to that group. This heightened group identity can lead individuals to align their behaviors, attitudes, and decisions more closely with what they perceive the group norms to be (Lea & Spears, 1991; Postmes et al., 2001). For example, in settings where group identification is high, the anonymity of the online environment can result in individuals conforming to the collective values and behaviors of a group, even when those behaviors deviate from broader societal norms or the individual's personal beliefs (Huang & Li, 2016; Lea & Spears, 1991; Postmes et al., 2001). Research has shown that visual anonymity can encourage users to express unconventional or socially deviant opinions, as the fear of negative consequences is diminished in anonymous contexts. Over the course of four studies, researchers found that individuals selectively choose the behaviors they wish to engage in when anonymous, and anonymity also

provides a sense of license to behave toxically (Nitschinsk et al., 2023). Overall, the work concluded that individuals often seek anonymity to perform actions or advance goals that are more difficult or undesirable when identified in an online setting (Nitschinsk et al., 2023).

This phenomenon of acting more inappropriately in anonymous settings or adopting counter-normative behaviors recommended by others could be particularly relevant in interactions between SMIs and their followers in online spaces. Followers often adopt the perspectives or recommendations of SMIs when they feel a stronger sense of shared identity with the influencer. Anonymity can further amplify this effect by allowing followers to engage with counter-normative or risky influencer content without the individual fearing personal reputation repercussions or social judgment from others. In the context of influencer dynamics, the SIDE model helps explain why followers are more likely to comply with an SMI's counter-normative recommendation in anonymous online environments. For example, anonymous accounts on platforms like Reddit or Twitter often exhibit higher levels of engagement with content that deviates from societal norms, particularly when the content aligns with the values of a specific online community (Nitschinsk et al., 2023). Similarly, anonymous users on TikTok may more readily participate in trends or challenges initiated by influencers, even if those trends challenge conventional behaviors or attitudes (Barta & Andalibi, 2021). The absence of personal identifiers reduces the risk of social sanctions for the follower, allowing users to act in ways that align with the influencer's group identity or counter-normative recommendation.

These dynamics demonstrate how anonymity in CMC settings enhances group cohesion and drives behaviors and attitudes that might not emerge in identified settings. For influencers, this underscores the strategic value of cultivating a sense of shared identity among followers in spaces that permit or encourage anonymity. Understanding how the SIDE model can be applied

to influencer-follower interactions may assist in understanding how influencers can amplify the impact of their recommendations, particularly when promoting messages or actions that challenge normative expectations.

## Vicarious Dissonance Theory

The concept of dissonance has been a cornerstone of social psychology for decades, originating with Festinger's (1957) seminal Cognitive Dissonance Theory, which posited that individuals experience psychological discomfort when holding two or more contradictory beliefs, attitudes, or behaviors. This discomfort serves as a motivational force, driving individuals to resolve the inconsistency through attitude or behavior change. Over time, researchers have expanded on Festinger's work to explore the many dimensions of dissonance, including its emotional, cognitive, and behavioral manifestations (Elliot & Devine, 1994; Harmon-Jones & Mills, 2019). These advancements have paved the way for the development of more nuanced perspectives, such as Vicarious Dissonance Theory (VDT), which extends dissonance processes beyond the individual to include the experience of observing dissonant behaviors in others.

VDT posits that individuals experience psychological discomfort when they observe a fellow in-group member engaging in behavior that contradicts the group's perceived shared values or norms (Cooper & Hogg, 2007). This discomfort arises from a sensed inconsistency between the group's identity and the observed actions of the in-group member, which can threaten the group's cohesiveness and integrity, resulting in vicarious dissonance. It is important to note that vicarious dissonance is explained as a different kind of dissonance than is typically studied in personal dissonance-focused studies. The vicarious part derives from the idea that individuals have an imagined discomfort experienced while witnessing the conflict introduced by another. Individuals are motivated to resolve the dissonance or inconsistency through attitudinal change or behavioral compliance to alleviate the psychological discomfort created. During this process, individuals adjust or change their beliefs to align more closely with the observed

behavior of their fellow in-group members (e.g., an influencer or the influencer's follower community), even though they did not initially agree with the recommendation. Through this process, the individual is thereby restoring harmony within themselves by reducing the psychological discomfort or tension caused by observing fellow in-group members behaving inconsistently (Cooper & Hogg, 2007; Norton et al., 2003).

This process is particularly powerful in settings where the in-group member is seen as highly prototypical or representative of the group (e.g., a strong influencer in the individual's perceived circle of social influence on a social media channel), as their actions carry greater weight in defining group norms. Research has demonstrated that when individuals witness an in-group member violating norms or engaging in counter-normative behavior, the psychological discomfort experienced can prompt significant shifts in the individual's attitudes or behaviors to reconcile the perceived dissonance (Norton et al., 2003; Monin et al., 2004).

Counter-normative recommendations by SMIs present a unique scenario for investigating the mechanisms of VDT. SMIs often occupy a dual role as in-group leaders and representatives of shared values of the online group they have cultivated, amplifying their actions' impact on their followers. When an SMI endorses a counter-normative behavior, such as promoting unconventional beauty practices or endorsing a controversial brand, it can create psychological discomfort among followers who perceive these recommendations as conflicting with their own values or societal expectations (Jaubert et al., 2020; Maldonado, 2021; Mariconda, 2024). This discomfort stems from the tension between the follower's preexisting attitudes, which deviate from the SMI's latest recommendation or endorsement, particularly when the influencer is perceived as trustworthy and prototypical of the in-group. For example, a beauty influencer advocating self-administered medical procedures may evoke discomfort in followers who

recognize the conflict the recommendation has with socially normative practices. To resolve this discomfort, followers may adjust their attitudes to align with the influencer's recommendations or comply behaviorally by adopting the suggested counter-normative actions or requested tasks, as demonstrated in the author's recent preliminary work (Rathjens et al., 2025).

In CMC environments, the dynamics of vicarious dissonance may be further amplified. The visibility of conflicting behaviors has the potential to be heightened in online spaces where influencers' actions are broadcast to wide audiences of followers, live online indefinitely, and are subject to continuous public scrutiny. This transparency can potentially increase the salience of the inconsistency with the group and intensify the psychological discomfort experienced by the follower. Furthermore, CMC's interactive nature and forever footprint allow influencers to engage directly and continuously, and even indefinitely, with their followers, creating opportunities to reinforce group identity, validate counter-normative behaviors, or strengthen relationships (Han et al., 2023; Ladhari et al., 2020). This iterative process has the ability to strengthen the influence of the generated dissonance by reinforcing group norms and encouraging compliance among individuals who have an unknowing need to resolve their psychological discomfort.

## Integration of Theories: Proposed Model

Some commonalities should be discussed when considering the SIDE model and VDT. Specifically, the consideration of social norms and identification with group leaders or groups is one similar component. Another is the generation of dissonance or psychological discomfort resulting from trusted influencers or leaders in one's social circle. Additionally, the potential attitudinal shifts that could occur in this process (i.e., with VDT) and the higher susceptibility to adopt counter-normative behaviors or recommendations in anonymous settings (i.e., with the Side model) indicate overlapping ground. This intersection between group norm salience and the effect of online anonymity provides a solid foundation for examining the mechanisms by which SMIs can shift their followers' attitudes and behaviors, particularly in counter-normative recommendation situations.

While integrating components of the SIDE model and VDT could provide a more robust model for understanding attitudinal change in online contexts, significant gaps remain in the current body of research. Most notably, there has been limited exploration of how the mechanisms identified, such as anonymity and task compliance, interact specifically in counter-normative scenarios. Scenarios in which influencers challenge prevailing or accepted norms, offer fertile ground for studying the boundaries and dynamics of vicarious dissonance, particularly in online environments.

The proposed IDM integrates components of the SIDE model and VDT to provide a unified explanation for attitudinal change in online influencer-driven contexts related to counter-normative recommendation scenarios. The IDM addresses gaps in existing research by focusing on the underlying mechanisms that may be responsible for driving attitudinal change in response to counter-normative recommendations in online communication settings. It defines new

constructs specific to influencer contexts, such as influencer attributes and group conformity.

## Overview of Studies

### Study Objectives

The studies in this research intend to investigate how influencer attributes, group conformity, anonymity, and task compliance type interact to influence psychological discomfort and generate attitudinal change in response to counter-normative recommendations within SMI environments. By integrating components of the SIDE model and VDT, this study seeks to provide a unified model that explains attitudinal shifts and changes in online settings. Specifically, the final study testing the full IDM will examine the mediating role of psychological discomfort in the relationship between the predictor variables and attitudinal outcomes and evaluate the moderating effect of task compliance on the relationship between psychological discomfort and attitudinal change. By assessing how task compliance strengthens or weakens the impact of psychological discomfort on attitudinal shifts, this research will identify the conditions under which dissonance is most likely to lead to attitude change and directly influence purchase intention.

### Research Design

The studies in this research focus on using SMIs from the beauty industry, which is grounded in their profound impact on their followers. These influencers often cultivate a sense of community and belonging among their audience, leading to a strong identification with the influencer's values and choices (Tanwar et al., 2023). In this context, a dissonance-inducing scenario involving a beauty SMI recommending a controversial beauty practice such as self-mole removal can provide a rich ground for our study since this practice is externally valid (Castillo-Abdul et al., 2021; Mariconda, 2024).

Furthermore, the beauty industry's online presence is characterized by intense engagement and interaction, making it an ideal setting to explore the dynamics of influencer-follower relationships in a digital environment. Using a beauty SMI in our study offers an externally valid scenario to investigate how online identities, social group affiliations, and conformity impact followers' attitudes and decision-making processes, especially when confronted with messages from a trusted influencer that conflict with their own beliefs.

Through multiple proposed studies, each building upon the prior study's findings, this research employs a mixed-method experimental design to investigate how influencer attributes, group conformity, influencer type (e.g., micro- vs. celebrity influencer), anonymity, and task compliance type (pressured sharing vs. free will) influence psychological discomfort and attitudinal change in response to counter-normative recommendations. Purchase intention will also be evaluated as a direct result of attitudinal change.

**Participants**

The sample for all studies will consist of females aged 18 to 34 recruited from online platforms to align with the target audience of beauty influencers (Geyser, 2022). Inclusion criteria include fluency in English, residence in the United States, and active participation in online communities or social media platforms. Participants will be excluded if they fail attention checks embedded within the survey. The anticipated sample size per experimental condition in each study is 50 participants.

## Pilot Study: Validating the Counter-Normative Scenario

If a beauty SMI were to recommend one of two contrasting mole removal methods—such as using a string versus visiting a dermatologist—the perceived acceptability and alignment with social norms would likely differ significantly. The string technique can be considered a counter-normative approach, representing a do-it-yourself method that deviates from conventional medical practices typically endorsed by healthcare professionals (Mariconda, 2024). Due to the potential for complications and the absence of professional oversight, the general public may view this method as risky, unconventional, and misaligned with established medical standards. In contrast, seeking mole removal from a dermatologist aligns more closely with socially accepted practices, reinforcing its status as a normative and medically sanctioned approach.

The Pilot Study aims to confirm that participants perceive the counter-normative scenario (tying a mole with a string) as deviating from social norms by comparing it to a normative scenario (visiting a dermatologist). It will ensure that participants perceive the counter-normative messages as violating descriptive norms and establish the scenarios' validity for use in Study 1 and Study 2. The variables investigated include the independent variable of message type (counter-normative vs. normative) and the dependent variable of descriptive norms (measured on a 7-point Likert scale from strongly disagree to strongly agree).

### Hypothesis

Counter-normative recommendations from influencers have the potential to challenge existing social norms by promoting behaviors that deviate from widely accepted practices (Jaubert et al., 2020; Postmes & Spears, 1998). Counter-normative recommendations can manifest in concerning ways within the beauty industry, where SMIs have advocated for practices that carry substantial risks. For example, there have been instances where influencers

have demonstrated and recommended do-it-yourself mole removal and the self-injecting of Botox, even though it could result in harm to their followers and the public at large (Mariconda, 2024). These types of recommendations directly contradict established medical norms by promoting procedures that are performed by healthcare professionals as acceptable to be done at home without professionally trained assistance. By promoting and showcasing these types of counter-normative recommendations to their followers, influencers are normalizing these risky suggestions making them more acceptable to their followers and potentially leading to a shift in prevailing social norms.

In the fields of psychology and communication, descriptive norms describe how the majority of a community's members should behave (Rimal & Lapinski, 2015; van Kleef, 2023). Given that descriptive norms reflect individuals' perceptions of what others typically do (Rimal & Lapinski, 2015; van Kleef, 2023), a recommendation that contradicts established group or community norms should be perceived as significantly more counter-normative than one that aligns with conventional or normally perceived behavior, which would be perceived as more normative. To measure the level of normalness of the recommendation, a specialized scale of items was created specifically relating to the influencer situation, which is referred to as descriptive norms in this research. The specific scale items used can be found in Table 2.

To validate this distinction between recommendation types (normative vs. counter-normative), this study examines whether participants perceive the counter-normative recommendation scenario as significantly more counter-normative than the normative scenario, thereby confirming the effectiveness of the experimental manipulation for subsequent studies.

H1: The counter-normative scenario will be rated significantly higher in descriptive norms compared to the normative scenario.

## Participants

A total of 100 participants were recruited through the online platform Prolific. Eligibility criteria required participants to identify as female and be between the ages of 18 and 34. After excluding participants who failed attention checks or did not complete the survey, the final sample consisted of 93 participants.

The age distribution of the sample was 27.0% aged 18-24 years and 73.0% aged 25-34 years. Regarding education, 35.1% of participants held a bachelor's degree, 32.4% had completed some college but did not earn a degree, and 18.9% had an associate's or technical degree. A smaller portion (8.1%) had a graduate or professional degree, while 5.4% had only a high school diploma or GED. Household income was varied, with 4.5% of participants earning less than $50,000 per year, while 35.2% earned $75,000 or more. Marital status was diverse, with 37.8% of participants married, 4.5% never married, and the remainder either living with a partner, divorced/separated, or widowed. In terms of racial identity, the majority identified as white (70.3%), followed by black or African American (16.2%), Asian (8.1%), and American Indian/Alaska Native (5.4%).

## Procedure

Participants were given an SMI introduction (see Table 1) and then were randomly placed in one of the two experimental scenarios, message type: counter-normative ($n$ = 46) or normative ($n$ = 47). Participants were then asked a series of questions to assess whether they perceived the recommendation as counter-normative or normative.

**Table 1.**

*SMI introduction and message type scenarios*

| Scenario Component | Message Content |
|---|---|
| SMI Introduction (used in both message type conditions) | *Imagine you follow a well-respected beauty influencer named Alex. This influencer is someone you trust and whose advice you have found valuable in the past. Alex has millions of followers and partners with some of the biggest beauty brands in the world. You have purchased items Alex has recommended and also tried beauty procedures they have highlighted on social media for their followers. You have been very pleased with the products you have received and the results you achieved from following Alex's beauty recommendations.* |
| Counter-normative Message | *Alex (the beauty influencer) suggested that their followers purchase an at-home mole removal kit to safely and easily remove unwanted moles without a dermatologist visit. The influencer explained that these kits provide a quick and affordable solution for achieving clear skin and avoiding expensive professional treatments. However, you know that mole removal should ONLY be done by a licensed dermatologist, as at-home removal can lead to infection, scarring, or the risk of missing serious skin conditions like melanoma.* |
| Normative Message | *Alex (the beauty influencer) suggested that their followers visit a licensed dermatologist (a skin doctor) for safe and professional mole removal. The influencer explained that dermatologists provide expert care to ensure moles are removed properly, reducing the risk of infection, scarring, or overlooking serious skin conditions like melanoma. This approach offers a safe and effective solution for achieving clear skin while ensuring any concerning moles are properly evaluated by a medical professional.* |

## Data Cleaning

The dataset was examined for missing data, response quality, and engagement. Participants who failed attention checks or provided incomplete responses were removed.

## Manipulation Check Results

An independent samples t-test was conducted to assess the effectiveness of the message type manipulation. Participants were asked to respond to two statements assessing the

normativity of the influencer's recommendation: "In the scenario you were given, the influencer recommended…" with two statements. Participants in the normative condition rated the statement "visiting a licensed dermatologist" higher ($M$ = 6.55, $SD$ = .93) than those in the counter-normative condition ($M$ = 1.30, $SD$ = 1.11), $t(91) = -24.72$, $p < .001$, Cohen's $d$ = 5.13. Similarly, for the statement "using an at-home mole removal kit," those in the counter-normative condition rated agreement with the statement higher ($M$ = 6.72, $SD$ = .86) than those in the normative condition ($M$ = 1.60, $SD$ = 1.42), $t(91) = 2.93$, $p < .001$, Cohen's $d$ = 4.34. These results confirm that the manipulation was successful.

**Statistical Analysis and Results**

A reliability analysis was conducted to assess the internal consistency of the descriptive norms measurement (Table 2). The five-item scale demonstrated excellent reliability, Cronbach's $\alpha = .901$, indicating strong internal consistency among the items.

**Table 2.**

*Descriptive Norms Scale Items*

| Variable | Scale Item | Reliability |
|---|---|---|
| Descriptive Norms (author developed) | *Rate your opinion regarding the influencer.*<br>1. Most people I know would not follow this influencer's advice.<br>2. Many of my friends and family members would not try this influencer recommendation.<br>3. The influencer's recommendation is unusual in my personal experience.<br>4. The influencer's recommendation would be considered unexpected by most people.<br>5. The influencer's recommendation deviates from societal norms that I am aware of. | .901 |

An independent samples t-test was conducted to determine whether participants in the counter-normative condition perceived the recommendation as significantly more counter-

normative than those in the normative condition, based on their descriptive norms ratings. Results indicated a significant difference between conditions, $t(91) = 6.967$, $p < .001$, with the counter-normative group ($M = 5.11$, $SD = 1.43$) rating the recommendation as significantly more counter-normative than the normative group ($M = 3.05$, $SD = 1.42$). The effect size was large, Cohen's $d = 1.43$, supporting a substantial distinction in perceived normativity between the two conditions.

These findings confirm that participants in the counter-normative condition perceived the influencer's recommendation as deviating more from social norms compared to those in the normative condition, and H1 was found to be supported. This finding supports the effectiveness of the counter-normative recommendation scenario, which will be used in subsequent studies.

**Discussion**

The Pilot Study results confirm that the counter-normative recommendation was perceived as significantly more counter-normative than the normative recommendation, validating the effectiveness of the experimental manipulation. This finding ensures that the anti-normative recommendation meaningfully deviates from established norms and justifies its use in subsequent studies. The counter-normative recommendation will be incorporated into Study 1 and Study 2 to examine its psychological effects, particularly regarding influencer attributes, group conformity, and attitudinal shifts.

## Study 1: Validating Influencer Attributes and Group Conformity Scales

Study 1 aimed to validate the measurement models for two newly developed constructs, influencer attributes and group conformity, which were designed to more accurately reflect persuasion processes within the influencer marketing context. The development of these new constructs was motivated by the limitations of existing scales in capturing the unique aspects of influencer-driven persuasion. While prior research has examined related constructs in broader communication and psychology domains (e.g., Miller & Burgoon, 1978; Ohanian, 1990; Petty & Cacioppo, 1986), existing scales do not fully capture the nuances of influencer-driven persuasion, specifically considering the roles of authenticity and online community dynamics.

Confirmatory factor analyses (CFAs) were conducted to refine the factor structures, remove poorly performing items, and improve model fit to establish construct validity. In addition to scale validation, Study 1 also examined whether influencer type (micro- vs. celebrity influencer) moderated the relationship between influencer attributes and group conformity, testing how influencer status impacts follower conformity behaviors. The results of this study provide a validated model for measuring the constructs and offer insights into the role influencer type may play in counter-normative recommendations.

### Hypotheses

A series of hypotheses were developed to assess the validity and predictive relationships of influencer attributes on group conformity. The first hypothesis focuses on confirming the factor structure of the newly developed influencer attributes construct, with the second doing the same for the new construct of group conformity. In addition, a linear regression was conducted to determine if influencer attributes predict group conformity. Lastly, a moderation analysis was conducted to determine whether influencer type (micro- vs. celebrity influencer) influences the

strength of this relationship.

Influencer attributes such as authenticity, attractiveness, trustworthiness, and expertise are central to how audiences perceive and respond to social media influencers (Ohanian, 1990; Lee & Eastin, 2021). When these attributes are perceived in a positive manner, they enhance the influencer's credibility and persuasive power, making them more effective in forming group norms and community expectations (Belanche et al., 2021b; Kim & Chan-Olmsted, 2022). Drawing on the SIDE model (Lea & Spears, 1991; Postmes et al., 2001), it is likely that individuals who view an influencer as highly credible will be more inclined to align with the norms and behaviors of that influencer's community. Thus, higher levels of influencer attributes would increase an individual's likelihood of conforming to the group associated with that influencer.

H2: Influencer attributes will positively predict group conformity, such that higher levels of influencer attributes will be associated with greater group conformity.

Micro-influencers are often perceived as more authentic and trustworthy due to their niche expertise, relatable online personas, and smaller follower counts (Himelboim & Golan, 2023; Park et al., 2021; Yang et al., 2023; Zhang & Wei, 2021). Authenticity has the ability to enhance influencer credibility and trust, which ultimately increases influencers' persuasive power (Lee & Eastin, 2021; Daimi & Tolunay, 2021). This persuasive power is especially evident in online groups that are closely bonded, such as the follower communities that SMIs grow and cultivate. These communities are not comprised of just passive audience members; they are active and interactive groups that provide emotional and community support by fostering deep identification with the group and the influencer (Kim & Chan-Olmsted, 2022). As followers engage with each other and the influencer directly through the continuous, iterative

process that CMC enables, they can further develop a sense of commitment to the group, strengthening the influential impact of the influencer's recommendations. Kim and Chan-Olmsted (2022) demonstrated that the emotional and relational bonds cultivated within these follower communities significantly predict intentions to participate and engage in influencer endorsements. In addition, research from Himelboim and Golan (2023) found that micro- (i.e., nano-) influencers appear more authentic and trustworthy to individuals due to the fact that they often have fewer followers than celebrity (i.e., macro-) influencers. With smaller follower counts, micro-influencers have the ability to maintain stronger and more intimate online relationships with their followers, which leads to higher credibility and persuasive impact (Himelboim & Golan, 2023). For these reasons, the persuasive power of micro-influencers is amplified by influencer attributes and the strength of the online communities these influencers develop (Himelboim & Golan, 2023; Kim & Chan-Olmsted, 2022). In these online communities, group conformity is particularly relevant in contexts such as these, where group-based persuasion is a key element of the connection between the influencer, their followers, and their strength and power in influencing consumer behavior. These findings starkly contrast how celebrity influencers are perceived and engaged with online by their followers.

By contrast, celebrity influencers are often revered and admired from a distance due to their famous personas (Feasey, 2024; Hou, 2018). In fact, Hou (2018) discovered that traditional celebrity culture encourages a "managed distance" between the celebrity and their admirers or followers. This perception of managed distance was likely set into motion by early film stars who cultivated a curated public image while maintaining a distinct distance between themselves and their audience (Feasey, 2024). Further, celebrity influencers represent extraordinary, larger-than-life characters that demonstrate success and fame, which makes them aspirational in the

eyes of their followers. However, this can fundamentally put celebrity influencers in a different category, resulting in the celebrity influencer being not as relatable as micro-influencers, who are seen as having a more intimate relationship with their followers and leaders of relatable communities (Feasey, 2024; Hou, 2018). Group conformity is shaped by influencers' posts and messaging, source credibility, and perceived authenticity factors (Lea & Spears, 1991; Reicher et al., 1995). Due to these reasons, celebrity influencers may have a more limited ability to generate strong group-level identification or conformity among their communities than micro-influencers, who are perceived as more real and relatable than celebrities (Feasey, 2024; Hou, 2018). Thus, it is hypothesized that:

> H3: Influencer type (micro vs. celebrity) will moderate the relationship between influencer attributes and group conformity, such that the positive effect of influencer attributes on group conformity will be stronger for micro-influencers compared to celebrity influencers.

**Participants**

For Study 1, a new group of 200 participants was recruited from Prolific, with the same demographics found to be aligned with the followers of beauty influencers from the Pilot Study. The study was advertised on Prolific with the following disclaimer: "It is recommended that you only take this survey if you are a follower of beauty influencers on social media" to dissuade any non-beauty influencer followers from participating. Participants who failed attention checks or did not complete the survey were removed from the analysis.

The final sample for Study 1 consisted of 194 participants. The age distribution was 28.4% aged 18-24 and 71.6% aged 25-34. Regarding education, 34.5% of participants held a bachelor's degree, 31.4% had completed some college but did not earn a degree, and 19.1% held

an associate's degree. A smaller portion (7.7%) had a graduate or professional degree, while 7.2% had only a high school diploma or GED. Household income varied across participants, with 42.3% reporting an annual income of less than $50,000, while 36.1% earned $75,000 or more. The sample included 38.7% married participants, while 39.7% had never been married. Regarding racial identity, the majority of participants identified as white (69.1%), followed by black or African American (17.5%), Asian (7.2%), and American Indian/Alaska Native (6.2%).

**Procedure**

Participants were randomly separated into one of two influencer-type conditions: micro- ($n$ = 94) or celebrity influencer ($n$ = 100). Participants were then given a definition of either a non-celebrity (i.e., micro-celebrity) or celebrity influencer, derived from Lee and Eastin (2021) (see Table 3). Then, a list of five popular beauty influencers in each influencer type category was provided with directions asking the participant, "Which of the below non-celebrity/celebrity beauty influencers are you most familiar with and have the most positive impression of?" Participants who selected "none of these" were immediately exited from the survey. Depending on the influencer selected by the participant, that specific influencer's name was automatically inserted into questions throughout the rest of the survey using Qualtrics' piped text functionality to make the questions more impactful and keep the SMI top of mind to the participant during the survey (Table 3).

**Table 3.**

*Non-Celebrity/Celebrity Definitions and Selections*

| Scenario Component | Message Content |
|---|---|
| Non-Celebrity Definition | *A NON-celebrity beauty influencer is: An individual who has gained prominence within a specific niche online community, often through social media platforms, and influences beauty trends among their dedicated followers. Unlike traditional celebrities, these influencers are not widely famous in* |

**Table 3 (cont'd).**

| | |
|---|---|
| Non-Celebrity Beauty Influencer Selections | *mainstream media but have built credibility and influence within their specific audience.*<br>*Which of the below non-celebrity beauty influencers are you most familiar with and have the most positive impression of?*<br>- *Hudda Kattan*<br>- *Nikki de Jager*<br>- *Michelle Phan*<br>- *Patrick Starrr*<br>- *Jackie Aina*<br>- *None of these (exited from survey)* |
| Celebrity Definition | *A celebrity beauty influencer is: A well-known public figure, such as an actor, musician, or model, who endorses beauty products, leveraging their widespread fame to influence consumer preferences.* |
| Celebrity Beauty Influencer Selections | *Which of the below celebrity beauty influencers are you most familiar with and have the most positive impression of?*<br>- *Rhianna*<br>- *Kim Kardashian*<br>- *Kylie Jenner*<br>- *Selena Gomez*<br>- *Hailey Bieber*<br>- *None of these (exited from survey)* |

Next, two open-text inductions were given to participants to further induce them to remember the attributes of the beauty SMI they selected. The first induction asked the participant, "What is something specific {influencer name} has done that made them stand out to you?" and the second, "What is one reason you trust {influencer name}'s beauty recommendations?" These two inductions also served as attention checks as well. Lastly, participants were given questions on measures and demographics to answer.

**Data Cleaning**

As part of data preparation, responses were screened for quality. Participants who exhibited non-differentiated response patterns (e.g., straight-lining), failed embedded attention checks, or provided incomplete data were excluded.

**Manipulation Check Results**

A manipulation check was conducted to ensure participants correctly perceived the influencer-type condition as intended. Participants rated the influencer on two statements: whether the influencer was a non-celebrity primarily known for online content and whether the influencer was a celebrity also known for expertise in another area (e.g., acting, television, music).

An independent samples t-test confirmed significant differences between the two influencer-type conditions. First, participants were provided with a prompt (i.e., "{influencer's name} was…" and then shown two statements to rate. Participants in the non-celebrity condition rated the statement "A non-celebrity influencer known for their online content" significantly higher ($M$ = 6.52, $SD$ = .99) than those in the celebrity condition ($M$ = 2.07, $SD$ = 1.82), $t(191)$ = 2.94, $p < .001$, Cohen's $d$ = 1.48, indicating successful manipulation of the non-celebrity influencer condition. Similarly, participants in the celebrity condition rated the statement "A celebrity influencer also known for their expertise in another area" significantly higher ($M$ = 6.22, $SD$ = 1.37) than those in the non-celebrity condition ($M$ = 2.61, $SD$ = 2.16), $t(192)$ = -14.03, $p < .001$, Cohen's $d$ = 1.79, confirming that the celebrity influencer condition was successfully perceived as distinct from the non-celebrity influencer condition. These findings validate the influencer-type manipulation as effective.

**First-Order Confirmatory Factor Analysis Results: Influencer Attributes**

To validate the measurement model for the influencer attributes construct, a Confirmatory Factor Analysis (CFA) was conducted using Maximum Likelihood Estimation (MLR) in lavaan (.6-19). The model initially included five latent constructs: authenticity (Lee & Eastin, 2021), attractiveness (Ohanian, 1990), trust (Ohanian, 1990), expertise (Ohanian, 1990),

and perceived similarity (Stein et al., 2024). Items with low standardized loadings (below .50), high modification indices, or high residual variance were removed to improve model fit and ensure construct validity.

The final CFA model demonstrated improved model fit, with a Comparative Fit Index (CFI) of .887, a Tucker-Lewis Index (TLI) of .872, and a Standardized Root Mean Square Residual (SRMR) of .062, all meeting acceptable thresholds (Table 5). Although the Root Mean Square Error of Approximation (RMSEA) was slightly elevated at .101 (.092 Robust), it remained within an acceptable range given the sample size ($n$ = 194). All retained items had statistically significant factor loadings ($p < .001$) above .60, supporting construct validity. A total of 23 items were retained from the original 34 (see Table 4), demonstrating strong factorial validity with adequate model fit. While the RMSEA remained slightly above the preferred ≤ .08 threshold, the overall model fit indices indicate that the measurement model is robust and suitable for use in subsequent analyses of influencer attributes. Thus, the scale demonstrated a valid factor structure, acceptable model fit, and strong standardized factor loadings. See Figure 1 for the CFA results.

**Second-Order Confirmatory Factor Analysis Results: Influencer Attributes**

A second-order CFA was conducted to validate further the influencer attributes construct's theoretical structure. This model tested whether a single higher-order latent attribute labeled influencer attributes could explain the four retained first-order factors (i.e., authenticity, attractiveness, trust, and expertise). The second-order model demonstrated acceptable fit (*CFI* = .887, *TLI* = .874, *RMSEA* = .100, *SRMR* = .062), with all higher-order paths statistically significant ($p < .001$) and standardized loadings exceeding .70. These results support the conceptualization of influencer attributes as a valid second-order construct, justifying its use in

subsequent analyses (see Table 6).

A reliability analysis was conducted to assess the internal consistency of the influencer attributes scale using only the retained items from the CFA. The scale demonstrated excellent reliability, with Cronbach's α = .957, indicating strong internal consistency.

**Table 4.**

*Influencer Attributes Scale Items Retained*

| Factor | Scale Item | Standardized Loading | Reliability |
|---|---|---|---|
| **Influencer Attributes** | (Includes the 23 scale items below.) | | .957 |
| Authenticity (Lee & Eastin, 2021) | *{Influencer name}…* | | |
| | 1. Seems kind and good hearted. | .772 | |
| | 2. Comes off as genuine. | .762 | |
| | 3. Is down-to-earth. | .766 | |
| | 4. Gives meaningful insights into the products they recommend, even if they post ads. | .848 | |
| | 5. Gives very honest reviews on brands. | .837 | |
| | 6. Endorses products and brands that vibe well with their personality. | .762 | |
| | 7. Promotes products they would actually use. | .807 | |
| | 8. Has original content instead of a copy of someone else's. | .758 | |
| Attractiveness (Ohanian, 1990) | *{Influencer name} is…* | | |
| | 9. Unattractive – Attractive | .828 | |
| | 10. Not Classy – Classy | .822 | |
| | 11. Ugly – Beautiful | .796 | |
| | 12. Plain – Elegant | .843 | |
| | 13. Not Sexy – Sexy | .734 | |
| | 14. Undependable – Dependable | .708 | |
| Trust (Ohanian, 1990) | *{Influencer name} is…* | | |
| | 15. Dishonest – Honest | .885 | |
| | 16. Unreliable – Reliable | .897 | |
| | 17. Insincere – Sincere | .868 | |

**Table 4 (cont'd).**

| | | |
|---|---|---|
| | 18. Untrustworthy – Trustworthy | .852 |
| Expertise (Ohanian, 1990) | *{Influencer name} is…* | |
| | 19. Not an Expert – Expert | .722 |
| | 20. Inexperienced – Experienced | .911 |
| | 21. Unknowledgeable – Knowledgeable | .886 |
| | 22. Unqualified – Qualified | .884 |
| | 23. Unskilled – Skilled | .837 |

*Note. All items were measured on a 7-point Likert scale (Strongly Disagree – Strongly Agree).*

**Table 5. First-Order CFA Model Fit Statistics**

*Influencer Attributes*

| Fit Index | Value | Recommended Threshold | Interpretation |
|---|---|---|---|
| Comparative Fit Index (CFI) | .887 (.903 Robust) | ≥ .90 | Acceptable |
| Tucker-Lewis Index (TLI) | .872 (.890 Robust) | ≥ .90 | Acceptable |
| Root Mean Square Error of Approximation (RMSEA) | .101 (.092 Robust) | ≤ .08 | Slightly high, but robust RMSEA is within an acceptable range |
| 90% CI for RMSEA | [.092, .110] (Robust: [.082, .103]) | - | - |
| Standardized Root Mean Square Residual (SRMR) | .062 | ≤ .08 | Good fit |
| Sample Size (n) | 194 | - | - |

**Table 6. Second-Order CFA Model Fit Indices**

*Influencer Attributes*

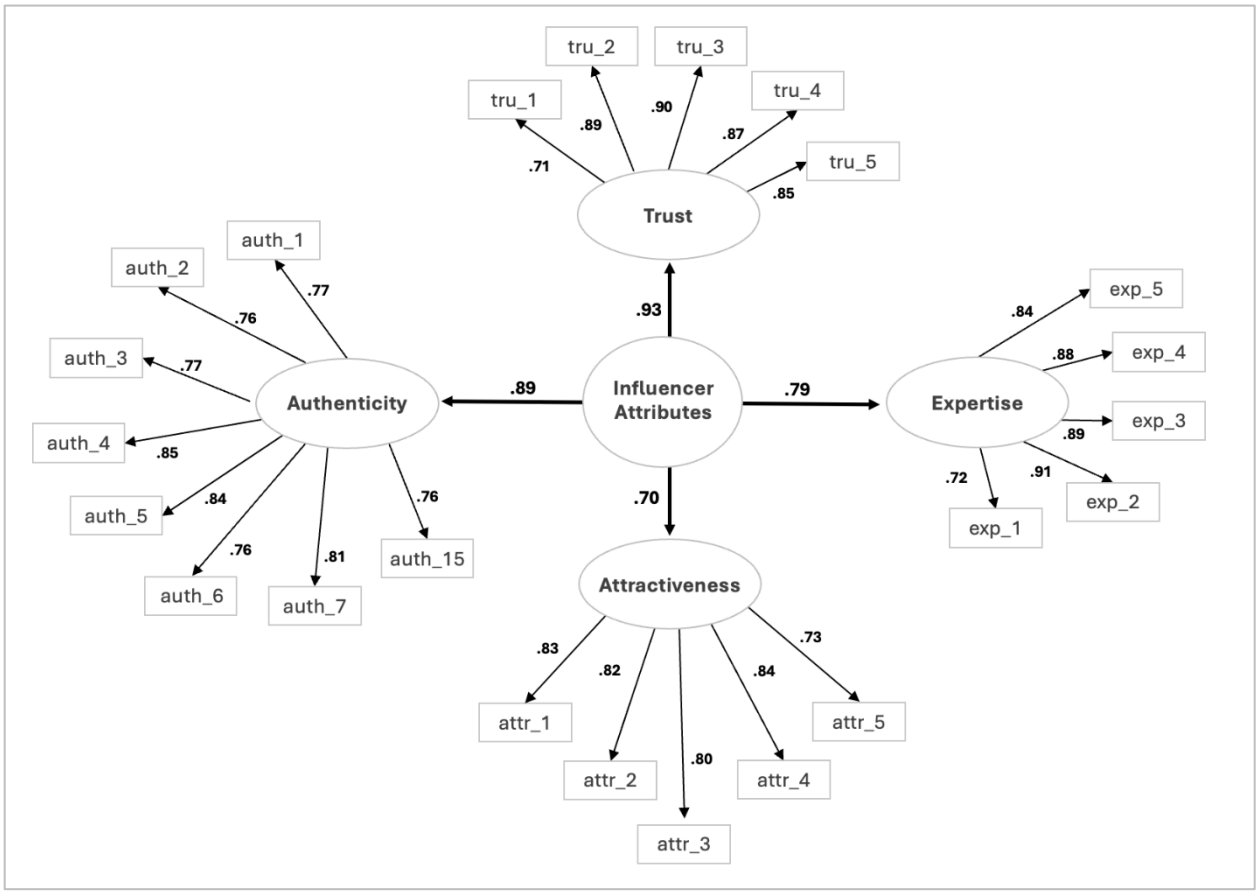
| Fit Index | Value | Recommended Threshold | Interpretation |
|---|---|---|---|
| Comparative Fit Index (CFI) | .887 (.903 Robust) | ≥ .90 | Acceptable |
| Tucker-Lewis Index (TLI) | .874 (.890 Robust) | ≥ .90 | Acceptable |
| Root Mean Square Error of Approximation (RMSEA) | .100 (.092 Robust) | ≤ .08 | Slightly high, but robust RMSEA is within an acceptable range |
| 90% CI for RMSEA | [.092, .109] (Robust: [.082, .103]) | - | - |
| Standardized Root Mean Square Residual (SRMR) | .062 | ≤ .08 | Good fit |

**Table 6 (cont'd).**

| | | | |
|---|---|---|---|
| Sample Size (n) | 194 | - | - |

**Figure 1.**

*Confirmatory Factor Analysis Results, Influencer Attributes Retained*




**First-Order Confirmatory Factor Analysis Results: Group Conformity**

To validate the measurement model for the group conformity construct, a CFA was conducted using MLR in lavaan (.6-19). The model included items from three latent constructs: social conformity (Comrey, 1970), conformity to group norms (Mehrabian, 2005), and group identification (Leach et al., 2008). To ensure that the scale captured the influencer-specific context for this study, only the most applicable scale items were selected from the original social conformity and conformity to group norms measures based on their fit within the influencer-

follower group scenario.

The final CFA model demonstrated acceptable model fit, with a CFI of .901, a TLI of .885, and a SRMR of .056, all meeting standard fit thresholds (Table 8 and Figure 2). Although the RMSEA was slightly elevated at .109 (.097 Robust), it remained within an acceptable range given the sample size ($n$ = 194). All retained items had statistically significant factor loadings ($p$ < .001) above .60, supporting construct validity.

All 18 items were retained across all three latent constructs (see Table 7), demonstrating strong factorial validity with adequate model fit. The slight elevation in RMSEA is consistent with models containing multiple latent factors, and the CFI, TLI, and SRMR values confirm that the measurement model is robust. Thus, the group conformity scale demonstrated a valid factor structure, acceptable model fit, and strong standardized factor loadings (Figure 2).

**Second-Order Confirmatory Factor Analysis Results: Group Conformity**

To test whether the group conformity construct could be represented as a higher-order factor, a second-order CFA was conducted using MLE with RSE (MLR) in lavaan (.6-19). The initial second-order model included three first-order latent constructs (i.e., social conformity, group norm adherence, and group identification) as indicators of a single higher-order group conformity factor. However, the two items from the social conformity factor displayed negative residual variance, a known sign of improper solutions in CFA models, and were then removed from the analysis. After excluding these scale items, the revised second-order model demonstrated an acceptable fit, with a CFI of .916, TLI of .899, and SRMR of .053. Although the RMSEA remained slightly elevated at .095 (scaled), it fell within an acceptable range given the model complexity and sample size ($n$ = 194). All first-order constructs significantly loaded onto the higher-order group conformity factor, with standardized coefficients above .28 and

statistically significant ($p < .05$). These results support the conceptualization of group conformity as a multidimensional, second-order construct suitable for further testing (see Table 9).

It is important to note that although the two social conformity items demonstrated strong standardized loadings above .70 in the initial first-order CFA, they were ultimately removed from the second-order model. Despite their individual performance, the scale was conceptually limited by the inclusion of only two items for the social conformity factor, which is not recommended for structural validity in second-order models. As a result, the social conformity factor was excluded from the final second-order group conformity model to improve model estimation and ensure proper construct specification.

**Table 7.**

*Group Conformity Scale Items Retained*

| Factor | Scale Item | Standardized Loading | Reliability |
|---|---|---|---|
| **Group Conformity**<br>Conformity to Group Norms (Mehrabian, 2005) | (Includes the 16 scale items below.)<br><br>*Rate your response. (7-point Likert scale, Strongly Disagree – Strongly Agree).* | | .900 |
| | 1. I find it difficult to go against the opinions of groups I belong to. | .752 | |
| | 2. I prefer to fit in with the group rather than stand out. | .81 | |
| | 3. I feel uncomfortable expressing opinions that differ from those of the group. | .791 | |
| | 4. When I'm unsure about something, I often follow what others are doing. | .757 | |
| | 5. I change my behavior to fit in with the people around me. | .832 | |
| | 6. I value group harmony more than expressing my personal views. | .787 | |
| | 7. I avoid confrontation by aligning with group norms. | .836 | |
| Group Identity | *Rate your response. (7-point Likert scale,* | | |

**Table 7 (cont'd).**

| | | |
|---|---|---|
| (Hogg & Hains, 1996) | *Not at All – Extremely)* | |
| | 8. How similar are you to the group of followers that follow {influencer name}? | .764 |
| | 9. How much do you like {influencer's name}'s online community as a whole? | .801 |
| | 10. How well do you feel you fit into {influencer's name}'s community of followers? | .863 |
| | 11. How cohesive do you feel this community of followers is? | .668 |
| | 12. How important is {influencer's name}'s community to you? | .901 |
| | 13. How much do you identify with this community of followers? | .928 |
| | 14. How strong are your ties to this community? | .904 |
| | 15. How glad are you to be a member of {influencer's name}'s online community? | .859 |
| | 16. How much do you see yourself as belonging to {influencer's name}'s online community? | .900 |

**Table 8. First-Order CFA Model Fit Statistics**

*Group Conformity*

| **Fit Index** | **Value** | **Recommended Threshold** | **Interpretation** |
|---|---|---|---|
| Comparative Fit Index (CFI) | .901 (.907 Robust) | ≥ .90 | Acceptable |
| Tucker-Lewis Index (TLI) | .885 (.893 Robust) | ≥ .90 | Acceptable |
| Root Mean Square Error of Approximation (RMSEA) | .109 (.105 Robust) | ≤ .08 | Slightly high, but robust RMSEA is within an acceptable range |
| 90% CI for RMSEA | [.098, .121] (Robust: [.092, .118]) | - | - |
| Standardized Root Mean Square Residual (SRMR) | .056 | ≤ .08 | Good fit |
| Sample Size (n) | 194 | - | - |

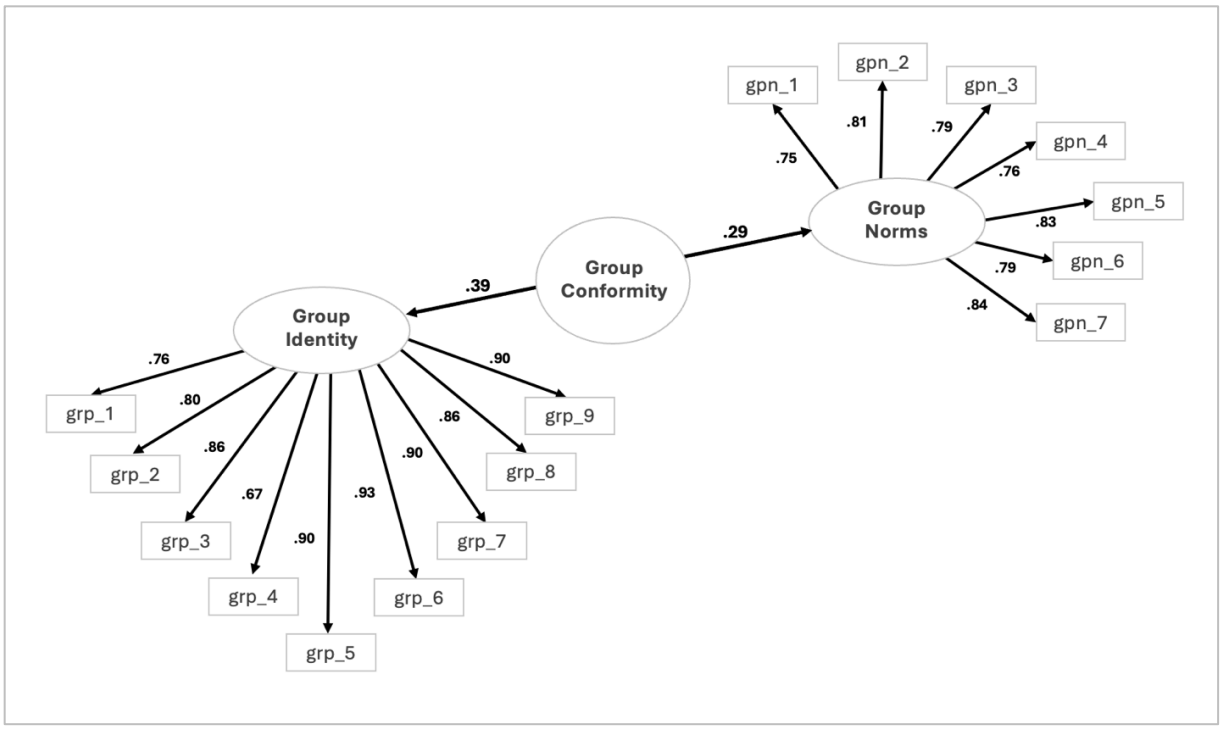
**Table 9. Second-Order CFA Model Fit Indices**

*Group Conformity*

| Fit Index | Value | Recommended Threshold | Interpretation |
|---|---|---|---|
| Comparative Fit Index (CFI) | .916 (.914 Scaled) | ≥ .90 | Good Fit |
| Tucker-Lewis Index (TLI) | .901 (.899 Scaled) | ≥ .90 | Good Fit |
| Root Mean Square Error of Approximation (RMSEA) | .109 (.095 Scaled) | ≤ .08 | Slightly high, but scaled RMSEA is within an acceptable range |
| 90% CI for RMSEA | [.096, .122] (Scaled: [.083, .107]) | - | - |
| Standardized Root Mean Square Residual (SRMR) | .053 | ≤ .08 | Good fit |
| Sample Size (n) | 194 | - | - |

**Figure 2.**

*Confirmatory Factor Analysis Results, Group Conformity*



**Regression Analysis Results: Predicting Group Conformity**

A linear regression analysis was conducted to examine whether influencer attributes significantly predict group conformity (H2). Grounded in the SIDE model's assertion that group identification influences alignment with group norms (Lea & Spears, 1991; Postmes et al., 2001), this analysis aimed to confirm that individuals' perceptions of influencer attributes (e.g., authenticity, attractiveness, trustworthiness, and expertise) is a direct contributor to an individual's conformity to the group.

The results indicated that influencer attributes were a significant predictor of group conformity, explaining 10.0% of the variance in the dependent variable, $R^2 = .100$, $F(1, 192) = 21.29$, $p < .001$. The regression coefficient for influencer attributes was $B = .409$, $SE = .089$, $\beta = .316$, $t(192) = 4.61$, $p < .001$, indicating a moderate positive relationship. Higher perceptions of influencer attributes were associated with greater group conformity. These findings support H2, demonstrating that individuals who perceive influencers more favorably in terms of key attributes are more likely to conform to the norms and behaviors of the influencer's group of followers.

**Moderation Analysis Results: Influencer Type x Group Conformity**

A moderation analysis was conducted using Hayes' PROCESS Model 1 to examine whether influencer type (micro- vs. celebrity) moderates the relationship between influencer attributes and group conformity (Hypothesis 3). The overall model was significant, explaining 10.85% of the variance in group conformity, $R^2 = .108$, $F(3, 190) = 7.71$, $p = .0001$.

The main effect of influencer attributes on group conformity was significant, $B = .304$, $SE = .122$, $t(190) = 2.50$, $p = .013$, indicating that higher influencer attributes were associated with increased conformity. However, the main effect of influencer type was not significant, $B =$ -

1.10, *SE* = 1.11, *t*(190) = -.99, *p* = .324, suggesting that whether an influencer was categorized as a micro- or celebrity influencer did not independently impact group conformity.

Additionally, the interaction term between influencer attributes and influencer type was also not significant, *B* = .201, *SE* = .182, *t*(190) = 1.10, *p* = .271, indicating that the relationship between influencer attributes and group conformity did not differ between micro- and celebrity influencers. These findings do not support H3, suggesting that influencer type does not significantly moderate the relationship between influencer attributes and group conformity. This result indicates that followers conform to influencers based on their perceived attributes, regardless of whether they are micro- or celebrity influencers.

**Discussion**

Study 1 validated the measurement models for influencer attributes and group conformity, confirming their reliability for use in subsequent analyses. The results also demonstrated that influencer attributes significantly predict group conformity, supporting the hypothesis that individuals who perceive influencers as having more credibility (as measured through influencer attributes) are more likely to conform to the influencer's community or group norms.

However, influencer type (micro- vs. celebrity) did not significantly moderate this relationship, suggesting that individuals conform to influencer-driven group norms regardless of influencer type. This finding may reflect a shift in how social media users perceive influence, viewing both micro- and celebrity influencers as similarly credible.

These findings set the foundation for Study 2, which moves beyond establishing these constructs to examine group conformity's role as a moderator rather than a mediator in the relationship between influencer attributes and psychological discomfort. Study 2 will also

explore how psychological discomfort drives attitudinal and purchase intention change in response to counter-normative influencer recommendations.

## Study 2: Testing the IDM

Study 2 aimed to test the conceptualized IDM using the validated constructs from Study 1, influencer attributes and group conformity, and the validated counter-normative recommendation from the Pilot Study. This study employed an experimental design with two key manipulations: anonymity (anonymous vs. identified) and task compliance type (pressured sharing vs. free will). Study 2 sought to examine the psychological mechanisms that drive alignment with counter-normative beauty influencer recommendations through attitude change and, specifically, how these types of recommendations change consumer attitudes and behaviors.

Building upon the findings of Study 1, which established the direct relationship between influencer attributes and group conformity, Study 2 focuses on examining group conformity as a moderator between influencer attributes and psychological discomfort. VDT posits that individuals experience discomfort when in-group members deviate from the perceived norms of the group (Cooper & Hogg, 2007). In addition, the strength of this discomfort and resulting attitudinal change is likely influenced by the degree to which individuals identify with the group (i.e., group conformity). Therefore, group conformity should moderate the relationship between influencer attributes and psychological discomfort, as the IDM represents the level of identification with the influencer's group norms. The more someone identifies with the group, the stronger the effects of the influencer attributes will be on psychological discomfort.

A series of statistical analyses were conducted to evaluate the IDM. First, a PROCESS Model 1 moderation analysis was performed to assess whether group conformity moderates the relationship between influencer attributes and psychological discomfort in response to counter-

normative recommendations. Next, a PROCESS Model 2 moderation analysis examined whether task type and anonymity moderate the relationship between psychological discomfort and attitudinal change. This analysis revealed that anonymity did not significantly moderate this relationship and was subsequently removed from further testing. Finally, a PROCESS Model 91 serial mediation analysis was conducted to test the broader IDM model, retaining task type as a moderator of the relationship between psychological discomfort and attitudinal change.

**Hypotheses**

This study applies the IDM to examine how counter-normative recommendations from influencers trigger psychological discomfort, resulting in attitudinal change and ultimately impacting purchase intention change. In particular, this study explores the roles of group conformity and psychological discomfort in explaining how individuals respond to counter-normative recommendations.

Given their significant persuasive power driven by perceived authenticity and source credibility factors (Park et al., 2021; Lee & Eastin, 2021), influencers serve as powerful in-group members whose recommendations carry considerable social weight. When these individuals suggest counter-normative recommendations to their followers, the internal conflict between the recommendation and the followers' internalized norms can trigger psychological discomfort (Belanche et al., 2021b). Especially in cases where followers strongly identify (i.e., are high in influencer attributes) with the influencer, it heightens the dissonance level they experience (Hu et al., 2020). This generated discomfort appears because individuals attempt a state of consistency between the influencer's recommendation and their own attitudes, beliefs, and behaviors. When an influencer's recommendation clashes with a follower's beliefs or internalized norms, a state of cognitive dissonance is created, motivating the individual to reduce or eliminate it (Cooper &

Hogg, 2007). This psychological discomfort can lead consumers to either reject the recommendation or resolve the dissonance by changing their attitudes, often in ways that restore harmony between the follower and influencer (Belanche et al., 2021b; Hu et al., 2020). This discomfort is especially effective in precipitating attitude change when the influencer is considered highly prototypical of the group, has high trust and credibility, or the recommendation is somehow relevant to their group identity (Belanche et al., 2021b; Cooper & Hogg, 2007; Hu et al., 2020).

The more the follower perceives the influencers' attributes favorably (Hu et al., 2020), the more likely the follower is to feel strong inner dissonance when a recommendation violates social norms. In this way, influencer attributes function as amplifiers of vicarious dissonance, intensifying the psychological discomfort experienced by followers. This dissonance process intensifies the psychological discomfort because followers who admire and highly identify with the influencer feel a greater need to maintain consistency between their own beliefs and the actions of someone they view as a prototypical group member (Hu et al., 2020). The emotional investment and strong identification followers have with the influencer heighten the sensed inconsistency when the influencer behaves in ways that challenge norms (i.e., offers a counter-normative recommendation). As a result, the dissonance becomes more uncomfortable and even more difficult to ignore, encouraging followers toward attitudinal change or behavioral adjustment to resolve the tension. Therefore, it is hypothesized:

H4: Influencer attributes will have a significant impact on psychological discomfort following exposure to a counter-normative recommendation.

When followers strongly identify with an influencer's group norms, they are more likely to view the influencer as a central, prototypical member of their in-group and as someone whose

opinions and recommendations reflect the values of the group itself (Belanche et al., 2021b; Hu et al., 2020). This elevated group identification strengthens the influence of the recommendation and intensifies the pressure to align with behavior that is perceived as consistent with the group. Group identification enhances followers' susceptibility and responsiveness to persuasive messages by increasing perceived similarity and trust, which heightens the impact of the influencer's recommendations (Belanche et al., 2021b). When a recommendation is seen as originating from a prototypical group member, it carries greater weight, increasing the likelihood of attitudinal alignment and behavioral compliance (Hu et al., 2020). As identification with the group strengthens, so too does the perceived obligation to conform, especially in contexts where social cohesion is valued, as experienced in online groups.

In this case, the persuasive power of influencer attributes amplifies the internal dissonance when a counter-normative recommendation is given to the group. The dissonance between the individual's internalized norms and the influencer's persuasive message creates psychological discomfort (Belanche et al., 2021b; Cooper & Hogg, 2007; Hu et al., 2020). This discomfort is hypothesized to be especially pronounced when the influencer is perceived as both credible and representative of the close group. When followers view the influencer as a prototypical in-group member, the pressure to conform to their recommendation is stronger because diverging from the influencer's message feels like separation from the group (Belanche et al., 2021b; Hu et al., 2020). The more credible and central the influencer appears (i.e., when the follower is higher in influencer attributes), the more difficult it becomes for followers to reconcile their internal resistance, intensifying their psychological discomfort (Kim & Chan-Olmsted, 2022).

H5a: For individuals with high group conformity, influencer attributes will positively

predict psychological discomfort in response to counter-normative recommendations.

Conversely, individuals who exhibit low group conformity are less likely to internalize the influencer's group norms as relevant to their own identity. When group salience or conformity is low, and individuals do not feel psychologically immersed in or strong ties with the group, they are more likely to prioritize their personal identity over the group's identity (Huang & Li, 2016; Postmes et al., 2001; Rathbone et al., 2023). This process can weaken the group norms' importance and reduce the likelihood that individuals will internalize messages from in-group figures like influencers. As a result, counter-normative influencer recommendations are less likely to induce internal conflict or discomfort, regardless of the influencer's perceived credibility or other persuasive attributes (Rathbone et al., 2023). Without a strong connection to the group, followers may perceive the influencer's message as having ulterior motives or irrelevancy, resulting in less psychological discomfort. This process occurs because individuals do not strongly identify with the group, making them less likely to adopt the group's values or even consider group-relevant messages as relevant to themselves. As a result, the psychological mechanisms that typically produce dissonance are not activated to the same extent (Rathbone et al., 2023).

H5b: For individuals with low group conformity, influencer attributes will not significantly predict psychological discomfort in response to counter-normative recommendations.

Influencer attributes, such as credibility and trustworthiness, significantly impact followers' attitudes (Liu & Zheng, 2024; Cabeza-Ramírez et al., 2022). When influencers give counter-normative recommendations, this creates psychological discomfort, or dissonance, as followers try to find a way to resolve the discomfort they now have (Cooper & Hogg, 2007;

Postmes & Spears, 1998). The follower must resolve the psychological discomfort generated; attitudinal change is one resolution method (Cooper & Hogg, 2007). This suggests that psychological discomfort mediates the relationship between influencer attributes and the following shift in follower attitudes.

H6: Psychological discomfort will mediate the relationship between influencer attributes and attitudinal change.

VDT suggests that individuals experience discomfort when in-group members, like influential SMIs, endorse counter-normative behaviors (Cooper & Hogg, 2007; Jaubert et al., 2020). In online CMC settings, pressured-sharing conditions intensify the experience of psychological discomfort compared to free-will sharing, demonstrating the opposite effects observed in traditional in-person VDT studies where free-will compliance leads to higher attitudinal change (Rathjens et al., 2025). This heightened discomfort, driven by the nature of the CMC environment, subsequently leads to stronger attitudinal changes as individuals seek to resolve their dissonance.

H7: Task type will moderate the relationship between psychological discomfort and attitudinal change, such that individuals in the pressured-sharing condition will experience higher levels of psychological discomfort, leading to stronger attitudinal change compared to those in the free will sharing condition.

The SIDE model posits that anonymity in CMC environments enhances adherence to group norms by reducing personal accountability (Huang & Li, 2016; Postmes et al., 2001). When influencers issue counter-normative recommendations, the resulting psychological discomfort is likely to drive stronger attitudinal change in anonymous settings, as followers align with the influencer's group identity without fear of personal repercussions (Nitschinsk et al.,

2023). Therefore, the effect of psychological discomfort on attitudinal change will be stronger when the follower task is done anonymously, compared to identified conditions.

H8: Anonymity will moderate the relationship between psychological discomfort and attitudinal change, such that the effect of psychological discomfort on attitudinal change will differ depending on whether the recommendation task is written anonymously or identified.

When influencers promote counter-normative recommendations, followers experience psychological discomfort due to the dissonance or internal conflict generated within them (Cooper & Hogg, 2007; Jaubert et al., 2020). To resolve this discomfort, followers experience attitudinal change, aligning their beliefs with the influencer's recommendations (Rathjens et al., 2025). Given that influencers are powerful persuasive agents (Azizkhonovna, 2023; Park et al., 2021) who effectively sway opinions and purchase decisions (Park et al., 2021; Rathjens et al., 2024), this attitudinal shift directly influences purchase intention. Followers are more likely to adopt behaviors and preferences consistent with their newly aligned attitudes, ultimately impacting their purchase intentions, thereby establishing attitudinal change as a mediator between psychological discomfort and purchase intention change. Due to these reasons, it is hypothesized that:

H9: Attitudinal change will mediate the relationship between psychological discomfort and purchase intention change.

**Participants**

A total of 425 female participants were recruited for the study from Prolific. After removing individuals who failed attention checks or failed to complete the survey, the final sample consisted of 399 participants. The age distribution of the sample was predominantly

young adults, with the majority falling within the 25-34 age range (74.4%), followed by 24.1% in the 18-24 age range, and a small percentage (1.5%) in the 35-44 age range. Regarding education, nearly half of the participants (46.1%) held a bachelor's degree, while 20.6% had obtained a graduate or professional degree. A smaller proportion had completed an associate's or technical degree (7.3%), some college without a degree (12.5%), or only a high school diploma or GED (12.5%), with 0.3% reporting less than a high school education.

Household income levels varied across the sample, with 19.0% of participants earning between $100,000 and $149,999 annually, 16.8% earning between $75,000 and $99,999, and 19.8% earning between $50,000 and $74,999. Additionally, 20.1% of participants reported incomes between $25,000 and $49,999, while 11.5% reported earnings of less than $25,000. A smaller portion (10.3%) reported household incomes of $150,000 or more, and 2.5% chose not to disclose their income. Regarding racial demographics, the majority of participants identified as white or Caucasian (70.4%), followed by black or African American (17.0%). Additionally, 8.5% of participants identified as Asian, 3.8% selected "other," 2.3% identified as American Indian or Alaska Native, and 0.5% identified as Native Hawaiian or Other Pacific Islander. A small percentage (1.3%) chose not to disclose their racial identity.

**Procedure**

Study 2 aimed to empirically test the conceptualized IDM using the newly validated constructs from Study 1: influencer attributes and group conformity. The study was designed as an experimental investigation incorporating two primary manipulations: anonymity (anonymous vs. identified) and recommendation task type (pressured sharing vs. free will).

Participants first completed a familiarity check in which they were asked to select the beauty influencer they were most familiar with from a provided list. Unlike Study 1, this list

included both micro- and celebrity-influencers in a single selection pool. If a participant indicated that they were unfamiliar with the listed influencers, they were immediately exited from the study.

Following the selection process, participants were asked to report their initial attitude (time 1) toward do-it-yourself (DIY) beauty procedures—specifically, procedures that individuals perform on themselves rather than seeking professional services (see Table 11 for scale items). To reinforce engagement with the scenario and as an initial induction task, participants were then prompted to provide one reason why they trusted the selected influencer's beauty recommendations. This task also functioned as an embedded attention check (Table 10).

Next, participants rated their purchase intention at time 1 (see Table 11 for scale items) before assessing influencer attributes. They were then introduced to the scenario and subsequently completed measurements related to group conformity.

Participants were then presented with a counter-normative beauty recommendation scenario in which the influencer they selected earlier advocated for an unconventional mole removal technique (see Table 10). To ensure comprehension and to further align with the task type conditions, participants were asked to write a recommendation post to share online to promote the influencer's specific mole removal recommendation, which was counter-normative. This part of the study was important to trigger attitudinal change, as in classic VDT studies (Cooper & Hogg, 2007), the fellow in-group member was asked to complete a task they may not have initially supported. By completing the task, their dissonance was resolved, resulting in attitude change.

**Table 10.**

*Study 2 Conditions and Inductions*

| Component | Message Content |
|---|---|
| Induction 1 | *What is one reason you trust { influencer name }'s beauty recommendations? (Open entry text box)*<br>*Note: answers must be at least 50 characters in length.* |
| Recommendation | *{ Influencer Name } recently shared a new beauty tip: removing moles at home by tying a string around them until they fall off using a special mole removal kit.*<br>*They demonstrated how this effectively cuts off circulation, causing the mole to fall off naturally, and claimed top beauty influencers swear by this method for an easy mole removal.*<br>*They called it a "must-try" for those wanting clear skin without a dermatologist (doctor) visit.*<br>*However, this method is strongly discouraged by medical professionals due to serious risks, including permanent scarring, severe infection, or even dangerous complications.*<br>*Despite these warnings, the influencer's demonstration and excitement make you question whether it's truly that bad.* |
| Anonymous/Pressured Condition | *{ Influencer Name }, the influencer, is giving free beauty products to their followers that create a post recommending this specific mole removal method.*<br>*This would involve you sharing { Influencer Name }'s mole removal recommendation online. Your personal identity will not be disclosed to others, which means that others will not know who you are as you will be anonymous.*<br>*You realize that friends, family, and acquaintances will not be able to see that you recommended this beauty procedure.*<br>*To enter the giveaway, you feel strongly pressured to write and share the mole removal recommendation. Others expect you to participate, and not doing so might be viewed negatively.* |
| Anonymous/Free-Will Condition | *{ Influencer Name }, the influencer, is giving free beauty products to their followers that create a post recommending this specific mole removal method.*<br>*This would involve you sharing { Influencer Name }'s mole removal recommendation online. Your personal identity will not be disclosed to others, which means that others will not know who you are as you will be anonymous.*<br>*You realize that friends, family, and acquaintances will not be able to see that you recommended this beauty procedure.*<br>*You choose to enter the giveaway of your own free-will by sharing the mole removal recommendation. There's no pressure—just a chance to express your thoughts freely.* |
| Identified/Pressured | *{ Influencer Name }, the influencer, is giving free beauty* |

**Table 10 (cont'd).**

| | |
|---|---|
| Condition | *products to their followers that create a post recommending this specific mole removal method.*<br>*This would involve you sharing { Influencer Name }'s mole removal recommendation online. Your personal identity is disclosed to others, which means that others do know who you are.*<br>*You realize that friends, family, and acquaintances will be able to see that you recommended this beauty procedure.*<br>*To enter the giveaway, you feel strongly pressured to write and share the mole removal recommendation. Others expect you to participate, and not doing so might be viewed negatively.* |
| Identified/Free-Will Condition | *{ Influencer Name }, the influencer, is giving free beauty products to their followers that create a post recommending this specific mole removal method.*<br>*This would involve you sharing { Influencer Name }'s mole removal recommendation online. Your personal identity is disclosed to others, which means that others do know who you are.*<br>*You realize that friends, family, and acquaintances will be able to see that you recommended this beauty procedure.*<br>*You choose to enter the giveaway of your own free-will by sharing the mole removal recommendation. There's no pressure—just a chance to express your thoughts freely.* |
| Induction 2 | *Write your recommendation for the mole removal procedure to get the free beauty products the influencer offered. (Open entry multi-line text box)*<br>*In your recommendation, please include:*<br>*• A short description of the mole removal process { Influencer Name } has recommended.*<br>*• Your strong approval of { Influencer Name } and their past beauty recommendations.*<br>*• Your enthusiastic recommendation of this mole removal method.*<br>*Note: A minimum of 100 characters are required.* |

At this stage, participants were randomly assigned to one of four experimental conditions: anonymous/pressured, anonymous/free-will, identified/pressured, or identified/free-will. Each condition varied in the level of anonymity and the nature of the task (whether sharing the recommendation was framed as pressured or voluntary). Details with the specific instructions and wording participants received in each condition can be found in Table 10.

Following the scenario, participants completed psychological discomfort measures to assess their dissonance response. As a second induction task, they were instructed to write out the influencer's mole removal recommendation under the guise of entering a free beauty product giveaway. The participants were required to actually perform this task to simulate past VDT studies as closely as possible in an online format.

To ensure the effectiveness of the experimental conditions, manipulation checks were conducted for both anonymity and task type. Subsequently, participants' attitudes toward DIY beauty procedures were measured again (time 2), followed by a second measurement of purchase intention (time 2). Finally, participants completed demographic questions. Scale items are shown in Table 11.

**Table 11.**

*Study 2 Scale Items*

| **Factor** | **Scale Item** | **Reliability** |
|---|---|---|
| Influencer Attributes | (Includes the 23 scale items from Table 4.) | .955 |
| Group Conformity | (Includes the 16 scale items from Table 7.) | .908 |
| Attitude | *How do you feel about do-it-yourself (DIY) beauty procedures that individuals perform themselves which are traditionally carried out by professionals? (7-point bipolar scale)*<br>1. Bad – Good<br>2. Inappropriate – Appropriate<br>3. Risky – Safe<br>4. Unadvisable – Advisable<br>5. Irresponsible - Responsible<br>6. Negative – Positive | .969 (Time 1)<br>.986 (Time 2) |
| Psychological Discomfort (Pang et al., 2017) | *How are you feeling right now? (7-Point bipolar scale)*<br>1. Agitated – Calm<br>2. Tense – Relaxed<br>3. Anxious – At Ease | .981 |

**Table 11 (cont'd).**

| | | |
|---|---|---|
| | 4. Uneasy – Comfortable<br>5. Disturbed – Content<br>6. Conflicted – Resolved<br>7. Guilty – At Peace<br>8. Uncomfortable – Comfortable<br>9. Overwhelmed – Composed | |
| Purchase Intention (Lee & Eastin, 2021) | *Rate your opinion. (7-point Likert scale, Strongly Disagree – Strongly Agree).*<br>1. I am willing to purchase from {influencer name} or do what {influencer name} recommends immediately.<br>2. It is very likely I would purchase from {influencer name} or do what {influencer name} asks me to do.<br>3. I would suggest purchasing from {influencer name} or doing what {influencer name} is recommending. | .924 (Time 1)<br>.961 (Time 2) |

## Data Cleaning

Data cleaning procedures were applied to ensure integrity of the final dataset. Participants with substantial missing data, poor-quality responses, or who failed attention checks were excluded.

## Manipulation Check Results

To assess the effectiveness of the anonymity manipulation, participants responded to two items evaluating their perception of whether their identity was known to others or anonymous when sharing the influencer's recommendation. After reading the scenario, they were asked to indicate their agreement on a seven-point Likert scale regarding whether they had shared the recommendation anonymously, meaning others did not know who they were, or with their real identity, meaning others knew who they were.

The results demonstrated a significant difference between the two conditions, confirming that participants clearly distinguished between being identified and anonymous. For the item

measuring whether participants shared the recommendation anonymously, those in the anonymous condition ($M$ = 5.60, $SD$ = 1.94) reported significantly higher agreement than those in the identified condition ($M$ = 3.04, $SD$ = 2.43, $t(397) = 11.59$, $p < .001$). The effect size for this difference was large, with Cohen's $d$ = 1.16 (95% CI: 0.95, 1.37). Similarly, for the item measuring whether participants shared the recommendation with their real identity, those in the identified condition ($M$ = 5.17, $SD$ = 2.28) reported significantly higher agreement than those in the anonymous condition ($M$ = 2.54, $SD$ = 2.07, $t(397) = -12.04$, $p < .001$), with a large effect size of Cohen's $d$ = -1.21 (95% CI: -1.42, -0.99). These results indicate that the anonymity manipulation was successful.

To assess the effectiveness of the task type manipulation, participants responded to two items evaluating whether they perceived their decision to share the influencer's recommendation as pressured or made of their own free will. The results confirmed that participants in the pressured and free will conditions perceived the task type manipulation as intended. For the item measuring whether participants felt strongly pressured to share the recommendation, those in the pressured condition ($M$ = 5.28, $SD$ = 2.04) reported significantly higher agreement than those in the free-will condition ($M$ = 2.92, $SD$ = 2.29, $t(394) = 10.86$, $p < .001$). The effect size for this difference was large, with Cohen's $d$ = 1.09 (95% CI: 0.88, 1.30). Conversely, for the item measuring whether participants shared the recommendation of their own free will, those in the free-will condition ($M$ = 5.63, $SD$ = 1.93) reported significantly higher agreement than those in the pressured condition ($M$ = 3.25, $SD$ = 2.25, $t(396) = -11.25$, $p < .001$), with a large effect size of Cohen's $d$ = -1.13 (95% CI: -1.34, -0.92). These findings indicate that the task type manipulation was successful.

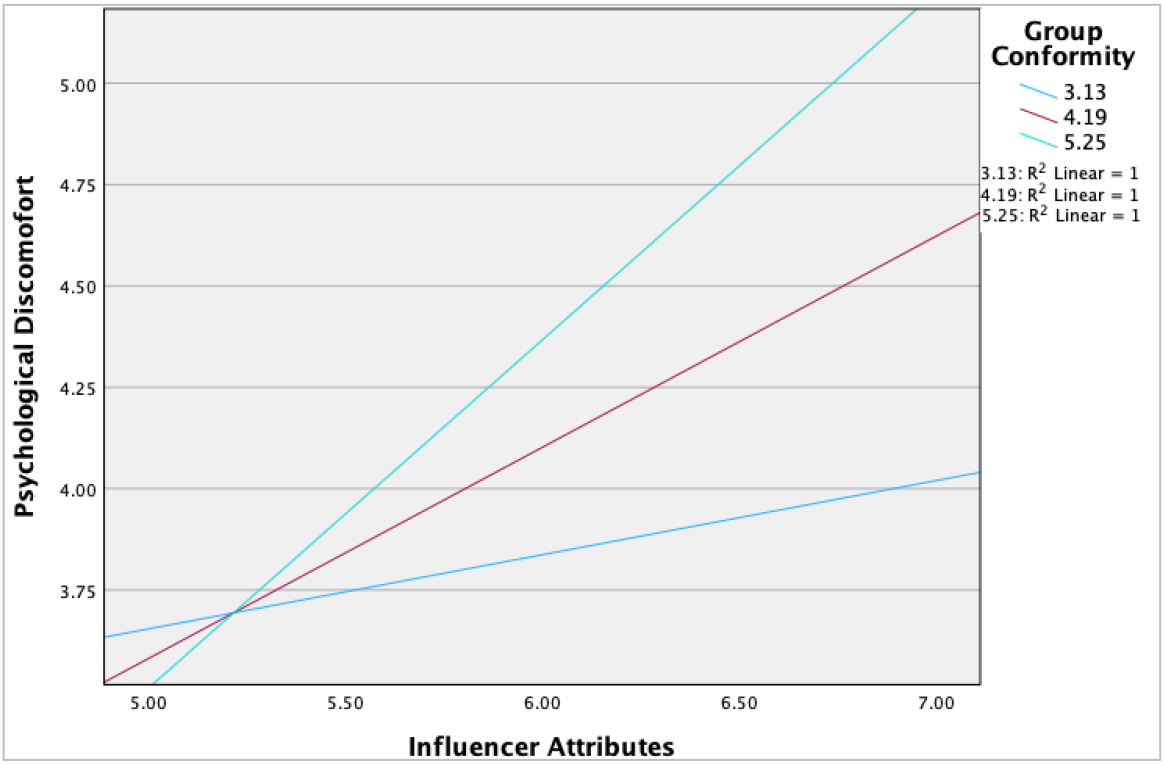
**Moderation Analysis Results: Group Conformity**

To examine whether group conformity moderates the relationship between influencer attributes and psychological discomfort (H5a and H5b), a moderation analysis was conducted using Model 1 in PROCESS. The overall model was statistically significant, $F(3, 395) = 12.20$, $p < .001$, explaining 8.48% of the variance in psychological discomfort ($R^2 = .0848$). The interaction between influencer attributes and group conformity was also statistically significant ($b = 0.32$, $SE = 0.12$, $t = 2.67$, $p = .008$, 95% CI [0.08, 0.55]), indicating that the effect of influencer attributes on psychological discomfort depended on the level of group conformity.

To further investigate the nature of this interaction, a simple slopes analysis was conducted at three levels of group conformity, corresponding to the 16th, 50th, and 84th percentiles (see Figure 3). When group conformity was low (at a value of 3.13), influencer attributes did not have a significant effect on psychological discomfort ($b = 0.18$, $SE = 0.16$, $t = 1.18$, $p = .240$, 95% CI [-0.12, 0.49]), suggesting that individuals with lower levels of group conformity did not experience increased psychological discomfort in response to influencer attributes. At moderate levels of group conformity (4.19), the effect of influencer attributes on psychological discomfort became significant ($b = 0.52$, $SE = 0.16$, $t = 3.35$, $p < .0001$, 95% CI [0.22, 0.83]), indicating that as individuals' conformity to their group increased, they experienced greater psychological discomfort in response to influencer attributes. This effect was also significant at high levels of group conformity (5.25), where the relationship between influencer attributes and psychological discomfort was the strongest ($b = 0.86$, $SE = 0.24$, $t = 3.62$, $p < .0001$, 95% CI [0.39, 1.33]). These findings demonstrate that the psychological discomfort associated with influencer attributes is more prominent among individuals who highly conform to the group. Thus, Hypotheses 5a and 5b were supported.

**Figure 3.**

*Simple Slope Analysis, Model 1 – Group Conformity*




The hypothesis predicting that influencer attributes would have a direct positive relationship with psychological discomfort was not supported (Hypothesis 4), as the main effect was found to be marginally significant ($b$ = -0.81, $p$ = .077). However, as mentioned, the hypothesis that group conformity would moderate the relationship between influencer attributes and psychological discomfort, such that the relationship would be stronger at higher levels of group conformity (Hypothesis 5a), was supported ($b$ = 0.32, $p$ = .008). These results indicate that while influencer attributes alone do not significantly predict psychological discomfort, they do when individuals exhibit higher levels of group conformity.

Overall, these findings suggest that group conformity plays a critical role in shaping the impact of influencer attributes on psychological discomfort. When individuals are less inclined

to conform to their group, the characteristics of the influencer do not significantly influence their psychological response. However, as individuals become more conforming to the group, they experience greater psychological discomfort when exposed to the influencer's attributes. This finding aligns with the theoretical foundation of the IDM, which proposes that group-based social influence can intensify psychological discomfort in response to counter-normative recommendations from influencers.

**Moderation Analysis: Task Type and Anonymity**

A second moderation analysis was conducted to examine whether task type (pressured sharing vs. free will) and anonymity (anonymous vs. identified) moderated the relationship between psychological discomfort and attitudinal change (H7 and H8). This analysis was performed using Model 2 in PROCESS, which allows for two moderators.

The overall model was statistically significant, $F(5, 393) = 15.88$, $p < .001$, with an $R^2 = .168$, indicating that the predictors accounted for 16.8% of the variance in attitudinal change. The main effect of psychological discomfort on attitudinal change was significant ($b = 0.2438$, $SE = 0.0619$, $t = 3.93$, $p < .001$), demonstrating that greater psychological discomfort was associated with higher levels of attitudinal change.

Regarding the moderation effects, task type significantly moderated the relationship between psychological discomfort and attitudinal change ($b = 0.1446$, $SE = 0.0691$, $t = 2.09$, $p = .037$). A simple slopes analysis revealed that when participants were in the pressured sharing condition, psychological discomfort had a stronger effect on attitudinal change ($b = 0.3883$, $SE = 0.0604$, $t = 6.42$, $p < .001$). However, in the free will sharing condition, the effect was weaker ($b = 0.2438$, $SE = 0.0619$, $t = 3.93$, $p < .001$), which indicates that task type moderates the relationship between psychological discomfort and attitudinal change, with pressured sharing

amplifying the effect. This finding supports H7.

In contrast, while testing Hypothesis 8, it was discovered that anonymity did not significantly moderate this relationship ($b$ = -0.0358, $SE$ = 0.0696, $t$ = -0.51, $p$ = .608), suggesting that whether participants were anonymous or identified did not meaningfully alter the effect of psychological discomfort on attitudinal change. Furthermore, the interaction between both moderators (task type and anonymity) was non-significant ($\Delta R^2$ = .0098, $F(2, 393) = 2.32$, $p$ = .0998), indicating that their combined influence did not explain additional variance in attitudinal change. These findings do not support Hypothesis 8, which predicted that anonymity would moderate the relationship.

Given that anonymity did not play a significant role in shaping attitudinal change, it was removed from the model before proceeding with the statistical analysis using Hayes' Model 91. This decision was made to streamline the analysis and focus on the most meaningful relationships within the IDM. The subsequent analyses will examine the moderated serial mediation effect with task type retained as a moderator.

**Moderated Serial Mediation: IDM Model**

A moderated serial mediation analysis (PROCESS Model 91) was conducted to examine whether the effect of influencer attributes on purchase intention change was mediated through psychological discomfort and attitudinal change (H6) and whether this mediation was moderated by task type at the second stage (H7). The model explained approximately 25.3% of the variance in purchase intention change, $F(3, 395) = 44.64$, $p < .001$.

The first stage of the model showed that influencer attributes had a significant positive effect on psychological discomfort ($b$ = .56, $SE$ = .13, $t$ = 4.38, $p < .001$), supporting the hypothesis that higher levels of influencer attributes lead to greater psychological discomfort

(H4). Psychological discomfort, in turn, significantly predicted attitudinal change ($b$ = .24, $SE$ = .05, $t$ = 4.83, $p$ < .001), supporting Hypothesis 6, which posits that psychological discomfort positively influences attitudinal change.

Task type had a significant effect on attitudinal change ($b$ = -0.67, $SE$ = 0.32, $t$ = -2.07, $p$ = .039), indicating that the pressured sharing condition exhibited greater attitudinal change than the free will condition. Additionally, the interaction between psychological discomfort and task type was significant ($b$ = 0.13, $SE$ = 0.07, $t$ = 1.95, $p$ = .05), demonstrating that the impact of psychological discomfort on attitudinal change was stronger when participants were pressured to share the influencer's recommendation compared to when they had free will. This finding supports H7, which predicted that task type (pressured vs. free will) would moderate the relationship between psychological discomfort and attitudinal change.

In the final stage, both psychological discomfort and attitudinal change significantly predicted purchase intention change ($b$ = 0.25, $SE$ = 0.03, $t$ = 7.78, $p$ < .001 and $b$ = 0.19, $SE$ = 0.04, $t$ = 4.48, $p$ < .001, respectively). However, influencer attributes had a direct negative effect on purchase intention change ($b$ = -0.25, $SE$ = 0.08, $t$ = -3.33, $p$ = .001), suggesting that when controlling for psychological discomfort and attitudinal change, higher influencer attributes were associated with a decrease in purchase intention change after a counter-normative recommendation.

The indirect effects revealed a more nuanced relationship. The indirect effect of influencer attributes on purchase intention change through psychological discomfort was significant ($b$ = 0.14, *BootSE* = 0.04, 95% CI [0.07, 0.22]), indicating that influencer attributes indirectly increased purchase intention through psychological discomfort. In contrast, the indirect effect through attitudinal change was negative ($b$ = -0.04, *BootSE* = 0.02, 95% CI [-0.08, -

0.004]), suggesting that influencer attributes slightly decreased purchase intention through attitudinal change.

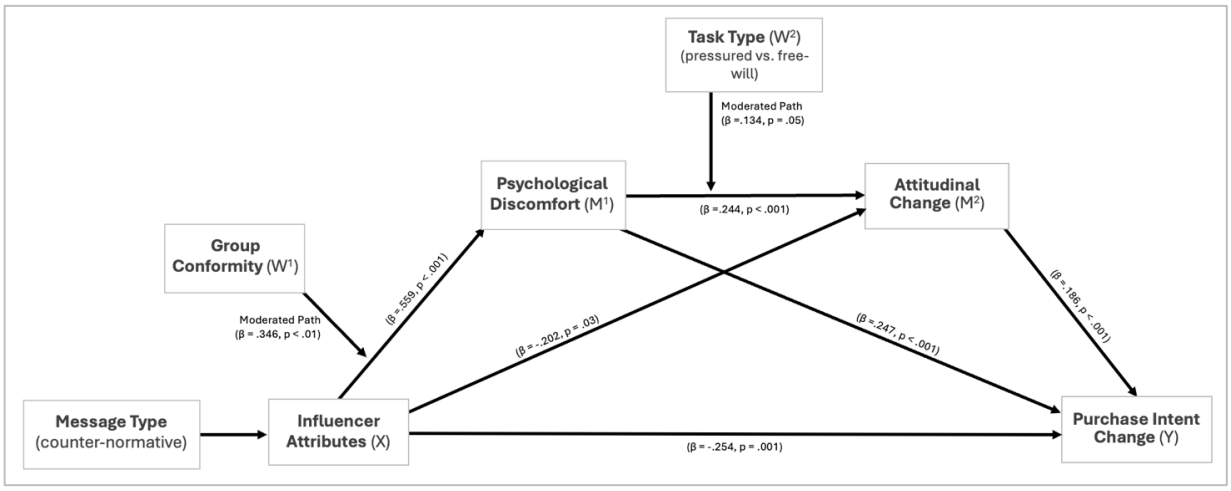
Despite the negative direct effect, the serial mediation pathway through both psychological discomfort and attitudinal change was significant for both task type conditions. However, the effect was stronger in the pressured condition ($b$ = 0.04, *BootSE* = 0.01, 95% CI [0.02, 0.07]) than in the free-will condition ($b$ = 0.03, *BootSE* = 0.01, 95% CI [0.01, 0.05]), indicating that pressure amplified the impact of psychological discomfort on attitudinal change, ultimately increasing purchase intention change.

The index of moderated mediation was not statistically significant ($b$ = 0.014, *BootSE* = 0.009, 95% CI [-0.0001, 0.0353]), suggesting that while task type significantly influenced attitudinal change, it did not significantly moderate the serial mediation pathway from psychological discomfort to attitudinal change and purchase intention change.

Overall, the findings supported the hypothesized mediation effects, confirming that psychological discomfort and attitudinal change mediate the relationship between influencer attributes and purchase intention change (H6, H9). Additionally, task type significantly influenced attitudinal change (H7), supporting the hypothesis that individuals in the pressured condition were more likely to adjust their attitudes than those in the free-will condition. Moreover, the interaction between psychological discomfort and task type was significant, indicating that psychological discomfort had a stronger effect on attitudinal change when participants were pressured to share the influencer's recommendation (H7). However, the hypothesized moderation of the serial mediation by task type was not supported. The final IDM can be seen in Figure 4.

**Figure 4.**

*The Influencer Dissonance Model*




*Note. Anonymity removed from the final model.*

**Discussion**

It is necessary to point out that group conformity was analyzed as a separate moderator (using PROCESS Model 1), while task type and anonymity were initially tested together in another separate model (PROCESS Model 2) with the goal of determining their specific influences in the model. The results of Model 2 indicated that anonymity was not a significant moderator, leading to its removal from the final model (PROCESS 91). These findings specifically differ from prior CMC and SIDE model studies that found that anonymity was a key factor in online communication. However, when considering the results from this research, a possible explanation is that the persuasive nature of influencer recommendations may reduce the importance of anonymity, specifically when there is a counter-normative component.

Additionally, group conformity was expected to influence the onset of psychological discomfort, whereas task type was hypothesized to shape how dissonance results in attitudinal change. Attempts were made to combine the moderators into a single model by multiplying

influencer attributes and group conformity by creating an interaction term. Combining the interaction term and task type moderator into a single model introduced multicollinearity concerns and reduced effect sizes, making interpretation more challenging. Given that these moderators operate at different stages of the persuasion process, with group identity influencing the relationship between influencer attributes and psychological discomfort and task type hypothesized to be a moderating factor between psychological discomfort and attitudinal change, the choice to separate the testing of the moderators was presumed to provide clearer insights into their independent effects and deemed the methodologically appropriate approach.

Study 2 tested the IDM, examining how influencer attributes, group conformity, psychological discomfort, attitudinal change, and purchase intention change interact in the context of counter-normative beauty influencer recommendations. The results confirmed that psychological discomfort mediates the relationship between influencer attributes and attitudinal change (H6), supporting the idea that counter-normative recommendations create cognitive dissonance that influences attitude change. Additionally, task type significantly moderated this relationship (H7), with those in the pressured condition exhibiting stronger attitudinal shifts. This finding, in particular, contrasts with in-person VDT studies, which found that free will decisions were a very important component of the attitudinal change process. This difference in results may be attributed again to the influencer context, specifically the heightened social pressure that is sometimes expected online when a group member requests a task be completed, which may result in generating more dissonance.

The serial mediation pathway from influencer attributes to purchase intention change through psychological discomfort and attitudinal change was significant (H9), but task type did not significantly moderate this full mediation pathway. While external pressure increased

attitudinal change, it did not substantially alter the indirect path to purchase intention change. However, the direct effect of influencer attributes on purchase intention change was negative, suggesting that higher influencer credibility did not directly translate into increased purchase intent and may have, in some cases, triggered skepticism or reactance. Despite this, the full serial mediation pathway still led to an overall increase in purchase intention, indicating that psychological discomfort and attitudinal shifts play a stronger role in purchase decisions than influencer credibility alone in counter-normative recommendation scenarios.

Further, group conformity moderated the relationship between influencer attributes and psychological discomfort (H5a and H5b). Participants high in both influencer attributes and group conformity experienced the greatest psychological discomfort, which led to a stronger attitudinal shift and increased purchase intention change. In contrast, when group conformity was low, psychological discomfort was weaker, reducing attitudinal and behavioral shifts.

Task type also played a role, as pressured-sharing conditions led to higher psychological discomfort, greater attitudinal change, and higher purchase intention than the free will sharing condition. However, while task type amplified attitudinal change, it did not significantly alter the full mediation pathway, reinforcing the idea that social pressure influences attitude shifts but does not necessarily determine purchase behavior.

Together, these findings provide empirical support for the IDM. Psychological discomfort serves as the primary mechanism driving attitudinal and purchase intention change (H6, H9), and group conformity moderates the impact of influencer attributes on psychological discomfort (H5a and H5b). Finally, the negative direct effect of influencer attributes on purchase intention change suggests that reactance or skepticism may influence consumer decision-making, highlighting the complexity of influencer persuasion in counter-normative contexts.

## Theoretical and Practical Implications

### Theoretical Implications

The findings from this research provide theoretical contributions to the literature on persuasion, cognitive dissonance, and influencer marketing by reinforcing the role of psychological discomfort as the primary mechanism driving attitudinal and behavioral change in counter-normative recommendation contexts. While existing models of persuasion, such as the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986) and the Source Credibility Model (Ohanian, 1990), emphasize influencer-related factors (e.g., credibility, attractiveness, and expertise) or message-processing routes, the results of this study suggest that cognitive dissonance explains why individuals adjust their attitudes and behaviors when exposed to counter-normative recommendations.

This finding extends VDT (Cooper & Hogg, 2007) by demonstrating that individuals experience psychological discomfort not only when their own attitudes or behaviors are inconsistent but also when counter-normative messages challenge the perceived norms of their social group. The study further aligns with the SIDE model (Postmes et al., 1998) by showing that group conformity intensifies the discomfort experienced when individuals are confronted with recommendations that conflict with established in-group norms, while anonymity was not specifically a significant factor in our results. Individuals high in group conformity experienced stronger psychological discomfort in response to a counter-normative recommendation, which then drove greater attitudinal and purchase intention change. This suggests that group-based identity processes interact with cognitive dissonance mechanisms to shape consumer responses and behavior in response to influencer recommendations.

Also of note is the finding that pressured sharing leads to stronger attitudinal change than

free will sharing. This contradicts classic VDT studies, which have found that voluntary choice in completing a task produces greater cognitive dissonance and subsequent attitude shifts (Cooper & Hogg, 2007; Norton et al., 2003). This discrepancy may be attributed to the CMC environment, where social pressure is amplified through digital visibility, audience expectations, and, in this case, influencer involvement. Unlike traditional in-person interactions, online platforms create a different type of heightened sense of pressure to conform due to the quickness in which information is shared, which may strengthen dissonance-driven attitude change (Han et al., 2023; Ladhari et al., 2020). This suggests that VDT processes may function differently in online spaces, warranting further investigation.

Additionally, the results of this research challenge traditional assumptions in influencer marketing research by providing nuanced insight into the role of influencer credibility. While source credibility has long been considered a key predictor of persuasion (Ohanian, 1990), the results indicate that high influencer credibility does not always directly increase purchase intention and may, in fact, trigger skepticism or reactance in some circumstances. This finding is consistent with Psychological Reactance Theory (Brehm, 1966), which suggests that when an individual perceives another as overly persuasive or pushy, they may resist influence attempts to maintain their sense of personal autonomy. In this study, the negative direct effect of influencer attributes on purchase intention change suggests that while high-credibility influencers can motivate attitudinal change, their impact on behavioral outcomes may be more complex, particularly when promoting counter-normative messages.

The findings from Study 1 suggest that the distinction between micro- and celebrity influencers may no longer be a major factor in influencer persuasion, as individuals appeared to perceive both types of influencers as having similar levels of credibility (Park et al., 2021; Yang

et al., 2023; Zhang & Wei, 2021). This challenges traditional assumptions that celebrity influencers inherently wield more persuasive power due to their status or that micro-influencers are always seen as more relatable and authentic since they are considered more real than celebrities (Lee & Eastin, 2021). In an era where social media users are regularly exposed to diverse influencer types, the credibility of an influencer may be shaped more by their perceived expertise, authenticity, and alignment with audience values rather than by their follower count, Oscar wins, or level of fame from brand deals. This shift indicates that future research may benefit from focusing less on influencer type (micro- vs. celebrity) and more on the underlying psychological and social mechanisms that drive influencer effectiveness, such as counter-normative recommendations that can flip follower attitudes.

**Practical Implications**

The findings of this study offer helpful and new insights for influencer marketing strategies, online campaigns, and SMI / brand partnerships. First, the big takeaway is that the creation of psychological discomfort can be a main component of resulting attitudinal change. This suggests that SMIs and brands can strategically use counter-normative messaging to increase psychological discomfort to ultimately lead to increases in purchase intention but should do so in ethical ways. The counter-normative recommendation approach may be most beneficial for those brands in the industries that promote behavioral change, such as health, beauty, or lifestyle brands.

The importance of group conformity in shaping consumer behavior is also an important aspect. While it has been well documented that when individuals strongly identify with a fellow in-group member the individual is likely to agree or side with the in-group member, there has been little investigation into follower communities related to group conformity. Brands can

leverage the group conformity factor by partnering with SMIs that have established strong follower communities which may result in better outcomes. However, this research has also demonstrated that strong group conformity alone is not enough. An influencer's highly and positively perceived attributes (i.e., authenticity, attractiveness, trust, and expertise) is also an important factor in the success of employing a counter-normative recommendation strategy. Brands and SMIs should be mindful here though, as there is a fine line where individuals that are higher influencer attributes could experience skepticism or reactance leading to decreased purchase intention. In basic terms, using a counter-normative recommendation strategy to increase follower compliance could backfire in certain situations.

Lastly, the perception of pressured sharing (e.g., writing recommendations, asking for shares or likes) may result in stronger attitudinal shifts. Brands can use this strategy to attempt to increase follower compliance in counter-normative recommendation scenarios. However, it is important to note that using a pressure-based strategy is not enough to incite purchase intention according to this research. Pressured sharing should be combined with a requested recommendation task (share, like, comment) that challenges perceived social norms to generate higher levels of psychological discomfort which may facilitate higher levels of attitude change to benefit the brand. All of this being said, the influence strategies discussed in this research should be evaluated based on an ethical standpoint before being used since the research demonstrates that individuals will change their attitudes to agree with something even if it is against social norms and they did not agree with it initially. This could have detrimental outcomes when an influencer's counter-normative recommendation could harm individuals or the public at large.

## Limitations and Future Recommendations

There are several limitations that should be acknowledged. First, while using real influencers that individuals found persuasive in real-life was a strategy that was employed to gain maximum effects for participants when they were immersed in the scenarios, this research was experimentally conducted using an online questionnaire format which is not the same as real life. Individuals do not always react the same way in real life online situations, specifically to spontaneous recommendations that they receive from an SMI in comparison to how they may react in a highly controlled experimental study.

Secondly, this is just one test of the IDM in a beauty influencer context. The IDM should be employed for testing in different influencer genres such as fitness, lifestyle, gaming, or politics. In addition, the IDM should be put to test using varied counter-normative recommendation scenarios to determine if there are other factors or variables at play in the attitudinal change process. Hopefully, more variables and significant factors can be uncovered that affect the overall process.

Lastly, since individuals that scored themselves high in influencer attributes seemed to experience a reactance effect where purchase intention was negatively impacted, there could be room for further investigation. Specifically, there may be other variables at play related to the follower with high regard for an SMI in particular that could be investigated further.

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