## RESEARCH ARTICLE



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# Does LinkedIn cause imposter syndrome? An empirical examination of well-being and consumption-related effects

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# **Abstract**

We attend to the unexamined intersection between professional social network site (SNS) usage and imposter syndrome. Specifically, we provide the first examination of: *do* such sites cause imposter thoughts ("others think I am more competent than I think I am"); if so, *why* and *when* this happens, and *what* effect this has on well-being and consumption-related results. Supported by objective self-focused attention theory and two online experiments, we show that professional SNS usage heightens professional self-focused attention, triggering imposter thoughts. This results in negative emotions and consumption-related effects. We further examine two boundary conditions, showing that effects are reduced for individuals high in narcissism or work centrality. From these findings, we extend the sociocognitive theorization of the imposter phenomenon by uncovering, first, context-specific self-focused attention as the reason "why" people feel imposter-ish in particular circumstances and second, consumption-related consequences. We further contribute imposter thoughts as a new alternative explanation for negative emotions experienced whilst using professional SNSs.

#### KEYWORDS

compensatory consumption, imposter phenomenon, imposter syndrome, LinkedIn, objective self-focused attention, social network sites, well-being

# 1 | INTRODUCTION

Professional social network sites (SNSs) such as LinkedIn and Xing have gained widespread adoption, with LinkedIn alone boasting over 930 million users (Shepherd, 2023). These sites offer a range of benefits for users, such as career advancement opportunities, professional connections, and industry-related knowledge and resources (Cho & Lam, 2020; Ren et al., 2020; Zaglia et al., 2015). Nevertheless, recent research and industry anecdotes suggest a dark side. For instance, Wang et al. (2023) find that information overload

from professional SNSs causes workplace anxiety. The impact of these platforms on well-being is further highlighted by a poignant blog titled, "I scroll for 1 hour, feel anxious about myself for 1 week" (Iyer, 2021). In a similar vein, Xing usage has been linked to depressive feelings (Ozimek & Bierhoff, 2020). Despite some recent scholarly attention, negative well-being effects of professional SNSs have been relatively overlooked. Joining the recent pursuit of marketing scholars examining well-being effects of technology (McLean et al., 2021; Pera et al., 2020), it is paramount to understand such effects associated with professional SNSs given the importance

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of these sites to users and marketers (Auschaitrakul & Mukherjee, 2017; Golob, 2021).

Imposter syndrome, commonly associated with a person's professional life, is characterized by feeling phony or fraudulent in the workplace (Clance & Imes, 1978). This syndrome affects three in five employees (Franklin, 2022), though another study suggests over 82% experience it (Bravata et al., 2020). Its association with an array of negative well-being outcomes, including anxiety, depression, and burnout, has been documented in literature (e.g., Haar & de Jong, 2022; Stelling et al., 2022). Given its link with the professional domain, it is unsurprising that imposter syndrome and professional SNS usage have been linked in media discourse. For example, Prosper (2022), TEDx speaker and social media manager, asks "Is LinkedIn causing imposter syndrome?" Until now, this intersection has remained unexamined, leaving room for deeper investigation and understanding.

Sociocognitive imposter theory asserts that imposter syndrome is predicated on "imposter thoughts" which take the form of the belief that others think one is more competent than one thinks they are (Clance & Imes, 1978). This represents a discrepancy between how one thinks others perceive them and how one perceives themself. It is this internal discrepancy that is proposed to trigger negative emotional effects (Tewfik, 2022). Building on this idea, imposter thoughts may shed light on 'why' negative emotions arise from professional SNS usage (Ozimek & Bierhoff, 2020; Wang et al., 2023). Consequently, sociocognitive imposter theory presents a potential alternative explanation for the negative well-being effects associated with professional SNS usage. Given that initial conceptualizations of imposter thoughts originate within the work domain and likewise are extensively explored in this context, logically, we use professional SNSs as the context to address this first gap (e.g., Clance & Imes, 1978; Tewfik, 2022).

We address two further gaps in sociocognitive imposter theory itself. First, imposter studies have primarily focused on the consequences of imposter thoughts (emotions, avoidance behaviors) as well as trait-level antecedents like personal history and psychological dispositions (e.g., Freeman & Peisah, 2022; Haar & de Jong, 2022). However, a crucial aspect lacking study relates to the theoretical conceptualization on "when" imposter thoughts arise, or which situations stimulate imposter thoughts. While specific circumstances have been discussed, such as job interviews, taking on new roles/ tasks, giving presentations, consuming luxury goods (Hall & Gosha, 2018; Hutchins & Rainbolt, 2017), it is unclear "why" theoretically these specific situations give rise to imposter thoughts. Second, with one exception, marketing research on the imposter phenomenon is scarce (see Goor et al., 2019). Although Goor et al. (2019) identifies luxury consumption as an antecedent to imposter thoughts (it leads consumers to feel inauthentic), there remains a lack of conceptualization and empirical examination surrounding consumption-related outcomes. Considering the prevalence of imposter thoughts (e.g., Bravata et al., 2020) and the potential for consumption to alleviate these feelings of inadequacy (see Mandel et al., 2017's work on compensatory consumption), it is essential to identify marketing-focused consequences.

To address these three aforementioned gaps, we propose integrating objective self-focused attention theory into the sociocognitive conceptualization of imposter syndrome. According to this theory, directing attention toward oneself is crucial for triggering the recognition of discrepancies between one's current and ideal states, which subsequently influence emotions and behavior (Duval & Wicklund, 1972). While both sociocognitive imposter theory and objective self-focused attention theory acknowledge the significance of discrepancies as antecedents for emotion and behavior, only objective self-focused attention theory provides the catalyst for activating these discrepancies, specifically through self-focused attention. This unique contribution of objective self-focused attention (known also as objective self-awareness) theory has been seen as a valuable complement to other related theories, such as selfdiscrepancy theory (Higgins, 1987) and control theory (Carver & Scheier, 2001).

These gaps in the literature and the calls from industry motivate the current research. Our pursuit is guided by the following question: Does using professional SNSs stimulate imposter thoughts which lead to emotional and consumption-related effects? If so, why? and when? Two experiments involving actual or recalled usage of professional SNSs (here LinkedIn) offer three theoretical contributions.

First, we enrich our understanding of imposter syndrome theory by integrating self-focused attention theory, which helps explain the catalyst of imposter thoughts. This initial evidence provides a new explanation of "why" specific situations trigger imposter thoughts. By offering this novel perspective, we provide a fresh explanation of why specific situations can prompt imposter thoughts to arise. In other words, we propose that situations involving the presence (real or imagined) of professional peers heightens professional selffocused attention, which then activates imposter thoughts. Hence, we shed light on why previous work has linked imposter syndrome with job interviews and presentations, for example (see Hutchins & Rainbolt, 2017). We further contribute here two boundary conditions (narcissism and work centrality) of the relationship between selffocused attention and imposter thoughts. Specifically, we show the effects are diminished for individuals who exhibit high levels of narcissism or work centrality (i.e., those for whom work is a central part of their identity).

Second, we extend the sociocognitive conceptualization of imposter syndrome to explore consumption-related consequences. Specifically, we demonstrate that imposter syndrome increases intentions for direct resolution and preferences towards prevention-focused product claims. While prior marketing work has established relationships between general self-discrepancies and consumption-related effects (Mandel et al., 2017), we provide initial evidence that this association extends to imposter thoughts, a unique form of discrepancy. Thus, we further the understanding put forth by Goor et al. (2019), emphasizing that consumption practices may play dual roles in supporting the imposter phenomenon, acting as both a stimulus and an antidote.

Third, we contribute to knowledge on the well-being effects of professional SNSs (and SNSs more broadly) by revealing imposter

are governed by the

thoughts as cause for negative emotions. This offers a new theoretical explanation for how engagement with professional SNSs can spur negative well-being consequences. This alternative mechanism of negative effects on professional SNSs complements the dominant explanations, such as social comparison (Liu et al., 2019). In other words, people may feel sad when using SNSs not just because they feel worse off than others (i.e., social comparison), but also because they believe that others view them as more competent than they truly believe they are (i.e., an imposter). This provides new understanding of "how" engagement with marketing technologies (specifically professional SNSs) can influence consumer well-being (e.g., Javornik et al., 2022; McLean et al., 2021).

#### 2 | BACKGROUND

# 2.1 | Professional SNSs and negative affect

SNSs differ in their primary purpose and user diversity (Archer-Brown et al., 2018). While general social networks (e.g., Facebook, TikTok) exist chiefly to make user's content visible to their social connections (e.g., friends, family), professional SNSs (e.g., LinkedIn, Xing) focus on the consumption and production of work-related content within networks including colleagues and business connections (Utz, 2016). Over the last decade, a large body of work examining the negative well-being effects stemming from SNS usage has emerged. This includes a number of systematic reviews focusing on particular phenomenon (e.g., social comparison), age groups (e.g., adolescents) or resultant emotions such as depression (e.g., Erfani & Abedin, 2018; Fioravanti et al., 2022; Seabrook et al., 2016).

Table 1 provides a sample of key works in the field concentrating on anxiety and (or) depression as key outcome variables, the two negative emotional states most commonly linked to SNSs (Seabrook et al., 2016). The prevailing cause of depressive feelings associated with SNS usage is social comparison (see Fioravanti et al., 2022). Specifically, people feel depressed when they perceive their life as less fulfilling that that of their peers as portrayed on SNSs. This phenomenon is fueled by the norm of posting only the "highlights reels" of one's life, creating an unrealistic standard of comparison among others (e.g., Park & Baek, 2018). In a similar vein, Marder et al. (2019) adopt a self-concept lens showing that depressive feelings arise when seeing idealized vacation posts that trigger comparison against one's own ideal-selves (an internal point of comparison). While anxiety, compared to depression, has been less extensively explored, it has been associated with social comparison and selfpresentational issues (see Alkis et al., 2017). Users fear appearing undesirable to their online connections due to the information they disclose on the sites, which reaches a large, diverse audience (e.g., Yau et al., 2019). Despite considerable attention to the negative emotions associated with general SNSs, there is a significant lack of examination of professional SNSs. Table 1 outlines, to the best of our knowledge, the only three studies that associate either anxiety or depressive feelings with professional SNS usage, such as LinkedIn

and Xing. Two of these studies support the idea that professional SNSs can induce depression and anxiety through social comparison, similar to general SNSs (Jones et al., 2016; Ozimek & Bierhoff, 2020). In contrast, Wang et al. (2023) found that information overload experienced from viewing content on professional SNSs increases workplace anxiety. In the subsequent section, we introduce imposter thoughts as an alternative mechanism for negative emotions on professional SNSs.

# 2.2 | Imposter thoughts

First recognized by clinical psychologists Clance and Imes (1978), imposter syndrome (or phenomenon) has been evidenced across genders, professions, racial groups (Bravata et al., 2020), and beyond work-related domains (Goor et al., 2019). Emerging from Clance and Imes' (1978) original formulation, the sociocognitive theorization of imposter syndrome asserts that the central feature of the phenomenon is rooted in both cognitive and social aspects. It centers on a belief that others attribute greater competence to oneself than one has (Leary et al., 2000; McElwee & Yurak, 2007) and situates this cognition within the social context of how others perceive the individual (Morris et al., 2005). The critical component of this theory is referred to as "imposter thoughts," defined in a work context as "the belief that others overestimate one's competence at work," or more broadly within their professional lives (Tewfik, 2022 p. 991). Particularly, this construct represents a perceived discrepancy between how one thinks others perceive them and how one perceives themself, herein referred as imposter discrepancy (Ibid).

Importantly, this conceptualization is distinct from both self-discrepancy, based on one's comparison of ideal and actual states (Higgins, 1987; Sirgy, 1982), and social comparison, comparing one's own attributes to those of others (Buunk et al., 2007). Lambert (2022) further distinguishes these phenomena and argues that research mistakenly labels these aforementioned comparisons as imposter syndrome. Specifically, Lambert (2022) states that although social comparison and imposter syndrome are distinct, imposter thoughts generally emerge from [social] comparison, such as thinking, "I'm nowhere near as good as XYZ, in fact I'm not really much good at all, it's only a matter of time until I'm caught out as a fake" (p. 1).

The sociocognitive theorization asserts that it is the presence of an imposter discrepancy (which need not reflect reality), that drives emotions and behaviors (Tewfik, 2022). In other words, when people think they are less competent than others believe that they are, negative emotions arise along with motivations to either take action to reduce the discrepancy or avoid the negative affect. This aligns with key components of prominent cognitive theories that link discrepancies within one's self concept to negative affect and reconciliatory action. Such theories include self-discrepancy theory (Higgins, 1987), control theory (Carver & Scheier, 2001), and objective self-awareness theory (Duval & Wicklund, 1972).

It should be noted that many studies on the imposter phenomenon to date have adopted an affective lens, measuring imposter

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	Social comparison positively predicts life satisfaction, mediated positively by depression and envy.	Social comparison positively predicts depression, partially mediated by envy. Self-efficacy moderates the effect of social comparison on depression and envy.	Upwards social comparison predicts impulse buying, mediated positively by negative affect. These effects were made stronger with increased rumination.	Browsing social content vs. non-social content, decreased self-esteem and increased depression.	Social comparison predicted suicidal ideation. Specifically on Instagram, the association between thwarted belongingness and suicidal ideation was greater among users higher in negative social comparison.	Viewing idealized vacation photos activated self-schemas related to belonging and adventure, which predicted dejection and consumptions behaviors (e.g., intention to book a vacation)	A week detox from social media (vs. no detox) reduced feelings of anxiety and depression.	Users felt socially anxious in association with "liking" political entities on Facebook, which reduced intention to "like."	Using Facebook (vs. not) increased public selfawareness. This resulted in social anxiety if participants felt discrepancy from the expectations of their audience (i.e., Facebook connections), leading to avoidance based selfaregulation.	Information overload from engaging in enterprise social media positively predicts workplace anxiety. Supervisor-subordinate ties moderate this relationship depending on type (Instrumental vs. expressive).
	Social comparison	Social comparison	Social comparison	Social comparison	Social comparison	Self-concept	No specific theory disclosed	Self-concept (undesired- self)	Objective self- awareness	Information overload
	Instagram	Facebook	None-specified	Facebook	Facebook and Instagram	Facebook	Facebook, Instagram, Twitter, TikTok	Facebook	Facebook	Enterprise social media
	$N = 331$ , $M_{\rm age} = 32$	N = 934, age range: 16–21	$N = 430$ , $M_{\rm age} = 19$	$N = 80$ , $M_{age} = 26$	N = 456	$N = 860$ , $M_{age}$ of survey = 37	$N = 154$ , $M_{age} = 30$	$N = 1205$ , $M_{age} = 29$ and 37 across two data sets	N = 40, M <sub>age</sub> = 23	N = 219, 71% aged 35 or younger
	Cross sectional survey	Cross sectional survey	Cross sectional survey	Experiment	Cross sectional survey	Mixed methods (In depth interviews and cross-sectional survey	Experiment	Experiments	Experiment	Cross-sectional survey
į	2018	2018	2019	2019	2022	2019	2022	2018	2016	2023
	Park and Baek	<b>5</b>	Liu et al.	Alfasi	Spitzer et al.	Marder et al.	Lambert et al.	Marder et al.	Marder et al.	Wang et al.
	Personal social network sites									Professional social network sites

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Authors	Year	Methodology	Sample	Platform	Theoretical base	Findings
Jones et al.	2016	Cross-sectional survey	N = 1780, age range: 19-32	LinkedIn	Social comparison	Compared to people who did not use LinkedIn, those who did at least once a week had significantly greater odds of increased anxiety and depression. The author acknowledges that no strong insights into causation can be drawn from this correlational study.
Ozimek and Bierhoff	2020	Experiment and cross- sectional surveys	$N = 809$ , $M_{age} = 26$	Facebook and Xing (Professional SNS)	Social comparison	SNS usage induces social comparison, decreasing self-esteem, which results in an increase in depression. The model held for both Facebook and Xing.

phenomenon primarily through affective outcomes such as the fear of being exposed rather investigating its sociocognitive root (e.g., Vergauwe et al., 2015). Table 2 provides a summary of key imposter work to date. Tewfik (2022), a proponent of the sociocognitive theorization, emphasizes the importance of examining the cognitive foundation (i.e., the discrepancy) rather than solely focusing on specific affective outcomes, given numerous possibilities. They argue that the affective lens is a complementary approach but alone does little to facilitate understanding. In line with Tewfik (2022), we adopt the sociocognitive approach, aligning it with the initial conceptualization by Clance and Imes (1978); we are particularly interested in situations that give rise to imposter thoughts rather than solely focusing on their outcomes.

While imposter thoughts have been associated with specific situations such as job interviews or luxury consumption experiences (Goor et al., 2019; Hall & Gosha, 2018), the sociocognitive theorization does not elucidate "why" these situations act as triggers; it primarily focuses on downstream effects. Acknowledging that multiple individuals may have multiple dormant discrepancies in different domains at any time, and that activation is required for effects to rise (Markus & Wurf, 1987), we investigate what activates the imposter discrepancy.

# 2.3 Objective self-focused attention theory

Objective self-focused attention (often termed objective selfawareness) occurs when a person draws attention inward, focusing on themselves as the "object" of their own consciousness (Duval & Wicklund, 1972, p. 2). This is in contrast to subjective self-focus. which is where attention is directed away from the self (Ibid). Central to the self-focused attention theory, conscious attention is required for self-evaluation. Consequently, focusing attention on oneself initiates an "automatic comparison of the self against standard" (Silvia & Duval, 2001, p. 231). In other words, self-focused attention activates discrepancies. One specific type of self-focused attention is public self-focused attention, which focuses on a person's public image and revolves around the awareness of how one's own attributes are presented to and perceived by others, often driven by an aspiration for social consensus (Carver & Scheier, 1987; Selimbegović & Chatard, 2013). Public self-focused attention is known to activate internal discrepancies where the guiding reference points are based on views of others (Duval & Wicklund, 1972; Silvia & Duval, 2001), aligning with the concept of imposter discrepancy. Thus, logically, public self-focus should trigger imposter thoughts. We now postulate how this manifests on professional SNSs.

#### 2.4 | Hypothesis development

Public self-focused attention is generally known to be heightened in the presence of an audience, real or imagined. As such, it is often manipulated through the presence of "others" or a video camera

	Authors	Year	Methodology	Sample	Context	Core stance	Findings
Imposter phenomenon literature	Meadhbh Murray et al.	2023	Interviews	$N = 27$ , $M_{age} = 21$ +	Education	Affective	Identify imposter feelings as unequally distributed emotional work, labeled imposter work. Findings show marginalized students do more imposter work in order to the survive at university.
	Stelling et al.	2022	Interviews	N = 11, age = not disclosed	Work (Medicine)	Affective	Personal identity formation (desire to fit in and stand out) is associated with feeling like an imposter, related to burnout and questioning one's competence.
	Haar and de Jong	2022	Cross-sectional survey	$N = 1042$ , $M_{\rm age} = 38$	Work (Multiple sectors)	Affective	Feeling like an imposter predicts job anxiety and job depression. This negative well-being effect can be reduced with increased organizational support.
	Tewfik	2022	Experiments	N = 3603, age = 18+	Work (Multiple sectors)	Sociocognitive	Develops and validates a work-related imposter thoughts scale, furthering the sociocognitive theorization of imposter phenomenon. Workers with more work-related imposter thoughts are appraised as more interpersonal as they adopt more "other orientated" behavior.
	Freeman and Peisah	2021	Narrative analysis	N = 12 papers	Work (Medicine)	Undisclosed	There is lack of literature on imposter syndrome. Though it has been observed across a range of medical specialties, it appears more common in female doctors, impacting leadership, career progression and mental health.
	Sverdlik et al.	2020	Cross sectional and longitudinal surveys	$N = 2614$ , $M_{\rm age} = 37$	Education	Affective	Lack of belonging predicts imposter phenomenon (the fear of being found out), which decreases well-being (i.e., depression, stress, illness symptoms).
	Goor et al.	2019	Experiments	N = 1367, age = 18+	Luxury goods	Affective	Luxury consumption increases feelings of undue privilege which results in feeling inauthentic (i.e., like an imposter). The link between luxury consumption and undue privilege is moderated by chronic and situational psychological entitlement.
	Guillaume et al.	2019	Collaborative autoethnography	N = 3, M <sub>age</sub> = 18+	Work (Higher education)	Affective	General social media usage by academics leads to questioning of one's own academic legitimacy and thus feeling imposter-ish. Looking at others' successes posted on Facebook leads to feelings of irritation, despair and anxiety.
	Wang et al.	2019	Cross-sectional survey	$N = 169$ , $M_{age} = 20$	Education	Affective	Imposter syndrome fully mediates the relationship between perfectionism and anxiety, though only partially mediates the association between perfectionism and depression.
	Crawford et al.	2015	Time-lagged survey	$N = 92$ , $M_{age} = 47$	Work (Higher education)	Affective	Feeling like an imposter increases emotional exhaustion, which predicts work-to-family conflict. Organizational

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Authors	.S	Year	Methodology	Sample	Context	Core stance	Findings
							support can buffer the relationship between imposter feelings and emotional exhaustion.
Vergau	Vergauwe et al.	2015	Cross sectional survey	N = 201, M <sub>age</sub> = 36	Work (Multiple sectors)	Affective	Personal traits (e.g., big five, self-efficacy) predispose people to imposter phenomenon (the fear of being found out), which leads to reduced job satisfaction/continuance and organizational citizenship behavior.
McElw	McElwee et al.	2007	Cross sectional survey	N = 253, Median <sub>age</sub> = 20	Education	Sociocognitive	Examines imposter phenomenon as a self-diminishing impression management strategy. Imposters feel inadequate but not necessarily fraudulent, supporting imposterism as part of a controlled strategy.
Clance	Clance and Imes	1978	Conceptual (based on experience working with individuals)	N = 150+, age = 18+ (only women)	Work (Multiple sectors)	Sociocognitive	First paper to identify imposter phenomenon. Despite outstanding achievements (academic and professional), individuals experience impostor phenomenon, such as feeling that they are not really bright and have fooled others to think otherwise. Family dynamics and gender

(Joinson, 2001; Walther, 1995). Interestingly, even the belief that God is watching has been found to increase public self-focus among religious individuals (Gervais & Norenzayan, 2012). Additionally, Facebook usage, particularly scrolling through a feed, has been found to focus attention on one's public self by making audiences more salient (Marder et al., 2016a). This body of work sheds light on "why" situations highlighted by prior work give rise to imposter thoughts (e.g., job interviews, giving presentations, public luxury good consumption). Each situation, to some extent, involves the presence of an audience, which in turn draws an individual's cognition to how they are being perceived (see Leary, 1996).

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At present, only one study links imposter syndrome with SNS usage. Guillaume et al. (2019) conducted an autoethnography, evidencing that academics experience self-doubt associated with imposter syndrome when they see publications of their colleagues on Facebook. Though a valuable first link, this work does not directly test SNS usage as a cause for imposter thoughts, nor does it provide a mechanism for understanding 'why' and when these imposter thoughts arise.

Following objective self-focused attention theory (Duval & Wicklund, 1972), our primary proposal is that usage of professional SNSs is associated with public self-focused attention, which triggers imposter thoughts. Specifically, we propose professional SNSs to heighten professional public self-focused attention (cognition of one's professional self as perceived by other professionals, herein PSFA), which leads to imposter thoughts. Support for professional SNS usage serving as a stimulus for PSFA comes from prior findings that public self-focused attention increases when individuals perceive the presence of an audience, as observed in general Facebook browsing (e.g., Marder et al., 2016b) and interactions with colleagues (Leary, 1996). Thus, we expect similar effects for professional SNS usage, as it involves viewing/posting content from/for professional others. Though the link between PSFA and imposter thoughts has yet to be empirically validated, we ground our hypothesis on two key aspects. First, we draw on knowledge that public-self focused attention activates discrepancies, with perceptions of others as a reference point (Carver & Scheier, 1987; Selimbegović & Chatard, 2013). Second, following that discrepancies are more likely activated if there is "applicability" (or fit) with a stimulus, we argue this is the case with professional SNS usage and imposter thoughts (see Higgins, 1989; Higgins, 1996). For example, content viewed or posted on LinkedIn is largely associated with work competences and thus directly resonates with the imposter discrepancy, related to competences (Vergauwe et al., 2015). Taken together, we present the following hypothesis:

**H1:** Professional self-focused attention (stimulated by professional SNS usage) increases users' imposter thoughts.

# 2.5 | Emotional effects

Objective self-focused attention theory assumes that discrepancies between the self and standards give rise to negative affect (Duval

et al., 2012), a notion consistent with the sociocognitive theorization of imposter syndrome (see Tewfik, 2022). Prior work confirms that when users experience active discrepancies when using Facebook, it can lead to anxiety and depressive feelings (Marder et al., 2016a, 2019). The imposter phenomenon has been widely associated with a broad range of well-being effects (Clance & Imes, 1978; Sverdlik et al., 2020), including emotional exhaustion (Crawford et al., 2016) and burnout (Vaa Stelling et al., 2022). However, the most commonly associated well-being effects include anxiety and depressive feelings (Haar & de Jong, 2022; Wang et al., 2019). For instance, a study of Russian students reveals positive associations between feeling imposter-ish and experiencing anxiety and depressive feelings (Wang et al., 2019). These emotional responses are further supported in a workplace setting within a large study of employees in New Zealand (Haar & de Jong, 2022) and a narrative analysis of imposter studies focused on the medical profession (Freeman & Peisah, 2022). Following the above, we propose that increased PSFA results in negative emotions through stimulating imposter thoughts:

**H2:** Professional SNS users' imposter thoughts mediate the relationship between users' PSFA and (a) negative anxiety emotion and (b) depressive feelings.

# 2.6 Consumption-related effects

Aligning with objective self-focused attention theory, which states increased self-focused attention results in behavior to reduce discrepancies activated (Duval & Wicklund, 1972), prior research in marketing asserts that people often consume to reduce and resolve discrepancies within their self-concept. Mandel et al. (2017), exploring compensatory consumption practices (i.e., discrepancy reducing), proposed the concept of direct resolution behavior. This form of consumption directly addresses the root of a discrepancy within a specific domain. For example, people experiencing a discrepancy in the physical appearance domain may buy clothes, join a gym, or opt for cosmetic surgery (Park & Maner, 2009; Schouten, 1991). Similarly, Kim and Gal (2014) found that consumers engaged in direct resolution behaviors when faced with discrepancies relating to power and intelligence. In one experiment, individuals were willing to pay more for the book "Power and Influence for Dummies" when experiencing a powerrelated discrepancy. Likewise, when participants felt discrepant in the domain of intelligence, their interest in a subscription to a "brain training program" increased. Research also reveals direct resolution as a consequence of SNS use. Marder et al. (2019) evidence that viewing bragging vacation posts activated a selfdiscrepancy related to "exploration," which in turn drove intentions to book a vacation. Following this logic, we suggest that imposter thoughts may lead to direct resolution in the work domain (e.g., signing up for a training course). The aim of this would be to increase their perceived competence and to close the gap that they perceive is ascribed to them. Hence:

**H3a:** Professional SNS users' imposter thoughts mediate the relationship between the user's PSFA and intention for direct resolution consumption.

Beyond potential direct resolution consumption, we propose that imposter thoughts may shape further consumption-related outcomes. Specifically, consumers might prefer certain product claims when the imposter discrepancy is active. Based on self-regulatory goal orientation (Higgins et al., 1997), a common consideration is whether to frame a product claim as prevention- or promotion-focused to align with consumers' goal orientation (Ku et al., 2012). Self-regulatory goal orientation can manifest as a predominant trait or as situational variable (Higgins et al., 1997). We argue that the experience of imposter thoughts aligns with a temporary shift towards a prevention focus, as this orientation is activated with a threat present, such as feeling inadequate (Huston, 2019) or fear of being exposed as an imposter (e.g., Crocker & Wolfe, 2001; Niiya et al., 2010). This is in contrast to a promotion focus, which arises when growth and aspirations are salient (e.g., Van-Dijk & Kluger, 2011).

In a state of prevention focus, consumers seek security over growth (Higgins et al., 1997; Qian et al., 2023), leading them to be drawn towards safe (vs. high risk, high gain) choices (Paine et al., 2020). Prior research supports that prevention-focused consumers are more inclined to favor product claims that position products as a means for security through avoiding a negative outcome (e.g., get enough vitamins to avoid feeling sick) compared to promotion-focused product claims, which promote growth in achieving a positive goal (e.g., get more vitamins to feel better than ever) (see Mogilner et al., 2007). Following this logic, facing a threat stemming from imposter thoughts, people might feel more favorable toward product appeals that claim to prevent feelings of inadequacy. In other words, imposter thoughts are associated with increased susceptibility of prevention- (vs. promotion-) framed product claims. Thus:

**H3b:** Professional SNS users' imposter thoughts mediate the relationship between users' PSFA and predilection towards products that claim to prevent inadequacy versus those that promote superiority.

# 2.7 | Narcissism and work centrality as boundary conditions

Narcissism is regarded as one of "the most enigmatic" constructs for psychology and consumer behavior scholars (Back et al., 2013 p. 1013, see also; Lambert & Desmond, 2013). Contemporary theorists view narcissism as a form of self-regulation employed to control emotions and maintain a positive self-image (Campbell et al., 2004; Morf & Rhodewalt, 2001). Narcissists exhibit an excessive propensity to self-enhance (Lee et al., 2013), employed to elevate and protect the self in high standing (Sedikides & Gregg, 2001). Consequently, narcissists tend to display self-grandiosity, entitlement, and arrogance (Miller et al., 2011). We

focus on overt narcissism, as it aligns with the predominant approach in most consumer studies (see Fastoso et al., 2018). Overt narcissists are characterized as grandiose "warriors," with high levels of self-esteem, in contrast with covert narcissists who are considered worriers with low self-esteem (Rhodewalt & Eddings, 2002).

Prior results support that individuals higher in narcissism internalize self-discrepancies to a lesser extent than those lower in this trait. For example, Yang et al. (2021) argue that narcissism decreases body image self-discrepancy. Similarly, higher self-esteem is generally associated with reduced self-discrepancy (Schubert & Bowker, 2019). Given that imposter thoughts represent a form of discrepancy (Meister et al., 2014), we propose that when professional SNS usage triggers professional self-focused attention, imposter thoughts may be buffered for individuals higher in overt narcissism (herein narcissism) as they are less likely to doubt their ability to meet others' perceptions of them. Therefore, we hypothesize:

**H4:** Trait narcissism moderates the relationship between professional SNS users' PSFA and their imposter thoughts, such that the lower the level of narcissism, the stronger the relationship between PSFA and imposter thoughts.

In addition to narcissism, we also propose work centrality as a boundary condition. Centrality refers to how central a self-domain (e.g., family, status) is for a person, and is known as critical in shaping phenomenon associated with the self (Boldero & Francis, 2000; Carver & Scheier, 2001). Walsh and Gordon (2008) define work centrality for an individual as the perceived "degree of importance that work plays in their lives" (p. 46), which is a relatively stable trait (Hirschfeld & Feild, 2000). A person with high work centrality identifies strongly with one's work, viewing their professional pursuits as a central life component (Diefendorff et al., 2002). People who place greater emphasis on work often devote more resources to their professional life, which translates into higher levels of success

and efficacy in this domain (e.g., Katzell et al., 1992; Ladge et al., 2019). Boldero and Francis (2000) found that greater centrality of an identity is associated with decreased discrepancies in the associated domain (Stets & Burke, 2000). High centrality individuals may be protected against imposter thoughts, as their higher work-place engagement leads to greater confidence that they align with the competence ascribed to them by their colleagues. In fact, self-efficacy has a negative relationship with the imposter phenomenon (McDowell et al., 2015). Following the above logic, we hypothesize:

**H5:** Work centrality moderates the relationship between professional SNS users' PSFA and their imposter thoughts, such that the lower the level of work centrality, the stronger the relationship between PSFA and imposter thoughts.

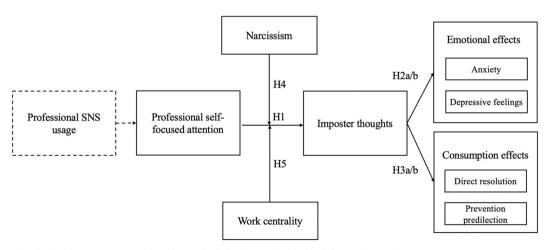
We propose the following conceptual model, which we test over two studies, where the stimulus for PSFA is either passive (Study 1) or active (Study 2) professional SNS use (Figure 1).

#### 3 | STUDY 1

This study examined the effect of PSFA (triggered by passive Linkedln usage) on work-related imposter thoughts (H1) and downstream well-being and consumption effects (H2, H3), considering narcissism as a moderator (H4).

#### 3.1 Design and procedure

A single-factor two-condition (PSFA: lower vs. higher) betweensubjects design was employed. Participants were asked to carry out a browsing task for 2 min, the content dependent on their randomly allocated condition. In the lower PSFA condition, respondents browsed a list of the top 100 films ranked by IMDB users (50 shown



\*Professional SNS usage constitutes the manipulation for professional self-focussed attention.

FIGURE 1 Conceptual model for imposter thoughts stemming from professional social network site usage.

on each page, in a vertical format similar to a social media feed). In the higher PSFA condition, they browsed their LinkedIn feed, instructed to read content only on their feed and not to click away, similar to Marder et al. (2016a). Participants were told they could continue the survey after 130 s had elapsed to give time for the task and reading the instructions. Participants then reported scores for the PSFA manipulation check, followed by work-related imposter thoughts, well-being, and consumption-related effects measures (in a randomized order). To check appropriate engagement in the task, participants described two posts/films they saw when browsing (dependent on condition). Last, narcissism and control variables were assessed.

Adult LinkedIn users who are employed, reside in the United Kingdom, and hold at least a bachelor's degree were recruited through Prolific (using their audience targeting options), a commonly used panel platform in consumer-based online experiments (Harnish et al., 2018; Shin et al., 2022). Sample inclusion criteria were validated at the start of the survey. While 222 participants completed the survey, six were removed as they failed data quality checks (see Appendix SA.1 for details). The final sample comprised of 216 participants who demonstrated adequate engagement with the task  $(M_{Agg} = 36.44, SD = 10.13; Male = 50.00\%)$ .

All items were measured using 7-point Likert-type scales anchored at 1 ("strongly disagree") and 7 ("strongly agree"), unless otherwise specified. The manipulation check and dependent variables were measured based on feelings/thoughts during the browsing task they had just undertaken. Five items from the situational public selffocused attention measure (Govern & Marsch, 2001) were adapted to the context of the professional self and served as the PSFA manipulation check (e.g., "I am aware of how I am perceived in a professional context",  $\alpha = 0.97$ ). Work-related imposter thoughts were assessed through four items from Tewfik (2022) (e.g., "People important to me think I am more capable than I think I am,"  $\alpha$  = 0.95). Anxiety and depressive feelings were measured through four items each (e.g., nervous,  $\alpha = 0.92$ ; sad,  $\alpha = 0.94$ , respectively) from the PANAS scale (Watson et al., 1988). Direct resolution was measured through four items adapted for the professional domain from Marder et al. (2019) (e.g., "I wanted to sign up for an online course to develop my professional knowledge and/or skills more",  $\alpha$  = 0.88). Predilection toward prevention of negative peer comparison (vs. promotion of superior peer comparison) framed claims were measured using three bi-polar items measured along a 7-point scale adapted broadly from Kareklas et al. (2012). Specifically, it assessed the preference of a product/service providing industry-relevant skills advertised, for example "provides advanced skills compared to others (=1)" versus "ensures I have satisfactory skills compared to others" (=7) ( $\alpha$  = 0.88). Narcissism was measured through three items from Back et al. (2013)'s scale for admiration narcissism (e.g., "I deserve to be seen as a great personality,"  $\alpha$  = 0.70). Sample comparability testing showed conditions were statistically comparable in terms of key demographic variables (age, gender, and years of work experience), general LinkedIn intensity usage (six items adapted from Ellison et al., 2007, high score equating to high intensity) and public self-consciousness

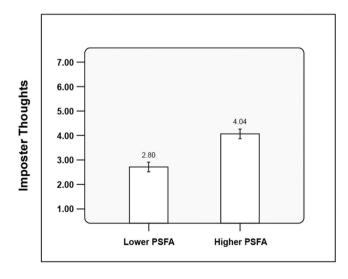
trait (four items from Fenigstein et al., 1975, high score equaling high public self-consciousness). The supplementary appendix provides description of comparability testing for both studies (SA.4), as well as a full list of items, descriptive statistics, reliability, and validity testing (SA.2, SA.3).

# 3.2 | Pre-test

A pre-test on a sample equivalent to the main study recruited through Prolific (n = 47,  $M_{Age} = 34.02$ , SD = 8.83; Male = 68.09%) confirmed that PSFA was higher when people used LinkedIn versus the control task ( $M_{Lower-PSFA} = 1.62$ , SD = 0.67 vs.  $M_{Higher-PSFA} = 4.85$ , SD = 1.28,  $F_{[1,45]} = 122.17$ , p < 0.001,  $\eta^2 = 0.73$ ). Following this confirmation of our manipulation being successful, we proceeded with the main study.

#### 3.3 Results

A correlational matrix for all variables is included in the Supporting Information Appendix (SA.8). An analysis of variance (ANOVA) confirmed the manipulation that browsing LinkedIn (vs. control) increased professional self-focused attention ( $M_{Lower-PSFA} = 1.98$ , SD = 1.35 vs.  $M_{Higher-PSFA} = 4.76$ , SD = 1.37,  $F_{[1,214]} = 225.180$ , p < 0.001,  $\eta^2 = 0.51$ ). A further ANOVA supported H1 confirming that higher PSFA was sufficient to increase imposter thoughts ( $M_{Lower-PSFA} = 2.80$ , SD = 1.63 vs.  $M_{Higher-PSFA} = 4.04$ , SD = 1.32;  $F_{[1,214]} = 37.612$ , p < 0.001,  $\eta^2 = 0.15$ ), see Figure 2. We further report main effects of higher PSFA (vs. lower) on our four dependent variables; anxiety ( $M_{Lower-PSFA} = 1.78$ , SD = 0.99 vs.  $M_{Higher-PSFA} = 2.31$ , SD = 1.21;  $F_{[1,214]} = 11.923$ , p = 0.001,  $\eta^2 = 0.05$ ), depressive feelings ( $M_{Lower-PSFA} = 1.72$ , SD = 0.92 vs.  $M_{Higher-PSFA} = 2.29$ , SD = 1.20;  $F_{[1,214]} = 15.478$ , p < 0.001,  $\eta^2 = 0.07$ ),



**FIGURE 2** Effect of professional self-focused attention stimulated by professional SNS usage on imposter thoughts (Study 1, testing H1).

direct resolution ( $M_{Lower-PSFA} = 2.32$ , SD = 1.55 vs.  $M_{Higher-PSFA} = 3.46$ , SD = 1.63;  $F_{[1, 214]} = 27.700$ , p < 0.001,  $\eta^2 = 0.12$ ), and prevention predilection ( $M_{Lower-PSFA} = 2.90$ , SD = 1.32 vs.  $M_{Higher-PSFA} = 3.02$ , SD = 1.51;  $F_{[1, 214]} = 0.380$ , p = 0.538,  $\eta^2 = 0.00$ ).

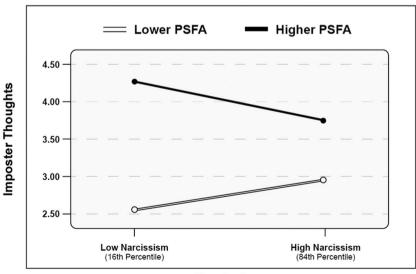
Using separate Model 4 in PROCESS (95% confidence interval [CI], 5000 bootstraps) (Hayes, 2018), we test causal relationships specified in the conceptual model, with PSFA as the independent variable, imposter thoughts as the mediator, and the dependent variable as either anxiety, depressive feelings, direct resolution, or prevention predilection to test H2 and H3. Heightened PSFA increased imposter thoughts (b = 1.242, t = 6.13, p < 0.001), reaffirming H1. Likewise, imposter thoughts increased anxiety (b = 0.290, t = 6.20, p < 0.001) and depressive feelings (b = 0.203, p < 0.001)t = 4.31, p < 0.001), yielding an overall significant indirect effect for anxiety (b = 0.360, SE = 0.85, 95% CI: 0.209-0.539) and depressive feelings (b = 0.253, SE = 0.07, 95% CI: 0.124-0.412), supporting H2a/b. Furthermore, imposter thoughts increased direct resolution (b = 0.316, p < 0.001) and prevention predilection (b = 0.178, p < 0.001)p < 0.001), yielding overall significant indirect effects for both direct resolution (b = 0.393, SE = 0.11, 95% CI: 0.182-0.620) and prevention predilection (b = 0.222, SE = 0.09, 95% CI: 0.055-0.420). These results supported H3a/b. See Supplementary Appendix SA.9 for full Model 4 results.

To test H4, we ran PROCESS Model 1 (95% CI, 5000 bootstraps) with PSFA as the independent variable, narcissism as a moderator, and imposter thoughts as the dependent variable. Supporting H4, the results show a negative moderating impact of narcissism on the effect of PSFA on imposter thoughts (b = -0.39, t = -2.18, p = 0.03), see Figure 3. Conditional effects revealed that individuals lower in narcissism (16th percentile, b = 1.71, SE = 0.30, p < 0.001, 95% CI: 1.123–2.314) experienced a larger rise in imposter thoughts from higher PSFA compared to those higher in the trait (84th percentile, b = 0.80, SE = 0.28, p = 0.005, 95% CI: 0.243–1.355). The Johnson–Neyman technique was further

employed (Spiller et al., 2013) to gauge the cutoff value for the moderating effect of narcissism on the relationship between PSFA and imposter thoughts. The findings revealed that heightened PSFA affected imposter thoughts when an individual's *narcissism* score were below the cut off of 5.03. Specifically, as narcissism increased up to this value, imposter thoughts decreased. However, above 5.03, PSFA had no significant effect (see Appendix SA.7 for full Johnson–Neyman results). For completeness, to assess the moderator as part of the overall process, we ran four PROCESS Model 7s for each dependent variable to support moderated mediation (Appendix SA.9).

# 3.4 | Discussion

This study reveals that professional SNS usage causes imposter thoughts that are associated with negative well-being and consumption-related effects. It thus provides empirical support for hypotheses 1-3. Specifically, our findings show that heightened PSFA (triggered by professional SNS usage) activates imposter thoughts (i.e., imposter discrepancy), which increases anxiety and depressive feelings. Furthermore, we find that imposter thoughts drive intentions to enact direct resolution behavior (i.e., engage in training to increase competence and thus reduce the discrepancy), similar to the effect of traditional self-discrepancies (Mandel et al., 2017). In a similar vein, imposter thoughts shape a transient predilection towards products claiming to ensure safety (i.e., prevention-framed) in providing comparable skills to others versus those that promote superiority (i.e., promotion-framed). Narcissism holds as a boundary condition (H4 supported): due to their inherent grandiose beliefs in their abilities, individuals higher in narcissism appear to be sheltered from feeling imposter-ish and the subsequent downstream effects when PSFA is heightened (see Cooper & Pullig, 2013; Rosenthal & Pittinsky, 2006). Overall, this study



**FIGURE 3** The effect of professional selffocused attention on imposter thoughts for professional SNS users with high (vs. low) narcissism (Study 1, testing H4).

**Narcissism** 

provides initial support for PSFA as the antecedent of imposter thoughts and this cognition as an alternative mechanism for negative emotion associated within professional SNS usage. The following study aims to test the replicability of the effects, initiated by posting on professional SNS, thus studying a form of active usage (Brewer, 2018) and to examine work centrality as a boundary condition.

#### 4 | STUDY 2

This study further tests the effect of PSFA, triggered by posting on LinkedIn, on work-related imposter thoughts and downstream variables (H1-3). As in Study 1, a single factor (PSFA: lower vs. higher) between-subjects design was employed. In addition to narcissism, we consider work centrality to moderate the relationship between PSFA and imposter thoughts and thus the effects on well-being and consumption (H4-5).

# 4.1 | Design and procedure

Participants were asked to remember when they last posted content online, specifics of which depended on their randomly allocated condition. This recall task follows common practice in marketing studies (c.f. Pomirleanu et al., 2020). In the lower (vs. higher) PSFA condition, participants were asked to remember and describe the last time that they authored an online review (vs. a post on LinkedIn about one of their achievements). All participants were given a minimum of 60 s to think back and describe their review/post. Our rationale to focus on achievement posts is provided in the Appendix SA.5. The same measures as in Study 1 were presented to participants, with the additional qualification criteria that they had posted on LinkedIn and written a review within the last 90 days. A two-item measure of work centrality from Bal and Kooij (2011) was added, reported along the same 7-point Likert scale consistent with other measures (e.g., "The most important things that happen to me involve my work," r = 0.74). See Appendices SA.2 and SA.3 for descriptive statistics, reliability and validity assessment for study 2 constructs. The sample and data collection method mirrored that of Study 1, with 312 completed surveys. With 24 participants removed failing data quality checks (see Appendices SA.1 for details), the final sample included 288 respondents ( $M_{Age} = 35.94$ , SD = 20.20; Male = 56.60%). As per Study 1, we ensured comparability of the samples across conditions (see Appendix SA.4).

# 4.2 | Pre-test

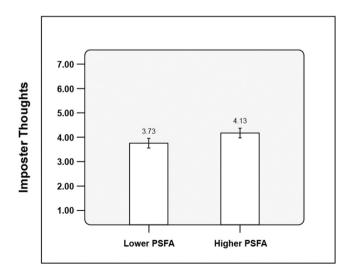
A pre-test conducted on an equivalent sample to the main study (n=36,  $M_{Age}=32.00$ , SD=9.52; Female = 50.00%) supported that the PSFA was higher when posting on LinkedIn versus writing a review ( $M_{Lower-PSFA}=2.13$ , SD=1.27 vs.  $M_{Higher-PSFA}=5.79$ , SD=1.15,  $F_{[1,34]}=82.246$ , p<0.001,  $\eta^2=0.71$ ). Following this successful manipulation check, we proceeded with the main study.

#### 4.3 Results

A correlational matrix for all variables is included in supplementary appendix (SA.8). An ANOVA confirmed the success of the professional SFA manipulation ( $M_{Lower-PSFA}$  = 3.22, SD = 1.62 vs.  $M_{Higher-PSFA}$  = 5.89, SD = 0.80,  $F_{[1,286]} = 314.31$ , p < 0.001,  $\eta^2 = 0.52$ ). A further ANOVA supported that work-related imposter thoughts were more pronounced for higher (M = 4.13, SD = 1.24) versus lower PSFA conditions  $(M = 3.73, SD = 1.46, F_{[1, 286]} = 6.38, p = 0.01, \eta^2 = 0.02)$ , supporting H1 (See Figure 4). We further report main effects of higher PSFA (vs. lower) on our dependent variables; anxiety ( $M_{Lower-PSFA} = 2.00$ ,  $SD = 1.04 \text{ vs. } M_{Higher-PSFA} = 2.26, SD = 1.21; F_{[1, 286]} = 3.874, p = 0.050,$  $\eta^2$  = 0.01), depressive feelings ( $M_{Lower-PSFA}$  = 1.88, SD = 1.05 vs.  $M_{Higher-PSFA} = 1.73$ , SD = 0.80;  $F_{[1,286]} = 1.715$ , p = 0.191,  $\eta^2 = 0.01$ ), direct resolution ( $M_{Lower-PSFA} = 3.27$ , SD = 1.69 vs.  $M_{Higher-PSFA} = 4.29$ , SD = 1.68;  $F_{[1,286]} = 26.560$ , p < 0.001,  $\eta^2 = 0.09$ ), and prevention predilection ( $M_{Lower-PSFA} = 3.09$ , SD = 1.40 vs.  $M_{Higher-PSFA} = 3.11$ , SD = 1.45;  $F_{[1,286]} = 0.290, p = 0.873, \eta^2 = 0.00$ .

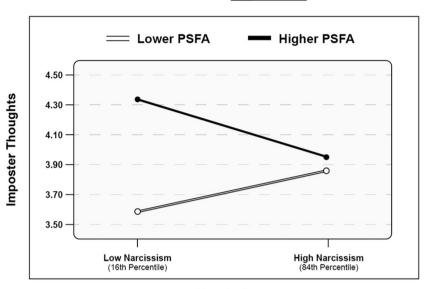
PROCESS Model 4s were run again as in Study 1, and revealed once again that imposter thoughts mediated the effect of PSFA on participants' anxiety (b = 0.054, SE = 0.03, 95% CI: 0.007-0.119), but here not on depressive feelings (b = 0.029, SE = 0.02, 95% CI: -0.005 to 0.081), supporting H2a but not H2b. Furthermore, results yielded a significant indirect effect of PSFA on both consumption-related variables through imposter thoughts (direct resolution: b = 0.112, SE = 0.06, 95% CI: 0.018-0.247; prevention predilection: b = 0.029, SE = 0.03, 95% CI: 0.002-0.134), supporting H3a and H3b again. See Appendix SA.9 for full Model 4 results.

PROCESS Model 1 was used to test the individual moderating effect of narcissism and work centrality (in two separate models, 95% CI, 5000 bootstraps each). Supporting H4 the results showed a significant interaction with PSFA and narcissism (b = -0.32, t = -2.23, p = 0.03), see Figure 5. Conditional effects reveal that for individuals lowest in narcissism, PSFA increases imposter thoughts (16th



**FIGURE 4** Effect of professional self-focused attention on imposter thoughts (Study 2, testing H1).

**FIGURE 5** The effect of professional selffocused attention on imposter thoughts for professional SNS users with high (vs. low) narcissism (Study 2, testing H4).



**Narcissism** 

percentile, b = 0.74, SE = 0.22, p < 0.001, 95% CI: 0.309–1.172); however, no significant effect was found for those highest in narcissism (84th percentile, b = 0.10, SE = 0.20, p = 0.647, 95% CI: -0.318 to 0.510). The Johnson–Neyman technique was again employed to assess the cutoff value for the narcissism moderating effect. Up to 3.65, PFSA increased imposter thoughts. Yet, above 3.65, there was no relationship between PSFA and imposter thoughts. This pattern mirrors the findings of Study 1.

The results further supported H5, finding a significant interaction between PSFA and work centrality (b = -0.29, t = -2.57, p = 0.01), see Figure 6. Here, the spotlight analysis shows that for people lowest in work centrality, PFSA increased imposter thoughts (16th percentile, b = 0.69, SE = 0.20, p < 0.001, 95% CI: 0.296–1.089). However for those highest in centrality, no significant relationship exists (84th percentile, b = -0.17, SE = 0.26, p = 0.511, 95% CI: -0.676 to 0.337). The Johnson-Neyman technique revealed the cutoff value for work centrality's moderating effect as 3.35. This illustrates that as centrality increases up to this point, PSFA has a decreasing effect on imposter thoughts, and no significant effect above this cutoff value. Overall the findings support that that impacts of PSFA on imposter thoughts are significantly greater (lower) for individuals with lower (higher) levels of narcissism or work centrality, supporting both H4 and H5. See Appendix SA.8 for full Johnson-Neyman results.

For completeness, as per the first study, eight PROCESS Model 7s were run (one for each DV, for each moderator) to test for moderated mediation for all dependent variables. In all cases where there was a significant indirect effect shown in the Models 4s, moderated mediation was supported within the Model 7s<sup>1</sup> (see Appendix SA.9).

#### 4.4 | Discussion

This study, in large, reaffirms the findings of Study 1, supporting H1, H2a, H3a/b, and H4. In other words, posting an achievement on a professional SNS was sufficient to stimulate heightened PSFA, leading to imposter thoughts and downstream consequences. However, unlike Study 1, depressive feelings were not a significant outcome. It might be that in the context of achievement posting, depressive feelings are muted by happiness associated with the achievement. Narcissism and work centrality moderated these effects, supporting H4 and H5. Specifically, we show that PSFA leads to greater imposter thoughts for individuals for whom narcissism is lower and whom work is less central to their identity. Moreover, we find the effect from PSFA on imposter thoughts attenuated for individual high in both traits. We theorize that people high in work centrality feel more secure in their professional successes due to their greater commitment and work ethic and thus experience lower (or no significant rise in) imposter thoughts when posting an achievement. This is broadly in line with prior work that shows greater devotion to work is associated with greater perceived security in this domain (e.g., Katzell et al., 1992; Ladge et al., 2019).

# 5 | IMPLICATIONS AND RESEARCH AGENDA

# 5.1 | Theoretical contributions

Our research provides three key theoretical contributions within the agenda for greater understanding of the well-being effects of technology (e.g., McLean et al., 2021; Pera et al., 2020). First, we contribute to the sociocognitive theorization of imposter syndrome (Clance & Imes, 1978; Tewfik, 2022) through integrating objective self-focused attention theory to offer a situational antecedent for

 $<sup>^1</sup>$ All models were significant at 95% CI, with the exception of the model that tested narcissism as the moderator and prevention orientation as the dependent variable, which was significant at 90% CI.

**FIGURE 6** The effect of professional selffocused attention on imposter thoughts for professional SNS users with higher (vs. lower) work centrality (Study 2, testing H5).

imposter thoughts. Specifically, we demonstrate that self-focused attention is a prerequisite for the activation of work-related imposter thoughts (i.e., the imposter discrepancy) (Duval & Wicklund, 1972). In other words, to trigger imposter thoughts (i.e., a socially related cognition), attention must first be directed towards how one is perceived by professional others (here PSFA). Our studies show that PSFA, stimulated by professional SNS usage (both passive and active), heightens imposter thoughts.

Identifying PSFA as the antecedent within the sociocognitive theorization sheds light on "why" certain situations highlighted by prior research, such as job interviews, presentation, and task assessment, cause imposter thoughts, where there was no prior unifying explanation (see Hall & Gosha, 2018; Hutchins & Rainbolt, 2017). We explain that all such situations involve the presence or imagination of a professional audience, the trigger for PSFA (see Silvia & Duval, 2001). This also provides insight into Guillaume et al.'s (2019) findings in their autoethnographic study, where imposter syndrome was experienced when viewing career success posts of colleagues on Facebook. This can be understood as Facebook also acting as a stimulus for PSFA, given the professional related content posted and the presence of professional connections in users' networks (Binder et al., 2009). It is important to note that public self-focused attention, more broadly, can be viewed as the antecedent for imposter thoughts outside of the work domain. For example, Goor et al. (2019)'s findings that luxury consumption can make people feel like an imposter, is arguably initiated by increased awareness of other consumers, given that luxury consumption is often conspicuous. However, further research is needed to validate this. Overall, this extension of sociocognitive imposter theory provides an explanatory mechanism for imposter thoughts arising from a situation/event. It is worth noting that while we provide initial support that PSFA and thus imposter thoughts arise from both passive and active usage of professional SNS, our findings are limited. It is likely that more in-depth comparison may highlight differences in

imposter effects across active versus passive usage, as well differences between different behaviors within each category (e.g., posting a success vs. liking another's post). Future research is needed to provide greater nuance in understanding SNS usage as a cause for imposter thoughts.

Extending this presented mechanism further, we offer evidence for two previously unexamined boundary conditions to PSFA as an antecedent for imposter thoughts and thus downstream effects. We found that narcissism attenuates imposter thoughts stemming from professional SNS usage. For individuals with the highest (vs. lowest) levels of narcissism, either a smaller increase in imposter thoughts was experienced in Study 1, or possibly no significant increase was found in Study 2 (i.e., no significant increase observed for the highest narcissism individuals). We explain this finding based on the premise that narcissists inherently hold themselves in high regard and thus believe that they meet (or exceed) the perceptions of others (see Sedikides & Gregg, 2001). This aligns with work that positions narcissism as a means to preserve one's self-concept (Campbell et al., 2004; Morf & Rhodewalt, 2001), shielding the self from negative affect (Yang et al., 2021). However, as narcissism is a complex trait, future research is needed. For example, research could examine the effect of covert narcissism, as this is associated with lower self-esteem and thus may produce contrasting results (see Rhodewalt & Eddings, 2002).

Work centrality serves as a further boundary condition. Individuals with high work centrality did not experience heightened imposter thoughts when posting an achievement (Study 2), whereas those with lower centrality did. In other words, though we expect a person posting an achievement to perceive others to see them as successful, regardless of centrality, higher centrality individuals, who are more committed to work, will inherently perceive their actual success as greater, and thus more aligned with the perceived opinions of others (i.e., reduced imposter discrepancy). This contrasts with those lower in centrality, who are less committed workers, perceiving

their actual success to be lower and therefore more discrepant from the opinion of others. This finding aligns with extant research that correlates higher centrality within a domain with lower discrepancies in that domain (Boldero & Francis, 2000) and positive well-being effects (Yuen et al., 2018). We contend that higher work centrality individuals invest in greater resources to support their professional self and feel secure about meeting the competence ascribed by others (Ladge et al., 2019). This is consistent with McDowell et al.'s (2015) finding of an inverse relationship between self-efficacy and the imposter phenomenon. Following this logic, it is plausible that this effect is linked to the specific behavior of posting, with high work centrality individuals feeling self-assured about presenting their achievements, whereas low centrality ones feel insecure and arguably "imposter-ish" broadcasting their achievements.

Although we support higher work centrality to reduce negative affect, some scholars may expect the opposite, as greater devotion to work may make the imposter discrepancy more central, thus leading to a heightened emotional response (e.g., Carver & Scheier, 2001; Higgins, 1987). The role that centrality plays in the process may be double-edged and deserves further investigation. While work centrality is a natural line of enquiry for imposter phenomenon in a work domain, centrality is likely also to play a role outside of work. For example, the centrality of status may shape findings of imposter thoughts stemming from luxury consumption (see Goor et al., 2019). We acknowledge that our effect sizes are small (particularly for the moderators), which is common in consumer research, especially for complex relationships (Fern & Monroe, 1996). Nevertheless, given the widespread nature of professional SNS and imposter syndrome even small effects may accumulate to significant societal impacts (Bravata et al., 2020: Shepherd, 2023), However, future research is needed to further validate our findings and gain a better understanding of the possible variance in effect sizes between our relationships.

Our second theoretical contribution lies in extending the sociocognitive theorization of imposter syndrome with consumptionrelated effect, which is of particular interest to marketing scholars. We propose that imposter discrepancies, albeit different in nature to general self-discrepancies, may drive consumption effects in a similar way (see Kim & Gal, 2014; Schouten, 1991). We find that imposter thoughts heighten intention for direct resolution consumption, specifically increasing engagement intentions for training to improve one's professional competence. However, direct resolution is likely only one of many consumption-related behaviors initiated by imposter thoughts; future studies should attend to the potential for dissociation, fluid consumption, and escapism (Mandel et al., 2017). Moreover, our studies support that imposter thoughts may temporarily shape preferences towards the framing of product claims. When someone experiences imposter thoughts, they show a greater predilection toward prevention-framed (vs. promotion-framed) product claims in relation to peer comparison. In other words, when thinking of oneself as an imposter, there is an increased preference towards training courses that claim to prevent feelings of competence inferiority, as opposed to courses claiming competence

superiority. This builds on Tewfik's (2022) findings that imposter thoughts predict greater other- (vs. self-) orientated behavior, which may translate into a preference toward relevant appeals (see White & Peloza, 2009). Through offering consumption-related consequences, we show that consumption is not just an antecedent event for imposter thoughts (Goor et al., 2019), but also a means to reconcile them. Following this discovery, two interesting questions surface. First, which compensatory consumption behaviors (e.g., direct resolution, symbolic self-completion etc.) are most commonly associated with imposter thoughts (see Mandel et al., 2017)? Second, do imposter discrepancies drive compensatory consumption patterns differently than self-discrepancies (e.g., actual vs. ideal)? Such distinctions could potentially arise due to the "referent point." While imposter discrepancies are anchored in perceptions of how others view oneself, as opposed to one's own ideals, compensatory behavior may be more socially oriented. Further research is required to address these questions.

Our final contribution is to knowledge on the negative well-being effects of professional SNSs. We show that professional SNS usage increases negative emotions (anxiety and depressive feelings) through stimulating imposter thoughts. Thus, we identify a previously unexamined cause that explains negative affect stemming from professional SNS usage. This alternative mechanism complements the existing dominant explanation linked to social comparison (Liu et al., 2019). People may experience negative emotions not just because they perceive themselves as less successful than others but also because they think others ascribe greater success to them than they believe is true. It should be noted that while we found anxiety to increase (see Clance & Imes, 1978; Sverdlik et al., 2020) from both browsing LinkedIn feeds and posting an achievement post, depressive feelings were only significant in the former. This highlights the complexity of mental well-being phenomena when a person posts an achievement. Depressive feelings may potentially be overshadowed by positive emotions associated with the achievement. However this dampening effect may not hold true for anxiety (supported in Study 2). For example, when a person posts about an award they won, they are likely to feel happiness about the prize, buffering depressive feelings. Nevertheless, if imposter thoughts persist, they may still experience anxiety stemming from the fear of being exposed as underserving of the award. In light of this, we urge future researchers to consider the broader well-being ecosystem that may exist alongside imposter-related outcomes (i.e., the interplay of mixed, potentially counteracting emotions). For example, studies could examine the moderating effects of perceived prestige or the locus of control associated with achievements (see Nazifi et al., 2021).

Though we are cautious about generalizing our findings beyond our study context, it is important to note the implications for SNSs more generally. First, as implied above, imposter thoughts (work-related) can be considered an antecedent to negative affect for any SNSs which involve professional-related content or connections, the case for the majority of SNSs. Second, our process mechanism can be adapted to imposter thoughts and negative affect in self-domains beyond work, highlighting a broader array of imposter thoughts that

might arise from general SNS usage (e.g. Facebook, Twitter, Instagram). For example, it is plausible that people may not feel as beautiful as others think they are when using Instagram, triggering potential imposter thoughts in the attractiveness domain (see Windingwheel, 2013). However further research is needed to validate such extensions of outside the professional domain.

Overall, our research responds to broad calls for increasing knowledge about the well-being effects of marketing technologies (Javornik et al., 2021; McLean et al., 2021) and specific calls related to professional SNSs (Krasnova et al., 2015) and the imposter phenomenon in this context (Grossman, 2020; Guillaume et al., 2019). It is useful to note that we treated well-being (anxiety and depressive) and consumption-related effects as standalone outcomes of imposter thoughts, as our primary aim was to evidence a breadth of consequences. Prior research supports that compensatory consumption often arise from discrepancies through well-being effects, though this need not be the case (Mandel et al., 2017). Future research is needed to provide a more complete understanding of the link between imposter thoughts and consumption-related effects by considering the role of associated negative emotions as mediators. Subsequent studies should focus on contrasting specific affective dimensions of the imposter phenomenon (e.g., fear of being found out), adopting measures derived from imposter work that embrace the affective lens (see Table 2).

# 5.2 | Managerial implications

For marketing managers and professional SNS managers, our central finding indicates that using professional SNSs can give rise to imposter thoughts and negative emotions. Against the backdrop of heightened scrutiny of SNSs as cause for negative emotions for their consumers (e.g., Booker, 2023), we urge that imposter thoughts be considered alongside other existing causes (e.g., social comparison) in the broader agenda of addressing negative wellbeing consequences arising from engaging these sites. Imposter thoughts fundamentally highlight to an individual that they lack competences (compared to that which is ascribed). As our results suggest, this motivates users to engage with products that increase their competence (i.e., directly resolve the discrepancy). Here, marketers could consider increasing advertising and content related to upskilling products, as well as "call-to-action" prompts that encourage users to take steps to enhance their skills (e.g., sign up now). Furthermore, we ask that site managers consider means to reduce imposter thoughts when engaging on the sites. For example, they could communicate to users that feeling that way is not uncommon (e.g., through content or prompts). Research has shown that knowing others share similar experiences can reduce negative emotions (Chatterjee et al., 2013). It is important to caveat our advice with the fact that our findings represent only initial evidence of imposter thoughts stemming from professional SNS usage. Therefore, our guidance should primarily serve as a catalyst for further discussion and investigation into this phenomenon.

#### 5.3 | Limitations and future research

Though our research provides important novel insights and valuable contributions, we acknowledge limitations of our research. First, we provide a singular explanation (imposter thoughts) for negative affect from professional SNSs usage. However, it is likely that dual psychological effects may co-exist with social comparison, especially during exposure to the success posts of others. In Study 1, the social comparison could thus additionally explain some variation of dependent variables. It is critical for future research to understand the parallel functioning of these mechanisms, including narcissism and centrality as moderators, as the overall effects are unclear and moderators may act to dull the effect of one mechanism but enhance that of the other.

Second, in Study 1, though checks were in place, we were unable to control fully participants' experiences, such as what specific posts they viewed, which might have further affected their responses, as everyone's feed content is different. This experiment is thus limited in elucidating which type of content is driving heightened PSFA. In addition, the control tasks used in both experiments (i.e., scrolling IMDB, recalling an online review posted) were chosen to be the most pragmatic alternative, albeit potential confounds may exist (e.g., online reviews focus attention on product experiences, thus away from the self). Future research should aim to replicate our findings by contrasting professional SNS usage (or recalled usage) with that of general SNS, controlling for the potential for general SNS to expose work-related content.

Further, Study 1 only required 2 min of usage (a naturalistic, but relatively short time). Though heightened PSFA was found, our study is limited in understanding the effects related to longer or shorter usage situations (e.g., checking an alert vs. prolonged browsing for information). Future studies should contrast different usage times on the production of imposter thoughts. Thirdly, Study 2 was based on recall rather than emotions/preferences present within a live experience. This recall, though commonly used in experiments, may not accurately represent the experience at the time. Future studies are needed that directly address these drawbacks to validate our findings.

Fourthly, in a similar vein, we note limitations of the measurement scales employed and the presentation of these scales. In particular, our scales for emotional consequence (i.e., anxiety and depressive feelings), direct resolution, prevention predilection, and work centrality could have been subject to measurement error/bias, which limits the generalizability of our findings (details given in SA.6). Subsequent research could replicate our findings using different self-report scales, physiological (e.g., GSR) or neurological instruments (e.g., fMRI). Additionally, our measures only include behavioral intention, so future research could employ affirmative behavioral measures (e.g., signing up to courses) to validate our findings.

Fifthly, it is plausible that other personal or contextual attributes may shape our effects. Further research should consider psychological variables (e.g., self-belief, self-esteem, susceptibility to interpersonal/informational influence, big five traits beyond narcissism),

professional characteristics (e.g., seniority of position, years of experience) and consumption-related effects in situations where reconciliatory products have a specific (vs. non-specific) relevance for the consumer. Lastly, we focus on UK-based individuals with at least a bachelor's degree, so we generalize our findings with caution. Future studies should re-examine the relationships tested here in different sociodemographic samples across different cultures.

Beyond these limitations, the study provokes several questions about the role of narcissism and centrality on other marketing technologies, consumer well-being, and general imposter research. Regarding other marketing technologies, it would be interesting to investigate whether the moderating effects of narcissism and centrality observed in our study extend to various digital platforms and tools. After all, narcissism was described as "one of the most enigmatic" constructs for psychology and consumer behavior scholars (Back et al., 2013, p. 1013). For instance, do individuals high in narcissism also exhibit low emotional responses when exposed to other discrepancy-activating posts on social media platforms? Similarly, how does centrality influence consumer wellbeing in the context of other digital marketing activities, such as engagement with luxury-related social media posts? Exploring these questions could shed light on the complexities of consumer behavior and well-being in the digital age.

#### DATA AVAILABILITY STATEMENT

Research data are not shared.

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#### SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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