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Covert Social Curiosity, Idle Curiosity, and Fear of Missing Out: Evidence for a Unified Latent Construct

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Abstract

Curiosity drives us to seek new information. Few studies have challenged the view that it is intrinsically a positive trait. We developed a new scale measuring idle curiosity, i.e. the Social Excessive & Excessive Knowledge-hunting (SEEK) scale. The scale was developed within the Item Response Theory paradigm using two participant samples (N_1 = 159, N_2 = 338) and was then correlated with other constructs for validation purposes (i.e., fear of missing out and covert curiosity). The SEEK scale demonstrated satisfactory psychometric properties but showed extraordinarily strong correlations with fear of missing out (FoMOs) and covert social curiosity (5DCR). Deeper analyses revealed that all three traits had intercorrelations of r = .59-.69, and items from the three scales loaded onto virtually one factor. Moreover, questionnaires used as validation criteria showed nearly identical correlational patterns for all three traits. We propose the existence of a latent meta-trait underlying these three constructs. Since frameworks of curiosity studies and fear of missing out on studies were previously disparate and even antithetical, we discuss the implications of our findings for previous and future research in these areas.

Keywords: curiosity, scale development, fear of missing out, information seeking, social curiosity, idle curiosity.

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"The art of knowing is knowing what to ignore."
~ Rumi

Introduction

So many interesting events are happening at the exact moment you are reading this paragraph. Maybe our cousin's neighbors have started such a fierce fight that when the police officer arrives, he gets accidentally hit in the face. Perhaps Boris The Vlogger has uploaded a new podcast, and for now, it has just a couple of views, but you know it will go viral within days. Not to mention NASA's possible latest discovery – a diagonally bi-polarized red dwarf at the very edge of our galaxy.[7] It is great to know these things, is it not? After all, if you happen to participate in a conversation on space peculiarities, it would be embarrassing to stay oblivious to the subject of the ongoing dialogue. Our curiosity is our only weapon in the battle of staying updated in this widely uncharted world. But this weapon is double-edged. In this project, we cover the dark side of curiosity, being an aimless pursuit of knowledge that is of no practical use.

Humans possess an innate drive to seek information and experiences, even when there's no immediate reward (Von Stumm, Hell, & Chamorro-Premuzic, 2011; Kidd & Hayden, 2015). This trait – curiosity – defined as the desire for new information and knowledge (Hartung & Renner, 2013), has been fundamental to human evolution. It enabled our ancestors to accumulate knowledge that led to better survival decisions (Kidd & Hayden, 2015). Indeed, the drive to gather information is so fundamental that it appears across species, from humans to the simple *C. elegans* worm (Gazzaniga, 2005; Calhoun, Chalasani, & Sharpee, 2014). In humans, this urge to reduce uncertainty has become a powerful motivator (FeldmanHall & Shenhav, 2019), driving both scientific discovery and civilizational progress (Berlyne, 1978).

Beyond biological survival, curiosity plays a crucial role in social adaptation. In today's world, staying informed through news consumption has become essential for participating in social and cultural life (Boczkowski, Mitchelstein, & Matassi, 2017). Successfully navigating our complex social landscape requires constant awareness of others' activities and intentions (Foster, 2004). This social dimension of curiosity represents a crucial evolutionary milestone. As human groups grew larger, our ancestors needed new ways to form and maintain alliances beyond physical grooming (Dunbar, 2004). The social brain hypothesis (Dunbar, 1998; 2003) suggests that primate intelligence evolved primarily to handle social complexities rather than practical challenges like finding food or creating tools. Evidence from hunter-gatherer societies, where gossip serves vital social functions, supports this perspective (Gray, 2011).

However, the drive to know everything about everyone serves adaptive purposes only under specific conditions, i.e., when we share meaningful connections with the people involved and when the information holds potential value. Indiscriminate information gathering can actually impair our functioning. An overflow of information makes it harder to identify and focus on what's truly relevant. Given our limited cognitive processing capacity (Hwang & Lin, 1999), every bit of trivial information we process potentially displaces something more important. This challenge is uniquely modern. Our ancestors, living in small

[7] No such red dwarf really exists. Or at least the authors are not aware of it.

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groups, needed to track information about a limited number of individuals – all crucial for survival. Today's global village (McLuhan & Fiore, 1968), with its constant stream of information about countless individuals, presents an unprecedented challenge. Our easy access to infinite information about infinite others frequently leads to information overload (Edmunds & Morris, 2000; Feather, 2013).

Information overload –termed *Info Glut, data smog,* or *analysis paralysis* (Shenk, 1997; Stanley & Clipsham, 1997) – occurs when we encounter more information than we can effectively process. This cognitive overload can trigger stress, compromise health, and impair decision-making (Chewning & Harrell, 1990; Lewis, 1996). Modern technology, particularly social media and constant internet access, has intensified this challenge (Eppler & Mengis, 2008; Rodriguez, Gummadi, & Schoelkopf, 2014). The culture of information consumption has become so pervasive that content explicitly labeled as "useless" attracts millions of viewers. For instance, a YouTube video titled "A Solid 20 Minutes of Useless Information" (Austin-McConnell, 2020) garnered over 4 million views. This is a telling indicator of our compulsive information consumption habits.

Humans routinely seek information that serves no practical purpose (Bastardi & Shafir, 1998). As Shirky (2008) argues, our ability to create information has outpaced our capacity to discriminate between valuable and worthless data. While we have evolved sophisticated attention filters to extract crucial signals from our stimulus-rich environment (Driver, 2001), we lack equally refined mechanisms for filtering incoming information. This mismatch leaves us vulnerable to information overconsumption. The consequences of our limited information filtering abilities can be serious and far-reaching. Research reveals multiple negative impacts: pandemic news consumption left 40% of Americans emotionally distressed (Mitchell, Oliphant, & Shearer, 2020), excessive social media monitoring undermines academic performance (Rosen, Carrier, & Cheever, 2013), and the pressure to keep up with friends' updates generates what is known as communication debt, which triggers anxiety (Lufkin, 2021). In extreme cases, this compulsive curiosity can even drive individuals toward self-destructive behaviors that offer no compensating benefits (Hsee & Ruan, 2016).

The scientific community has developed numerous tools to measure different facets of curiosity (Naylor, 1981; Kashdan, Rose, & Fincham, 2004; 2018; 2020; Litman & Jimerson, 2004; Renner, 2006). However, these instruments predominantly focus on curiosity's positive aspects, highlighting its adaptive functions and practical benefits (e.g., Kashdan *et al*., 2020; Kashdan & Roberts, 2004). This positive bias in measurement tools has left the potentially harmful aspects of curiosity relatively unexplored. The traditional view of curiosity emphasizes its role as a catalyst for personal growth. Research consistently shows that curiosity drives knowledge acquisition, skill development, relationship building, and intellectual advancement (von Stumm & Ackerman, 2013; von Stumm, Hell, & Chamorro-Premuzic, 2011). Curious individuals demonstrate enhanced cognitive engagement: they pay closer attention, process information more thoroughly, show better retention, and exhibit greater persistence in tasks (Silvia, 2006). These benefits appear across the lifespan, from children's play and learning (Rubin, 2005) to adults' professional and recreational pursuits (Reio, 2003). The positive effects extend beyond cognition – curiosity correlates with optimistic worldviews (Csikszentmihalyi, 1990), greater life satisfaction (Jovanovic & Brdaric, 2012), and heightened emotional intelligence (Leonard & Harvey, 2007).

In social interactions, curiosity appears to enhance interpersonal connection. Curious individuals tend to be more responsive listeners who actively build on others' disclosures (Kashdan, Rose, & Fincham, 2004) and more readily form bonds with new acquaintances (Kashdan & Roberts, 2006). However, this social dimension of curiosity has a darker side that research has largely overlooked. The few studies examining curiosity's adverse effects reveal troubling correlations with risk-taking behaviors, including substance use (De Micheli & Formigoni, 2002) and sexual risk-taking (Cullari & Mikus, 1990). This suggests that while curiosity's core function may be adaptive, its manifestation can lead to impulsive and potentially harmful exploratory behaviors, particularly in social settings.

Several existing measures specifically target social curiosity (Kashdan 2018; 2020; Renner, 2006) – the drive to understand others' thoughts, feelings, and behaviors (Litman & Pezzo, 2007). Unlike general curiosity, social curiosity shows direct links to potentially problematic behaviors and traits. Social curiosity predicts behaviors like gossip-spreading (Litman & Pezzo, 2007) and eavesdropping (Renner, 2006). This can escalate into what is known as fear of missing out (FoMO), i.e., persistent anxiety about staying connected and a nagging worry that others are enjoying experiences we are missing (Przybylski *et al*., 2013). Paradoxically, contemporary research still frames even these problematic manifestations as adaptive. For example, *covert social curiosity* – characterized by secretive information-gathering and socially intrusive behaviors – is portrayed as a functional tool for self-esteem regulation (Kashdan *et al.*, 2020).

Prior research has concentrated on curiosity driven by clear goals or potential benefits. In contrast, we examine what we might call "idle curiosity" – the pursuit of information with no intended use. We distinguished between information's potential utility and the collector's motivation. For instance, following distant acquaintances' social media updates purely for entertainment represents idle information seeking, even though this knowledge might inadvertently prove valuable for future social interactions. This distinction between intention and outcome is crucial. We classified information as "idle" based not on its inherent value but on the absence of any practical purpose in its initial acquisition.

We argue that this form of curiosity has become maladaptive in modern contexts, where the resources expended (time, energy, attention) far outweigh any potential benefits. The information gathered through such means typically serves no practical purpose and may actually fuel psychological distress, including FoMO. While Kashdan *et al*. (2020) defend covert social curiosity, they notably avoid addressing why humans compulsively seek seemingly pointless information. We propose that idle curiosity – the persistent pursuit of redundant information – represents an evolutionary adaptation that has outlived its usefulness, transforming from an advantage into a liability in our information-saturated world.

Materials and Methods

Overview

Our research began with the development of Social Excessive & Excessive Knowledge-hunting (SEEK) scale, a novel instrument measuring idle curiosity. During validation, we discovered an unexpected pattern, i.e., strong intercorrelations among measures that theoretically

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should assess distinct constructs. This finding prompted a broader investigation structured in three phases:

1. Scale development
2. Validation analysis
3. Cross-construct comparison of items

For transparency and replication purposes, we have made all data, materials, and analysis code available through the Open Science Framework (https://osf.io/z9f4q/?view_only=05d537dab4f940e5b181d7f662481def).

Phase 1: Scale Development

Method: Initial item selection

Participants

We recruited 159 participants through Amazon's Mechanical Turk (MTurk) to evaluate our initial item pool. Participants came from English-speaking countries or regions with high English proficiency (e.g., Norway). While we did not control for demographic variables such as age or gender, all participants completed the full preliminary version of the scale.

Procedure

We created an initial pool of 75 items designed to assess individuals' tendency to seek redundant information. This pool combined adapted items from existing scales with newly developed ones. Participants rated each item on a 7-point Likert-type scale ranging from "strongly disagree" to "strongly agree" with unlabeled intermediate points. We evaluated the items' psychometric properties using Item Response Theory (IRT) analysis, implemented through the mirt package (Chalmers, 2012) and performance package (Lüdecke *et al*., 2021) in R version 4.1.1717.

The IRT analysis generates three key psychometric parameters: difficulty (*b*), discrimination (*a*), and factor loading (*F*). The difficulty parameter (*b*) indicates where along the trait continuum an item functions best. Let us illustrate this concept. In mathematics testing, the problem "2+2" (low *b* value) distinguishes only between those with and without basic numeracy. In contrast, solving "$x^3+y^3+z^3=42$" (high *b* value) differentiates among those with advanced mathematical abilities. This concept becomes more nuanced with Likert-scale items. In a 5-point Likert scale, we examine four b parameters, each marking a threshold where respondents typically shift to a higher response option. For example, $b_1 = -1.5$ indicates that respondents scoring 1.5 standard deviations below the mean or lower tend to select "1," while others choose higher values.

The discrimination parameter (*a*) measures an item's ability to distinguish between individuals with different levels of the measured trait. For example, a high a value indicates the item clearly differentiates between those above and below the difficulty threshold (*b*), while a low a value suggests more random responding. Effective items typically show values between 0.70 and 2.0. The final parameter, factor loading (*F*), represents how strongly each item correlates with the underlying construct being measured.

We established strict criteria for item retention: factor loadings (F) greater than .30; discrimination values (a) exceeding .70; difficulty parameters (b1-6) showing logical progression (ascending values); highest difficulty parameter (b6) exceeding 2.0 to capture extreme trait levels. We conducted the analysis iteratively, removing poorly performing items and reassessing the remaining set after each iteration.

Results

Initial IRT analysis identified 27 items with acceptable psychometric properties: discrimination values (a) ranged from 0.712 to 1.01, and factor loadings (F) from 0.39 to 0.51. However, only four items achieved our target difficulty level (b6 > 2.0), with the remaining items showing maximum difficulty values between 0.709 and 1.984. We further refined the pool by removing 15 items that conceptually diverged from our construct of idle curiosity. The remaining 12 items demonstrated strong psychometric properties (F ≥ 0.40, a > 0.70), though only three reached our highest difficulty criterion (b6 > 2.0), with others ranging from 1.44 to 1.99.

The scale's difficulty level fell short of our goals. We had intended to capture high-intensity, potentially pathological manifestations of idle curiosity, but the b parameters indicated our items primarily measured average trait levels. To address this limitation, we developed 22 additional items conceptually similar to our best-performing ones. The second phase of our study focused on selecting the strongest items from this expanded pool and validating the refined scale.

Follow-up Item Selection

Participants

We recruited a new sample of 338 participants through MTurk to evaluate our expanded item pool. The sample comprised 58% women and 33% men, with 36 participants declining to specify gender. Participants ranged in age from 19 to 77 years (M = 38.24, SD = 12.74) and came from English-speaking countries or regions with high English proficiency.

Procedure

Our expanded analysis examined 34 items: the 12 strongest items from Phase 1 plus 22 new items designed to capture more extreme manifestations of the trait. Based on response patterns from Phase 1, we shifted from a 7-point to a 5-point Likert scale to optimize response variability. We applied similar but refined selection criteria: factor loadings exceeding 0.30; discrimination values (a) above 0.70; logically ascending difficulty parameters (b1-4); highest difficulty parameter (b4) exceeding 2.0. We conducted iterative analyses, progressively eliminating items that failed to meet these benchmarks.

Results

Our analyses yielded a final 9-item scale with robust psychometric properties (see Table 1 and Figure 1). Each item demonstrated strong discrimination ($a > 0.80$) and appropriately ascending difficulty parameters (b1-b4). Notably, all items achieved our target for maximum difficulty ($b4 > 2.0$), indicating the scale's ability to detect high levels of the trait. The scale showed strong internal consistency (Cronbach's $\alpha = 0.85$, McDonald's $\omega = 0.85$) and fit a single-factor

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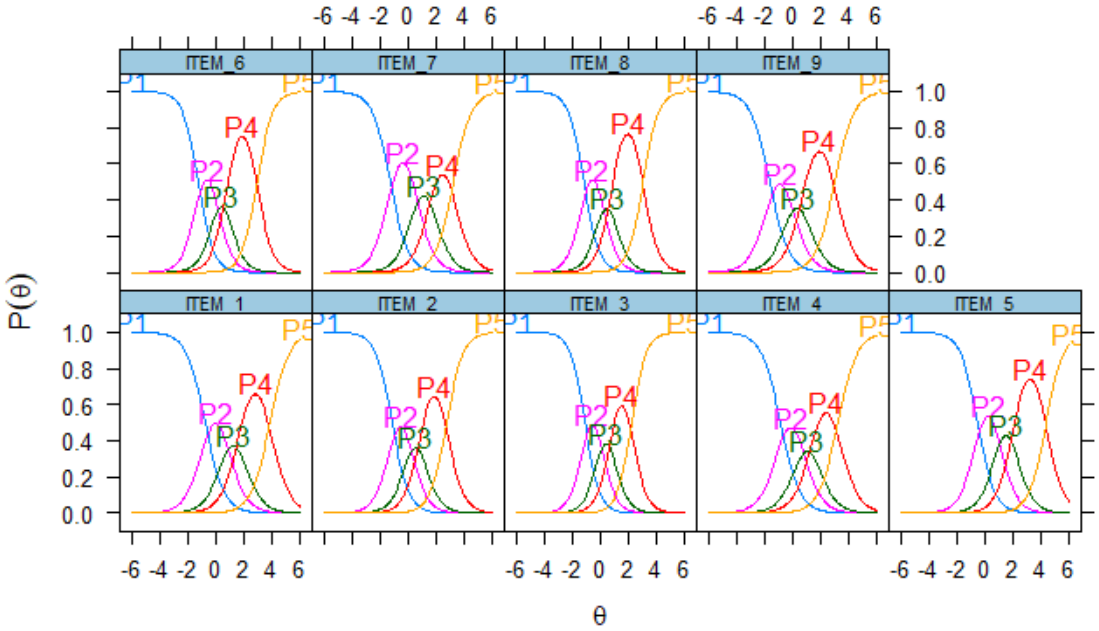
structure: $\chi^2(27) = 131$, $p < .001$, with acceptable fit indices (CFI = 0.89, TLI = 0.85, RMSEA = 0.11, 90% CI [0.089, 0.126]). Figure 2 presents information about the general scale difficulty.

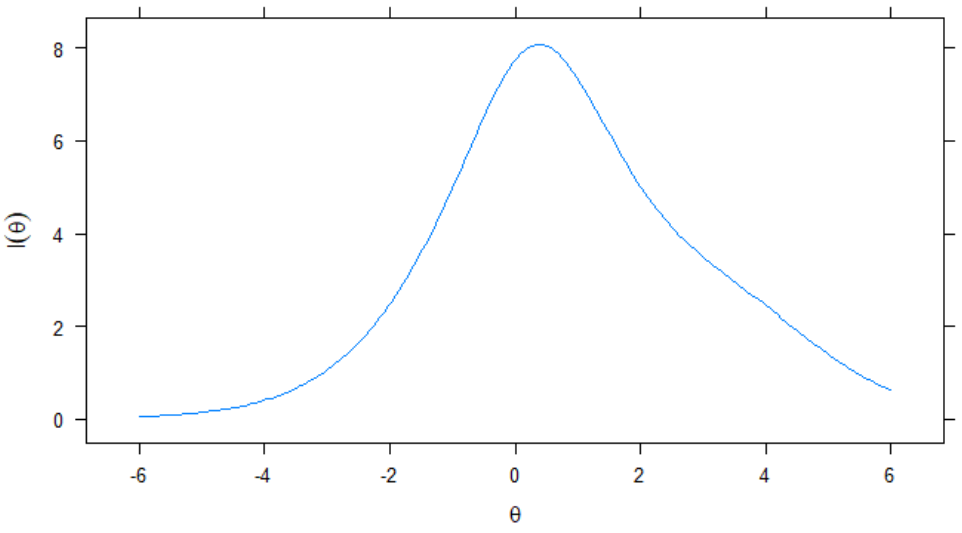
FIGURE 1. Response Probability Curves for SEEK Scale Items



Note. Each line represents the probability of selecting a particular response option (P1-P5) on the 5-point Likert scale as a function of the underlying trait level (θ). Higher θ values indicate a stronger manifestation of idle curiosity.

Source: own elaboration.

FIGURE 2. Test Information Function for the SEEK Scale



Note. The curve shows measurement precision across different levels of idle curiosity (θ). Higher information values indicate more precise measurement at that trait level. The scale provides optimal measurement for moderate to high levels of idle curiosity.

Source: own elaboration.

TABLE 1. Psychometric Properties of the Final SEEK Scale Items

Item Content	Psychometric Parameters					
	Factor Loading (*F*)	Discrimination (*a*)	b_1	b_2	b_3	b_4
1. I need to know how my friends spend their time	.49	0.95	-0.60	0.88	1.31	3.97
2. I love to know a trend before it is popular	.53	1.07	-0.95	0.22	0.59	3.03
3. I'm always excited about the dramas of my friends	.57	1.18	-0.95	0.05	0.61	2.36
4. I'm really excited to tell the news to an oblivious person	.46	0.87	-0.63	0.82	1.12	3.23
5. Knowing about recent trends and fashion makes you a valuable person	.56	1.15	-0.34	1.04	1.70	4.42
6. I need to be up to date with my friends' lives	.56	1.14	-1.19	0.22	0.42	3.42
7. It is unacceptable for me when I don't know about topics discussed by others	.53	1.06	-1.30	0.72	1.43	2.93
8. I seek information about other people's actions and achievements, even if I don't really understand the context fully	.54	1.10	-1.09	0.26	0.44	3.65
9. Not knowing about something makes me feel frustrated/uncomfortable	.45	0.85	-1.55	-0.01	0.37	3.63

Note. Factor loading (*F*) indicates the item's relationship with the underlying construct. Discrimination (*a*) shows how well the item differentiates between different trait levels. Threshold parameters (b_1 to b_4) indicate the trait levels at which respondents typically transition between response options on the 5-point scale. Higher b values indicate items that are "harder to endorse."

Source: own elaboration.

Discussion

Our scale development process yielded a 9-item instrument that successfully captures the construct of idle information seeking. Several aspects of the final scale merit discussion. First, the psychometric properties suggest we achieved our goal of measuring higher intensity levels of the trait, as evidenced by the high b_4 parameters (ranging from 2.36 to 4.42). This indicates the scale can effectively discriminate among individuals with stronger manifestations of idle curiosity. The shift from a 7-point to a 5-point response format improved the scale's functionality, suggesting that respondents could more reliably discriminate between five rather than seven response options when evaluating their information-seeking tendencies.

While the scale demonstrated strong internal consistency ($\alpha = 0.85$) and acceptable model fit, the RMSEA value (0.11) slightly exceeded conventional cutoffs, indicating room for potential refinement in future iterations. Nevertheless, the current version provides a solid foundation for examining idle curiosity as a distinct psychological construct.

Phase 2: Validation Analysis

Method

Participants

The validation phase utilized the same participant pool (N = 338) from the follow-up item selection, who completed additional psychological measures alongside the SEEK scale.

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Procedure

We administered a battery of established psychological measures selected to examine convergent, discriminant, and criterion validity. Our selection included measures theoretically predicted to correlate positively or negatively with idle curiosity and theoretically unrelated constructs to establish discriminant validity.

We provide the specific list below, along with the expected strength and direction of a correlation with our scale. We chose the two most relevant questionnaires (fear of missing out scale and five-dimensional curiosity scale revised) for comparison and a number of other scales for a broader context and differentiation between SEEK, FoMO, and 5DCSR. That is, even if our scale correlates with some other, it might still differently correlate with other variables. Differently put, high intercorrelation between the three main scales is not a sufficient measure to assume they measure the same latent variable, they also have to correlate similarly to external variables. We expected SEEK to correlate with the two of the main measures, but FoMO and 5DSCR did not correlate with each other at all.

Similar Constructs' Measures

The Fear of Missing Out Scale (FoMO, Przybylski *et al*., 2013) is a 10-item scale measuring the extent to which the participant experiences fear and worries concerning missing out on events and experiences involving their friends and peers. The statements are rated on a Likert-type scale from 1 (*not at all true of me*) to 5 (*extremely true of me*).

The Five-Dimensional Curiosity Scale Revised (5DCSR, Kashdan *et al.*, 2020) measures five dimensions of curiosity: joyous exploration, deprivation sensitivity, stress tolerance, thrill-seeking, and social curiosity. Moreover, it divides social curiosity into two sets: overt social curiosity, related to interpersonal competencies, and covert social curiosity, related to gossiping and nosiness. The scale consists of 24 items rated on a Likert scale from 1 (*does not describe me at all*) to 7 (*completely describes me*). The average score is computed for each dimension separately.

Validation Criteria

Ten Item Personality Inventory (TIPI, Gosling, Rentfrow, & Swann, 2003) is a 10-item measure of the Big-Five personality dimensions: extraversion, emotional stability, introversion, openness to experiences, agreeableness, and conscientiousness. Each dimension consists of two items, rated on a Likert-type scale from 1 (*disagree strongly*) to 7 (*agree strongly*), with all other points not being labeled. We expected SEEK to correlate positively with extraversion because, at its core, it demands many social interactions and negatively with conscientiousness, due to time spent on chasing useless facts might have a negative impact on one's organization, productiveness, and responsibility. Based on the results of Kashdan *et al*. (2020), we expected the covert social curiosity subscale to correlate mildly negatively with conscientiousness and neuroticism. Following the results of Rozgonjuk et al. (2021), we expected FoMO to be positively associated with neuroticism and negatively with conscientiousness, extraversion, agreeableness, and openness.

The Beck Anxiety Inventory (BAI, Steer & Beck, 1997) is a 21-item measure assessing affective, cognitive, and somatic anxiety symptoms experienced over the past month. Responses range from 0 (not at all) to 3 (severely). Previous research indicates that FoMO correlates

moderately with anxiety (Dhir *et al*., 2018). We expected SEEK to show no significant relationship with anxiety, consistent with prior findings showing no correlation between 5DC-R and anxiety (Kashdan *et al*., 2020).

The Rosenberg Self-Esteem Scale (RSE, Rosenberg, 1979) is a 10-item measure of self-esteem rated from 1 (strongly agree) to 4 (strongly disagree). Kashdan *et al.* (2020) suggest covert social curiosity functions as a self-esteem regulation mechanism through downward social comparisons, predicting a negative correlation. Similarly, FoMO shows moderate negative correlations with self-esteem (Buglass *et al.*, 2017). We anticipated no significant relationship between SEEK and self-esteem.

Personal Need for Structure (PNS, Thompson, Naccarato, & Smith, 1989) is a 12-item measure that assesses the general preference for cognitive simplicity. It contains two subscales: general need for structure and responding to lack of structure. The items are rated on a Likert-type scale from 1 (*strongly disagree*) to 6 (*strongly agree*). People might need closure of structure to minimize ambiguity in social settings, which are by nature uncertain (FeldmanHall & Shenhav, 2019). This uncertainty may motivate people to behaviors maintaining internal consistency or social identity. This is why we expected our scale to correlate mildly positively and the covert social curiosity scale to correlate strongly positively with the personal need for structure measure. We were agnostic about the relationship between the need for structure and FoMO. On the one hand, it could be driven by the need to learn more about social events the person is aware of. On the other hand, people with FoMO seem to actively seek such events (Przybylski *et al*., 2013).

The Dirty Dozen Scale (Jonason & Webster, 2010) is a 12-item measure assessing the Dark Triad traits (Machiavellianism, psychopathy, and narcissism), rated from 1 (strongly disagree) to 9 (strongly agree). We expected SEEK to show no correlations with these traits, as our construct focuses on information gathering for its own sake rather than manipulation. In contrast, we anticipated covert curiosity would correlate positively with Machiavellianism and psychopathy, given its connection to secretive information gathering (Kashdan *et al*., 2020). Following Müller, Stolze & Brand (2021), we expected FoMO to show strong correlations with narcissism, weak correlations with Machiavellianism, and no relationship with psychopathy.

Basic Psychological Needs Satisfaction and Frustration Scale (BPNSFS, Chen *et al*., 2015). A 24-item measure assessing satisfaction and frustration of three basic psychological needs: autonomy, competence, and relatedness. Items are rated from 1 (not at all true) to 7 (very true). Given SEEK's focus on non-instrumental information gathering, we predicted weak or no relationships with need satisfaction and frustration. Previous research shows covert social curiosity is unrelated to need satisfaction or frustration (Kashdan *et al*., 2020). For FoMO, we anticipated mild negative correlations with need satisfaction and mild positive correlations with need frustration, consistent with Przybylski *et al.* (2013).

Results

Our validation analysis revealed unexpected patterns in the relationships between SEEK and theoretically related constructs – particularly fear of missing out (FoMO; Przybylski *et al*., 2013) and covert social curiosity (Kashdan *et al*., 2020). The three measures showed remarkably strong intercorrelations (r = .59-.69). Moreover, when compared against our validation criteria, all three measures demonstrated nearly identical patterns of correlations with other

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psychological constructs. Fisher z-tests revealed few significant differences between correlation coefficients of SEEK, FoMO, and covert social curiosity. If differences emerged, they reflected minor variations in correlation strength rather than opposing relationship directions.

The SEEK scale showed its strongest correlations with FoMO, covert social curiosity, narcissism, and overt social curiosity. Moderate positive correlations emerged with Machiavellianism, thrill-seeking, deprivation sensitivity, extraversion, and measures of needs frustration. The scale correlated moderately negatively with stress tolerance. Weaker positive correlations appeared with autonomy frustration, anxiety, joyous exploration, and psychopathy, while weak negative correlations emerged with emotional stability and the general need for structure.

Notably, these correlation patterns largely mirrored those found for both the FoMO scale and the covert social curiosity scale. This unexpected convergence of theoretically distinct constructs prompted us to conduct a more detailed analysis of the similarities and differences between these three measures.

Phase 3: Factor Analyses of the Three Constructs

Method

Participants and Procedure

Given the striking similarities in correlation patterns (r = .59-.69) and validation criteria relationships, we conducted an exploratory factor analysis (EFA) to examine whether these measures assess a common underlying construct. We used data from Phase 2 (N = 338) and analyzed the complete set of 23 items from SEEK, FoMO scale, and covert social curiosity subscale. The analysis employed Maximum likelihood extraction with Varimax rotation, conducted using Jamovi (version 1.6.16).

Results

The EFA revealed two primary factors (Table 3). The first factor (eigenvalue = 8.76) explained 28.10% of the variance and encompassed 21 of the 23 items, with factor loadings ranging from .41 to .68. The second factor (eigenvalue = 1.12) accounted for 15.90% of the variance and included five items, with loadings from .45 to .93. Three FoMO scale items cross-loaded on both factors, and two loaded exclusively on the second factor.

Analysis of the second factor's content revealed a distinct emotional component. Items loading on this factor typically began with phrases such as "I fear...," "I get worried...," and "I get anxious...," which indicated an affective focus that distinguished them from the more behaviorally-oriented items in factor one. Nevertheless, the predominant loading of items onto a single factor supported our hypothesis that these three ostensibly distinct questionnaires measure a highly similar construct.

TABLE 2. Descriptive Statics and Correlation Matrix

		M(SD)	α	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
Curiosity	1. SEEK	22.02(6.44)	.85																									
	2. FoMO	2.15(0.82)	.90	.69***																								
	3. Covert Social	3.84(1.52)	.88	.60***	.59***																							
	4. Joyous Exploration	4.85(1.28)	.88	.16**	.09	.16**																						
	5. Deprivation Sensitivity	4.19(1.44)	.87	.25***	.26***	.30***	.53***																					
	6. Stress Tolerance	4.43(1.50)	.87	-.32***	-.43***	-.37***	.09	-.32***																				
	7. Thrill Seeking	3.41(1.45)	.87	.26***	.27***	.25***	.47***	.32***	.11*																			
Personality	8. Overt Social	4.41(1.39)	.90	.42***	.37***	.57***	.50***	.45***	-.18***	.49***																		
	9. Extraversion	3.59(1.61)	.63	.23***	.14*	.21***	.16**	.03	.23***	.34***	.35***																	
	10. Stability	4.37(1.42)	.38	-.20***	-.29***	-.24***	.22***	-.12*	.51***	.08	-.04	.21***																
	11. Openness	4.86(1.27)	.53	.06	-.05	.06	.45***	.21***	.30***	.42***	.31***	.30***	.13*															
	12. Agreeableness	5.08(1.23)	.65	-.03	-.10	-.11*	.20***	.02	.14*	-.03	.15**	.01	.27***	.19***														
	13. Conscientiousness	5.22(1.22)	.44	-.12*	-.17**	-.14*	.11*	.00	.24***	-.04	-.04	.04	.32***	.10	.21***													
The Dark Triad	14. Machiavellianism	3.17(1.71)	.85	.33***	.32***	.37***	-.05	.09	-.18**	.17**	.16**	.20***	-.17**	-.06	-.40***	-.24**												
	15. Psychopathy	2.64(1.84)	.79	.13*	.24***	.17**	-.06	.05	-.22***	.10	.01	-.01	-.22***	-.17**	-.52***	-.27***	.58***											
	16. Narcissism	3.34(1.81)	.88	.45***	.46***	.45***	.16**	.19***	-.23***	.20***	.31***	0.19***	-.23***	.08	-.22***	-.18**	.59***	.42***										
Need for sctructure	17. General need for structure	4.01(0.93)	.70	-.13*	-.07	-.06	-.10	.02	-.19***	-.36***	-.15**	-.20***	.02	-.23***	.05	.35**	.00	-.01	-.06									
	18. Responding to lack of structure	3.84(0.91)	.82	.08	.12*	.25***	-.25***	.04	-.57***	-.48***	-.13*	-.28***	-.30***	-.36***	-.02	.02	.05	.03	.06	.49***								
Basic Psychological Needs	19. Autonomy Satisfaction	3.45(0.77)	.81	.02	-.09	.02	.30***	.12*	.24***	.16**	.21***	.36***	.33***	.19***	.18***	.26***	.02	-.11*	.04	.18***	-.08							
	20. Autonomy Frustration	2.80(0.90)	.84	.20***	.34***	.25***	.00	.20***	-.44***	.07	.10	-.20***	-.37***	-.12*	-.20***	-.22***	.16**	.25***	.22**	-.02	.21***	-.41***						
	21. Relatedness Satisfaction	4.00(0.81)	.87	-.07	-.15**	.02	.21***	-.01	.23***	-.01	.17**	.19***	.26***	.18**	.43***	.26***	-.10	-.32***	-.03***	.13*	-.12*	.48***	-.32***					
	22. Relatedness Frustration	1.94(0.86)	.83	.32***	.40***	.18**	-.05	.17**	-.39***	.17**	.07	-.08	-.32***	-.14*	-.27***	-.31***	.15**	.28***	.15**	-.13*	.09	-.29***	.48***	-.62***				
	23. Competence Satisfaction	3.70(0.84)	.89	-.07	-.17**	-.03	.33***	.03	.39***	.15**	.11*	.35***	.45***	.25***	.16**	.35***	.07	-.13*	.06	.08	-.17**	.61***	-.32***	.46***	-.39***			
	24. Competence Frustration	2.55(1.02)	.88	.24***	.38***	.24***	-.08	.20***	-.60***	.06	.16**	-.27***	-.47***	-.17**	-.14*	-.32***	.09	.23***	.16**	-.02	.25***	-.40***	.60***	-.35***	.57***	-.65***		
	25. Anxiety	14.03(12.06)	.94	.19**	.31***	.22***	-.11	.22***	-.41***	-.01	.10	-.14*	-.48***	-.07	-.11*	-.20***	.12*	.11	.14**	-.03	.24***	-.21***	.29***	-.24***	.35***	-.36***	.40***	
	26. Self-esteem	21.69(6.19)	.91	-.12	-.25***	-.11	-.21***	-.09	.46***	-.06	.02	.33***	.54***	.18**	-.12	.36***	-.06	-.19**	-.02	.09	-.22***	.55***	-.48***	.41***	-.45***	.70***	-.75***	-.45***
	27. Age	38.24(12.74)	-	-.25***	-.30***v	-.23***	-.03	-.11*	.29***	-.15**	-.14*	-.02	.14*	-.06	.04	.13*	-.11*	-.05	-.15**	-.02	-.06	.07	-.10	.08	-.16**	.19***	-.21***	.19**

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Source: own elaboration.

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TABLE 3. Results of the Exploratory Factor Analysis on Items from SEEK, FoMO, and Covert Social Curiosity Subscale (N = 338)

Items	Factor 1	Factor 2	Uniqueness
SEEK			
I need to know how my friends spend their time.	.484		.741
I love to know a trend before it is popular.	.511		.719
I'm always excited about dramas of my friends.	.652		.522
I'm really excited to sell a news to an oblivious person.	.536		.676
Knowing about recent trends, fashion makes you a valuable person.	.479		.747
I need to be up to date with my friends' lives.	.627		.583
It is unacceptable for me when I don't know about topics discussed by others.	.508		.691
I seek information about other people's actions and achievements, even if I don't really understand the context fully.	.543		.611
Not knowing about something makes me feel frustrated/uncomfortable.	.411		.671
FoMO			
I fear others have more rewarding experiences than me.		.931	.114
I fear my friends have more rewarding experiences than me.		.890	.167
I get worried when I find out my friends are having fun without me.	.466	.608	.414
I get anxious when I don't know what my friends are up to.	.484	.505	.510
It is important that I understand my friends "in jokes."	.540	.446	.510
Sometimes, I wonder if I spend too much time keeping up with what is going on.	.518		.607
It bothers me when I miss an opportunity to meet up with friends.	. 491		.675
When I have a good time, it is important for me to share the details online (e.g., updating status).	.503		.664
When I miss out on a planned get-together, it bothers me.	.547		.578
When I go on vacation, I continue to keep tabs on what my friends are doing.	.620		.557
Covert Curiosity			
When other people are having a conversation, I like to find out what it's about.	.669		.513
When around other people, I like listening to their conversations.	.596		.593
When people quarrel, I like to know what's going on.	.626		.545
I seek out information about the private lives of people in my life.	.678		.489

Source: own elaboration.

Discussion

Our initial goal was to develop a measure of idle curiosity, i.e., the tendency to seek information with no practical purpose. While we successfully created the SEEK scale with satisfactory psychometric properties, our validation process revealed a more intriguing finding: strong overlap among supposedly distinct psychological constructs.

The 9-item SEEK scale effectively discriminates among individuals with varying levels of idle information-seeking tendencies, particularly at higher intensity levels. However, during validation, we discovered unexpectedly high intercorrelations between SEEK, fear of missing out (FoMO), and covert social curiosity (r = .59-.69). This finding was particularly surprising given that these constructs emerged from different theoretical frameworks and were previously studied in separate contexts.

When we examined relationships with other psychological constructs, all three measures showed remarkably similar correlation patterns. This convergence appeared consistently across multiple psychological domains. The patterns manifested in personality traits, where all three measures showed positive correlations with extraversion and negative correlations with conscientiousness. Similar convergence emerged in relationships with Dark Triad characteristics, particularly Machiavellianism and narcissism. The measures also demonstrated consistent patterns in their relationships with psychological needs, showing similar correlations with both need satisfaction and frustration. Even in their associations with anxiety and self-esteem measures, the three scales exhibited nearly identical patterns.

The conclusion deriving from our findings, namely that there exists another construct underlying these three traits, casts new light on previous research concerning both fear of missing out and curiosity. If we consider these traits as different manifestations of the same construct, sharing similar relationships with other personality characteristics, then previous findings about each trait may have broader implications than originally thought. Consider, for instance, previous research showing FoMO's negative relationship with subjective well-being (Stead & Bibby, 2017) or its role in predicting smartphone addiction (Chotpitayasunondh & Douglas, 2016). If FoMO indeed shares a common underlying construct with covert social curiosity and idle curiosity, these negative outcomes might extend to all three traits. This suggests that certain aspects of curiosity, contrary to prevailing views, might be maladaptive. Similarly, if people high in covert social curiosity value personal achievement (Kashdan *et al*., 2020), this achievement orientation might also characterize individuals high in FoMO, suggesting potential beneficial aspects of what has typically been viewed as a purely negative trait.

The nature of this latent construct remains somewhat enigmatic. Our data show that all three traits share their strongest positive correlations with Machiavellianism, narcissism, openness to experience, and overt social curiosity, while showing negative relationships with stress tolerance. This correlation pattern suggests a personality profile characterized by social exploitation tendencies, entitled self-importance, and a pervasive interest in others' lives, combined with poor anxiety management. This pattern might overlap with other recently identified constructs, such as morbid curiosity, which shows similar relationships with Machiavellianism, extraversion, and stress immunity (Scrivner, 2021).

Based on these correlations and broader response patterns, we can sketch a profile of individuals high in this latent trait. They demonstrate an intense drive to stay current with social information and accumulate seemingly purposeless knowledge. Their high scores on Dark Triad traits suggest they might view this knowledge as a potential tool for social manipulation. These individuals typically experience high anxiety and frustrated psychological needs, yet maintain significant social interaction, suggesting relatively high extraversion.

We propose that this latent trait characterizes what might be termed a "social parasite," meaning a psychologically vulnerable individual who recognizes their precarious social position and treats information as a crucial resource for social survival and status enhancement. These individuals compulsively gather information and simultaneously use it to maintain social advantage. Their strong need for certainty and control manifests in an uncompromising drive to maintain informational superiority in social situations, which perhaps leads them to use this knowledge to construct a facade of social authority.

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This framework helps explain why seemingly purposeless information gathering serves an underlying function. While our SEEK scale items describe apparently pointless behaviors, their correlation patterns suggest these behaviors serve as tools for social navigation. What appears as idle curiosity might actually represent a strategic, albeit potentially maladaptive, approach to managing social uncertainty and status.

Limitations

Several limitations of our study warrant consideration. First, our personality profile was constrained by the limited number of traits we measured for validation purposes. Future research should include additional relevant measures such as the Gossip Scale (Nevo, Nevo, & Derech-Zehavi, 1993), which relates directly to social covert curiosity, and the Facebook Intrusion Scale (Elphinston & Noller, 2011), previously linked to both FoMO and narcissism. The Need for Cognition scale (Cacioppo & Petty, 1982) might also prove informative, given the established connection between news consumption and cognitive needs (Tsfati & Cappella, 2005). Moreover, demographic diversity requires attention in future research, particularly given some unexpected findings in our predicted correlations. While some hypothesized relationships were confirmed (such as positive correlations between SEEK and extraversion and negative correlations with conscientiousness), others yielded surprising results. For instance, the relationship between SEEK and anxiety diverged from our predictions, though this becomes more understandable if we accept that SEEK measures a construct similar to FoMO.

Although robust, our psychometric findings were based on a single measurement occasion. Longitudinal studies are needed to establish the temporal stability of the SEEK scale and to examine how this proposed latent construct develops and manifests over time. Such research could also help clarify whether the information-seeking behaviors we identified represent stable traits or situationally-determined states.

Conclusions

What began as an effort to construct a new measurement tool has revealed a broader challenge in curiosity research. The substantial overlap between theoretically distinct constructs – social curiosity and fear of missing out – suggests the need to reconceptualize how we understand and measure these psychological phenomena. The remarkably high intercorrelations among these measures combined with their nearly identical patterns of relationships with other constructs call for a fundamental revision of how we interpret previous findings in both curiosity and FoMO research.

These findings suggest that the frameworks used to study curiosity and fear of missing out, previously considered separate and even antithetical, might benefit from integration. Future research should explore whether other seemingly distinct constructs in this domain might also share this common underlying factor. Such investigation could lead to a more unified understanding of how individuals navigate the increasingly complex landscape of social information in contemporary society.

Ethics approval statement: All procedures performed in this study were approved by the Research Ethics Committee of the Institute of Psychology, University of Wroclaw, and in accordance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Data availability statement: All data, materials, and analysis code are provided in the Open Science Framework repository. (https://osf.io/z9f4q/?view_only=05d537dab4f940e5b181d7f662481def).

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