

Social Comparison and Well-Being: When Others' Success Inspires Rather Than Threatens

Trystan Loustau

loustau@bc.edu

Boston College

Adaeze Chukwudebe

Burrell College of Osteopathic Medicine

Sadie Solomon

Carleton College

Julia Oh

Winsor School

Liane Young

Boston College

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Introduction

Upward social comparison is a pervasive feature of everyday life; yet its consequences for well-being are strikingly mixed. Observing others' success can provoke distress, self-doubt, and anxiety, but it can also motivate growth, energize goal pursuit, and expand one's sense of what's possible. When does upward comparison inspire rather than threaten?

Research on envy offers one important lens for understanding this question. Envy arises when individuals encounter others who possess valued advantages they lack (Parrott & Smith, 1993; van de Ven, 2016), and contemporary work distinguishes between two qualitatively different forms. Benign envy motivates self-improvement and striving, whereas malicious envy motivates derogation or undermining of the superior other (van de Ven et al., 2009; van de Ven, 2016). Although this distinction has advanced understanding of envy's motivational consequences, its implications for well-being remain less clear. Malicious envy is consistently associated with negative outcomes such as anxiety and distress, whereas benign envy shows more variable associations, sometimes appearing adaptive and sometimes not (e.g., Briki, 2018; Liu et al., 2025).

One reason for this inconsistency may be that the consequences of envy depend on the psychological processes it initiates. In particular, recent work suggests that inspiration, a positive, approach-oriented state characterized by a sense of new possibilities and motivation to pursue them (Thrash & Elliot, 2003; Thrash et al., 2014), may play a critical role in shaping responses to upward comparison. Benign envy has been linked to inspiration and self-

improvement, especially when others' success is perceived as attainable and self-relevant (Meier & Schäfer, 2018; Meier et al., 2020; Noon & Meier, 2019), whereas malicious envy reflects a more threat-oriented response that may inhibit such constructive reactions. However, existing research has largely examined these relationships in isolation, leaving open whether different forms of envy operate through a shared downstream process that links upward comparison to well-being.

At the same time, research on social comparison has primarily focused on characteristics of the comparison target or individual differences in the perceiver, with relatively little attention to how broader social environments shape these processes. One potentially important but underexplored factor is social network heterogeneity—the composition of one's close social ties across ingroups and outgroups. Prior work on social networks emphasizes their role in providing resources, such as social support or access to information (Putnam, 2000; Elgar et al., 2011). Yet network composition may also influence how individuals interpret others' success. More heterogeneous networks may expose individuals to a wider range of life trajectories and success pathways, potentially making others' achievements appear more attainable or informative rather than threatening.

Building on these perspectives, we propose that inspiration serves as a central psychological pathway through which envy and features of individuals' social environments are associated with well-being. Specifically, we examine whether benign and malicious envy, as well as social network heterogeneity, are independently associated with whether upward comparison elicits inspiration, which in turn lowers anxiety. In this framework, envy and social network heterogeneity are not treated as interacting factors, but as joint predictors that converge on a shared downstream process. This approach highlights that responses to others' success are

shaped both by how individuals emotionally interpret comparison and by the composition of their everyday social environments.

Current Studies

The present research tests a framework in which both emotional responses to upward comparison (benign and malicious envy) and features of individuals' social environments (social network heterogeneity; SNH) are associated with well-being through a shared psychological pathway: inspiration. Across three studies, we examine how these factors are independently linked to whether upward comparison elicits inspiration, and how this response, in turn, relates to state anxiety.

Study 1 examines how benign and malicious envy are associated with state anxiety. Study 2 introduces inspiration as a distinct response to upward comparison and tests whether SNH is associated with greater inspiration. Study 3 replicates these effects and further examines potential mechanisms, including whether inspiration statistically accounts for the associations between envy, SNH, and state anxiety, and whether heterogeneous social networks are associated with broader perceived opportunities for success. By integrating work on envy, inspiration, and social networks, the present research advances a more unified account of when upward comparison is experienced as motivating rather than distressing.

Hypotheses

We test the following hypotheses:

H1. Malicious envy will be more strongly positively associated with state anxiety than benign envy.

H2. Benign envy will be positively associated with inspiration, whereas malicious envy will be negatively associated with inspiration.

H3. Inspiration will be negatively associated with state anxiety.

H4. Social network heterogeneity will be positively associated with inspiration.

Transparency and Openness

We report how we determined our sample sizes, all data exclusions, all manipulations, and all measures in the studies. All data, analysis code, and research materials are available at a public repository (https://osf.io/2rsgh/overview?view_only=48fdd582493f49649f1dbe978128b853). The methods and sample size were pre-registered for all studies¹. The hypotheses and analysis plan were also pre-registered for Studies 2 and 3. Deviations from the pre-registration are summarized and explained in the Supplementary Materials. Surveys were administered via Qualtrics. Data were analyzed using R (version 4.5.2). This work was approved by an institutional review board. Respondents gave written consent before participating.

Study 1

Study 1 provides an initial test of how distinct forms of envy relate to well-being following upward comparison. In line with our framework, we examine whether benign and malicious envy show divergent associations with state anxiety, establishing the emotional inputs into the proposed process.

Methods

Participants

Participants were American adults recruited on Prolific. Study 1 data were originally collected as part of a project comparing autistic and neurotypical individuals. However, the

¹ Study 1 pre-registration: https://osf.io/ch784/overview?view_only=b25279f042c54bcf9390ec9c4e6d77f3.
 Study 2 pre-registration: https://osf.io/fspza/overview?view_only=aa8e9a976d684b66accb3d3f9530e74a.
 Study 3 pre-registration: https://osf.io/rgs57/overview?view_only=bce1545fee4f41f780659e1864b20220.

present manuscript departs from that original focus. In accordance with this revised focus, we included only participants who responded “No” to the Prolific screening question: “Have you received a formal clinical diagnosis of autism spectrum disorder, made by a psychiatrist, psychologist, or other qualified medical specialist?” Consistent with this change, we also deviate from our preregistered hypotheses by focusing on the relationship between envy and anxiety more broadly, rather than comparing these relationships across autistic and neurotypical populations. Participants were additionally excluded from analyses if they failed a bot check (reCAPTCHA in Qualtrics). At the end of the survey, participants reported their level of attention; those who responded below a ‘6’ on a 7-point scale (1 = not at all, 7 = completely) were excluded from analyses. Participant demographics for all studies are summarized in Table 1. A sensitivity analysis indicated that, for a multiple regression model with two predictors ($N = 466$, $\alpha = .05$, power = .80), the study was able to detect effects of $f^2 = .021$.

Table 1

Sample Statistics Across Studies

	Study 1 (N = 207)	Study 2 (N = 281)	Study 3 (N = 393)
Age (M, SD)	38.90 (13.35)	45.72 (15.18)	41.59 (13.68)
Gender			
N Female	69.08% (143)	51.25% (144)	48.09% (189)
N Male	28.50% (59)	47.33% (133)	50.13% (197)
N Nonbinary	2.42% (5)	1.42% (4)	1.78% (7)

Procedure and Measures

Participants completed a social comparison task adapted from prior work (Loustau et al., 2024). They first read a scenario in which they imagined themselves as a college senior aspiring to secure a competitive job but experiencing mixed success across domains (academics, athletics, and social life). The scenario culminated in an unfavorable outcome, in which they accepted a low-paying, demanding retail position.

Participants were then introduced to two former classmates: a different-gender target ([Sam/Samantha]) intended to elicit upward social comparison, and a gender-matched control ([Don/Donna]) serving as a baseline. Participants who identified as nonbinary were randomly assigned to one of the two target pairs. The comparison target was described as similar to the participant in goals and interests but substantially more successful, whereas the baseline target was described as dissimilar in goals and interests but comparable in success. Participants viewed LinkedIn-style posts from both individuals. Following the comparison task, participants completed measures of envy and state anxiety.

Benign and Malicious Envy. Participants completed the 10-item Benign and Malicious Envy Scale (Lange & Crusius, 2015), adapted to reference the comparison target. Responses were recorded on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Five items assessed benign envy ($\alpha = .90$; e.g., “Envy [target] motivates me to accomplish my goals”), and five items assessed malicious envy ($\alpha = .92$; e.g., “Seeing [target]’s achievements makes me resent them”).

State Anxiety. State anxiety was measured using the 20-item State–Trait Anxiety Inventory (Spielberger et al., 1971). Participants indicated how they felt “right now, at this very moment” on a 4-point scale (1 = not at all, 4 = very much so). Items were summed to create a composite state anxiety score.

Analysis Approach

We estimated a multiple regression model predicting state anxiety from benign envy and malicious envy, entered simultaneously. To compare their associations, we conducted a two-sided Wald test of coefficient equality ($H_0: \beta_{\text{benign}} = \beta_{\text{malicious}}$). The Wald test evaluates whether the linear contrast ($\beta_{\text{benign}} - \beta_{\text{malicious}}$) differs from zero using the estimated variance of the difference derived from the model's variance-covariance matrix. The resulting test statistic (reported as an F statistic with 1 numerator degree of freedom, equivalent to a squared t-test) assesses whether the predictors have significantly different associations with state anxiety while accounting for their shared variance.

Results

Envy and Anxiety

Malicious envy was positively associated with state anxiety, whereas benign envy was not significantly associated with state anxiety (see Table 2). Critically, these associations differed significantly: malicious envy was a substantially stronger predictor of state anxiety than benign envy. This pattern indicates that the two forms of envy correspond to qualitatively different responses to upward comparison, with malicious envy reflecting a more distressing, threat-oriented response and benign envy reflecting a comparatively less maladaptive one.

Table 2

Associations Between Envy and State Anxiety

Study	Predictor	β	t (df)	p	95% CI		Wald Test of Equality
					Lower	Upper	
1	Benign	-0.52	-0.57 (204)	.570	-2.30	1.27	.007
	Malicious	3.00	3.32 (204)	.001	1.22	4.79	
2	Benign	1.94	2.91 (278)	.004	0.63	3.26	< .001
	Malicious	5.70	8.53 (278)	< .001	4.38	7.01	

3	Benign	1.07	1.77 (390)	.077	-0.12	2.26	< .001
	Malicious	7.04	11.63 (390)	< .001	5.85	8.23	

Note. Estimates are reported from multiple regression models with benign envy and malicious envy entered as simultaneous predictors of state anxiety. Differences between coefficients were tested using two-sided Wald tests of equality ($H_0: \beta_{\text{benign}} = \beta_{\text{malicious}}$). A significant test indicates that constraining the coefficients to be equal significantly worsens model fit (i.e., the coefficients are significantly different).

Summary

Study 1 establishes that benign and malicious envy show divergent associations with state anxiety, identifying the emotional inputs into responses to upward comparison. These findings raise the question of whether more adaptive responses to comparison—such as inspiration—represent a distinct psychological state and whether broader social contexts shape these responses.

Study 2

Study 2 extends this framework in two ways. First, we introduce inspiration as a distinct response to upward comparison, allowing us to test whether envy is associated with well-being through this shared pathway. Second, we examine whether social network heterogeneity is associated with greater inspiration, testing whether features of individuals' social environments are linked to the same downstream process.

Methods

Participants

Participants were American adults recruited on Prolific using a quota-based sampling scheme matched to national demographics based on age, race, and gender. We applied the same exclusion criteria used in Study 1. A sensitivity analysis indicated that, for a multiple regression

model with three predictors ($N = 281$, $\alpha = .05$, power = .80), the study was able to detect effects of $f^2 = .039$.

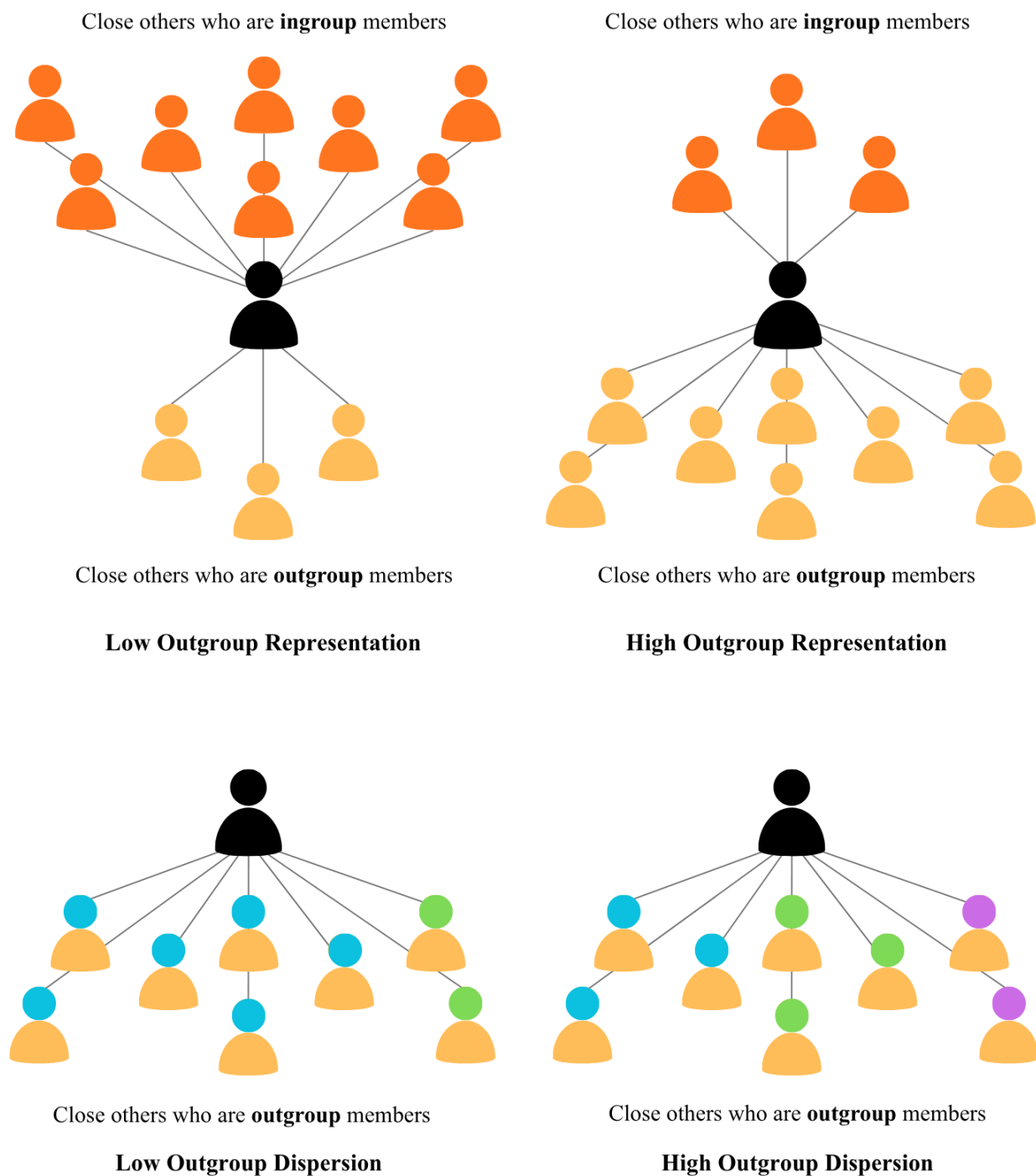
Procedure and Measures

Participants first completed a measure of social network heterogeneity, followed by the social comparison task and measures of envy, state anxiety, and inspiration.

Social Network Heterogeneity. Participants reported the demographic composition of their close social networks (i.e., individuals with whom they have strong, meaningful relationships). For both race and socioeconomic status, participants allocated proportions of their close ties across categories using scales constrained to sum to 100. Following prior work (Loustau et al., 2026), we derived two indices: outgroup representation (the proportion of ties belonging to outgroups) and outgroup dispersion (the extent to which ties are distributed across multiple outgroups, operationalized as one minus the standard deviation across categories). Higher dispersion values indicate more evenly distributed ties (see Figure 1).

Figure 1

Conceptual Diagrams of Outgroup Representation and Outgroup Dispersion



Social Comparison Task. Participants completed the same scenario used in Study 1 to elicit upward social comparison. The comparison target was given the gender-neutral name Riley, and the baseline target was omitted.

Benign and Malicious Envy. Participants completed the same 10-item measure of benign envy ($\alpha = .84$) and malicious envy ($\alpha = .93$) used in Study 1.

State Anxiety. Participants completed the same 20-item measure of state anxiety used in Study 1.

Inspiration. Inspiration was assessed using five items (e.g., “I feel inspired,” “I feel motivated,” “I feel energized”), interspersed with the state anxiety items. Responses were made on a 4-point scale (1 = not at all, 4 = very much so) and summed to create a composite inspiration score.

Analysis Approach

We estimated multiple regression models predicting state anxiety and inspiration from benign and malicious envy, entered simultaneously. To compare coefficients, we conducted two-sided Wald tests of equality.

To examine the association between inspiration and state anxiety, we estimated a simple linear regression.

To examine associations between SNH and inspiration, we estimated multiple regression models including outgroup representation, its quadratic term, and outgroup dispersion as simultaneous predictors. Separate models were estimated for race and socioeconomic domains.

Results

Envy and State Anxiety

Consistent with Study 1, malicious envy was a significantly stronger predictor of state anxiety than benign envy (see Table 2). Unlike Study 1, benign envy had a small positive significant association with state anxiety, suggesting that the link between benign envy and well-being may be more inconsistent.

Envy and Inspiration

Supporting H2, benign envy was positively associated with inspiration, whereas malicious envy was negatively associated with inspiration (see Table 3). These associations differed significantly, suggesting that the two forms of envy reflect distinct emotional responses to upward comparison: one aligned with motivation and possibility (benign envy), and the other with threat and disengagement (malicious envy).

Table 3

Associations Between Envy and Inspiration

Study	Predictor	β	t (df)	p	95% CI		Wald Test of Equality
					Lower	Upper	
2	Benign	2.04	9.97 (278)	< .001	1.64	2.44	< .001
	Malicious	-1.47	-7.17 (278)	< .001	-1.87	-1.06	
3	Benign	2.07	11.10 (390)	< .001	1.70	2.44	< .001
	Malicious	-1.70	-7.17 (390)	< .001	-1.70	-0.97	

Note. Estimates are reported from multiple regression models with benign envy and malicious envy entered as simultaneous predictors of inspiration. Differences between coefficients were tested using two-sided Wald tests of equality ($H_0: \beta_{\text{benign}} = \beta_{\text{malicious}}$). A significant test indicates that constraining the coefficients to be equal significantly worsens model fit (i.e., the coefficients are significantly different).

Inspiration and State Anxiety

Supporting H3, inspiration was strongly negatively associated with state anxiety (see Table 4), indicating that participants who felt more inspired by others' success reported lower distress. This pattern suggests that inspiration may be a key correlate of adaptive responses to upward comparison.

Table 4

Association Between Inspiration and State Anxiety

Study	β	t (df)	p	95% CI	
				Lower	Upper
2	-6.50	-9.99 (279)	< .001	-7.78	-5.22
3	-7.15	-11.85 (391)	< .001	-8.34	-5.97

Note. Estimates are reported from simple regression models with inspiration entered as a predictor of state anxiety.

Social Network Heterogeneity and Inspiration

Across both racial and socioeconomic domains, greater outgroup representation was associated with higher levels of inspiration, supporting H4 (see Table 5 and Figure 2). However, these effects exhibited significant quadratic components, indicating that the positive association attenuated at the highest levels of outgroup representation. This pattern suggests that while increasing exposure to outgroup members is associated with greater inspiration, these benefits may plateau or diminish once outgroup ties become highly predominant. One possibility is that moderate levels of diversity provide access to a wide range of perspectives while preserving a sense of familiarity, whereas very high levels of outgroup representation may shift the context of comparison in ways that make any single upward comparison target less salient or distinctive.

In contrast, outgroup dispersion was not significantly associated with inspiration in either domain. Together, these findings suggest that exposure to outgroup members, rather than the

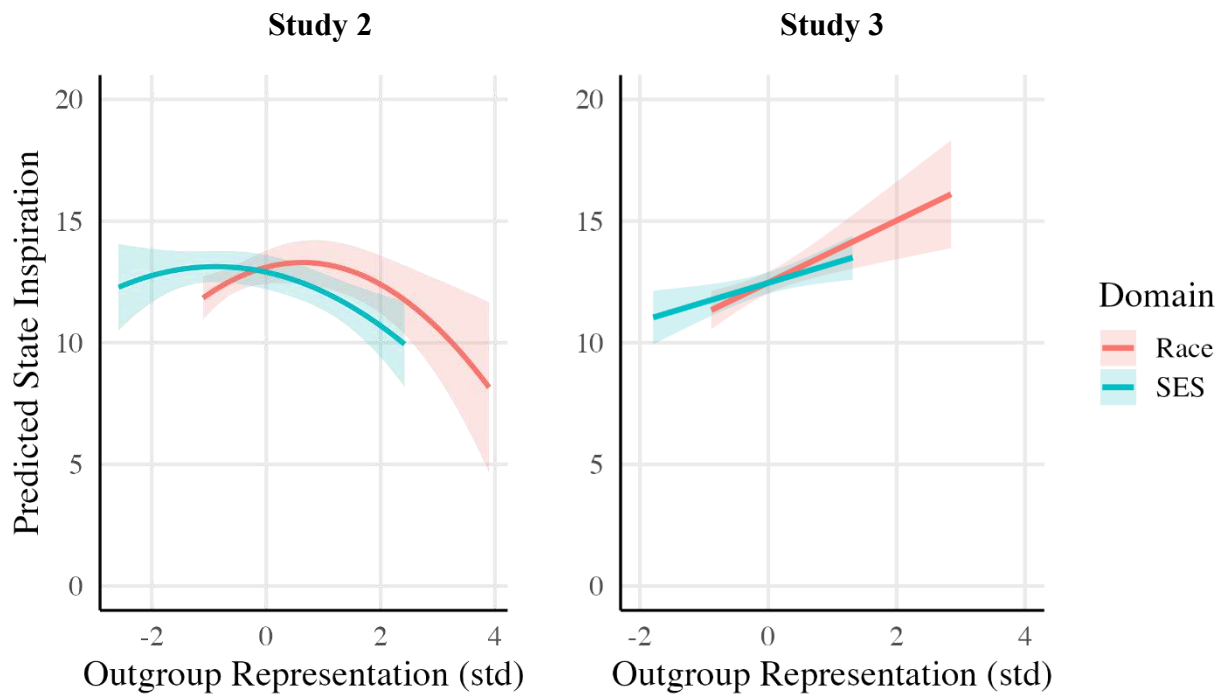
distribution of those ties, is more strongly linked to inspiration in response to upward comparison.

Table 5

Impact of SNH on Inspiration (Study 2)

Predictor	β	t (df)	p	95% CI	
				Lower	Upper
Racial Outgroup Representation ²	-0.48	-2.73 (258)	.007	-0.83	-0.13
Racial Outgroup Representation	0.61	1.64 (258)	.102	-0.12	1.34
Racial Outgroup Dispersion	-0.52	-0.76 (258)	.447	-1.85	0.82
Economic Outgroup Representation ²	-0.29	-2.02 (243)	.045	-0.58	-0.01
Economic Outgroup Representation	-0.52	2.38 (243)	.018	-0.94	-0.09
Economic Outgroup Dispersion	0.27	0.62 (243)	.534	-0.58	1.11

Note. Estimates are drawn from multiple regression models predicting inspiration from outgroup representation, its quadratic term, and outgroup dispersion, entered simultaneously. A separate model was estimated for each demographic category (race and economic status). Outgroup representation was mean-centered prior to computing the quadratic term to reduce multicollinearity and facilitate interpretation; thus, the linear coefficient reflects the association at the mean level of outgroup representation.

Figure 2*Relationship Between Racial Outgroup Representation and Inspiration*

Note. Predicted inspiration from the model. Lines show fixed-effects predictions; shaded regions represent bootstrapped 95% confidence intervals.

Summary

Study 2 demonstrates that inspiration is a distinct and positively valenced response to upward comparison and shows that both envy and social network heterogeneity are associated with this response. These findings suggest that both emotional tendencies and social environments are linked to whether upward comparison is experienced as motivating rather than distressing.

Study 3

Study 3 provides a more comprehensive test of the proposed framework by integrating emotional and social predictors within a single model. Specifically, we replicate prior findings and examine whether inspiration statistically accounts for the associations among envy, SNH, and state anxiety. We also test a potential cognitive mechanism, examining whether heterogeneous networks are associated with broader perceived opportunities for success.

Methods

Participants

Participants were American adults recruited via Prolific. To ensure familiarity with the stimulus context, we preselected participants who reported using LinkedIn at least once per month. We applied the same exclusion criteria used in Studies 1 and 2. A sensitivity analysis indicated that, for a multiple regression model with three predictors ($N = 393$, $\alpha = .05$, power = .80), the study was able to detect effects of $f^2 = .028$.

Procedure and Measures

Participants first completed the social network heterogeneity measure used in Study 2. They were then randomly assigned to one of five sets of social comparison stimuli, each consisting of a scenario and a LinkedIn-style post (see Figure 3). After reading the materials, participants completed measures of envy, state anxiety, inspiration, and perceptions of success.

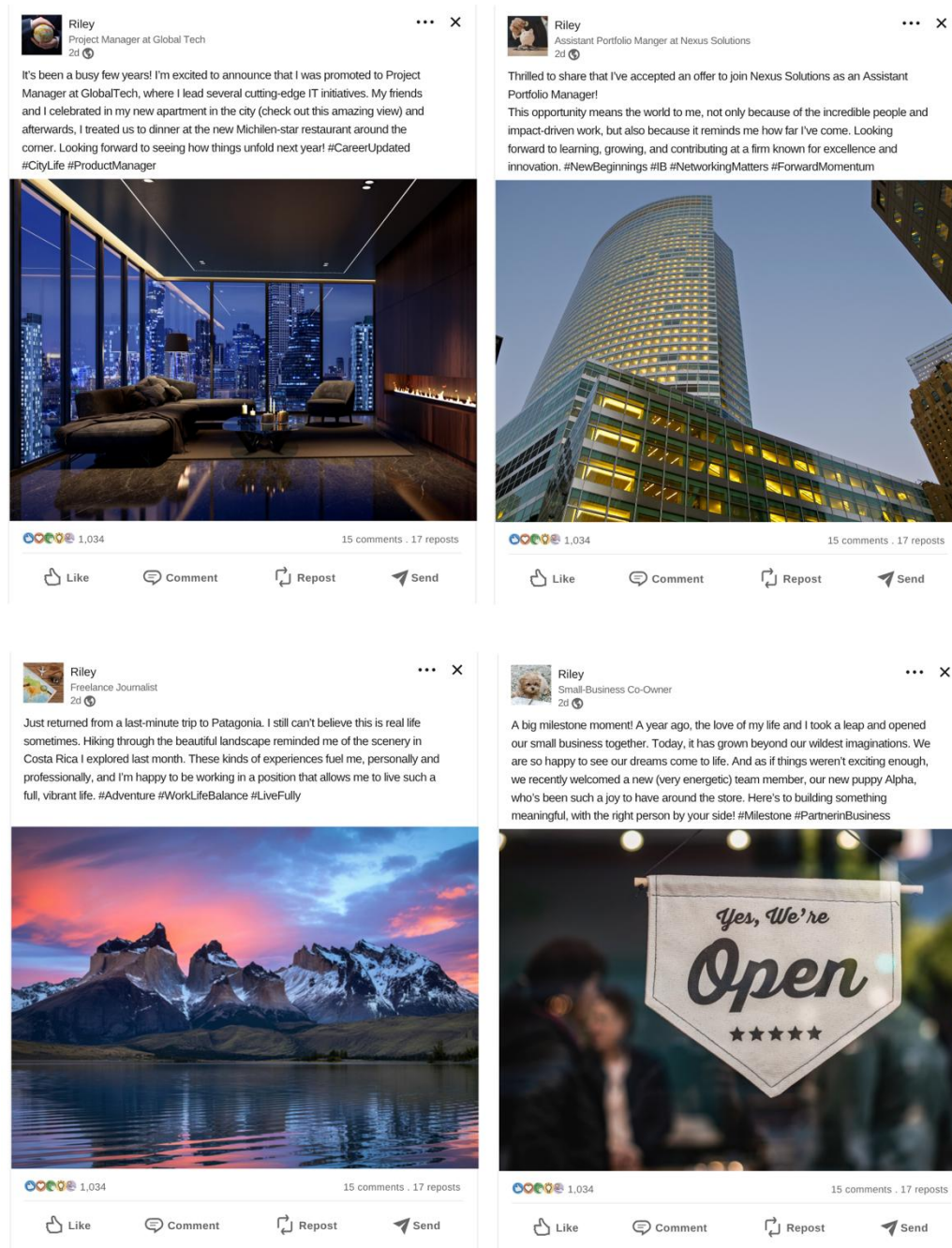
Benign and Malicious Envy. Participants completed the same measure of benign envy ($\alpha = .88$) and malicious envy ($\alpha = .92$) used in Studies 1 and 2.

State Anxiety. Participants completed the same 20-item measure of state anxiety used in Studies 1 and 2.

Inspiration. Participants completed the same five-item measure of inspiration used in Study 2.

Figure 3

Social Comparison Task Stimuli: LinkedIn-Style Posts



Note. Four examples of the stimuli used to elicit social comparison in Study 3.

Perceptions of Success. We assessed perceptions of success using two measures. The primary measure captured perceived opportunity breadth. Participants indicated their agreement with four items ($\alpha = .96$) on a 5-point scale (1 = strongly disagree, 5 = strongly agree; e.g., “There are many different careers and life paths that can be meant for me,” “I have access to a wide range of paths to succeed in”). A second measure assessing perceived flexibility in the definition of success was excluded due to insufficient reliability ($\alpha = .71$).

Analysis Approach

Analyses paralleled those in Study 2. However, quadratic terms for SNH did not significantly improve model fit and were therefore excluded.

To test the proposed process, we estimated mediation models in which benign envy, malicious envy, and SNH were entered as parallel predictors of state anxiety, with inspiration specified as a mediator. Indirect effects were estimated using structural equation modeling with bootstrapped confidence intervals (5,000 resamples). These analyses are interpreted as tests of statistical mediation rather than causal pathways.

Results

Replication of Envy Effects

Consistent with Studies 1 and 2, malicious envy was positively associated with state anxiety, whereas benign envy showed a weaker and non-significant association (see Table 1). This pattern reinforces the distinction between the two forms of envy, with malicious envy more strongly linked to distress.

Envy and Inspiration

Replicating Study 2, benign envy was positively associated with inspiration, whereas malicious envy was negatively associated with inspiration. This pattern again indicates that the two forms of envy correspond to divergent responses to upward comparison.

Inspiration and State Anxiety

Inspiration was again negatively associated with state anxiety, indicating that individuals who experienced greater inspiration reported lower distress following upward comparison.

Social Network Heterogeneity and Inspiration

Across both racial and socioeconomic domains, greater outgroup representation was associated with higher levels of inspiration (see Table 6). Unlike Study 2, these associations were linear, with no evidence of quadratic effects. This suggests that, in this sample, increases in outgroup representation were associated with steady gains in inspiration across the observed range. The absence of quadratic effects, combined with their presence in Study 2, indicates that any nonlinearities in the relationship between social network composition and inspiration may be context-dependent or sensitive to sampling variability. In addition, outgroup dispersion was positively associated with inspiration in both domains, suggesting that both the presence and distribution of diverse ties may contribute to more positive responses to upward comparison.

Table 6

Impact of SNH on Inspiration (Study 3)

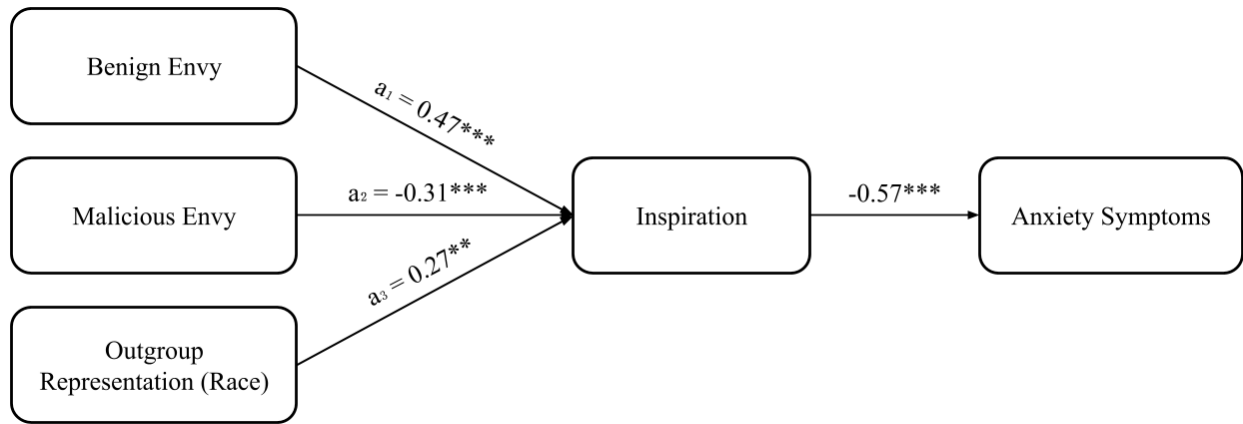
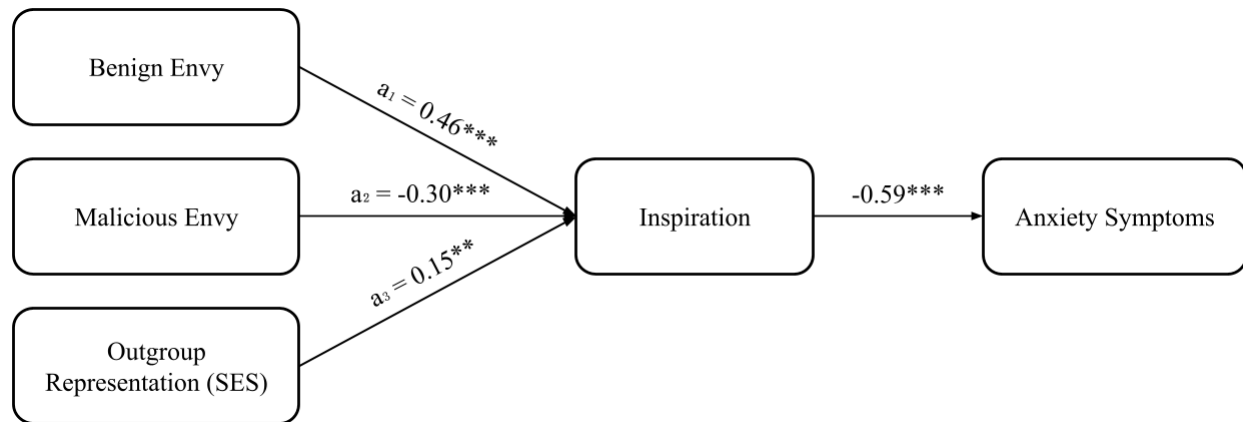
Predictor	β	t (df)	p	95% CI	
				Lower	Upper
Racial Outgroup Representation	1.28	3.30 (363)	.001	0.52	2.03
Racial Outgroup Dispersion	0.82	2.19 (363)	.024	0.08	1.56

Economic Outgroup Representation	0.79	2.67 (375)	.008	0.21	1.37
Economic Outgroup Dispersion	0.90	3.07 (375)	.002	0.32	1.47

Note. Estimates are drawn from multiple regression models predicting inspiration from outgroup representation and outgroup dispersion, entered simultaneously. A separate model was estimated for each demographic category (race, economic status).

Next, we tested whether inspiration statistically accounts for the associations between envy and state anxiety, as well as SNH and state anxiety. A consistent pattern emerged: benign envy and greater SNH were both independently associated with higher inspiration, whereas malicious envy was associated with lower inspiration; in turn, higher inspiration was associated with lower state anxiety (see Figure 4 and Table 7). These patterns yielded significant indirect associations in opposing directions. Notably, SNH variables were not directly associated with state anxiety, suggesting that their associations with well-being were primarily accounted for by differences in inspiration.

Importantly, benign envy showed a pattern of inconsistent mediation: it was positively associated with state anxiety when controlling for inspiration, but negatively associated with state anxiety indirectly through inspiration. This suggests that the beneficial effects of benign envy depend on whether it gives rise to inspiration. Together, these findings are consistent with a model in which both emotional tendencies and social environments are linked to well-being through a shared psychological pathway.

Figure 4**a. Mediation Model with Race-Based Outgroup Representation****b. Mediation Model with SES-Based Outgroup Representation**

Note. Standardized coefficients from mediation models predicting state anxiety symptoms via inspiration are shown separately for (a) race-based and (b) SES-based outgroup representation. All models include outgroup dispersion as a covariate. Solid arrows reflect estimated paths; coefficients are displayed along each path. $^{***}p < .001$, $^{**}p < .01$

Table 7

Mediation Model

Path	β	SE	z	p	95% CI
Model with Race-Based Outgroup Representation					
Benign Envy $\rightarrow$ Inspiration (a_1)	0.47	0.15	10.25	< .001	[1.20, 1.77]
Malicious Envy $\rightarrow$ Inspiration (a_2)	-0.31	0.12	-7.39	< .001	[-0.91, -0.31]
Outgroup Representation (Race) $\rightarrow$ Inspiration (a_3)	0.27	0.01	3.46	.001	[0.02, 0.07]
Outgroup Dispersion (Race) $\rightarrow$ Inspiration (a_4)	0.22	0.06	2.67	.008	[0.05, 0.28]
Inspiration $\rightarrow$ Anxiety (b)	-0.57	0.15	-12.15	< .001	[-2.07, -1.50]
Benign Envy $\rightarrow$ Anxiety (c_1)	0.34	0.43	8.02	< .001	[2.62, 4.28]
Malicious Envy $\rightarrow$ Anxiety (c_2)	0.33	0.41	7.61	< .001	[2.32, 3.95]
Outgroup Representation (Race) $\rightarrow$ Anxiety (c_3)	-0.07	0.03	-1.05	.295	[-0.10, 0.03]
Outgroup Dispersion (Race) $\rightarrow$ Anxiety (c_4)	-0.15	0.16	-0.91	.364	[-0.48, 0.15]
Benign Envy $\rightarrow$ Inspiration $\rightarrow$ Anxiety (Indirect a_{i1})	-0.27	0.37	-7.27	< .001	[-3.42, -1.99]
Malicious Envy $\rightarrow$ Inspiration $\rightarrow$ Anxiety (Indirect a_{i2})	0.17	0.24	6.91	< .001	[1.19, 2.11]
Outgroup Representation (Race) $\rightarrow$ Inspiration $\rightarrow$ Anxiety (Indirect a_{i3})	-0.15	0.02	-3.30	.001	[-0.13, -0.03]
Outgroup Dispersion (Race) $\rightarrow$ Inspiration $\rightarrow$ Anxiety (Indirect a_{i4})	-0.12	0.11	-2.58	.010	[-0.51, -0.08]
Model with SES-Based Outgroup Representation					
Benign Envy $\rightarrow$ Inspiration (a_1)	0.46	0.14	10.17	< .001	[1.18, 1.75]
Malicious Envy $\rightarrow$ Inspiration (a_2)	-0.30	0.13	-7.10	< .001	[-1.15, -0.65]
Outgroup Representation (SES) $\rightarrow$ Inspiration (a_3)	0.15	0.01	2.80	.005	[0.01, 0.04]
Outgroup Dispersion (SES) $\rightarrow$ Inspiration (a_4)	0.16	0.02	2.91	.004	[0.02, 0.11]
Inspiration $\rightarrow$ Anxiety (b)	-0.59	0.15	12.68	< .001	[-2.14, -1.56]
Benign Envy $\rightarrow$ Anxiety (c_1)	0.35	0.42	8.32	< .001	[2.69, 4.31]
Malicious Envy $\rightarrow$ Anxiety (c_2)	0.33	0.41	7.44	< .001	[2.26, 3.91]
Outgroup Representation (SES) $\rightarrow$ Anxiety (c_3)	0.04	0.02	0.90	.370	[-0.02, 0.06]
Outgroup Dispersion (SES) $\rightarrow$ Anxiety (c_4)	0.06	0.06	1.25	.212	[0.04, 0.20]

Benign Envy → Inspiration → Anxiety (Indirect a_{i1})	-0.27	0.37	-7.27	< .001	[-3.47, -2.02]
Malicious Envy → Inspiration → Anxiety (Indirect a_{i2})	0.18	0.24	6.80	< .001	[1.19, 2.16]
Outgroup Representation (SES) → Inspiration → Anxiety (Indirect a_{i3})	-0.09	0.01	-2.73	.006	[-0.07, -0.01]
Outgroup Dispersion (SES) → Inspiration → Anxiety (Indirect a_{i4})	-0.10	0.04	-2.81	.005	[-0.20, -0.04]

Note. Estimates are drawn from mediation models predicting state anxiety symptoms from benign envy, malicious envy, and social network heterogeneity (SNH) indices via inspiration. Separate models were estimated for SES and race domains. Standardized coefficients are reported with bootstrap standard errors and percentile-based 95% confidence intervals (5,000 resamples). Indirect effects reflect the product of the a (predictor → inspiration) and b (inspiration → state anxiety) paths. Direct effects (c paths) represent associations controlling for inspiration, whereas indirect effects reflect associations transmitted through inspiration.

Perceptions of Success as a Potential Mechanism

Economic, but not racial, outgroup representation was positively associated with perceived opportunity breadth (see Table 8). Economic outgroup dispersion was also positively associated with perceived opportunity breadth. In turn, perceived opportunity breadth was positively associated with inspiration, suggesting that broader conceptions of success may help explain why more economically diverse networks are linked to greater inspiration.

Table 8

Impact of SNH on Perceived Opportunity Breadth

Predictor	β	t (df)	p	95% CI	
				Lower	Upper
Racial Outgroup Representation	0.15	1.48 (363)	.140	-0.05	0.34
Racial Outgroup Dispersion	-0.01	-0.09 (363)	.925	0.18	0.20

Economic Outgroup Representation	0.15	1.98 (375)	.048	0.01	0.29
Economic Outgroup Dispersion	0.16	2.25 (375)	.025	-0.31	-0.02

Note. Estimates are drawn from multiple regression models predicting perceived opportunity breadth from outgroup representation, its quadratic term, and outgroup dispersion, entered simultaneously. Separate models were estimated for each demographic category (race, economic status). Quadratic effects were not significant and were therefore excluded from the reported models.

Summary

Study 3 integrates these findings within a unified framework, showing that both envy and social network heterogeneity are associated with state anxiety through their shared association with inspiration. It also provides initial evidence that heterogeneous networks are linked to broader perceived opportunities for success, suggesting a potential cognitive pathway underlying these effects.

Discussion

Across three studies, we examined how distinct forms of envy relate to well-being and how social network heterogeneity shapes emotional responses to upward social comparison. Several consistent patterns emerged. First, benign and malicious envy showed reliably divergent associations with well-being: malicious envy was consistently linked to greater state anxiety, whereas benign envy showed weaker and less consistent associations with anxiety. Second, inspiration emerged as a distinct and positively valenced response to upward comparison, positively associated with benign envy and negatively associated with malicious envy, and in turn strongly linked to lower state anxiety. Third, individuals with more heterogeneous social networks, particularly those with greater outgroup representation, reported higher levels of

inspiration. Finally, mediation analyses in Study 3 indicate that inspiration statistically accounts for the associations between both envy and state anxiety as well as SNH and state anxiety, suggesting a common psychological pathway through which both emotional tendencies and social context relate to well-being.

Taken together, these findings make three primary theoretical contributions. First, they advance research on envy by demonstrating that its consequences for well-being are not only valence-dependent (benign vs. malicious) but also pathway-dependent (increasing vs. decreasing inspiration). Although prior work has linked benign envy to inspiration and constructive motivation, and malicious envy to more antagonistic responses, the present findings integrate these patterns within a single process model. Specifically, both forms of envy are associated with well-being in part through a shared downstream mechanism: inspiration. This reframes benign and malicious envy not simply as “good” versus “bad” emotions, but as orientations that jointly and differentially channel individuals toward or away from inspiration, which in turn relates to psychological outcomes. This framework aligns with evidence that social comparison emotions vary across individuals as a function of broader social-cognitive tendencies. Individuals less attuned to social comparison and group-based cues report attenuated experiences of emotions such as envy (Loustau et al., 2024). Integrating this with the present findings, the impact of envy on well-being depends not only on its valence but also on whether it gives rise to downstream states such as inspiration. Thus, variation in how envy is experienced and processed may determine whether upward comparison motivates growth or contributes to distress.

Second, the present work clarifies the role of inspiration as a central construct in social comparison. Although often discussed alongside benign envy, the current findings suggest that inspiration is not merely a byproduct of benign envy but a key mechanism linking upward

comparison to well-being. Conceptually, inspiration reflects a shift in how others' success is construed: from threatening to informative and expanding. Importantly, it is this construal, rather than envy per se, that is most proximally associated with reduced state anxiety. Notably, as shown in our mediation analyses, after accounting for inspiration, benign envy shows a positive association with state anxiety, even as it shows a negative indirect association through inspiration. This pattern suggests that any beneficial effects of benign envy on well-being operate specifically through the extent to which it gives rise to inspiration. These findings suggest that, because inspiration is the proximal mechanism linking social comparison to well-being, interventions may be most effective when they focus on fostering the translation of social comparison into inspiration, such as by scaffolding adaptive interpretations of others' success, rather than attempting to eliminate envy altogether.

Third, the findings introduce social network heterogeneity as a structural determinant of how upward comparisons are experienced. Existing models of social comparison largely focus on features of the comparison target or individual differences in the perceiver. The present work instead shows that the broader social environment, specifically, the diversity of one's close ties, systematically predicts whether upward comparisons elicit inspiration. This extends social comparison theory by embedding it within a social-structural context, suggesting that responses to others' success are shaped not only by internal processes but also by the composition of everyday social networks.

More heterogeneous networks may expose individuals to a wider range of life paths and trajectories, leading others' achievements to appear less indicative of fixed hierarchies and more demonstrative of multiple attainable routes to success. Consistent with this account, Study 3 provides initial evidence that economic network diversity is associated with broader perceived

opportunity structures, which in turn are linked to greater inspiration. This suggests a cognitive pathway through which SNH may influence emotional responses: by expanding individuals' mental representations of what success looks like, heterogeneous networks may shift upward comparison from a threat-based to an opportunity-based construal.

Importantly, the present findings also suggest that the effects of network diversity may not be strictly linear. In Study 2, the association between outgroup representation and inspiration exhibited a quadratic pattern, with diminishing returns at higher levels, whereas in Study 3 this relationship was linear. Complementary evidence from related work indicates that moderate levels of social network heterogeneity are associated with the most favorable mental health outcomes, with both low and high levels linked to worse outcomes (Loustau et al., 2026). Taken together, these patterns suggest that the benefits of network diversity may depend on context and on individuals' ability to effectively integrate diverse perspectives. Future research should continue to clarify the circumstances regarding how nonlinear effects emerge, including the role of contextual factors, measurement differences, and individuals' capacity to navigate diverse social environments.

These results also highlight the importance of distinguishing between dimensions of SNH. Outgroup representation showed consistent positive associations with inspiration, whereas dispersion effects were more variable across domains. This distinction suggests that exposure to diverse others may be more critical than how evenly that diversity is distributed, and points to the need for more precise theorizing about different forms of network diversity.

By integrating social network structure into models of social comparison, this work suggests that the experience of envy is jointly determined by internal dispositions and external environments. Heterogeneous networks may reduce the extent to which others' success is

perceived as threatening and instead promote interpretations that facilitate inspiration. In this way, the findings bridge research on emotion, social comparison, and social networks, offering a more integrated account of how individuals respond to upward comparison.

Limitations and Future Directions

Several limitations should be noted. First, the studies relied on measures of social network composition, which may be subject to recall biases. Second, the data are cross-sectional, limiting causal inference; the mediation analyses identify patterns of association consistent with the proposed model but cannot establish directional pathways. Third, although inspiration emerged as a key mechanism, downstream behavioral consequences were not directly assessed. Fourth, the mechanism tested in Study 3, perceived opportunity breadth, represents only one potential pathway through which SNH may be linked to inspiration, and future work should examine additional mechanisms such as perceived attainability or identity flexibility. Finally, the samples consisted primarily of White Americans, limited cross-cultural generalizability and the ability to capture cultural nuances involved in social comparisons and the formation of social networks.

Conclusion

Upward social comparison is often assumed to undermine well-being; yet the present findings suggest a more nuanced account. Across three studies, we show that whether others' success inspires or threatens depends on both how individuals emotionally respond to comparison and the social environments in which those comparisons occur. Benign and malicious envy, as well as social network heterogeneity, were linked to well-being through a common pathway: whether upward comparison elicited inspiration. By identifying inspiration as a central mechanism and social network composition as a key contextual factor, this work offers

a more integrated framework for understanding responses to others' success. More broadly, these findings suggest that the consequences of social comparison are not fixed, but are shaped by the interplay between emotional orientation and social context, with important implications for promoting motivation and psychological well-being.

Declarations

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Competing Interests

The authors have no relevant financial or non-financial interests to disclose.

Ethics Approval

All studies were approved by the Institutional Review Board at [University redacted for blind review] and were conducted in accordance with the ethical standards of the institution and the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Consent to Participate

Informed consent was obtained from all individual participants included in the studies.

Consent to Publish

Not applicable.

Data and Code Availability

All data, analysis code, and research materials are available on OSF (https://osf.io/2rsgh/overview?view_only=48fdd582493f49649f1dbe978128b853).

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