

Supplementary Materials

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Section A - Final 30 Chosen News Headlines in Pilot Studies**Table S1***Final 30 Chosen Headlines (10 for Each Type)*

Antisocial headlines
1. Supervisor sexually harasses multiple interns
2. Teacher gives students corporal punishment
3. Dog owner refuses to leash her dog: Kids injured
4. Uber driver zooms through red light, injures three pedestrians
5. Mother and daughter throw stones at sleeping animals in a zoo
6. Driver speeding with his new car on the sidewalk
7. Customers abuse bartender because of 10pm pub curfew
8. A group of 5 robs a store
9. Motorcycle goes backwards through the drive lane
10. Stuttering coffee shop waiter bullied by his colleagues
Prosocial headlines
1. Conservation organization launches 'Save the angel shark' plan
2. Steep increase in blood donors
3. General Practitioner makes home visits outside of office hours
4. Community donates clothes to the homeless
5. Couple pays for birthday cake of struggling family's son
6. Neighbors take elderly person to hospital
7. Pedestrians calm a frightened man
8. College students cycling 200 miles for charity
9. Volunteers read to sick children
10. Passerby helps fallen blind person get up
Neutral headlines
1. Inhabitants of 'hottest place on Earth' show how they live
2. First passengers try high-speed vacuum pods
3. Students go back to school after long lockdown
4. Gold found by 10-year-old metal detectorists
5. Stargazers looking for 'Diamonds in the sky'
6. Asian couples are getting married later than ever before
7. People are preparing for staycation
8. Fewer people than expected visit reopened museums
9. 250 million users active on Snapchat each day
10. Couple buys new car on impulse

Section B – Notes on Preregistration Document (Study 2)

Some disparities exist between the preregistration document (<https://aspredicted.org/blind.php?x=7d8j6r>) and the main text, which we elaborate on below. Furthermore, a summary of findings regarding covariates and exploratory variables is provided.

Firstly, the preregistration document outlined our intent to focus primarily on global grandiose narcissism using the NPI (Miller et al., 2012; Raskin & Terry, 1988), while including measures of agentic and antagonistic narcissism using the NARQ-S (Leckelt et al., 2018; Zettler et al., 2022) for exploratory purposes. However, due to progressive theoretical insight regarding its stronger theoretical relevance to maladaptive interpersonal behavior, we ultimately shifted our main focus to antagonistic narcissism. Focusing on antagonistic narcissism provides a more nuanced understanding of narcissistic individuals' navigation in social environments through the lens of social information selection, particularly given its closer association with (maladaptive) interpersonal approaches compared to the other forms of narcissism (Back et al., 2013; Chen et al., 2021; Dinić & Jovanović, 2021; Leckelt et al., 2015; Wurst et al., 2017). We elaborate on our reasoning in the theory section of the main text. Additionally, we reported results for both global grandiose narcissism and agentic narcissism in the Supplementary Materials (see Section C below) to provide a comprehensive overview of the effects of narcissism across different dimensions.

Secondly, in the preregistration document we stated our intention to include all three types of news headlines in interaction effects analysis. However, in practice, we focused on the prosocial and antisocial news headlines, while including the neutral type as fillers. This adjustment was made to prevent redundancy in the analysis due to the fact that analyzing the three types of headlines in conjunction does not allow us to examine the effects of narcissism

on selecting antisocial and prosocial information separately. A comparable approach was also used in previous research (Landwehr & Eckmann, 2020).

Thirdly, the sample size for Study 2, as outlined in the preregistration, was originally determined based on the effect size involving global grandiose narcissism. After shifting our focus to antagonistic narcissism, we decided to use a default small effect size to determine the required sample size as in Study 1, ensuring the ability to detect even relatively small effects.

Covariates and Exploratory Variables

Perspective taking, social desirability, and self-monitoring were considered as covariates. Notably controlling for these variables did not alter our findings. We also explored the potential mediating role of perspective taking—the cognitive facet of empathy—by including it as an additional competing mediator alongside the other three mediators. Results indicated that perspective taking did not significantly mediate the relationship between antagonistic narcissism and information selection ($B_{indirect\ effect} = -0.05$, 95%CI[-.173, .082]), and its inclusion did not meaningfully change the indirect effects of the other mediators, such that the indirect effects of (affective) empathy and sensation seeking remained significant, whereas the indirect effect of social motives remained non-significant (detailed results available upon request).

Communal narcissism, representing a distinct form of narcissism from grandiose narcissism whereby self-aggrandization occurs in the communal rather than agentic domain (Gebauer et al., 2012), was measured as an exploratory predictor. Results showed a significant interaction between communal narcissism and information type, with communal narcissism positively predicting the selection of prosocial information but not related to selection of antisocial information. We further tested whether social motives, empathy, and sensation seeking mediated these effects, using the same method as in Study 2. Empathy and sensation seeking showed significant indirect effects, whereas social motives did not.

Specifically, via higher empathy, communal narcissism was negatively related to the selection of antisocial information and positively related to the selection of prosocial information, and via higher sensation seeking, communal narcissism was positively associated with the selection of antisocial information and negatively associated with the selection of prosocial information.

Additionally, we explored the mediating role of agency-communion values (Trapnell & Paulhus, 2012) in the relationship between antagonistic narcissism and social information selection (with information type as the moderator) by including agency value and communal value additional competing mediators alongside with the three main mediators. Neither agency value nor communal value showed a significant indirect effect and their inclusion in the indirect effect analyses did not alter the results for the other three main mediators. Measures and detailed statistical results pertaining to communal narcissism and agency-communion values can be obtained by contacting the authors.

Section C - Effects of Global Grandiose Narcissism and Agentic Narcissism on Individuals' Social Information Selection

In our primary investigations, we mainly focused on the antagonistic narcissism, which, when combined with agentic narcissism forms global grandiose narcissism (Ackerman et al., 2011; Brown et al., 2009). Additionally, we assessed both agentic narcissism and global grandiose narcissism, exploring their influence on individuals' selection of antisocial and prosocial information in both Studies 1-2. We also examined indirect effects of social motives, empathy, and sensation seeking in explaining the potential influences of these two narcissism measures in Study 2. Finally, we conducted an internal meta-analysis to synthesize the findings of the two studies to provide more reliable estimates of the interaction effects of interests.

In both Studies 1 and 2, we measured the global grandiose narcissism using the Narcissistic Personality Inventory (NPI; Miller et al., 2012; Raskin & Terry, 1988) and agentic narcissism using the widely used admiration narcissism subscale of the Admiration and Rivalry Questionnaire Short Scale (NARQ-S Leckelt et al., 2018; Zettler et al., 2022). The NPI consists of 40 items and participants rated whether each item applied to them (e.g., "I have a natural talent for influencing people"; "false" = 0, "true" = 1; in Study 1, $\alpha = .90$; in Study 2, $\alpha = .91$). The admiration narcissism subscale of NARQ-S consists of three items, and participants indicated their agreement as to whether each item applied to them (e.g., "I deserve to be seen as a great personality"; "strongly disagree" = 1, "strongly agree" = 6; in Study 1, $\alpha = .80$; in Study 2, $\alpha = .81$).

Results

Effect of Narcissism on Selecting Antisocial and Prosocial Information

Descriptive statistics and correlations are presented in Table S2. In both Studies 1 and 2, we tested the effects of narcissism and information type (antisocial = 0, prosocial = 1) on

individuals' social information selection using Hayes' Model 1 with 5,000 bootstrap samples in PROCESS version 4.0 (2013) separately for global grandiose narcissism and agentic narcissism. Test statistics for main effects and interactions of both studies are reported in Table S3.

In Study 1, the main effect of information type was marginally significant in two models with different narcissism measures, with participants showing a trend of selecting more prosocial information ($M = 3.08$, $SD = 1.89$) than antisocial information ($M = 2.77$, $SD = 2.05$). The main effects of both narcissism measures were not significant. The interaction effect between information type and narcissism was significant for both narcissism measures. We decomposed the interaction for each narcissism measure (Figure S1A-S1B) and report test statistics of simple slopes in Table S4. Results revealed that the selection of antisocial information was significantly positively predicted by both narcissism measures. The selection of prosocial information was marginally significantly predicted by agentic narcissism, and not significantly predicted by global grandiose narcissism. In Study 2, the main effect of information type was significant in both models, with participants selecting more prosocial information ($M = 3.31$, $SD = 1.88$) than antisocial information ($M = 2.77$, $SD = 2.10$). The main effects of both types of narcissism were not significant. The interaction effect was not significant for both global grandiose narcissism and agentic narcissism.

Indirect Effects via Mediators

Although the overall interaction effects between global grandiose narcissism and information type and between agentic narcissism and information type were not significant in Study 2, there could still be an indirect effect via mediators (Zhao et al., 2010). We tested the indirect effects with social motives, empathy, and sensation seeking as the mediators, and global grandiose narcissism and agentic narcissism as the predictor in separate models using Model 15 with 5,000 bootstrap samples in PROCESS (Figure S2), following the procedure

proposed by Preacher et al. (2007).

For both models, results regarding the effect of narcissism on each mediator of the conditional mediation model showed that both global grandiose narcissism and agentic narcissism exhibited a negative association with social motives, positive associations with sensation seeking, and a non-significant association with empathy (Table S5).

Results revealed a significant interaction effect between information type and social motives for the model with global grandiose narcissism but not for the model with agentic narcissism. We also found a significant interaction between information type and empathy, as well as between information type and sensation seeking for both models (Tables S6-S7). Decomposing the interaction effect between information type and social motives in the model with global grandiose narcissism revealed that social motives related positively to selection of prosocial information but not significantly to selection of antisocial information (Figure S3A). For both models, simple slope analysis of the interaction between information type and empathy on social information selection showed that empathy was negatively associated with selection of antisocial information and positively associated with selection of prosocial information (Figure S3B-S3C). The simple slopes analysis of the interaction between information type and sensation seeking revealed that sensation seeking was positively associated with selection of antisocial information in both models, while it was negatively associated with selection of prosocial information in model with global grandiose narcissism and marginally negatively associated with selection of prosocial information in the model with agentic narcissism (Figure S3D-S3E).

Finally, we found support for an indirect effect of global grandiose narcissism on social information selection via social motives as a function of information type, $B = -0.31$, $r = -.03$, 95%CI[-0.609, -0.050], but not for agentic narcissism, $B = -0.03$, $r = -.02$, 95%CI[-0.077, 0.003]. More specifically, the conditional indirect effect analysis showed that through

stronger proself motives, global grandiose narcissism was negatively related to the selection of prosocial information, $B = -0.22$, $r = -.02$, 95%CI[-0.420, -0.034], but not significantly related to the selection of antisocial information, $B = 0.09$, $r = .01$, 95%CI[-0.098, 0.306]. We also found support for an indirect effect of both narcissism measures on social information selection via sensation seeking as a function of information type, $B = -1.10$, $r = -.12$, 95%CI[-1.656, -0.617] (for global grandiose narcissism), $B = -.11$, $r = -.07$, 95%CI[-0.180, -0.049] (for agentic narcissism). Specifically, conditional indirect effects analysis showed that through higher sensation seeking, narcissism was positively related to the selection of antisocial information, $B = 0.67$, $r = .07$, 95%CI[0.301, 1.045] (for global grandiose narcissism), $B = 0.07$, $r = .04$, 95%CI[0.026, 0.123] (for agentic narcissism), and negatively related to the selection of prosocial information, $B = -0.45$, $r = -.05$, 95%CI[-0.782, -0.144] (for global grandiose narcissism), $B = -0.04$, $r = -.02$, 95%CI[-0.081, -0.003] (for agentic narcissism). However, the conditional indirect effect of both narcissism measures on social information selection via empathy was not significant, $B = 0.07$, $r = .01$, 95%CI[-0.322, 0.473] (for global grandiose narcissism), $B = 0.07$, $r = .03$, 95%CI[-0.008, 0.147] (for agentic narcissism). Taken together, when three characteristics were examined as competing mediators in the same model, social motives showed a significant mediating effect only in the model when global grandiose narcissism was the predictor, and sensation seeking showed a significant mediating effect in both models, while empathy did not demonstrate a mediating effect in both models.

Internal Meta-analysis

We carried out separate internal meta-analysis with global grandiose narcissism and agentic narcissism the same way as we did with antagonistic narcissism, performing the analysis using Comprehensive Meta-Analysis program (Borenstein et al., 2021) and adopting a fixed-effects approach (Goh et al., 2016). The meta-analytic model specified information

type as the categorical moderator of the effects of the two narcissism measures on information selection. Combined simple slopes effects in each headline category (i.e., prosocial vs. antisocial) are reported in Figures S4-S5.

The meta-analytic results showed that information type did not moderate the effect of global grandiose narcissism on information selection, $Q(1) = 0.59, p = .443$. However, the moderating effect of information type was significant for agentic narcissism, $Q(1) = 4.98, p = .026$. More specifically, agentic narcissism positively predicted the selection of antisocial information but did not predict the selection of prosocial information.

Discussion

The results of Study 1 revealed that participants with higher narcissism (as measured by global grandiose narcissism and agentic narcissism) sought out more antisocial information than those with lower narcissism. Conversely, people with higher narcissism showed a trend of selecting less prosocial information, although this effect was only marginally significant for agentic narcissism and not significant for global grandiose narcissism. Despite that we did not replicate the overall effects of global grandiose narcissism and agentic narcissism in Study 2, we did observe significant indirect effects of both narcissism measures via several mediators. Specifically, stronger proself motives of individuals higher (vs lower) on global grandiose narcissism explained their lesser selection of prosocial information. Moreover, individuals higher (vs lower) on both global grandiose narcissism and agentic narcissism demonstrated higher sensation seeking, prompting greater selection of antisocial information and lesser selection of prosocial information. Finally, the internal meta-analysis results revealed the moderating effect of agentic narcissism on individuals' social information selection, such that people with higher agentic narcissism tended to select more antisocial information compared with those with lower agentic narcissism, however they showed no difference in selecting prosocial information.

Table S2*Means, Standard Deviations, and Correlations Between Variables (Studies 1-2)*

	M_{S1}	SD_{S1}	1	2	3	4	5	6	M_{S2}	SD_{S2}
1. Antisocial information selection	2.77	2.05	—	-.63**	.12	.15*			2.77	2.10
2. Prosocial information selection	3.08	1.89	-.64**	—	-.06	-.12			3.31	1.88
3. Global grandiose narcissism	.37	.20	.003	.08	—	.68**			.38	.21
4. Agentic narcissism	2.89	1.20	.03	.03	.68**	—			2.62	1.18
5. Social motives			-.12*	.24**	-.18**	-.13**	—		29.40	12.90
6. Empathy			-.24**	.41**	.02	.07	.36**	—	3.77	0.72
7. Sensation seeking			.22**	-.18**	.33**	.23**	-.09	-.22**	2.28	0.44

Note. Study 1 ($N = 253$) correlations are presented above the diagonal and Study 2 ($N = 294$) correlations are presented below the diagonal. The means for antisocial and prosocial information selection represent the average number of news headlines chosen by participants for each information type. Social motives, empathy, and sensation seeking only measured in Study 2.

* $p < .05$, ** $p < .01$

Table S3*Estimated Coefficients of Main Effects and Interactions on Social Information Selection (Studies 1-2)*

Predictors	Study 1				Study 2			
	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>
<i>Narcissism measure = Global grandiose narcissism</i>								
Information type	0.31 [-0.031, 0.656]	1.79	.075	.08	0.55 [0.225, 0.871]	3.33	<.001	.14
Global grandiose narcissism	0.32 [-0.531, 1.179]	0.74	.457	.03	0.38 [-0.387, 1.144]	0.97	.331	.04
Information type × Global grandiose narcissism	-1.86 [-3.567, -0.146]	-2.13	.033	-.09	0.70 [-0.830, 2.231]	0.90	.369	.04
<i>Narcissism measure = Agentic narcissism</i>								
Information type	0.31 [-0.030, 0.654]	1.79	.073	.08	0.55 [0.224, 0.871]	3.33	<.001	.14
Agentic narcissism	0.04 [-0.106, 0.179]	0.51	.612	.02	0.06 [-0.080, 0.194]	0.82	.414	.03
Information type × Agentic narcissism	-0.45 [-0.735, -0.165]	-3.10	.002	-.14	-0.007 [-0.281, 0.267]	-0.05	.958	-.002

Note. The effect size is represented by Pearson *r*. For information type, antisocial = 0, prosocial = 1.

Table S4

Simple Slopes Effects of Global Grandiose Narcissism and Agentic Narcissism on Social Information Selection in Antisocial and Prosocial Conditions

Narcissism measure	Antisocial information selection				Prosocial information selection			
	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>
<i>Study 1</i>								
Global grandiose narcissism	1.25 [0.043, 2.462]	2.03	.042	.13	-0.60 [-1.814, 0.605]	-0.98	.327	-.06
Agentic narcissism	0.26 [0.060, 0.463]	2.55	.011	.16	-0.19 [-0.390, 0.013]	-1.84	.067	-.12
<i>Study 2</i>								
Global grandiose narcissism	0.03 [-1.054, 1.110]	0.05	.959	.003	0.73 [-0.353, 1.810]	1.32	.186	.08
Agentic narcissism	0.06 [-0.133, 0.254]	0.62	.538	.04	0.05 [-0.140, 0.247]	0.54	.589	.03

Note. The effect size is represented by Pearson *r*.

Table S5

Estimated Coefficients of the Effect of Global Grandiose Narcissism and Agentic Narcissism on Mediator in the Conditional Mediation Model with All Mediators (Study 2)

Mediators	Global grandiose narcissism → Mediator				Agentic narcissism → Mediator			
	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>
Social motives	-11.00 [-15.872, -6.131]	-4.44	<.001	-.18	-1.42 [-2.294, -0.539]	-3.17	.002	-.22
Empathy	0.05 [-0.225, 0.332]	0.38	.706	.02	0.05 [-0.004, 0.095]	1.79	.074	.07
Sensation seeking	0.70 [0.540, 0.862]	8.54	<.001	.33	0.09 [0.058, 0.117]	5.77	<.001	.23

Note. The effect size is represented by Pearson *r*.

Table S6

Estimated Interaction Coefficients (Information type × Mediator → Social Information Selection) and Simple Slopes Effects in the Conditional Mediation Model with Global Grandiose Narcissism as the Predictor (Study 2)

	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>
Information type × Social motives → Social information selection	0.03 [0.003, 0.054]	2.16	.032	.09
<i>Simple slopes</i>				
Social motives → Antisocial information selection	-0.01 [-0.027, 0.010]	-0.92	.356	-.05
Social motives → Prosocial information selection	0.02 [0.002, 0.038]	2.12	.034	.13
Information type × Empathy → Social information selection	1.37 [0.910, 1.832]	5.84	<.001	.25
<i>Simple slopes</i>				
Empathy → Antisocial information selection	-0.51 [-0.841, -0.188]	-3.10	.002	-.19
Empathy → Prosocial information selection	0.86 [0.530, 1.183]	5.16	<.001	.31
Information type × Sensation seeking → Social information selection	-1.57 [-2.307, -0.827]	-4.16	<.001	-.17
<i>Simple slopes</i>				
Sensation seeking → Antisocial information selection	0.94 [0.417, 1.464]	3.53	<.001	.21
Sensation seeking → Prosocial information selection	-0.63 [-1.150, -0.104]	-2.35	.019	-.14

Note. The effect size is represented by Pearson *r*.

Table S7

Estimated Interaction Coefficients (Information type × Mediator → Social Information Selection) and Simple Slopes Effects in the Conditional Mediation Model with Agentic Narcissism as the Predictor (Study 2)

	<i>B</i> [95% CI]	<i>t</i>	<i>p</i>	<i>r</i>
Information type × Social motives → Social information selection	0.02 [-0.003, 0.048]	1.71	.089	.07
<i>Simple slopes</i>				
Social motives → Antisocial information selection	-0.01 [-0.024, 0.012]	-0.65	.513	-.04
Social motives → Prosocial information selection	0.02 [-0.002, 0.034]	1.76	.079	.10
Information type × Empathy → Social information selection	1.45 [0.983, 1.915]	6.11	<.001	.26
<i>Simple slopes</i>				
Empathy → Antisocial information selection	-0.55 [-0.880, -0.221]	-3.28	.001	-.20
Empathy → Prosocial information selection	0.90 [0.569, 1.228]	5.36	<.001	.32
Information type × Sensation seeking → Social information selection	-1.28 [-1.997, -0.555]	-3.47	.001	-.14
<i>Simple slopes</i>				
Sensation seeking → Antisocial information selection	0.82 [0.310, 1.331]	3.16	.002	.18
Sensation seeking → Prosocial information selection	-0.46 [-0.966, 0.055]	-1.75	.080	-.10

Note. The effect size is represented by Pearson *r*.

Figure S1

Effects of Information Type and Narcissism on Social Information Selection (Study 1)

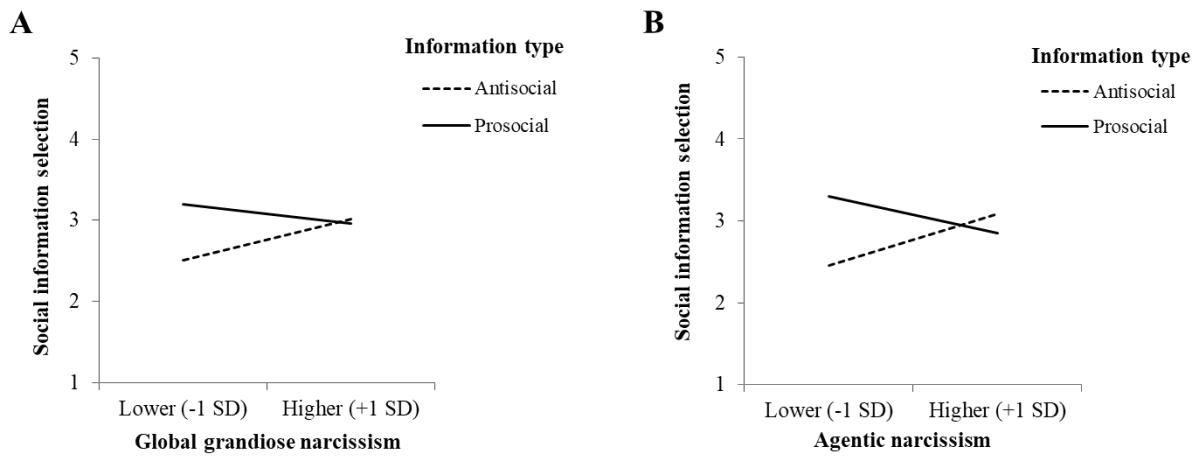
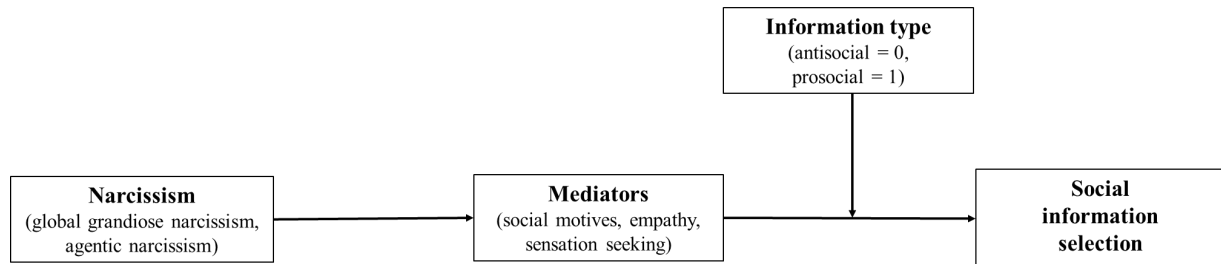
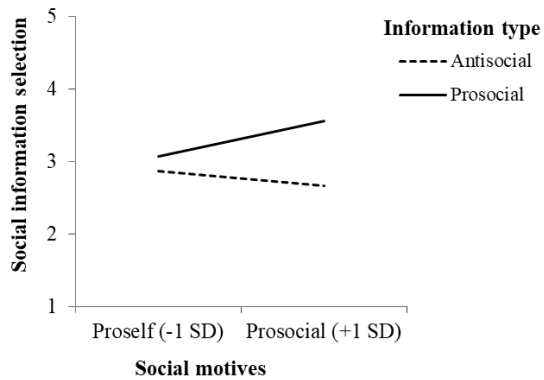
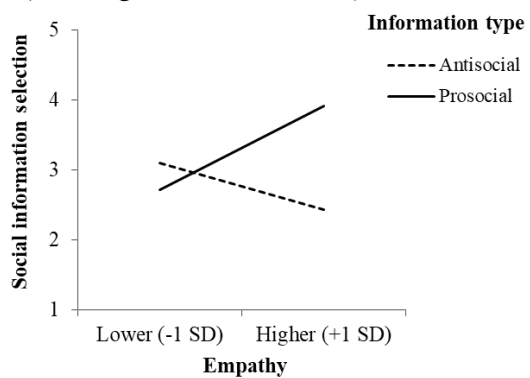
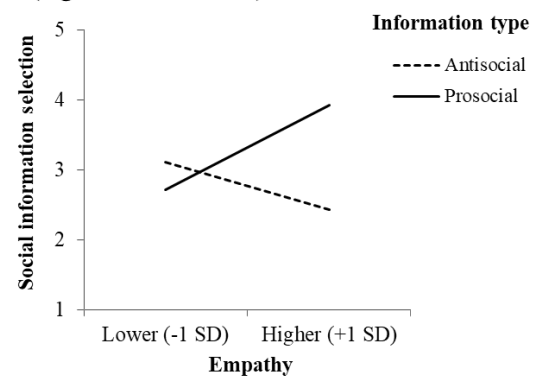
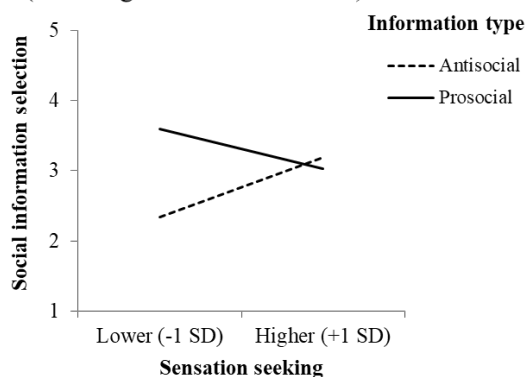
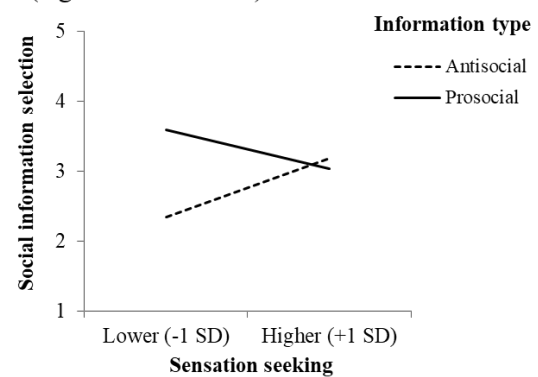
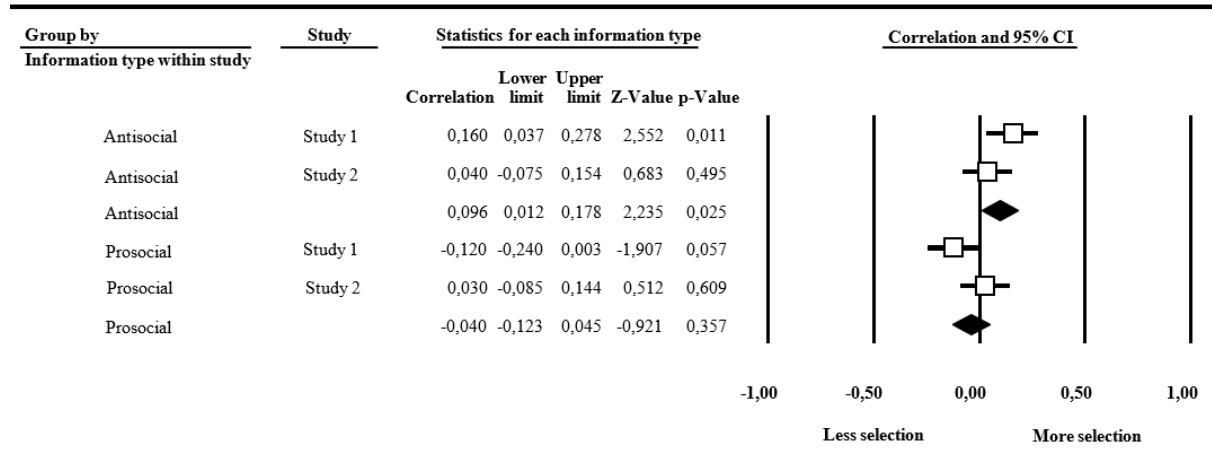


Figure S2*Conditional Mediation Model with Stage Two Moderation (Study 2)*

Note. The models with global grandiose narcissism and agentic narcissism were examined separately.

Figure S3*Significant Interaction Effects of Information Type and Mediators on Social Information**Selection (Study 2)***A** (Global grandiose narcissism)**B** (Global grandiose narcissism)**C** (Agentic narcissism)**D** (Global grandiose narcissism)**E** (Agentic narcissism)

Note. “Prosocial (-1SD)” / “Lower (-1 SD)” and “Proself (+1SD)” / “Higher (+1SD)” refer to mediator scores that were one standard deviation above the mean and one standard deviation below the mean, respectively.

Figure S5*Meta-analytic Effects of Agentic Narcissism on the Selection of Antisocial and Prosocial Information*

Note. The left part of the figure presents the individual effects (i.e., correlations) in each study and the estimated combined effects for each information type across studies. The individual effects are represented by an empty square in the right part of the figure, and the combined effects are represented by a solid diamond.

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