

Supplemental Materials

The Psychological Structure of Humility

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Table S1. Factor Loadings of Social Desirability-Free Humility-Related Items at a Momentary State Level (Study 2) and a Dispositional Level (Study 3)

Item	Study 2 State Humility		Study 3 Trait Humility	
	Appreciative Humility (Factor 1)	Self-Abasing Humility (Factor 2)	Appreciative Humility (Factor 1)	Self-Abasing Humility (Factor 2)
Compassionate	0.99	-0.20	0.25	0.22
Understanding	0.97		0.20	
Kind	0.95		0.25	
Generous	0.95		0.10	
Considerate	0.94	-0.17	0.29	0.10
Peaceful	0.90			-0.22
Empathic	0.89		0.25	0.28
Connected	0.88	-0.11	-0.15	-0.31
Helpful	0.87		0.15	-0.10
Graceful	0.86			0.14
Friendly	0.81	-0.13	0.13	-0.22
Relaxed	0.81	-0.22	-0.17	-0.33
Respectful	0.78		0.18	
Honest	0.73		0.22	
Accepting	0.72	-0.22	0.11	
Equal	0.69			-0.42
Calm	0.69	-0.38	-0.11	-0.27
Good	0.67		0.13	-0.21
Wisdom	0.60	0.10		-0.25
Content	0.54	-0.14	-0.17	-0.49
Smile	0.54	0.16	-0.13	-0.22
Human	0.54		0.25	-0.15
Worldly	0.53	0.22	-0.13	-0.21
Satisfied	0.52		-0.30	-0.59
Happy	0.52		-0.21	-0.59
Pleased	0.50		-0.25	-0.39

Humble	0.50		0.22	0.13
Confident	0.49	-0.15	-0.21	-0.55
Obedient	0.48	0.43		0.32
Simple	0.38	0.43	-0.17	0.48
Self-worthy	0.37		-0.13	-0.47
Accomplished	0.28		-0.29	-0.50
Unpretentious	0.26	0.21	0.18	0.32
Modest	0.22		0.19	0.22
Reserved	0.20	0.29	-0.11	0.44
Proud	0.17	0.14	-0.34	-0.41
Embarrassed	-0.59	0.88	-0.29	0.97
Shy	-0.38	0.86		0.85
Blushing	-0.53	0.80	-0.32	0.58
Anxious	-0.41	0.74		0.82
Stupid	-0.31	0.66	-0.24	0.86
Self-conscious	-0.38	0.66		0.82
Shameful	-0.26	0.65	-0.27	0.87
Small	0.14	0.59	-0.23	0.86
Ashamed	-0.19	0.59	-0.24	0.92
Worthless	-0.31	0.58		0.97
Hot	-0.12	0.57	-0.36	0.30
Quiet	0.15	0.53		0.51
Submissive		0.53	-0.24	0.84
Unimportant	-0.10	0.53	0.17	1.04
Unhappy	-0.21	0.52	0.22	0.98
Meek		0.47	-0.19	0.84
Guilty	-0.14	0.47	-0.36	0.77
Sad		0.40	0.14	0.96

Note: Study 2: $N = 648$; Study 3: $N = 462$. Loadings $< |.10|$ are not presented and loadings $> |.40|$ are shown in bold.

Table S2 Items and factor loadings for humility-related action tendencies (Study 6)

Item	Celebrating Others' Accomplishments	Hiding from Others Evaluations
I reached out to someone in need	0.69	-0.23
I acknowledged the talents of others	0.65	
I acted extra nice to people	0.64	
I wanted to thank others who were responsible for what had happened to me	0.63	-0.28
I tried to draw attention to someone else's accomplishments	0.63	
I pointed out other people's impressive accomplishments	0.62	
I tried to make my accomplishment seem less impressive	0.62	
I wanted to be friendly with others	0.62	-0.20
I tried to make someone else's accomplishments seem more impressive	0.60	
I wanted to comfort someone	0.59	-0.31
I didn't want to hurt anyone's feelings	0.59	
I tried to be extra polite	0.59	
I showed appreciation for compliments	0.57	-0.22
I paid close attention to another person	0.56	-0.11
I thought carefully about someone with whom I had interacted	0.55	
I tried not to act cocky	0.55	
I regarded someone else as my idol	0.54	
I directed all the credit for what had happened to someone else	0.54	
I tried to see the positive side of an event	0.52	-0.25
I smiled to myself	0.51	-0.36
I wanted to celebrate what had happened	0.51	-0.41
I tried to go the extra mile in future situations	0.51	0.19
I covered up someone else's mistake	0.51	0.12
I said thank you to someone	0.50	-0.24
I felt like I should reward myself	0.48	-0.23
I was careful not to act superior to others	0.47	
I felt motivated to improve at something	0.46	
I didn't want to brag	0.45	0.15
I tried to act more like a specific other person	0.44	0.34

I downplayed my hard work	0.43	0.22
I talked about how people were praising me	0.43	
I wanted to prove to others that their faith in my abilities was justified	0.41	
I aspired to improve my skills and abilities in a certain area	0.35	0.17
I turned down compliments from others	0.35	0.25
I wanted to emulate, or try to be like, someone	0.35	0.25
I wanted to work very hard in response to what had happened	0.35	0.16
I didn't want to talk to anyone	-0.12	0.77
I became extremely quiet	-0.12	0.76
I didn't want to tell anyone about what had happened to me		0.73
I had nothing to say		0.67
I wanted to leave the situation	-0.27	0.67
I didn't want to tell anyone about something I had done	0.12	0.66
I wanted to run away	-0.19	0.64
I wanted to keep my emotions inside		0.61
I changed the subject of conversation	0.20	0.61
I restrained myself from showing emotion		0.60
I kept quiet about something I had done	0.14	0.59
I flashed a fake smile		0.57
I wanted to get away from someone		0.57
I wanted to share the experience with others	0.40	-0.53
I avoided being the center of attention	0.30	0.45
I made sure to be extra careful in the future	0.11	0.41
I wanted to talk with other people about the experience	0.28	-0.38
I wanted to tell my closest friends and family members about the experience	0.26	-0.35
I questioned the amount of effort I was putting into something		0.33
I re-evaluated my perceptions of my own abilities	0.24	0.30

Note: $N = 205$; Loadings $< |.10|$ are not presented and loadings $> |.40|$ are shown in **bold**.

Study 5

We also examined whether self-reported humility and other-oriented action tendencies differed across the four experimental conditions (i.e., appreciative humility following success, appreciative humility following failure, self-abasing humility following success, and self-abasing humility following failure). Because the validity check for the success/failure manipulation suggested that this manipulation was largely ineffective (i.e., a substantial number of participants failed to write the narrative requested for the condition to which they were assigned), in the main results in text we collapsed across this condition. Here, we supplement those results by treating the four between-subjects conditions as valid, but it's important to note that 39 (39%) people in the success condition in fact wrote about failure, and 19 (18%) people in the failure condition in fact wrote about success.

When considering self-reported humility, a one-way analysis of variance (ANOVA) was significant for both appreciative humility, $F(3,180) = 19.86, p < .001$, and self-abasing humility, $F(3, 180) = 33.39, p < .001$. Figure S1 presents the results of this ANOVA. Inspection of self-report means indicated that appreciative humility was highest for participants assigned to write about appreciative humility following success ($M = 3.74, SD = 1.02$), and lowest for participants assigned to write about self-abasing humility following failure ($M = 2.12, SD = 1.03$); the other two conditions fell in between, though scores were descriptively higher for appreciative humility following failure ($M = 3.08, SD = 1.17$) than self-abasing humility following success ($M = 2.69, SD = 1.00$). In contrast, self-abasing humility was highest for participants assigned to write about self-abasing humility following failure ($M = 3.48, SD = .75$), and lowest for participants assigned to write about appreciative humility following success ($M = 1.74, SD = .72$); the other two conditions fell in between, though scores were descriptively higher for self-abasing humility

following success ($M = 3.12$, $SD = .97$) than appreciative humility following failure ($M = 2.65$, $SD = 1.06$).

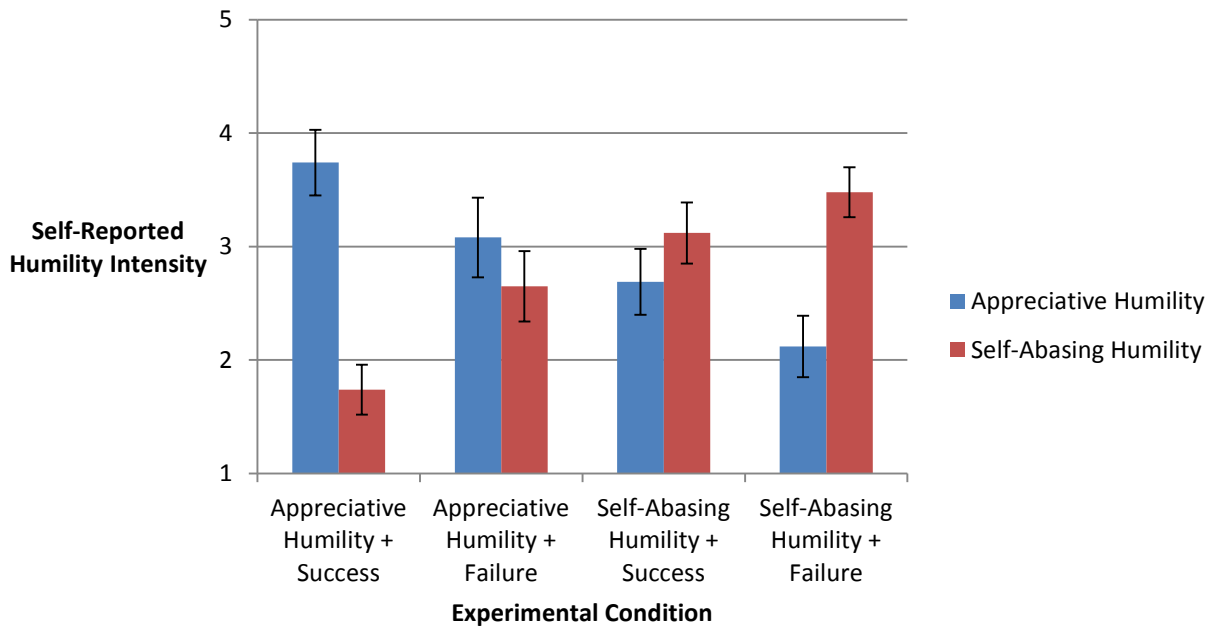
When considering other-oriented action tendencies, a one-way ANOVA was significant for both celebrating others' accomplishments, $F(3, 201) = 9.62$, $p < .001$, and hiding from others' evaluations, $F(3, 201) = 17.88$, $p < .001$. Figure S2 presents the results of this ANOVA.

Inspection of means on the two component scores indicated that celebrating others' accomplishments was highest for participants assigned to write about appreciative humility following success ($M = .51$, $SD = .89$), and lowest for participants assigned to write about self-abasing humility following failure ($M = -.46$, $SD = 1.04$); the other two conditions fell in between (appreciative humility following failure: $M = .08$, $SD = .81$; self-abasing humility following success: $M = -.04$, $SD = .98$). In contrast, hiding from others' evaluations was highest for participants assigned to write about self-abasing humility following failure ($M = .48$, $SD = .85$), and lowest for participants assigned to write about appreciative humility following success ($M = -.75$, $SD = .88$); the other two conditions fell in between (self-abasing humility following success: $M = .20$, $SD = .90$; appreciative humility following failure: $M = -.02$, $SD = .95$).

These findings are consistent with the evidence from Study 2 suggesting that appreciative humility most typically follows success, and self-abasing humility most typically follows failure, and with the main findings of Study 6, that appreciative humility promotes behaviors oriented toward celebrating others, whereas self-abasing humility promotes behaviors oriented toward hiding from others. The appreciative humility following success condition likely elicited the purest reports of appreciative humility, and therefore the highest levels of appreciative humility and action tendencies oriented toward celebrating others. Similarly, the self-abasing humility following failure condition likely elicited the purest reports of self-abasing humility, and

therefore the highest levels of self-abasing humility and action tendencies oriented toward hiding from others' evaluations. In contrast, the appreciative humility following failure condition, and the self-abasing humility following success condition, each elicited a mix of the two forms of humility, and accompanying action tendencies (see Figures S1 and S2). That said, it is also possible that the differences observed between the success and failure condition within the appreciative humility condition, and between the success and failure condition within the self-abasing humility condition, was partly due to a link between success and a willingness to celebrate others, and between failure and a desire to hide from others. Particularly given the ineffectiveness of the success/failure manipulation, however, more research is needed to tease apart these explanations.

Figure S1: Self-reported humility across experimental conditions (Study 5)



Note:

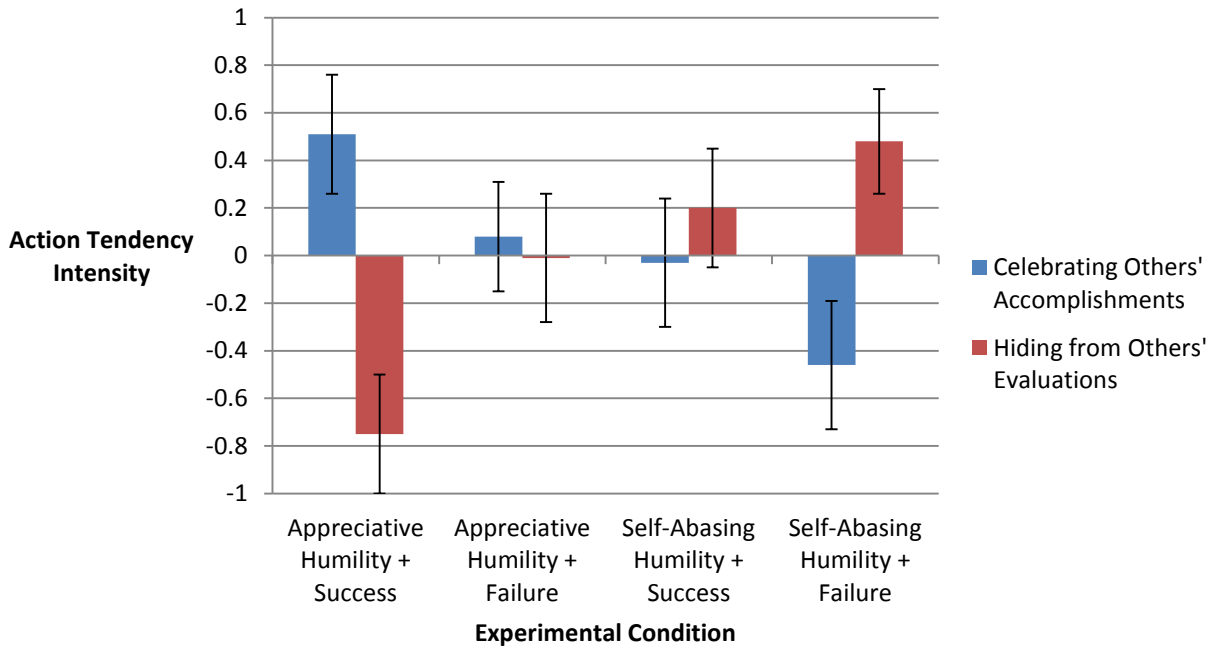
Appreciative Humility + Success: Participants were instructed to write about an episode in which they experienced appreciative humility following a personal success.

Appreciative Humility + Failure: Participants were instructed to write about an episode in which they experienced appreciative humility following a personal failure.

Self-Abasing Humility + Success: Participants were instructed to write about an episode in which they experienced self-abasing humility following a personal success.

Self-Abasing Humility + Failure: Participants were instructed to write about an episode in which they experienced self-abasing humility following a personal failure.

Figure S2: Action tendencies across experimental conditions (Study 5)



Note: Action tendency intensity scores are standardized factor scores.

Appreciative Humility + Success: Participants were instructed to write about an episode in which they experienced appreciative humility following a personal success.

Appreciative Humility + Failure: Participants were instructed to write about an episode in which they experienced appreciative humility following a personal failure.

Self-Abasing Humility + Success: Participants were instructed to write about an episode in which they experienced self-abasing humility following a personal success.

Self-Abasing Humility + Failure: Participants were instructed to write about an episode in which they experienced self-abasing humility following a personal failure.