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BRIEF REPORT

An Initial Exploration of Students' Mindsets, Attitudes, and Beliefs About Public Speaking

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This study investigated how students' implicit theory that public speaking abilities can be developed and improved (i.e., growth mindset) was related to their apprehension, perceived competence, and beliefs regarding public speaking. Growth mindset was associated with lower apprehension and higher self-perceived competence. Growth mindset was also associated with the belief that public speaking involves reflection, revision, and adapting to one's audience rather than merely transmitting information. Correlations were consistent with hypotheses.

Keywords: *Beliefs; Instruction; Mindset; Public Speaking*

Mindsets are implicit theories about personal attributes that guide individuals in "making predictions and judging the meaning of events in one's world" (Yeager & Dweck, 2012, p. 303). Individuals with *fixed mindsets* perceive personal attributes as largely unchangeable, whereas those with *growth mindsets* describe personal attributes as "things you can cultivate through your efforts" (Dweck, 2006, p. 7). Students with a fixed mindset may think of public speaking as a skill that some people are just born with—or not. Such students may therefore ignore feedback on their performance and

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avoid opportunities to practice and grow. Conversely, students with a growth mindset may see public speaking as a skill they can improve with effort. These students will likely be more persistent, resilient in the face of failure, and welcoming of instruction and feedback.

Importantly, growth mindsets are not only about effort. Students who endorse growth mindsets regarding public speaking should also hold more positive attitudes about their own public speaking. Similarly, their beliefs about the nature and process of public speaking may be more sophisticated and might include transmission, transaction, recursive process, and audience orientation beliefs (see Sanders-Reio, Alexander, Reio, & Newman, 2014). While the communication discipline has very good measures of attitudes toward public speaking, particularly apprehension and self-perceived competence, there is not an existing measure of public speaking mindset, nor the other beliefs mentioned previously. However, such measures have been developed in the cognate discipline of writing studies. Therefore, we set out to adapt these measures for use in the public speaking context and to report the internal consistency of the scores on these measures. Regarding mindset, we also propose the following hypotheses:

H1: Students who express higher growth mindset will demonstrate (a) lower apprehension and (b) higher perceived competence regarding public speaking.

H2: Students who express higher growth mindset will demonstrate (a) lower transmission beliefs, (b) higher transaction beliefs, (c) higher recursive process beliefs, and (d) higher audience orientation beliefs.

Method

Participants

Participants (N = 317; 72% female; M_{age} = 20.54, SD = 3.16) were recruited from a general education public speaking course at a large, urban public research university in the southeastern United States. They received a small amount of extra credit in compensation. Most participants identified as White (60.3%) or Black/African American (27.8%) and reported English as their first/native language (92.7%). The sample included freshmen (19.2%), sophomores (52.7%), juniors (18.6%), and seniors (9.2%).

Measures

In an online survey, participants responded to 61 items using a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The items included two established scales measuring *public speaking apprehension* (six items from the PRCA-24; McCroskey, Beatty, Kearney, & Plax, 1985) and *perceived competence* (19 items from the Self-Perceived Public Speaking Competence Scale; Ellis, 1995).

Five items measuring *public speaking mindset* were adapted from Limpo and Alves (2014), who derived their mindset items for writing based on a scale consisting of three entity (fixed) items developed by Dweck (1999). This scale measures fixed versus

growth mindsets as a continuum, where lower scores (after reverse coding) indicate more agreement with a fixed mindset, and higher scores indicate more agreement with a growth mindset. The items comprising this scale directly measure students' entity self-beliefs, i.e., the extent to which they believe their own public speaking skills are fixed (as opposed to whether public speaking skills are fixed in general). Such self-beliefs have been show to be more predictive of learning outcomes than general beliefs (De Castella & Byrne, 2015).

While it may seem counterintuitive to include only entity (fixed) belief items, and not incremental (growth) belief items, this is consistent with work by Dweck et al. Hong, Chiu, Dweck, Lin, and Wan (1999) discuss in detail the rationale for doing so, based on Dweck's validation studies. The reasons include: (a) incremental/growth items are "highly compelling, and, perhaps, … more socially desirable" (p. 490); (b) participants who disagreed with entity items uniformly "gave clear incremental-theory justifications for their responses" (p. 590); (c) entity and incremental items demonstrate such strongly negative correlations "that disagreement with the entity items does in fact represent agreement with the incremental items" (p. 591). Hong et al. therefore conclude that a short, entity-item survey instrument is an acceptable measure of fixed versus growth mindsets.

Finally, the survey included 31 items adapted from the Beliefs About Writing Survey (Sanders-Reio et al., 2014). These items measured *transmission* (five items, public speaking is primarily a means of transmitting knowledge from expert and authoritative sources), *transaction* (seven items, public speaking is a process that allows speakers to express and understand their own knowledge, feelings, and opinions), *recursive process* (five items, public speaking is an iterative process involving extensive revising and rehearsal), and *audience orientation* (14 items, public speaking should address and adapt to the needs and expectations of the audience). Item order was randomized for each participant.

Results

Prior to analysis, we eliminated from each scale items that demonstrated either no statistically significant correlation to other items or multicollinearity with other items ($r > .90$), suggesting that the items were either unrelated to the scales or highly redundant respectively. We also eliminated items that exhibited nonnormal distributions. With the remaining items, we conducted an exploratory factor analysis using maximum likelihood (ML) with oblimin rotation. The Kaiser-Meyer-Olkin measure and Bartlett's Test of Sphericity both indicated the suitability of the data for ML. Items with low factor loadings (< .45), low communalities extracted (< .30), or that loaded on more than one factor were removed. The ML revealed seven subscales with eigenvalues exceeding 1.0 that explained a cumulative 61.1% of the variance. Lastly, we considered whether the removal of any item increased the reliability of a subscale, and if so, that item was excluded. The final item total was 28 items. Cronbach's alphas

Table 1 Final Scale Items for Mindset (Limpo & Alves, 2014), Apprehension (McCroskey et al., 1985), Beliefs About Public Speaking (Sanders-Rio et al., 2014), and Competence (Ellis, 1995)

Scale	Item	Factor Loading	Alpha
Mindset	My speeches will always be of the same quality, no matter how much I try to improve them.	.85	.82
	No matter how many speeches I give, their quality will always be the same.	.73	
	If I do not speak as well as I want, I can't do much to change it.	.55	
	I can't change how good a public speaker I am.	.64	
Apprehension	I have no fear of giving a speech. (reverse coded)	.82	.79
	Certain parts of my body feel very tense and rigid while I am giving a speech.	.59	
	I feel relaxed while I am giving a speech. (reverse coded)	.72	
	While giving a speech I get so nervous, I forget facts I really know.	.51	
Transmission	The key to successful speaking is accurately summarizing what authorities think.	.97	.66
	The most important reason to give a speech is to report what authorities think about a subject.	.50	
Transaction	Making speeches helps me understand better what I'm thinking about.	.70	.77
	Making speeches helps me see the complexity of ideas.	.68	
	Making speeches helps me articulate new ideas.	.70	
Recursive	A good speech requires intensive rehearsal to improve what has been prepared.	.70	.83
	Good speeches involve much rehearsal and practice.	.80	
	Preparing speeches is a process of reviewing, restating, and rehearsing.	.70	
	The key to preparing a good speech is rehearsal.	.73	
Audience	Good speakers support their points effectively.	.58	.79
	Good speakers adapt their message to their audience.	.50	
	Good speakers keep their audience in mind.	.65	
	Good speakers are oriented toward their audience.	.49	
	Good speakers are audience-friendly.	.64	
	It's important to select the words that suit your purpose, audience, and occasion.	.57	
	Good speakers anticipate and answer their audience's questions.	.60	
Competence	I have difficulty using appropriate gestures. (reverse coded)	.49	.65
	I use appropriate facial expressions.	.49	
	I use language that is extremely clear.	.65	
	I have trouble articulating my words clearly. (reverse coded)	.49	

Note. Scores on the Mindset scale were transformed such that higher scores indicate more growth mindset.

for the seven scales ranged from .65 to .83. Table 1 reports the subscales, items, and reliabilities.

As hypothesized (H1), growth mindset was associated with both lower public speaking apprehension (r = –.18) and higher self-perceived public speaking competence (r = .21). Also as hypothesized (H2), growth mindset was associated with lower transmission beliefs (r = –.25), and higher transaction (r = .29), recursive process (r = .24), and audience orientation beliefs (r = .29). Means, *SD*s, and a complete correlation matrix are presented in Table 2.

Conclusion

This research revealed several interesting preliminary findings regarding college students' public speaking mindset. First, public speaking mindset can be reliably measured via a self-report survey. More importantly, we observed associations between public speaking mindset and other attitudes and beliefs that are consistent with mindset theory. Students with a growth mindset tend to (a) be less anxious about and more confident in public speaking; (b) view public speaking as an activity that involves developing their own thoughts and knowledge as opposed to transmitting other peoples' ideas; and (c) approach public speaking as a process that involves rehearsal and revision along with sensitivity and adaptation to their audience. As a short instrument, instructors may find this measure useful in identifying public speaking students who hold more fixed beliefs about their public speaking skills. Also, researchers who study public speaking instruction can incorporate this instrument into studies (such as this one) that measure multiple constructs without adding an onerous number of items to their surveys. Future research may fruitfully investigate the differences between self- versus general theories about public speaking, and/or develop instruments that measure mindsets about communication skills in other contexts (e.g., group discussion, meetings, and interpersonal conversation, see

Table 2 Correlations, Means, and Standard Deviations for All Measures

	Measure								
Measure	1	2	3	4	5	6	7	*M*	*SD*
1. Growth Mindset	–							3.85	0.91
2. Apprehension	–.18[b]	–						3.67	0.99
3. Transmission	–.25[a]	.04	–					2.80	0.97
4. Transaction	.29[a]	–.19[b]	.13[c]	–				3.63	0.90
5. Recursive	.24[a]	.22[a]	.00	.32[a]	–			4.42	0.63
6. Audience	.29[a]	.09	–.01	.23[a]	.50[a]	–		4.54	0.45
7. Competence	.21[a]	–.44[a]	–.09	.13[c]	–.01	.12[c]	–	3.51	0.72

Note. N = 317. [a]$p < .001$. [b]$p < .01$. [c]$p < .05$.

McCroskey et al., 1985) or constructs (e.g., is verbal aggressiveness fixed or malleable?).

References

De Castella, K., & Byrne, D. (2015). My intelligence may be more malleable than yours: The revised implicit theory of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement. *European Journal of Psychology of Education*, *30*, 245–267. doi:10.1007/s10212-015-0244-y

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychology Press.

Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.

Ellis, K. (1995). Apprehension, self-perceived competency, and teacher immediacy in the laboratory-supported public speaking course. *Communication Education*, *44*, 64–78. doi:10.1080/03634529509378998

Hong, Y., Chiu, C. Y., Dweck, C. S., Lin, D. M., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, *77*, 588–599. doi:10.1037/0022-3514.77.3.588

Limpo, T., & Alves, R. A. (2014). Implicit theories of writing and their impact on students' responses to a SRSD intervention. *British Journal of Educational Psychology*, *84*, 571–590. doi:10.1111/bjep.12042

McCroskey, J. C., Beatty, M. J., Kearney, P., & Plax, T. G. (1985). The content validity of the PRCA-24 as a measure of communication apprehension across communication contexts. *Communication Quarterly*, *33*, 165–173. doi:10.1080/01463378509369595

Sanders-Reio, J., Alexander, P. A., Reio, T. G. Jr.,, & Newman, I. (2014). Do students' beliefs about writing relate to their writing self-efficacy, apprehension, and performance? *Learning and Instruction*, *33*, 1–11. doi:10.1016/j.learninstruc.2014.02.001

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, *47*, 302–314. doi:10.1080/00461520.2012.722805