“Lay Beliefs About Phobias” 25 Years Later: A 2020 Conceptual Replication of Furnham
(1995), on the Development of Phobias

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Abstract

Fears are relatively quick, adaptive responses to environmental stimuli and inner, cognitive events and sensations which allow for one's survival. Some take a more severe form and morph into phobias—extreme fear resulting in functional impairments. While some researchers are concerned with clinical definitions and theories of phobia, others are interested in what the general public believes. Adrian Furnham, in a 1995 study, *Lay Beliefs About Phobias*, was one. Now, based on data collected 25 years later (2020), we report a conceptual replication of this work. Results suggest that people today most concisely believe the development of phobias is predicated on one's personality; traumatic events; psychoanalytic and behavioral-learning associations; genetic and biochemical influences; cognitive style, such as tendencies to catastrophize; and cultural and social factors.

“Lay Beliefs About Phobias” 25 Years Later: A 2020 Conceptual Replication of Furnham (1995), on the Development of Phobias

Fears are relatively quick, adaptive responses to environmental stimuli and inner, cognitive events and sensations which allow for one’s survival. However, some of these fears take a more severe form and morph into phobias—extreme fears towards an object or situation that results in functional impairments (American Psychiatric Association; APA, 2013). Phobia research in psychological science has both depth and breadth. Studies, to showcase a few examples, involve the observation of physio-behavioral responses to specific phobias (e.g. how those afraid of spiders may adapt hyper-vigilant characteristics), while others experiment with possible treatments (Pflugshaupt et al., 2005; Watson, 1971).

Particularly salient within this body of work is research around the types of phobia a person can develop or acquire, as well as the etiology of phobias. Historically, phobias have been interpreted behaviorally (e.g., Fairbrother, 2002; Watson & Raynor, 1920; also see Coelho & Purkis, 2009), in terms of vicarious and information-based learning (Rachman, 1978), psychoanalytically (Compton, 1992a, 1992b; Nemiah, 1981; Spira, 2009), and in cognitive, evolutionary, and biological terms (Coelho & Purkis, 2009; Mineka & Öhman, 2002; Öhman & Mineka, 2001; Poulton & Menzies, 2002a, 2002b). One example is the distinction between social and specific phobias codified within the DSM-5 (APA, 2013). Many perspectives exist and views differ based on the type of phobia being discussed; social phobia, for example, might include biological or life-experiential factors (Wong & Rapee, 2015) while environmental phobias such as those relating to thunderstorms may include cognitive or cultural factors among others (Watt & DiFrancescantonio, 2012; Bolton & Lazzaro, 2021).

Coelho and Purkis (2009) emphasize five of the most contemporary pathways to phobia development. A behavioral perspective, first, ascribes phobia development to the classical conditioning of stimuli. A (no pun intended) classic example comes from the controversial Little Albert study (Watson & Rayner, 1920). In essence, this method of conditioning involves the pairing of a neutral stimuli with one that is unpleasant so that fear of the unpleasant stimulus is then associated with the neutral stimulus. An opposing “Non-association” perspective suggests that fear responses do not need a conditioned association (direct or indirect experience of unpleasant stimulus) in order to elicit a reaction. In other words, those who view a neutral stimulus for the first time without any negative connotations may still be fearful during the first encounter as the result of an instilled fear not built from experience (Coelho & Purkis, 2009). The third pathway, Coelho and Purkis deemed “Preparedness.” Here, phobias arise evolutionarily, through a process of biological survival programming. A fear-based pathway constituting both emotional and cognitive components makes up the fourth proposed pathway. An extension of the evolutionary route, this perspective sees the relatively modern hippocampus collecting emotion-laden cue-consequence relationships which are then cognitively processed through the temporal cortex and confirmed or disconfirmed for automatic, defensive action (Coelho & Purkis, 2009).

Finally, Coelho and Purkis (2009) posit a cognitive pathway for phobia development which maintains the importance of thought processes. While biological preparation and behavioral conditioning are not ruled out as factors for phobia development, the cognitive perspective underlines thought processes as higher in the hierarchy of development. Within this viewpoint, cognitive attributions made about the safety of the stimuli, as well as the perception

of control over the situation, influence phobia development (Coelho & Purkis, 2009; Laposa et al., 2010; Thorpe & Salkovskis, 1995; Turk et al., 2001).

Rationale for the Present Study

While some researchers are concerned with clinical definitions and theories of phobia, others are interested in what the general public believes. Adrian Furnham, in a 1995 study, *Lay Beliefs About Phobias*, considered six academic phobia etiology perspectives which were prevalent at the time. He sought to investigate the extent to which these manifested themselves in everyday, lay-person beliefs. The perspectives include notions that phobias are learned and can result from a frightening experience (behavioral), that phobias develop in early childhood and are symbolic in meaning (psychoanalytic), that some individuals may be more likely to develop a phobia due to their innate configuration (genetic), that phobias are the result of neurological/biochemical differences (biochemical), and the cultural viewpoint that such differences in one's wider societal background influence phobia development and/or resilience.

The Present Study

Given changes in the psychological-educational/academic and popular cultures over the years, and changes in the way psychoanalysis is viewed (e.g., Shedler, 2006), we were curious to attempt replication of Adrian Furnham's (1995) study and observe possible differences in lay-understanding of phobias which might have occurred over time, with a few item statements added to the methodology to broaden some of the originally-studied concepts. Thus, the study reported next reflects a conceptual replication undertaken in 2020.

Method

Participants

Participants in this study were 202 individuals recruited through social media, with Facebook ($n = 79$; 39.1%) and Reddit ($n=67$; 33.2%) most attractive of responses. Participants were young to middle-aged: Seventy-two, or 35%, reported their age as between 18 and 25; 18.8% between 26 and 33; and 12.9% between 34 and 41. Sixty-six individuals (43%) were older than 41. The sample consisted primarily of self-reported women (75.2%; $n=152$). Ethnically, they were largely White (66.85%; $n = 135$). The remainder were Asian (3.5%), African-American (6.4%), Latino/a (6.4%), Hispanic (4.5%), and bi- or multi-racial (7.9%), while the remaining 4.5% did not specify a category.

Most participants lived in the United States (65.8%; $n = 133$), although 4% were from Canada and 11.9% were from the United Kingdom. Thirty-six people (17.8%) reported living in other countries (those reported include 6 from Honduras; 5 each from Australia and The Netherlands; 3 from Germany; 2 each from Denmark and Finland; and 1 each from the Bahamas, Brazil, France, Malaysia, Mexico, Pakistan, and New Zealand). In terms of education, most U.S. participants were current college students (12.4%; $n = 25$) or had completed some college but not a degree, (9.9%) or completed an undergraduate (12.4%) or Associate's degree (4.5%). Fifteen (7.4%) reported only having graduated high school; 18 (8.9%) were currently working on a graduate degree; another 18 had earned a Masters; and 2 (1%) had earned a PhD. Participants mostly lacked formal education in mental health or psychology ($n = 178$; 88.1%). Most did not have phobias themselves ($n=190$; 94%); know someone outside their family with a phobia ($n = 198$; 98%); or have parents who suffered from phobias ($n = 24$; 11.9%). Only 2% ($n = 4$) of those reporting a phobia diagnosis for themselves were currently treating it through psychotherapy.

Procedure

Participants were recruited for an online, Qualtrics-hosted survey which took about 15 minutes to complete. They were asked to respond to simple demographic items (where they learned about the survey; age; gender; ethnicity; country; U.S. state of residence if applicable; highest achieved education level, for U.S. residents only; whether or not they had a formal background in psychology or mental health) and, not analyzed here but archived at the Open Science Framework, or OSF: whether or not they, family, or friends had a diagnosed phobia; their sources of knowledge about phobias; and whether or not they worried about 11 different aspects of daily life, such as climate change, terrorism, crime, or lack of healthcare. Thereafter, following a brief definition of what a phobia is, participants were shown a series of statements on the development of phobias. A second series of statements, concerning the treatment of phobias, is reported elsewhere. Finally, also not included here but available through the OSF, participants were asked via 2 open-ended questions about their personal understanding of phobias (their understanding in Q1 and from where they derived that knowledge in Q2). As we were concerned about comprehension among international participants, we informally piloted the survey to ensure lay-understanding. Data are available online at: <https://osf.io/5rtpn/>

Materials

Assessment of Phobia Development Beliefs. To assess what participants believed about the development of phobias, we used 23 statements Furnham (1995) originated based on clinical psychology and psychopathology textbooks; “popular,” or non-academic books and magazine articles; and interviews with 20 people regarding their knowledge about, experiences with, and general understanding of, phobias. The items themed around behavioral, cognitive, psychoanalytic, genetic, cultural, and biochemical accounts of phobia’s etiology. As mentioned

in the introduction, they loaded in Furnham's study on personality and physical (biochemical and genetic) factors, as well as two which dealt with observational and behavioral pairing-based learning and one which was psychoanalytic (explicitly Freudian) in nature.

To this set we added (see Table 1 below) 7 statements: 2 related to trauma, which we conceived to build on Furnham's idea that phobias may develop randomly due to associative learning; 3 related to psycho-analytic/dynamic processes which were somewhat clearer than Furnham's psychoanalytic items; 1 related to the type of person likely to develop phobias; and 1 relating to the generalizability of phobias. Participants indicated their agreement with these on a scale from 1-5 (*strongly disagree* to *strongly agree*). Note that this is a conceptual, but not direct, replication. Due to a survey error, one item, "People with phobias tend to be timid, shy, and highly irritated people," was misworded from Furnham's study (the item should read "People with phobias tend to be timid, shy, and highly **introverted** people"). Thus, this is a conceptual rather than direct replication.

Table 1. Phobia Development Statements.

1. Phobias develop nearly always after experiencing a frightening or traumatic event.
2. People often learn their phobias from their parents or close family when they are young.
3. We can develop phobias at any point in our lives.
4. We can develop a phobia to absolutely any object or situation.
5. Some phobias develop because we associate nontraumatic objects with traumatic ones (e.g., a person becomes phobic about roses because they were stung by a bee when picking one).
6. People become phobic about certain things (such as snakes and heights) because fear of certain things increases chances of survival.
7. Phobias which develop after just one frightening experience can last for life.
8. Once a person has developed a fear, it can easily generalize to similar objects (e.g., fear of rats leads to fear of all furry objects).
9. Phobias always originate with early childhood experiences.
10. Phobias have symbolic meaning (e.g., fear of snakes may really mean a fear of unconscious sexual feelings).
11. We can inherit phobia from the genes we get from our parents.
12. Our genes affect our personality and can indirectly affect our likelihood to develop a phobia.
13. Our cultural background can affect the likelihood of developing a phobia.
14. Even watching certain films (e.g., Jaws) can make someone phobic.

15. Phobias can be very difficult to cure.
 16. Phobias can disappear suddenly for no apparent reason.
 17. To be phobic about something is often very debilitating with respect to day-to-day life and behavior.
 18. Phobias are caused by a chemical imbalance in the brain which causes the individual to experience an intense phobia.
 19. Phobias are caused by having a particular style of thinking that makes people exaggerate the possibility of harm from certain objects or people.
 20. Nearly everyone has some sort of phobia.
 21. People with phobias are rather dependent, clinging sorts of people.
 22. People with phobias tend to be timid, shy, and highly irritated people.
 23. Women are more likely than men to develop phobias.
 24. Phobias can develop due to traumatic experience. (new item)
 25. Trauma and phobia are strongly associated. (new item)
 26. Phobias develop due to unconscious mental processes of which we are not aware. (new item)
 27. Phobias develop due to unresolved anxieties in a person's life. (new item)
 28. Phobias develop due to suppressed feelings in one's life. (new item)
 29. One has to be a fearful type of person to develop a phobia. (new item)
 30. People are as likely to develop a phobia to spiders as they are to knives. (new item)
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Results

Exploratory factor analyses (EFA) were conducted to examine participant beliefs about the developmental origins of phobias. We used principle axis factoring and varimax rotation for all analyses described hereafter. First, we conducted a full-sample analysis to determine perceptions at the most general level. Following this, we separated participants based on their self-reported formal mental health training status. For each analysis, we report both the initial analysis and then a version which has been reduced to its most interpretable and parsimonious state.

The first full-sample EFA is shown next (Table 2), followed by the final, reduced-item analysis in Table 3. Items were initially deemed suitable for analysis based on the determinant of 2.94×10^{-5} indicating lack of multicollinearity, KMO score of .68, and significant chi-square (Bartlett's test of sphericity, $\chi^2 = 1448.10$, df: 435, $p < .001$).

Table 2. Results of the first factor analysis with all participants.

[illegible]

[illegible]

PHOBIA DEVELOPMENT BELIEFS

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[illegible]

PHOBIA DEVELOPMENT BELIEFS

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29. To be phobic about something is often very debilitating with respect to day-to-day life and behavior.												.487	.359
30. We can develop phobias at any point in our lives.	–	–	–	–	–	–	–	–	–	–	–	–	.231

Eigenvalues Total: 21.14													
% Variance Explained Total: 70.11	16.10	9.51	7.43	6.80	5.77	4.82	4.47	4.34	3.80	3.72	3.35		

Table 2. Results of the final factor analysis with all participants.

First Exploratory Factor Analysis								
Item	Factor Loadings > .4							Communality
	1	2	3	4	5	6	7	
1. People with phobias are rather dependent, clinging sorts of people.	.794							.701
2. People with phobias tend to be timid, shy, and highly irritated people.	.752							.633
3. One had to be a fearful type of person to develop a phobia	.545							.385
4. Women are more likely than men to develop phobias.	.497							.330
5. Phobias always originate with early childhood experiences.	.473							.369
6. Phobias can develop due to traumatic experience		.710						.570
7. Phobias which develop after just one frightening experience can last for life.		.596						.383
8. We can develop a phobia to absolutely any object or situation.		.532						.310
9. Some phobias develop because we associate nontraumatic objects with traumatic ones (e.g., a person becomes phobic about roses because they were stung by a bee when picking one).		.487						.304
10. Trauma and phobia are strongly associated		.408						.529
11. Phobias develop due to unresolved anxieties in a person's life			.886					.823
12. Phobias develop due to suppressed feelings in one's life.			.768					.683
13. People often learn their phobias from their parents or close family when they are young.				.681				.633
14. Phobias develop nearly always after experiencing a frightening or traumatic event.				.638				.586

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15. Our genes affect our personality and can indirectly affect our likelihood to develop a phobia.	.850	.864
16. We can inherit phobia from the genes we get from our parents.	.488	.281
17. Phobias are caused by a chemical imbalance in the brain which causes the individual to experience an intense phobia.	.665	.509
18. Phobias are caused by having a particular style of thinking that makes people exaggerate the possibility of harm from certain objects or people.	.550	.462
19. Our cultural background can affect the likelihood of developing a phobia.		.523 .297

Eigenvalues | Total: 13.747

% Variance Explained Total: 70.11	20.56	11.28	10.31	8.67	7.56	6.24	5.80
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[illegible]

9.	People with phobias are rather dependent, clinging sorts of people.	.786	.596									.557 .789
10.	Phobias always originate with early childhood experiences.		.500					.595				.489 .531
11.	Phobias develop due to unresolved anxieties in a person's life.			.803 .820								.726 .754
12.	Phobias develop due to suppressed feelings in one's life.			.784 .777								.796 .738
13.	We can inherit phobia from the genes we get from our parents.				.646			.504				.449 .288
14.	Our genes affect our personality and can indirectly affect our likelihood to develop a phobia.				.612			.883				.631 .786
15.	Phobias are caused by a chemical imbalance in the brain which causes the individual to experience an intense phobia.				.473			.466				.782 .449
16.	Phobias are caused by having a particular style of thinking that makes people exaggerate the possibility of harm from certain objects or people.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	.455 .495
17.	Phobias can disappear suddenly for no apparent reason.										.401	.408 .386
18.	Phobias develop nearly always after experiencing a frightening or traumatic event.				.695	.787						.700 .610

19. People often learn their phobias from their parents or close family when they are young.			.554	.519					.429		.508 .394
20. Trauma and phobia are strongly associated.		.442	.457	.442	.492						.783 .640
21. Nearly everyone has some sort of phobia.						.716		.449			.679 .582
22. Phobias have symbolic meaning (e.g., fear of snakes may really mean a fear of unconscious sexual feelings).			.502 .422			.553					.703 .490
23. Phobias can be very difficult to cure.	–	–	–	–	–	–	–	–	–	–	.412 .318
24. People are as likely to develop a phobia to spiders as they are to knives.								.565			.359 .355
25. Phobias develop due to unconscious mental processes of which we are not aware.								.448			.577 .451
26. Women are more likely than men to develop phobias.	.617										.402 .447
27. To be phobic about something is often very debilitating with respect to day-to-day life and behavior.								.690	.650		.545 .472
28. Once a person has developed a fear, it can easily generalize to similar objects (e.g., fear of rats leads to fear of all furry objects).					.581						.426 .397

29. Our cultural background can affect the likelihood of developing a phobia.						.663			.847		.754	.533
30. People become phobic about certain things (such as snakes and heights) because fear of certain things increases chances of survival.				.484						-.637	.511	.499
Eigenvalues Total: 21.22												20.43
% Variance Explained	14.82	11.63	8.51	7.14	6.02	5.28	5.01	4.33	4.19	3.80		
Total: 70.73	68.09	15.35	12.46	7.28	6.21	5.77	5.24	4.48	4.19	3.70	3.43	

Table 4. Results of the final factor analysis with participants split based on mental health knowledge. Bolded data indicate participants without knowledge ($n = 178$).

Exploratory Factor Analysis						
Item	Factor Loadings > .4					Communality
	1	2	3	4	5	
1. People with phobias are rather dependent, clinging sorts of people.	.791					.652
	.870					.815
2. People with phobias tend to be timid, shy, and highly irritated people.	.858					.765
	.769					.619
3. Women are more likely than men to develop phobias.	.505					.298
						.310
4. Phobias always originate with early childhood experiences.	.419					.238
	.426					.184
5. Phobias develop due to unresolved anxieties in a person's life.		.954	.786			.626
						.943
6. Phobias develop due to suppressed feelings in one's life.		.728	.859			.810
						.644

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7. Phobias which develop after just one frightening experience can last for life.	.545	.681				.333	.510
8. Phobias can develop due to traumatic experience.	.676	.652				.514	.469
9. We can develop a phobia to absolutely any object or situation.	.451	.545				.242	.390
10. Our genes affect our personality and can indirectly affect our likelihood to develop a phobia.				.755		.666	
				.857			.751
11. We can inherit phobia from the genes we get from our parents.				.509		.271	
				.446			.200
12. Even watching certain films (e.g., Jaws) can make someone phobic.	.623				.633	.521	
							.455
13. Our cultural background can affect the likelihood of developing a phobia.					.900	.841	
					.508		.348

Eigenvalues Total: 8.86 8.85	21.58	16.60	12.00	9.79	8.16
% Variance Explained Total: 68.14 68.05	21.56	15.86	12.61	9.55	8.48

Discussion

Summary

This study investigated lay beliefs about phobias based on the work of Furnham (1995). Whereas that study interpreted results in terms of statistical factor analysis and theoretical thematic analysis, based on expected hypothetical loadings, our analyses focus on similarities and differences between factor structures, comparing the full sample with participants having or not having formal mental health knowledge. We point out occasional items which differ from our theoretical expectations when relevant to the original study.

Initially, for all participants, factor analysis revealed an 11-factor structure to perceptions about phobias. Specifically, participants believed most generally that: phobias develop due to the nature of one's personality (1); that there is an unconscious driving of phobias due to unresolved anxieties and suppressed feelings (2); that phobias can be behaviorally conditioned and that these are often associated with traumatic events (3); that phobias generalize widely (4; also single-item factor 10) and can originate due to a person's cultural background (5); that phobias are genetically heritable (6); that some phobias might be acquired vicariously by way of learning from another person, especially one's parents or guardians in childhood (7); that phobias tend to develop for unconscious, symbolic reasons, and often in childhood with such meanings (8); that biochemical and cognitive style factors play a role in the development of phobias (9); and that phobias tend to have debilitating effects (11). To avoid redundancy and shine a light on what might be considered the most straightforward interpretation of these participant perceptions, the discussion hereafter focuses on the smaller, final factor solution.

Thus, for all participants and focusing on the final analysis (Table 2), the items loaded on seven factors. Factor 1 involved the idea that certain types of people are more likely to form phobias than others, especially women and people who are fearful, clingy, and timid. Factor 2's items represent beliefs that phobias emerge from the association of traumatic events. Items on Factor 3 reflected psychoanalytic beliefs about the development of phobias due to unresolved/unconscious anxieties and suppressed feelings, with Factor 4 focusing the association of phobias with traumatic events; Factor 5 focused on the potential genetic inheritance of phobias from one's parents and the interplay between one's genes and personality in predisposing phobias; and Factor 6 included items about biochemical/neurological differences and particular cognitive styles and tendencies such as catastrophizing. Factor 7, last, was a single item on cultural influences.

While Furnham found eight factors, he only reported five of them due to a scree test suggesting five was better. Comparing our results, we replicated four of Furnham's five themes, if not the exact factor structure. Our data 25 years later thus revealed the same personality factor Furnham found, wherein certain people were believed more likely than others to form phobias based on personal characteristics like timidity ("personality" in Furnham's study). Our Factor 2 was somewhat complex in that it involved both "behavioral pairing" concepts like Furnham's behavioral pairing factor, wherein people pair events but not *necessarily* traumatic ones (e. g., "We can develop a phobia to absolutely any object or situation") with objects and become fearful of them, but also involved associative learning. Furthermore, some of these concepts overlapped with trauma-pairing of phobias, likely because we added trauma-related items (the factor partially comprised our new trauma items as well as Furnham's original). Meanwhile, one other

trauma-associated item, original to Furnham's study ("Phobias develop nearly always after experiencing a frightening or traumatic event"), loaded on our Factor 4, discussed below.

Our Factor 3 replicated Furnham's "Freudian" 5th factor and included similar items surrounding unconscious anxieties and unresolved issues. Furnham's Freudian factor, surprisingly however, only included one item that would be considered traditionally psychoanalytic ("Phobias have symbolic meaning [e. g., fear of snakes may mean a fear of unconscious sexual feelings]). In contrast, the other item ("We can develop phobias at any time of our life") was not very Freudian considering how much of the developmental process Freud placed at five years old and younger (Freud, 1905). Our data (see Table 2) originally revealed two psychoanalytic factors—one regarding the unconscious suppression of emotions (2), and one focused on symbolism (8), as in Furnham's study—but the final analysis revealed only seven factors with the symbolic factor removed. Our Factor 4 involved a theme of childhood vicarious traumatization and acute onset of phobias after the experiencing of frightening or traumatic events. We interpreted this as suggesting children often or typically develop phobias due to social or informational learning-about from their parents.

We also replicated Furnham's "physical" factor with our Factor 5, involving chemical imbalances and thinking styles, which included two items specifically involving genes. Furnham's "physical" factor included three items centered around genetic heritability as well as biochemical influences. With the exception of our single-item factor (Factor 7) involving cultural influences, which for Furnham loaded with a much wider variety of causes, such as watching films, and which he labeled "observational learning," our final analysis did not uncover a similar factor involving observational learning. This seems surprising, as observation is one way of

forming phobias that has been popularized by media and observed in recent research (e.g., Baker, 2021; Heathman, 2017; Selbing & Olsson, 2019).

One of Furnham's goals was to examine demographics' relationships with phobia beliefs, and we had enough people in our sample with at least some knowledge of psychological concepts ($n = 24$) that we were able, preliminarily, to compare these groups. Using "familiarity with psychology," through formal college or other mental health training courses, as a grouping variable, we divided the analysis (see Table 4) and revealed interesting differences between those with and without formal knowledge about mental health and/or psychology.

Sample Split by Mental Health Knowledge

The final analysis including those with *and without* knowledge once again demonstrated the personality factor we, and Furnham, initially discovered in our overall samples. This finding clearly reflects the cultural embeddedness of this idea, which has maintained over time. Importantly, those with knowledge did not identify (i.e., the item loading was less than .4) women as more likely to develop phobias than men, suggesting that this is a stereotype for those without formal psychological knowledge. Factor 2 among those with knowledge (which was Factor 3 for those without), included a mixture of beliefs about single-trial phobic learning for frightening experiences, cultural influence (including movies), and generalizability of phobias. Factor 2 among those *without* knowledge (which was Factor 3 for those with knowledge) included psychoanalytic beliefs that phobias develop due to unresolved anxieties or suppressed feelings in one's life. Both Factors 4 revolved around genetic influences, while Factor 5 included broad cultural background for those with knowledge and cultural as well as traumatic associative learning for those without psychology knowledge. Thus, most straightforwardly, those with and

without knowledge appear to share some consistent notions of phobia origin, and some of these people are more likely than others to differentially develop phobias due to certain influences and exposures. While tentative due to our small sample size, these differences are theoretically interesting and warrant further, more nuanced investigation.

Limitations and Recommendations for Future Work

As with all self-report studies, this one has several limitations. In addition to the typical concerns of participant honesty, attention, and accurate understanding of the items (Kreitchmann et al., 2019), one item was misworded (introverted was accidentally replaced with irritated), making this a conceptual rather than a full replication. One important consideration is that some of the items could have multiple interpretations based on their specific phrasing, and certain factors might be differentially interpreted.

Thus, further refinement of the perception item set might be useful and future research could address this from a variety of angles and perspectives. In terms of demographics, most of the sample was educated, at least generally if not in psychology, although again, there were enough participants to examine cross-group differences in knowledge (11.9% of the sample or $n = 24$, so this analysis should be taken cautiously). Furthermore, they were mostly American and mostly White. Thus, a larger and more diverse sample should be recruited for future research in this area. In particular, future research should investigate perceptual/knowledge differences between those with and without psychological knowledge more thoroughly. These differences might also be associated with individual differences in Big Five personality dimensions (e.g., Swami et al., 2011).

Conclusions

The study reported here is not without limitations, but it provides on one hand an updated look at cultural perceptions of phobias and on the other a preliminary look at the differences in phobia perception between those with and without formal knowledge of psychology and mental health. We found that, for the most part, perceptions on the development of phobias have not much changed in 25 years, from 1995 to 2020. That is to say, based on our conceptual replication of Furnham (1995), people today most concisely believe that the development of phobias is predicated on one's personality; traumatic events; psychoanalytic and behavioral-learning associations; genetic and biochemical influences; cognitive style, such as tendencies to catastrophize; and cultural and social factors. Many of our results—4 of 5 possible, overarching themes—reflect Furnham's (1995) original findings.

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