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Positive Emotions and Social Anxiety: The Unique Role of Pride

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Abstract

Social anxiety is correlated with diminished *global* positive affect (PA). However, it is not clear from the data whether this relationship is due to global PA, or to specific emotions such as joy or pride. We hypothesized that pride will account for most of the relationship between social anxiety and PA after controlling for depression. Results of Study 1 (N = 352) supported the hypothesis that when pride and PA were in the same model, only pride was significantly related to social anxiety. The same pattern was found when pride and joy were in the same model. When multiple facets of positive emotions (pride, love, joy, contentment, amusement, awe and compassion) were in the same model, only pride and love were significantly related to social anxiety. Results of Study 2 (N = 288) replicated the findings that only pride was significantly related to social anxiety, but counter to our hypothesis, revealed that pride *experience* was significantly related to social anxiety more than reported *expressions* of pride. Study 3 extended these findings to a clinical, treatment seeking sample of 23 patients diagnosed with generalized social anxiety disorder and 35 low-anxious controls. When predicting group (patients vs. non-patient) by pride and PA, only pride was a significant predictor. Pride continued to be a predictor when controlling for either fear of positive or negative evaluation. Thus, all three studies demonstrated the importance of the specific experience of pride in its relationship to social anxiety.

Keywords Pride · Social anxiety disorder · Positive affect · Positive emotions · Joy

Social anxiety is a persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or possible scrutiny by others (DSM-5; American Psychiatric Association 2013). A unique characteristic of social anxiety is its negative association with positive affect in comparison to other anxiety disorders (Watson et al. 1988). This relationship is maintained even when controlling for depression (Kashdan 2007). However, there is little information about what factors contribute to this unique relationship and, moreover, whether this effect is true for global positive affect or only for specific positive emotions.

There are few studies that try to explain why people who are high in social anxiety experience less positive affect. Kashdan and Breen (2008) found that the relationship between social anxiety and positive affect was moderated by the tendency to suppress emotions. Alden et al. (2008) found that negative interpretations of positive social events

partially mediated the negative correlation between positive affect and social anxiety. Similarly, another study found that less positive interpretations of ambiguous social events (but not presence of negative interpretations) partially mediated the relationship between social anxiety and positive affect (Cohen et al. 2011).

Most published studies examining the relationship between social anxiety and positive affect consider positive affect as a global, unidimensional factor and do not consider specific, positive emotions. Recently, a discrete emotion approach has been suggested for positive emotions (Shiota et al. 2017), arguing that there is a significant lack of research examining differentiation between discrete positive emotions compared to research on discrete negative emotions. This approach is derived from theoretical views that contend that we should consider specific positive emotions and their relation to behavior and psychopathology and not only global broad, valence-oriented dimensions such as positive affect (Lerner and Keltner 2000; Shiota et al. 2017). Moreover, using positive affect as a global factor refers only to the valence aspect of positive affect (i.e. global pleasantness feeling), and there is evidence that different positive

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emotions of the same valence lead to different and even to contrasting effects on judgment and choice (Oveis et al. 2010). For example, Katzir et al. (2010) found that imagining events that elicit happiness versus pride differentially affected cognitive inhibition, a mechanism enabling self-control. In addition, there are some preliminary reports that various facets of positive affect (such as pride or joy) are differentially related to depression or mania (Gruber et al. 2011; Gruber and Johnson 2009).

A specific positive emotion that is likely to be central to social anxiety is pride. Pride is a self-conscious emotion and inherently involves evaluation of the self (Tracy et al. 2010). Individuals feeling pride display a distinct body posture, which is part of the evidence that leads some researchers to claim that pride is a basic emotion (Tracy and Robins 2004). Pride is a social emotion by nature, and the self-evaluation of pride happens in social context. It involves an evaluation of the self compared to others in terms of actions that are socially valued (Williams and DeSteno 2008). For example, an individual will feel pride when she succeeds in a socially valued task such as winning a sport game or getting an academic degree. Theoretically, one of the main functions of pride is to transform socially valued gains into claim for higher social status (Tracy et al. 2010). Pride functions to facilitate public displays that draw attention to oneself and increase one's social standing (Griskevicius et al. 2010). Empirically, it has been found that pride expressions are perceived as a sign of high social status and influence (Shariff and Tracy 2009; Williams and DeSteno 2009). According to these theories and data, pride is a distinct emotion that is likely related to factors such as assertiveness and self-esteem. The former is considered a correlated behavioral and the latter is a self-construct related to the emotion, but not redundant with it (Tracey et al. 2010). Even though there are some controversies in terms of the functions and facets of pride (Holbrook et al. 2014), there is some consensus that one major function of pride is to promote or maintain one's social rank.

According to Social Rank Theory (Gilbert 2000, 2001), emotions and moods are significantly influenced by the perceptions of one's social rank, which is the degree to which one feels inferior to others and looked down on. In many social situations, people who are high in social anxiety, locate themselves in inferior positions, believe they will be looked down on and behave submissively. Empirically it was found that social anxiety is related to sense of belonging to low social rank (inferiority) and to submissive behaviors (Gilbert 2000). In many ways, pride leads to the opposite consequences of social anxiety. Pride leads the person to highlight oneself in a social interaction, to claim high social rank and to call attention to oneself, whereas social anxiety leads the person to hide oneself as much as possible in a social situation, and to try to deflect the attention away from

oneself. Tracy and Robins (2007a) differentiated between two aspects of pride, authentic pride which emerges as a result of specific gains and is usually accompanied by a sense of self-worth and hubristic pride which is more loosely tied to actual gains and typically involves distorted and self-aggrandized self-views. In the current study, we predict that only authentic pride will be (negatively) related to social anxiety. We view hubristic pride as an unrelated construct, more related to narcissistic personality characteristics (Tracy et al. 2009) or to a belief that one has over-displayed pride (Holbrook et al. 2014).

A significant amount of the literature on social anxiety and positive affect has implied that the central facets explaining the negative correlation between positive affect and social anxiety are lower joy or happiness (e.g., Kashdan 2007). Joy is a high-arousal emotion felt when the environment signals an imminent improvement in resources. Joy has received the most research attention of the positive emotions including facial expressions, neurological correlates and cognitive effects (Shiota et al. 2006). Thus, two questions were addressed in the current study. The first was: does pride account for the relationship between global positive affect and social anxiety?[1] The second was: given that most researchers describe global positive affect in terms of joy, does pride account for the relationship between joy and social anxiety?

In conclusion, it is important to explore if it is the specific positive emotion of joy that underlies the relationship between low positive affect and social anxiety or whether pride or other affiliative, positive emotions underlie this relationship (either in addition to or instead of joy). In the present research, we designed 3 studies to examine the role of pride in social anxiety. Study 1 was a cross-sectional research design, exploring the relationship between social anxiety and pride and global positive affect and joy in the general population. This study is a first step in understanding whether the apparent global positive affect deficit in individuals high in social anxiety can be accounted for by a more specific deficit in pride. The aim of Study 2 was to further explore the relationship between pride and social anxiety by differentiating between the *experience* of pride and the reported *expression* of pride. Social expression is not trivial for those who are high on social anxiety, and it is important to clarify whether it is the experience of pride or the expression of pride which is most connected to social anxiety. Social anxiety is not only a continuum, but also a

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[1] Given that one explanation of the relationship between lower positive affect and social anxiety is due to negative response bias, the overlap with negative affect, or depression itself, all regression analyses conducted included depression as the first step in the regression in order to control for these factors.

clinical disorder: social anxiety disorder (SAD). There is initial evidence that participants who are diagnosed with SAD experience low levels of global positive affect in comparison with non-clinical controls (Farmer and Kashdan 2014). The aim of Study 3 was to explore the role of pride and positive affect in SAD.

Study 1

We hypothesized that: (1) The specific emotion pride, but not the global tendency for positive affect, would be related to social anxiety when both were entered simultaneously in a model; (2) When contrasting pride and joy, only pride would be related to social anxiety, whether or not positive affect was included in the model; (3) Pride would be most related to social anxiety even when other specific positive emotions were present in the model. In addition, although we had no strong hypothesis, we also examined whether joy would account for the relationship between positive affect and social anxiety. Given that no study to date has reported on the relationship between a range of specific positive emotions and social anxiety, we examined the relationship of six facets of positive affect as measured by the Dispositional Positive Emotion Scales (DPES; Shiota et al. 2006): joy, contentment, amusement, awe, compassion and love. However, beyond the specific hypothesis that pride more than other positive emotions would be most related to high social anxiety, we did not make specific predictions regarding other specific, positive emotions because we did not have a strong theoretical or research-based rationale to do so. All analyses were conducted by examining these relationships after controlling for depression.

Method

Participants

Participants were 352 undergraduate students at The Hebrew University of Jerusalem (28% male and 72% female).[2] The average age was 24 (SD = 3). All participants were fluent Hebrew speakers.

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[2] Given the unequal proportion of males and females in Study 1 and Study 2, we entered gender as a covariate in all analyses along with depression. When doing so, gender was not a significant predictor and all findings remained essentially the same.

Measures

Social Phobia Inventory (SPIN; Connor et al. 2000)

The SPIN is a 17-item self-report questionnaire that assesses the spectrum of fear, avoidance and physiological symptoms of social anxiety. The questionnaire shows good test–retest stability, internal consistency, convergent and discriminant validity among adults (Connor et al. 2000). The SPIN uses a 5-point Likert scale ranging from 0 (not at all) to 4 (very much). The general score was produced by summing up all 17 items, with final scores ranging from 0 to 68 (Cronbach's $\alpha = 0.92$).

Authentic and Hubristic Pride Scales (AHPS; Tracy and Robins 2007a)

The AHPS consists of adjectives and phrases reflecting trait authentic pride (7 items, e.g., "achieving," "fulfilled," "productive") and reflecting trait hubristic pride (7 items, e.g., "arrogant," "conceited," "pompous," "smug"). The scale usually uses a 5-point Likert scale, but in this study we used a 7-point scale ranging from 1 (not at all) to 7 (very much) in order to increase sensitivity of the scale. Two final scores were produced by averaging separately the 7 items of authentic pride (Cronbach's $\alpha = 0.88$) and the 7 items of hubristic pride (Cronbach's $\alpha = 0.88$).

Dispositional Positive Emotion Scales (DPES; Shiota et al. 2006)

The DPES is a 38 item self-report instrument assessing 7 distinct trait positive emotions: joy (Cronbach's $\alpha = 0.89$), contentment (Cronbach's $\alpha = 0.89$), amusement (Cronbach's $\alpha = 0.72$), awe (Cronbach's $\alpha = 0.70$), pride (Cronbach's $\alpha = 0.74$), compassion (Cronbach's $\alpha = 0.72$) and love (Cronbach's $\alpha = 0.76$). Each distinct emotion is assessed using 5 or 6 items. The items were rated on a 1 (strongly disagree) to 7 (strongly agree) scale. Every specific emotion score is produced by averaging all of its items.

Positive and Negative Affect Schedule (PANAS; Watson et al. 1988)

The PANAS is a widespread self-report measure that measures level of positive affect and negative affect. The subscales show high internal reliability, and a good convergent and discriminant validity (Watson et al. 1988). The PANAS scales use a 5-point Likert scale, ranging from 1 (not at all) to 5 (very much), describing how one felt in the last week. In this study, we calculated the positive affect sub-scale when excluding the item "pride" and summed the remaining nine

Table 1 Zero-order correlations among positive emotions and symptoms in Study 1

	Mean (SD)	SPIN	BDI-II	Pride (Authentic)
SPIN	21.06 (12.73)			
BDI-II	9.90 (8.04)	0.44***		
Pride (Authentic)	4.42 (0.97)	− 0.44***	− 0.57***	
PANAS-P (without pride)	29.73 (4.86)	− 0.22***	− 0.35***	0.57***
Pride (Hubristic)	2.79 (1.06)	0.07	0.04	0.25***
Joy	4.33 (1.07)	− 0.34***	− 0.43***	0.56***
Love	4.41 (0.98)	− 0.32***	− 0.32***	0.40***
Compassion	5.03 (0.96)	0.00	0.00	0.05
Awe	4.16 (0.89)	− 0.20***	− 0.29***	0.47***
Amusement	4.18 (0.95)	− 0.14***	0.00	0.21***
Contentment	4.36 (1.10)	− 0.38***	− 0.64***	0.70***

SPIN = Social Phobia Inventory. BDI-II = Beck Depression Inventory. Pride (Authentic) and Pride (Hubristic) = Authentic and Hubristic Pride Scales. PANAS-P (without pride) = Positive and Negative Affect Scale – positive scale without pride item. Joy, Love, Compassion, Awe, Amusement, Contentment – subscales of the DPES = Dispositional Positive Emotion Scales

***$p < .001$

items, in order to reduce the overlap in the items defining the constructs of pride and positive affect (Cronbach's α = 0.74).

Beck Depression Inventory-II (BDI-II; Beck et al. 1996)

The BDI-II is a 21-question multiple-choice self-report inventory. This questionnaire is one of the most widely used instruments for measuring the severity of depression. Every question has 4 options, ranging from 0 to 3. The general score is produced by summing up all 21 items, with the final scores ranging from 0 to 63 (Cronbach's α = 0.89).

Procedure

All scales were translated into Hebrew by the first author and were back translated to English by a volunteer native English Speaker. Any inconsistencies were finalized by group consensus of the authors. All measures were administered online. Half of the participants first completed the symptoms scales (SPIN, BDI) followed by the emotions scales (DPES, Authentic and Hubristic Pride, PANAS). The other half of participants completed the questionnaires in the opposite order. When using order as an additional factor in all analyses, interacting with other predictors, the results were similar or even stronger. Therefore, results without the order variable are reported below. Approximately 30% of individuals received course credit for their participation and the remainder received a chance to win 200 NIS (approximately $60).

Statistical Analysis

All analyses were conducted using SPSS v20, with regressions or zero-order Pearson correlations. For all analyses using pride as a variable, we used the Authentic Pride subscale of the Authentic and Hubristic Pride Scales. In Study 1, results were equivalent when using the DPES pride subscale in all social anxiety analyses. Given the sample size and number of analyses conducted, we established α < 0.01 as our criteria for significance.

Results

Table 1 shows the zero-order correlations among the main variables of interest. In addition, pride as measured by The Authentic and Hubristic Pride Scales was highly correlated with the DPES pride (r (352) = 0.74, $p < .001$), whereas hubristic pride was not significantly correlated with DPES pride (r (352) = 0.09, $p = .08$). The correlation between positive affect and joy was strong (r (352) = 0.62, $p < .001$), suggesting that they are overlapping but independent.

The first hypothesis was that pride, but not the global tendency for positive affect, will have a unique contribution in predicting social anxiety even after controlling for depression. In order to examine this hypothesis, a hierarchical regression was conducted. In this analysis, social anxiety was predicted by depression in Step 1, global positive affect (excluding pride) was added to the model in Step 2, and pride was added in Step 3. Table 2 provides the regression coefficients.

As shown in Table 2, depression contributed significantly to the regression model in Step 1 (F (1,350) = 85.84, $p < .001$) and accounted for 19% of the variance in social anxiety. Adding positive affect to the model explained an additional 1% of variation in social anxiety in Step 2 but this change in R^2 was not significant (F (1,349) = 2.41, $p = .12$). Finally, adding pride to the regression model in Step 3 explained an additional 4% of the variation in social anxiety

Table 2 Hierarchical regression coefficients to predict social anxiety by depression, positive affect (Steps 2a & 3a) joy (Steps 2b & 3b) and pride in Study 1

	Predictor	B	β	R^2	ΔR^2	ΔF
Step 1	BDI-II	0.70	0.44***	0.19	0.19	85.84***
Step 2a	BDI-II	0.66	0.42***	0.20	0.01	2.41
	PANAS-P (without pride)	−0.20	−0.08			
Step 3a	BDI-II	0.46	0.29***	0.24	0.04	21.82***
	PANAS-P (without pride)	0.12	0.05			
	Pride	−3.93	−0.30***			
Step 2b	BDI-II	0.58	0.37***	0.22	0.03	11.85**
	Joy	−2.13	−0.18**			
Step 3b	BDI-II	0.43	0.27***	0.25	0.03	14.12***
	Joy	−1.07	−0.09			
	Pride	−3.05	−0.23***			

BDI-II = Beck Depression Inventory. PANAS-P (without pride) = Positive and Negative Affect Scale—positive scale without pride item. Pride = Authentic and Hubristic Pride Scales-only authentic pride. Joy—DPES = Dispositional Positive Emotion Scales

**p < .01; ***p < .001

and this change in R^2 was significant (F (1,348) = 21.82, $p < .001$). Step 3 revealed that in the presence of positive affect (and depression), pride is a significant predictor of social anxiety whereas positive affect is not. Thus, although there is a significant, negative zero-order correlation between positive affect and social anxiety, pride and depression appear to be largely responsible for this relationship. Overall, the model with depression, positive affect and pride explained significantly 24% the variance of social anxiety ($R^2 = 0.24$, F (3,348) = 38.57, $p < .001$). Examination of the model diagnostics suggested that there was not a problem with multi-collinearity (for all variables, tolerance > 0.50, VIF < 2).

The second hypothesis was that pride, but not joy, will have a unique contribution in predicting social anxiety. In order to examine this hypothesis, a hierarchical regression was conducted. In this analysis depression in Step 1 and joy in Step 2 and pride in Step 3 were the predictors and social anxiety was the predicted variable. Table 2 provides the regression coefficients.

As shown in Table 2, depression contributed significantly to the regression model in Step 1 (F (1,350) = 85.84, $p < .001$) and accounted for 19% of the variance in social anxiety. Adding joy to the model explained an additional 3% of variation in social anxiety in Step 2 and this change in R^2 was significant (F (1,349) = 11.85, $p < .01$). Finally, adding pride to the regression model in Step 3 explained an additional 3% of the variation in social anxiety and this change in R^2 was significant (F (1,348) = 14.12, $p < .001$). When simultaneously examining depression, joy and pride in the model, only pride and depression have significant, unique contributions to predict social anxiety. Therefore, whereas there is a significant, negative zero-order correlation between joy and social anxiety, pride appears to be

largely responsible for this relationship. Overall, the model with depression, joy and pride explained significantly 25% the variance of social anxiety ($R^2 = 0.25$, F (3,348) = 39.42, $p < .001$). Examination of the model diagnostics suggested that there was not a problem with multi-collinearity (for all variables, tolerance > 0.50, VIF < 2).

The third hypothesis was that pride will have the highest unique contribution in predicting social anxiety compared to other six specific positive emotions (joy, contentment, amusement, awe, compassion and love), even after controlling for depression. Table 1 shows the zero-order correlations between each of the specific positive emotions and social anxiety as well as depression.

In order to examine the third hypothesis, a hierarchical regression was conducted. In this analysis depression in Step 1 and pride, joy, contentment, amusement, awe, compassion and love in Step 2 were the predictors and social anxiety was the predicted variable. The regression revealed that depression contributed significantly to the regression model in Step 1 (F (1,350) = 85.84, $p < .001$) and accounted for 19% of the variance in social anxiety. Adding pride, joy, contentment, amusement, awe, compassion and love to the model explained an additional 7% of variation in social anxiety in Step 2 and this change in R^2 was significant (F (7,343) = 5.74, $p < .001$). Overall, the model with depression, pride, joy, contentment, amusement, awe, compassion and love explained significantly 26% the variance of social anxiety ($R^2 = 0.26$, F (8,343) = 16.77, $p < .001$). When simultaneously examining all positive emotions in the model after controlling for depression, only pride ($\beta = -0.25$, $p < .001$; $sr^2 = 0.03$) and love ($\beta = -0.17$, $p < .001$; $sr^2 = 0.02$) had significant, unique contributions to predict social anxiety. These results supported the hypothesis that pride is a major specific positive emotion in predicting social anxiety when

compared to other positive emotions. Examination of the model diagnostics suggested that there was a problem with multi-collinearity for joy and contentment (tolerance < 0.25, VIF > 4). When either was removed from the model, the model for pride and love did not change significantly.[3]

Discussion

Results from Study 1 suggest that pride has a central role in social anxiety. Pride was an important predictor of social anxiety compared to global positive affect and compared to specific positive emotion such as joy and compared to several specific positive emotions: joy, contentment, amusement, awe, and compassion. These results help us to better understand the already established negative correlation between social anxiety and positive affect (Kashdan 2007). The meaning of the findings is that people who are socially anxious are not just generally less happy than others, but they have a specific impairment in a domain of positive affect: their sense of pride. The next study was developed to better understand the negative correlation between pride and social anxiety, by asking whether the crucial aspect in its relationship with social anxiety is the *experience* of or the reported *expression* of pride.

Study 2

Study 2 was developed to better understand the negative correlation between pride and social anxiety, by asking whether the crucial aspect in its relationship with social anxiety is the *experience* of or the reported *expression* of pride. One of the common distinctions in emotion research is the differentiation between the *experience* of emotion versus its *expression*. Emotional expression has been scientifically researched long ago (Darwin 1872/1998) and is defined as "the behavioral changes that usually accompany emotion including the face, voice, gestures, postures and body movement" (Gross et al. 2000, p. 712). A person can experience an emotion, but not necessarily express it. Therefore, when a correlation exists between a specific emotion and another variable, one important question that arises is whether this correlation is due to the experience of that emotion or due to expression of it. Most studies that examined the correlation between social anxiety and diminished positive emotions in general focused on the *experience* of positive emotions (see

above), whereas few examined the *expression* of positive emotions. The aim of Study 2 was to broaden our understanding of the results of Study 1, by examining whether the relationship between pride and social anxiety is due to the *experience* of pride or is it due to the reported *expression* of pride.

Another important distinction is between expressions of negative emotions versus positive emotions. In a pilot study on social anxiety, we found that although general reported positive emotion expression and general reported negative emotion expression are positively correlated (r = .55), only reported positive emotion expression had a unique contribution in predicting social anxiety (Cohen and Huppert 2012). Given that the experience of pride has a unique contribution in predicting social anxiety (Study 1) and given that reported positive emotion expression also appears to have a unique contribution in predicting social anxiety, the question is whether the correlation that was found in Study 1 between pride and social anxiety can be understood better by the tendency to express pride or by the tendency to experience pride.

The experience–expression distinction can be very important in pride, because there are instances when a person feels intense pride but does not display it (Sullivan 2010). Expressing pride can be much more challenging for people who are socially anxious because expressing pride is typically a declaration of high social status, an act that people with social anxiety likely try to avoid (Gilbert 2001). Therefore, even if a person with social anxiety feels pride, she may not express it.

We hypothesized that: (1) as in Study 1, the specific emotion pride, but not the global tendency for positive affect, would be related to social anxiety when both were entered simultaneously in the same model, after controlling for depression; (2) When entering reports of expression and experience of pride simultaneously in a model, reported expression of pride would have a unique contribution in predicting social anxiety.

Method

Participants

Participants were 288 undergraduate students at The Hebrew University of Jerusalem (33% male and 67% female). The average age was 26 (SD = 3.66). All participants were fluent Hebrew speakers.

Measures

As in Study 1, we administered the Social Phobia Inventory (SPIN; Connor et al. 2000; Cronbach's α = 0.91), The

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[3] When conducting multiple regression with all of the facets of the DPES predicting depression, it was found that contentment was the strongest significant predictor ($sr^2 = 0.11$) followed by pride ($sr^2 = 0.02$), joy ($sr^2 = 0.01$), and compassion ($sr^2 = 0.01$).

Table 3 Zero-order correlations between all the research variables in Study 2

	M (SD)	SPIN	Pride	PEQ	PANAS-P
Pride	4.25 (0.97)	− 0.47***			
PEQ	4.60 (0.97)	− 0.19**	0.38***		
PANAS-P (without pride)	32.50 (5.50)	− 0.38***	0.58***	0.34***	
DASS—Depression	1.62 (0.59)	0.43***	− 0.45***	− 0.20***	− 0.36***

Pride = Authentic and Hubristic Pride Scales-only authentic pride. PEQ = Pride Expression Questionnaire. PANAS-P (without pride) = Positive and Negative Affect Scale—positive scale without pride item. DASS = Depression Anxiety Stress Scale—depression subscale. SPIN = Social Phobia Inventory

**p < .01; ***p < .001

Authentic and Hubristic Pride Scales—(AHPS; Tracy and Robins 2007a; but only the authentic pride sub-scale—Cronbach's $\alpha = 0.87$), and The Positive and Negative Affect Schedule (PANAS; Watson et al. 1988; only the positive affect subscale excluding the "pride" item—Cronbach's $\alpha = 0.78$). The participants described how they felt in the last week.

Depression Anxiety Stress Scale (DASS-21; Lovibond and Lovibond 1995)

The DASS-21 is a 21 item self-report questionnaire that assesses symptoms of depression, anxiety, and stress. In this study we used only the depression subscale (Cronbach's $\alpha = 0.90$). This subscale is a four items Likert scale ranging from 0 (not at all) to 3 (most of the time). An example of an item used in this scale is "I felt downhearted and blue."

Pride Expression Questionnaire (PEQ)

This questionnaire is a 10 item self-report questionnaire that assesses the level of expression of pride. The questionnaire was developed for this research by the authors (see "Appendix"). The items reflect the extent of pride that an individual is willing to express (e.g., "When, I feel proud, I show it." "You can see it on me when I feel good about myself.", and reversed "When I accomplish something, I keep it to myself."). The scale uses a 7 points Likert scale from 1 (not at all) to 7 (totally true). The scale is scored by taking the average of the 10 items.

Factor Analysis The ten items of the PEQ were examined for its factor structure. Communalities were all above 0.3, suggesting that each item shared some common variance with other items. In addition, the Kaiser–Meyer–Olkin measure of sampling adequacy was 0.91, above the commonly recommended value of 0.50, and the Bartlett's test of sphericity was significant (χ^2 (45) = 1736.5, p < .001). These results suggested that all 10 items were suitable for factor analysis. Because we did not have any hypothesis regarding factors of the PEQ, we did an exploratory factor analysis. We used

principal component analysis with Varimax rotation. Parallel analysis (Horn 1965) suggested a single factor solution. The internal consistency of the PEQ was high (Cronbach's $\alpha = 0.90$). The total score in this sample ranged from 1.44 to 7.00, with a mean of 4.60 and SD of 0.98.

Procedure

All scales (except the Pride Expression Questionnaire) were translated into Hebrew by the first author and were back translated to English by a volunteer native English Speaker. Any inconsistencies were finalized by group consensus of the authors. All measures were administered online. The participants received a chance to win 150 NIS (approximately $45).

Results

Table 3 shows the zero-order correlations among the main variables of interest. The first hypothesis was a replication hypothesis that pride, but not the global tendency for positive affect, will have a unique contribution in predicting social anxiety. In order to examine this hypothesis, a hierarchical regression was conducted. In this analysis depression in Step 1, global positive affect (excluding pride) in Step 2 and pride in Step 3 were predictors and social anxiety was the predicted variable.

The regression analysis revealed that depression contributed significantly to the regression model in Step 1 (F (1,286) = 65.65, p < .001) and accounted for 18% of the variance in social anxiety. Adding positive affect to the model explained an additional 6% of variation in social anxiety in Step 2 and this change in R^2 was significant (F (1,285) = 22.46, p < .001). Finally, adding pride to the regression model in Step 3 explained an additional 5% of the variance in social anxiety and this change in R^2 was significant (F (1,284) = 19.66, p < .001). Step 3 revealed that even in the presence of depression (which remained significant), pride is a significant predictor of social anxiety whereas positive affect is not, and the unique contribution of pride

Table 4 Hierarchical regression coefficients to predict social anxiety by depression, pride and pride expression in Study 2

	Predictor	B	β	R^2	ΔR^2	ΔF
Step 1	DASS—Depression	8.56	0.43***	0.18	0.18	65.65***
Step 2	DASS—Depression	5.39	0.27***	0.28	0.10	39.03***
	Pride	− 4.26	− 0.35***			
Step 3	DASS—Depression	5.39	0.27***	0.28	0.00	0.00
	Pride	− 4.24	− 0.35***			
	PEQ	− 0.06	− 0.00			

DASS = Depression Anxiety Stress Scale—depression subscale. Pride = Authentic and Hubristic Pride Scales-only authentic pride. PEQ = Pride Expression Questionnaire

***$p < .001$

to predict social anxiety ($\beta = − 0.29$, $p < .001$; $sr^2 = 0.05$) is larger than the contribution of positive affect ($\beta = − 0.12$, $p < .05$; $sr^2 = 0.01$). Overall, the model with depression, positive affect and pride explained significantly 29% the variance of social anxiety ($R^2 = 0.29$, $F (3,284) = 39.60$, $p < .001$). Examination of the model diagnostics suggested that there was not a problem with multi-collinearity (for all variables, tolerance > 0.50, VIF < 2).

The zero order correlation between positive affect and social anxiety was substantially larger than that found in Study 1 and was reduced significantly when pride was in the same model. However, in contrast to Study 1, there was a trend of positive affect continuing to predict social anxiety when pride was entered in the model. Therefore, pride appeared to account for a significant amount of variance of the relationship between social anxiety and positive affect, though not all of it.

The second hypothesis was that reported pride expression, but not pride experience, will have a unique contribution in predicting social anxiety. In order to examine this hypothesis, a hierarchical regression was conducted. In this analysis depression in Step 1, pride experience in Step 2 and pride expression in Step 3 were the predictors and social anxiety was the predicted variable.

As shown in Table 4, depression contributed significantly to the regression model in Step 1 ($F (1,286) = 65.65$, $p < .001$) and accounted for 18% of the variance in social anxiety. Adding pride to the model in Step 2 explained an additional 10% of the variance and this contribution was significant ($F (1,285) = 39.03$, $p < .001$). Finally, contrary to our hypothesis, adding reported pride expression to the regression model in Step 3 did not explain an additional variance of social anxiety and the change in R^2 was not significant ($F (1,284) = 0.00$, $p = .93$). Overall, the model with depression, pride and pride expression explained 27% the variance of social anxiety ($R^2 = 0.28$, $F (3,284) = 37.67$, $p < .001$). Thus, whereas there is a significant, negative zero-order correlation between reported pride expression and social anxiety, pride experience appears to be largely responsible for this relationship.

Discussion

Study 2 replicated the results of Study 1. Again, it was found that when pride and global positive affect were in the same model, only pride had a unique contribution in explaining variance of social anxiety. This reinforces the notion that low pride experience is an important aspect of social anxiety. Contrary to our hypothesis, reported *expression* of pride was not found to have a unique contribution in predicting social anxiety above or in addition to the *experience* of pride. These results provide initial evidence for the notion that the main aspect of pride that is related to social anxiety is the experience of pride, not the reported expression of it. Studies 1 and 2 established the relationship between pride and social anxiety in the general population. A further question is whether the relationship between pride and social anxiety is similar when considering treatment seeking individuals, who are experiencing clinical levels of pathological social anxiety. This was the aim of Study 3.

Study 3

Results from Studies 1 and 2 demonstrated that in non-clinical samples, social anxiety is related specifically to low levels of pride experience more than to low levels of global positive affect and that pride accounts for a significant part of the relationship between positive affect and social anxiety. In order to determine whether this relationship generalizes to a clinical population, we examined the relationship between pride, positive affect and social anxiety in patients diagnosed with, and seeking treatment for, generalized social anxiety disorder (SAD) and low-anxious controls. Such data are essential for generalizing our results from non-clinical populations to clinical populations. If indeed patients demonstrate specificity in low levels of pride, there are theoretical and clinical implications in terms of understanding and treatment of pathological social anxiety. Therefore, this study attempted to replicate the findings from Studies 1 and 2 and to extend them to a clinical sample.

We hypothesized that: (1) Patients diagnosed with social anxiety disorder would report diminished pride and diminished global positive affect comparing to low-anxious non-patients. (2) as in Study 1 and Study 2, the specific emotional experience of pride, but not the global tendency for experiencing positive affect, would predict the group of the participants (patients vs. non-patients) when both were entered simultaneously in the same model. In addition, one can argue that decreased pride is simply a reflection of either fear of negative evaluation or a fear of positive evaluation. We hypothesized that pride is a discrete, positive emotion that though related, is distinct from fear of positive evaluation and that it would continue to be related to social anxiety even when controlling for either fear of positive or negative evaluation. As in the previous studies, these hypotheses were all tested when controlling for depression.

Method

Participants

Patients were 23 treatment seeking individuals diagnosed with social anxiety disorder and controls were 35 low-anxious controls; 46% were male and 54% were female. The average age was 29.50 (SD = 8.24). Patients were included if they scored above 50 on the LSAS and received a DSM-IV diagnosis of social anxiety disorder as measured by the MINI. Comorbidity was allowed as long as social anxiety was determined to be primary. The most common comorbid disorders were depressive disorders (28% met criteria for either current depressive episode or dysthymia) and anxiety disorders (10% met criteria for another anxiety disorder and 2% met criteria for two or more). Control participants were included if they received < 30 on the LSAS and were not diagnosed by the MINI for any current DSM-IV disorder and had the same gender, education level, and age range as a given patient who received CBT in the overall study.

Measures

As in Study 1 and Study 2, we administered The Authentic and Hubristic Pride Scales—(AHPS; Tracy and Robins 2007a); but only the authentic pride sub-scale (Cronbach's α = 0.95), the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988)—only the positive affect subscale excluding the "pride" item (Cronbach's α = 0.80) (the participants described how they felt in the last week), the Beck Depression Inventory (BDI-II; Beck et al. 1996— Cronbach's α = 0.91). In addition, we administered a number of other self-report measures, including the Brief Fear of Negative Evaluation (BFNE; Leary 1983) and the Fear of Positive Evaluation Scale (FPES; Weeks et al. 2008) scales.

Liebowitz Social Anxiety Scale (LSAS; Liebowitz 1987)

The LSAS is a well validated semi-structured clinical interview for SAD (Heimberg et al. 1999). It assesses the severity of SAD symptoms. It has 24 items, 11 related to social interactions, and the other 13 describing public performance situations. The LSAS has two 4 point Likert scales, the anxiety scale (0—not at all to 3—very much) and the avoidance scale (0—never to 3—usually—67–100% of the time). The two separate scores are summed to the global LSAS score, ranging from 0 to 144. (Cronbach's α for all assessments: α = 0.90–0.96). A standard, validated Hebrew translation of the LSAS was used in the current study (Levin et al. 2002). Interrater reliability of 15 patients was high (r (15) = 0.92) when a second evaluator rated the LSAS via recordings of the interview.

Mini International Neuropsychiatric Interview (MINI; Sheehan et al. 1998)

The MINI is a short structured clinical interview, which determines diagnoses of psychiatric disorders according to DSM-IV. Patients were included in analyses only when the supervisor (JDH) and the interviewer agreed on diagnosis. Diagnostic reliability for SAD diagnoses was 86% agreement between interviewers on the basis of a second rater watching videotapes of the interviews (including patients not included in the study).

Brief Fear of Negative Evaluation Scale (BFNE; Leary 1983)

The BFNE is a self-report questionnaire that measures the anxiety associated with perceived negative evaluations by others. It contains 12 items (e.g. "I am frequently afraid of other people noticing my shortcomings.") and uses a 5 point Likert scale ranging from 1 (Not at all characteristic of me) to 5 (Extremely characteristic of me). The BFNE score was produced by summing up all 12 items (items 2,4,7, 10 are reversed), with final scores ranging from 12 to 60 (Cronbach's α = 0.80).

Fear of Positive Evaluation Scale (FPES; Weeks et al. 2008)

The FPES is a 10 items self-report questionnaire that measures fear of positive evaluations by others (e.g. "I am uncomfortable exhibiting my talents to others, even if I think my talents will impress them."). The FPES uses 10 point Likert scale ranging from 0 (Not at all true) to 9 (Very true). The FPES score was produced by summing up eight out of the ten items (items 5 and 10 are reversed and

are not included in the final score, see Weeks et al. (2008) for details; Cronbach's α = 0.90; range 0–72).

Procedure

This study was part of a larger study on cognitive mechanisms of social anxiety and their treatment via CBT or attention bias modification (Huppert et al. 2018). Recruitment was done via advertisements and word of mouth. Patients and controls completed an on-line SPIN (Social Phobia Inventory, Connor et al. 2000; < 10 for controls, > 30 for patients). The next step was a phone screen for the potential participants. The phone screen included open questions in order to ensure that the patient's main problem was social anxiety and to exclude participants who were psychotic, bipolar or suicidal. After the phone screen, the patients were invited to a clinical interview conducted by PhD students in clinical psychology who were specifically trained to conduct the research clinical interview. The interview included the LSAS (Liebowitz 1987), a semi-structured interview for social anxiety disorder and the MINI (Sheehan et al. 1998), a structured clinical interview for diagnosing DSM-IV disorders. After the diagnostic interview, patients and non-patients completed a battery of questionnaires in the lab, including those described above.[4] The questionnaires were all administered on a computer which recorded responses on a secure server. Order of the questionnaires was fixed, with none of the questionnaires immediately following one another.

Results

The first hypothesis was that patients diagnosed with social anxiety will report diminished pride and diminished global positive affect comparing to low-anxious controls. As hypothesized, patients with SAD (M = 22.57, SD = 8.26) were significantly lower than controls (M = 39.91, SD = 4.52) on pride ($t(56) = -10.31$, $p < .001$; Cohen's d = 2.60). Similarly, as was hypothesized, patients with SAD (M = 26.13, SD = 7.23) had significantly lower positive affect than controls (M = 30.34, SD = 6.23; $t(56) = -2.36$, $p = .02$; Cohen's d = 0.62). They also had more fear of negative evaluation (M (high) = 49.04, SD = 8.35 vs. M (low) = 28.08, SD = 7.98; $t(56) = -9.6$, $p < .001$; Cohen's d = 2.56) and fear of positive evaluation (M (high) = 44.56, SD = 11.83 vs. M (low) = 15.08, SD = 12.32; $t(56) = -9.05$, $p < .001$;

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[4] For a list of all measures collected in this session, contact the authors. Patients completed these measures on a different day than the assessment, prior to beginning treatment. Control participants completed all of the assessment in a single day.

Table 5 Logistic regression coefficients to predict patient/non-patient by depression, positive affect, and pride in Study 3

	Predictor	B	SE B	Wald (df = 1)	Exp(B)
Step 1	BDI-II	0.25	0.07	13.16***	1.28
Step 2	BDI-II	0.26	0.08	10.84**	1.30
	PANAS-P (without pride)	0.03	0.06	0.25	1.03
Step 3	BDI-II	0.10	0.14	0.52	1.10
	PANAS-P (without pride)	0.22	0.12	3.17	1.24
	Pride	−0.44	0.15	8.63**	0.65

BDI-II = Beck Depression Inventory. PANAS-P (without pride) = Positive and Negative Affect Scale—positive scale without pride item. Pride = Authentic and Hubristic Pride Scales-only authentic pride

**p < .01; ***p < .001

Cohen's d = 2.44) than controls. To determine whether the difference between groups in pride was accounted for by fear of negative or positive evaluation, both were entered into an ANCOVA. Differences between groups in pride remained substantial ($F(1,54) = 14.76$, $p < .001$, $\eta^2_p = 0.21$) even when controlling for FPES ($F(1,54) = 0.10$, $p = .74$, $\eta^2_p = 0.002$) and BFNE ($F(1,54) = 6.77$, $p = .01$, $\eta^2_p = 0.11$).

The second hypothesis was that the specific emotion of pride, but not the global tendency for positive affect, would predict the group of the participants (patients vs. non-patients) when both were entered simultaneously in the same model, after controlling for depression. In order to examine this hypothesis a hierarchical logistic regression analysis was conducted. Table 5 provides the regression coefficients.

In Step 1, the logistic regression model of predicting the participants' group (patients vs. non-patients) by depression was significant ($\chi^2(1) = 33.13$, $p < .001$). The model explained 59% of the variance (Nagelkerke R^2) in the participants' group status (patients vs. non-patients) and classified 81% of the participants correctly. As shown in Table 5, when positive affect was added to the model in Step 2, only depression had a significant, unique contribution in predicting social anxiety. The logistic regression model in Step 2 of predicting the participants' group (patients vs. non-patients) by depression and global positive affect was significant ($\chi^2(2) = 33.38$, $p < .001$), but the model did not explain more variance than in Step 1 (Nagelkerke $R^2 = 59\%$). In addition, there was no increase of the accuracy of the classification of the participants' group status (81% correct identification of patients vs. non-patients). When depression, positive affect, and pride were all included in the model (Step 3), pride was a significant predictor whereas depression was no longer a significant predictor (see Table 5). The logistic regression model in Step 3 was significant ($\chi^2(3) = 57.4$, $p < .001$), and explained more variance than Step 2 (Nagelkerke $R^2 = 85\%$).

Adding pride to the model improved the accuracy of the classification of group status to 98.30%. These results supported our hypothesis that pride would predict group status (patients vs. non-patients), such that higher pride was a predictor of being in the low anxious control group. These results are further support to the notion that pride has a unique, specific relationship to social anxiety, above and beyond positive affect and depression.

To examine whether the prediction of group status by pride can be accounted for by either fear of negative evaluation (BFNE) or fear of positive evaluation (FPES), we conducted two further logistic regressions. For these analyses, we entered depression, then pride, then either FPES or BFNE to predict group. We did not enter both simultaneously because of multicollinearity (given the high intercorrelations among BDI, BFNE, and FPES). When considering depression and pride in the models, pride was the only significant predictor (B = −0.35, $p < .01$; exp B = 0.70). In both models (FPES or BFNE), pride was a predictor of group status (B = −0.26, −0.28; p's < .05; exp B = 0.75, 0.77, respectively) when including depression and either fear of positive evaluation (B = 0.22; $p < .05$; exp B = 1.24) or fear of negative evaluation (B = 0.20; $p < .05$; exp B = 1.22).

Entering only depression and pride yielded a significant model ($\chi^2 (2) = 53.26$, $p < .001$; Nagelkerke $R^2 = 0.81$), classifying 94.8% of the cases correctly. The addition of FPES slightly improved the model ($\chi^2 (3) = 65.60$, $p < .001$; Nagelkerke $R^2 = 0.92$, classifying 96.6% of the cases correctly), as did the addition of (BFNE (3) = 59.05, $p < .001$; Nagelkerke $R^2 = 0.86$, classifying 96.6% of the cases correctly), but these did not significantly impact the importance of pride in classifying the groups.

This finding that depression did not explain additional variance beyond pride in predicting social anxiety is interesting considering different findings in Study 1 and Study 2. Given that the zero order correlation between depression (BDI-II) and social anxiety (SPIN) in the current study ($r_{Kendall's\ Tau} (57) = 0.63$, $p < .001$) was similar to those found in Studies 1 and 2, the results suggest that pride plays a stronger role in social anxiety in a clinical sample than in the general population.

Discussion

The results of Study 3 replicated the finding that pride plays an important role in predicting social anxiety and accounts for its relationship with general positive affect. These findings are important in that they extend to a patient-seeking sample diagnosed with SAD. Indeed, when examining the relationship in a clinical population in comparison to low anxious controls, the effect is similar if not stronger than what we found in student samples. This is a third replication

of the finding that pride accounts for the relationship between social anxiety and positive affect and suggest to consider a modification of current theories which attempt to account for general hedonic deficits in social anxiety. It appears that such deficits are really secondary to a primary deficit of a specific positive, self-related emotion—pride. These findings appear to be true both for the general population as well as for clinically diagnosed patients.

General Discussion

The current studies replicate previous findings that social anxiety is related to lower levels of global positive affect, and that this relationship is not fully accounted for by depression (c.f., Kashdan 2007). The findings from Studies 1, 2 and 3 extend this work by suggesting that not all aspects of positive affect are equally related to social anxiety. Specifically, the results of these studies highlight the important role of pride experience in people with high levels of social anxiety. Pride was strongly negatively correlated to social anxiety in 3 different samples, and consideration of global positive affect did not change this relationship substantially. On the other hand, consideration of pride reduced the relationship of global positive affect and social anxiety to close to zero, suggesting that the relationship between positive affect and social anxiety can be more clearly elaborated as a specific relationship between low levels of pride and social anxiety.

The term positive affect is usually interpreted as predominantly related to joy. However, joy is a specific positive emotion that, although highly correlated to positive affect ($r = .62$ in Study 1), is separate and distinct from the global tendency for positive affect. Study 1 showed that when examining the relationship of both joy and pride to social anxiety in the same model, only the pride was related to social anxiety. This result further strengthens our notion that the specific positive emotion deficit in social anxiety is deficit of pride. It is likely that experiences of decreased joy in individuals who are socially anxious are specifically related to deficits in pride.

Whereas few studies have examined the negative relationship of pride and social anxiety and none have examined the importance of pride over other positive emotions in social anxiety, Gilbert (2001) has discussed the theoretical role pride may play overall in social anxiety. Pride is related to appraisals that one has acted in a way that has caused a socially valued outcome or that he or she is a socially valued person (Tangney and Tracy 2012). In contrast, joy is primarily related to appraisals that one has agency in acquiring and/or controlling resources in the environment that are of a material, psychological, or social nature (Shiota et al. 2006). Gilbert (2001) emphasizes that socially anxious individuals usually feel themselves as not socially valued or that their

achievements are not socially valued (i.e., low pride), even if they have some agency in their environment. Our findings suggest that depression was not a predictor of social anxiety after controlling for pride (Study 3). This suggests that in our clinical sample, depression may be a secondary reaction to social anxiety and that the core emotional deficit of pride in social anxiety likely accounts for elevated depressive symptoms. However, this finding did not hold in our non-clinical samples, suggesting that more research is needed on the interrelationships among pride, depression, and social anxiety.

Based on Gilbert's theory (2001), we initially hypothesized that pride would be the only positive emotion related to social anxiety when considering the multiple facets of global positive affect simultaneously. These results introduce another specific positive emotion that might play an important role in social anxiety: love. Similar to pride, love, is a social emotion by nature, with a primary function of facilitating the development and maintenance of intimate bonds with others (Shiota et al. 2006). It is also the core emotion related to the affiliative system. As far as we know, our data is the first empirical demonstration we are aware of suggesting that in addition to pride, love is a specific positive emotion that is related to low social anxiety. Indeed, even though there are not prior reports of the relationship between lower experiences of love and social anxiety, research has revealed some impairments in intimacy and in romantic relationships (Kashdan et al. 2007; Wenzel 2002). It should be noted that the measure of love used in the current report was a brief measure that included items that related to trust as well as love (e.g., "I find it easy to trust others."). Therefore, further work should be conducted to understand how much the relationship between social anxiety and love is about trust and how much is about other aspects of love. Nevertheless, our findings provide support for the dual hypothesis that both affiliative and hierarchical systems are involved in positive affect deficits in social anxiety (Gilboa-Schechtman et al. 2014). Our findings also suggest that it is important to further examine the nature of specific positive emotions of pride and love in social anxiety.

The findings of Study 2 replicated the findings of Study 1 but did not support the hypothesis that reported expressions of pride will account for the correlation between pride experience and social anxiety. Reported expressions of pride had a small zero order correlation with social anxiety, and only a moderate correlation with the experience of pride. The data support the notion that it is important to differentiate between experience and expression of emotions (c.f., Darwin 1872/1998; Gross et al. 2000). Moreover, if further evidence supports the notion that individuals with social anxiety experience less pride and that they do not have as much problem with expressing the pride they experience, this supports the notion that a core feature

of social anxiety is not only its interpersonal aspect, but also how the individual relates to oneself (e.g., Hulme et al. 2012). Alternatively, it may be that the experience of pride is much less frequent and intense, and therefore the opportunity for expression is less important given its low base rate. In addition to the possible theoretical explanations, there are also some methodological issues that may explain the findings. In this study pride expression was measured by a newly developed self-report instrument, and it is possible that participants are not accurate in their reporting of the frequency of their emotion expressions. More objective measures of pride expression, such as coding expression of pride by independent raters (Tracy and Robins 2007b), might lead to alternative results. More research is clearly needed to fully understand the role of both the experience and expression of pride in social anxiety. In addition, a recent study found that pride was positively related to fear of negative evaluation and negatively related to fear of positive evaluation in an experimental task (Reichenberger et al. 2015). Our study furthers the previous findings by demonstrating that self-reported pride is related to pathological social anxiety above and beyond fear of positive and negative evaluation, thereby suggesting that pride is an important, distinct construct from fears of evaluation. More research is needed to understand the complex interplay of these and other potentially related constructs such as self-esteem and assertiveness.

The results of Study 3 suggest that low levels of pride are crucial element not only in social anxiety as a continuum in the general population, but also in social anxiety as a clinical disorder, and may contribute to the development and to the maintenance of social anxiety disorder. These results may have implications for the treatment of social anxiety disorder. For example, most common psychosocial treatments for social anxiety disorder do not specifically and directly address pride, nor do they contain techniques meant to increase the emotional experience of pride. It may be that addressing pride as a core emotional experience could improve treatment outcomes. Moreover, there are few studies examining whether positive affect improves with treatment of social anxiety, and none we are aware of examining whether pride specifically improves. There is a need for experimental and clinical studies to further support these ideas. These results also have important theoretical implications. Usually, social anxiety disorder is perceived as a disorder whose emotional core is a negative affect (Barlow et al. 2014; Brown et al. 1998), particularly anxiety and specifically fear of rejection. However, the current results can lead to other theoretical accounts. Specific theories that combine aspects of specific positive emotions (e.g., pride) and specific negative emotions (e.g.,. shame) to conceptualize social anxiety disorder may help improve conceptualization and ultimately, treatment outcomes.

There are several limitations of the current study. This study was cross-sectional, limiting the ability to derive causality or temporality. In order to examine whether there is a causal relationship between social anxiety and pride there is a need to manipulate pride or social anxiety. This study was not longitudinal, so the temporal precedence could not be demonstrated for either pride or social anxiety, and we cannot determine whether people who are low on pride develop social anxiety, or whether social anxiety leads to deficit in pride. Furthermore, the valence and arousal of pride and joy were not measured, and the effect found in the current study might be due to differences in either valence or arousal between pride and joy. Further research is needed to more clearly differentiate the effect of positive valence and the effect of the cognitive appraisal of pride and joy. Finally, all measures in the current study were obtained via self-report. Further research should consider other sources of information in order to control for method variance.

In the past, research on the relationship between positive affect and various forms of psychopathology was mainly neglected. Recently, there is more awareness that positive affect deficiencies and disturbances in positive emotion regulation have a meaningful role in psychopathology. In addition, there is more effort to develop models that integrate positive affect deficiencies and problems with positive emotion regulation in the models of emotional disorders (Carl et al. 2013). The current findings suggest that examining discrete positive emotions can help delineate more unique relationships between psychopathology and positive affect (c.f., Shiota et al. 2017). For example, although not the main goal of our study, we found that, differently than social anxiety, depression was negatively correlated to contentment and pride (cf. Gruber et al. 2011). This suggests that positive affect is differentially related with social anxiety and with depression, via discrete, positive emotions. In conclusion, the current data suggest the importance of examining specific emotions and their relationship to psychopathology beyond only the concept of positive or negative affect. Specifically, our data suggest the importance of considering the discrete emotion of pride and its role in social anxiety.

Compliance with Ethical Standards

Conflict of Interest Lior Cohen and Jonathan D. Huppert declare that they have no conflict of interest.

Informed Consent All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study.

Animal Rights No animal studies were carried out by the authors for this article.

Appendix: The Pride Expression Questionnaire (PEQ)

Below are a number of statements. Read each one carefully and indicate to what extent each statement characterizes you very well.

1. Not at all 2. A very little 3. A little 4. Somewhat 5. Very much 6. Extremely 7. Absolutely

1. When I feel proud, I express it.
2. People can see it on me when I feel good about myself
3. When I act effectively and productively, others can be see that I am satisfied with myself
4. When I accomplish something, I keep it to myself
5. When I feel self-assured, my facial expressions convey this
6. When I am happy with myself, others around me can see it
7. When I feel high levels of self-esteem, I express it in different ways
8. When I succeed at something, I share it with friends
9. When I receive a good grade on an exam, I smile to myself
10. When I accomplish my tasks well, people can see that I am proud of myself

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