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Shame: Mechanisms of Activation and Consequences for Social Perception and Self-image

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Abstract

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The aim of this thesis was the exploration of shame. Four experiments are among the very first to empirically test the validity of Tomkins' shame concept. The relation between internalized shame and memories of early interactions was examined, as well as Tomkins' concept of shame as an innate, momentary emotion. The influence of internalized shame as a personality trait on momentary shame emotion was also explored. Thirdly, how momentarily activated shame influences perception of self and others was studied. Finally, consequences of conscious versus unconscious shame activation was compared.

Data from two survey studies implied that memories of ignoring and abandoning behaviors from mother are those that correlate most strongly with internalized shame. In the four experimental studies, internalized shame did not seem to influence momentary shame emotion, although two experiments implied different reactions to the praise that constituted part of the shame activating sequence depending on degree of internalized shame. Two experiments in part supported Tomkins' notion of shame as a consequence of impeded positive emotion. However, participants with a high degree of internalized shame reacted with shame emotion to the praise feedback intended to elicit positive emotion. Therefore Tomkins' concept of shame was successfully tested only with participants with a low degree of internalized shame. With this group, Tomkins' conceptualization, however, received support. In addition these two experiments implied different processes for consciously versus unconsciously activated shame, since consequences for social perception and self-image following shame were reversed depending on whether the activating circumstances were conscious or not. The two subsequent experiments did not support the conclusions from the previous two, but gave some implications that shame activation, its consequences, and the effects of conscious versus unconscious activation are highly dependent on personal characteristics and social context.

Taken together, data give some support to the validity of Tomkins' shame conceptualization, but implies that it might be far too general, and that shame emotion might be primarily socially dependent.

Keywords: shame, emotion, self-image, unconscious

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The present thesis is based on the following studies, which will be referred to in the text by their Roman numerals:

- I. Claesson, K. & Sohlberg, S. (2002). Shame and interpersonal scripts: Internalized shame and other-scripts characterized by indifference, abandonment and rejection: replicated findings. *Clinical Psychology and Psychotherapy*, 9, 277-284.
- II. Claesson, K., Birgegard, A., & Sohlberg, S. (2004). Shame: mechanisms of activation and consequences for social perception, self-image, and general negative affect. *Journal of Personality*. *Accepted pending revision*.
- III. Claesson, K., Sohlberg, S., & Birgegard, A. (2004). Shame and its consequences: replication and extension. *Unpublished manuscript*.

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Introduction

Imagine you are walking down the street. Suddenly you catch a glimpse of a familiar face: it is Eve, a dear friend living abroad. You had no idea she was back home, and you hurry eagerly across the street after her, put your hand on her shoulder and exclaim: Eve, so good to see you! She turns towards you, and – it is not Eve! You immediately look away, taking your hand off her shoulder, feeling completely confused and utterly stupid. Mumbling an excuse you are hastily on your way with a slumping posture and eyes down-cast. What has happened to you? Silvan Tomkins (1963) would say you are experiencing shame. According to him, shame is an evolutionary inherited emotion with the adaptive purpose of preventing us from approaching behavior or continued interaction when this might be inappropriate or even dangerous. In the case above, your shame reaction informed you that there was a severe impediment to your anticipated interaction with Eve, and the motor concomitants of the shame reaction served the purpose of breaking contact. And rightly so; imagine the social awkwardness if you had insisted on her being Eve! In Tomkins' view, then, shame is something innate, fundamental, and, although not pleasant to experience, adaptive.

The theme of this thesis is shame. Three studies are included, where Study III is a replication and elaboration of Study II. Study I is a questionnaire study exploring associations between shame proneness as a personality trait and memories of early significant interactions. The following two studies consist of four experiments aimed at empirically testing Tomkins' concept of shame as an immediate emotional reaction to impediments to the positive emotions interest and joy. There we also explore if, or how, internalized shame relates to shame as a momentary emotion, as well as consequences of momentary shame to the perception of self and others. Finally, we investigated whether awareness of the shaming situation influenced activation and/or consequences of shame.

Internalized shame and early interactions

In Study I we attend to an area often suggested to be important but never fully explored empirically: shame, and how it relates to early significant interactions. Early interpersonal experiences with the primary caregivers are believed to have profound effects on the emerging self-image and relational schemas of a relatively stable nature (e.g. Bornstein, 1993; Florsheim,

Henry, & Benjamin, 1996; Hazan & Shaver, 1994). Tomkins considers repeated shame experiences in important interactions during childhood as the fundament for a negative self image characterized by a sense of inferiority, worthlessness and aloneness, so called internalized shame (Cook, 1994, 1996; Kaufman, 1989; Tomkins, 1995). In two studies, we explored the association between memories of early interactions with the mother and self-reported feelings of internalized shame.

The interest in shame as central in psychological disturbances has been growing over the recent decades (Gilbert & Andrews, 1998; Lansky & Morrison, 1997; Lewis, 1987). Shame has been empirically linked to a number of pathologies and problems (Cook, 1994; Harder, 1995; Retzinger, 1998), which is an important reason to pay special attention to possible antecedents and characteristics. Since early interactions in general and the emotion of shame in particular seem to play such an outstanding role in the formation of the perception of self and others (Bornstein, 1993; Florsheim, Henry, & Benjamin, 1996; Hazan & Shaver, 1994; Kaufman, 1989; Nathanson, 1992; Seidler, 1997; Stern, 1985, 1996; Tomkins, 1963, 1995), insights into the quality of the early, shame producing relationships could give a lead to the present day social perception of a shame prone individual. Suggestive empirical evidence in the latter direction comes from research in adult attachment patterns. Magai, Distel and Liker (1995) found significant correlations between shame and anxious adult attachment. Other studies have found correlations between fearful and preoccupied (equivalent to anxious) attachment styles and shame (Lopez, Gover, Leskela, Sauer, Schirmer, & Wyssman, 1997). When it comes to actually exploring early interactions and consequences for shame proneness, however, studies are scarce. Magai et al. (1995) tried to link trait shame to memories of parental disciplinary style, but found no associations. By using one of the most highly articulated and well researched models of interpersonal representations, the Structural Analysis of Social Behavior, SASB, (Benjamin, 1974, 1996; Pincus, Gurtman & Ruiz, 1998), we hoped to enhance the possibility of elucidating how shame relates to early important interactions.

In the subsequent studies II and III, we turn to the issue of shame as a momentary emotion, in contrast to internalized shame as a stable personality trait.

Theories of shame emotion

Although there is a general agreement regarding the subjective experience of shame, there are different opinions about the fundamental nature of shame. Theories range from anthropological perspectives of shame as a complex, culturally defined phenomenon dependent on norms and values inherent in societies (Lindisfarne, 1998), to views of shame as an evolutionary inherited mechanism, i. e. a basic emotion (Gilbert, 1998; Schore, 1994; Tomkins,

1963). Among those who regard shame as a more fundamental emotional mechanism, opinions vary regarding timetable for onset and function. Some views shame as present more or less from the start with the function of regulating attachment (Mascolo, Fischer, & Li, 2003; Nathanson, 1992; Schore, 1994). The disengagement response seen in infants in experimental studies of disrupted infant-caregiver interactions (Trevarthen & Aiken, 2001; Tronick, Als, Adamson, Wise, & Brazelton, 1974), with the typical motor display of shame with averted gaze and slumping posture, is seen as early shame or the precursor of shame. Gilbert and McGuire (1998) agree with the notion of shame as innate with socially regulatory functions, but regards the more mature ability to appraise the social context as a necessary prerequisite to the shame experience. They define its function more narrowly as regulating one's place in social hierarchy, with the motor display of shame as an appeasement signal to avoid aggression. Lewis (1993), on the other hand, is a proponent of the view of shame as a cognitively complex emotion related to self-evaluation in relation to standards and goals, and first emerging around three years of age. The critical point seems to be whether one views the disengagement behavior of the infant as at all related to later displays of shame emotion, or if there is a qualitative difference between these behaviors. In the former case, the controversy seems mostly to be a matter of definition, i.e. whether the particular word shame is appropriate for the first observable shame-like manifestations. Tomkins (1995) discusses the problems with using a word from common language to define something theoretically distinct, but argues that the basic emotion of shame is the common core of all those experiences ordinarily described as shame.

Tomkins (1963) defines shame as an innate auxiliary emotion with the purpose of inhibiting continuing positive emotion (more precisely interest and enjoyment). He believes shame is activated when there is an *incomplete* reduction of positive emotion. The stimulus that first triggered positive emotion remains, but some mismatching input informs the organism that there is an impediment to continuing positive interaction with the stimulus. Critics of Tomkins have pointed out that many negative emotions interfere with positive emotion, e.g. fear. The key feature of the shame response, according to Tomkins, is however that the positive emotion is still present, albeit reduced. If you are engaged in a stimulating conversation and suddenly a man with a gun crashes in through the door, the emotion of fear will probably erase all other emotions. Positive emotion will be completely interrupted and the stimulating conversation forgotten. Imagine, on the other hand, that you are engaged in the same stimulating conversation, and the person you are talking to, when you are in the middle of what you thought was an exciting account of a recent event, yawns and looks out the window with a bored expression in her face. Your wish to remain in focus of her interested attention will still be active, but her behavior informs you that there is a serious impediment to this wish. In this situation, Tomkins will expect you to react with shame. The

evolutionarily evolved function of the emotion is to inhibit or modulate continued interaction or approaching behavior when this might be dangerous or out of place. The experience of shame is never pleasant, but necessary to provide us with a realistic view of the social world and ourselves (Nathanson, 1992), and adaptive shame is seen as a prerequisite for so called social competence. Later elaboration of Tomkins' theory has emphasized the particular importance of shame in the social context, informing us of when we are out of tune in our social interactions (Nathanson, 1992). As in the example above, the bored behavior of your friend alerts you to the fact that you have been on the subject for quite some time, and that it might be appropriate to take a step back and allow her into the conversation. The unique contribution Tomkins offers with his conceptualization is how shame is tied to positive emotion. Interest makes us act, choose, and get involved in every activity in our daily lives. Enjoyment makes us return to certain situations or continue certain activities we feel are good for us (Tomkins, 1962). Positive affective interaction with caregivers is also the foundation of the developing self (e.g. Stern, 1985), and of the ability to form and maintain healthy relationships. If, however, excessive shame interferes with the experience and expression of positive emotion, profound consequences can be expected for self-image and social skills.

Opinions regarding the origins of shame thus vary, but there is a general agreement on the phenomenology and effects of the shame experience. All theories agree on the outstanding importance of shame to self-esteem and social capacity. Shame creates a sense of an inferior self and a rejecting other, and a loss of social connectedness (Katz, 1997; Nathanson, 1992; Tangney, 1995). Shame has been found to affect interpersonal capacity (Covert, Tangney, Maddux, & Heleno, 2003), and shame proneness as a personality trait has been empirically associated with interpersonally relevant behaviors such as aggressive reactions, externalization of blame, and low empathic abilities (Tangney, 1995), as well as with a number of psychiatric disorders (Averill, Diefenbach, Stanley, Breckenridge, & Lusby, 2002; Gilbert 1998, 2000; Harder, 1995).

The concept of shame as the consequence of impeded positive emotion is, however, a unique feature of Tomkins' theory that I believe adds to our understanding beyond other theories of shame. The most basic aspects of this intriguing and clinically relevant addition have, however, never been satisfactorily explored empirically. To do so was one of the purposes of Study II and III.

Internalized shame and shame emotion

Another relatively unexplored issue concerns the relationship between shame as a momentary emotion and shame as a personality trait. As mentioned above, frequent and intense experiences of shame during childhood

are often regarded as the foundation of a self-image characterized by shame (Cook, 1994; Kaufman, 1989; Tomkins, 1995). The action tendency and message of shame emotion, "withdraw, something is wrong, the contact is broken", becomes a part of the personality. It creates a self experienced as "there is something wrong with me, I am bad and unattractive, I am alone" (Cook, 1996). Cook (1994) and Kaufman (1989) call this internalized shame. Tangney (1995) uses the term shame proneness, although her emphasis is more on sensitivity to particular potentially shaming situations. Most shame researchers study this trait aspect of shame, typically using self-report forms (e.g. Cook, 1994; Tangney & Fischer, 1995; Tangney & Dearing, 2002). How shame as a brief, emotional experience relates to internalized shame as a stable personality trait is, however, yet to be empirically determined. To do so was another aim, particularly in Study II.

Consequences of shame to the perception of self and others

A third aim of Study II and III was to illuminate the social aspects of shame as understood by Tomkins. As mentioned above, all theories of shame emphasize its distinctly social quality, with profound consequences for the sense of self as well as the perception of others. We therefore included a social perception and a self-image outcome variable in our experiments. We predicted that participants would have a more negative view of the social situation and a more negative self-image after experimental shame-related stimulation compared to control stimulation.

Consciously versus unconsciously activated shame

There is a growing consensus that emotions occur and influence our thoughts and behavior even if we are not aware they have been activated (e.g. Bargh & Chartrand, 1999; LeDoux, 1996; Ohman, 1999). Ohman (1999) points especially to situations of social interaction, where the trigger of emotion might be so swift and subtle as a passing facial expression of the other, and therefore remains unconscious. Research also suggests that the influence might even be greater when we are unaware of the triggering stimulus (Zajonc, 1994), and qualitatively different from conscious activation (Merikle & Daneman, 1998). In clinical contexts unconscious emotional processes are increasingly recognized as a relevant focus of various forms of therapy having the aim of increased emotional awareness (e.g. Greenberg & Paivio, 1997; Plutchik, 2000; Power & Dalgliesh 1999; Samoilov & Goldfried, 2000). Lewis (1987a) regarded unconscious shame as one of the major contributors to pathology, as well as to therapeutic impasses. A final aim of Study II and III was therefore to compare consciously versus unconsciously activated shame. Tomkins' view of shame does not imply any difference in the mere activation of the emotion. Shame should arise whether or not the

eliciting stimulation is conscious. However, based on the research mentioned above we wanted to explore possible differences in consequences following a consciously versus unconsciously activated shame reaction. We did this using unmasked versus masked feedback in computerized tasks.

Summary of the issues we studied

Study I consists of two questionnaire-studies, one with males, and the other with both sexes. We explored the relation between internalized shame and memories of early interactions, more specifically, how participants remembered their mothers' behavior toward them when they were 5 to 10 years old. In the first study we had an exploratory approach. Based on the results of that study, we hypothesized in the second study that maternal behaviors characterized by ignoring and abandoning behaviors would show the strongest association with shame.

In Study II and III we aimed to empirically explore Tomkins' concept of shame as an innate emotion activated by the impediment of positive emotion. We also wanted to examine the influence of internalized shame as a personality trait on momentary shame emotion. A third objective was to study how momentarily activated shame influences perception of self and others. Finally, we compared consequences of consciously versus unconsciously triggered shame emotion.

Study I

In Study I:1 we explored the possibility that there would be differences in how internalized shame relates to different kinds of negative memories of parental behaviors. We tested this using an all male sample, and then again in Study I:2 using a sample with both sexes. In Study I:2, based on the results in Study I:1, we predicted that shame would show the strongest association with ignoring and abandoning maternal behaviors.

Method

Participants

In both studies volunteer (non-psychology) students from Uppsala University participated. In Study I:1 $n=62$, mean age 23 (3.6). In Study I:2 $n = 122$, mean age 24 (4.2), with 71 females and 51 males. They were given an open movie ticket or given course credits for their participation.

Procedure

At the time of recruitment, those who volunteered were given an envelope containing four questionnaires, a sheet with instructions, and assurance of confidentiality. The questionnaires were ISS (Internalized Shame Scale), the 144-item SASB Relationship Intrex (Structural Analysis of Social Behavior), BDI (Beck Depression Inventory), DEQ (Depressive Experiences Questionnaire) and BSRI (Bem Sex Role Inventory). BDI, DEQ and BSRI were included for other purposes and will not be analyzed in this report. In Study 1 participants received the questionnaires when they were recruited for participation in an experiment unrelated to the present study. They were instructed to fill in the forms at home and bring them to a laboratory session approximately seven days later. In Study 2 participants received the tests at the recruitment occasion (a lecture) and filled them in at home. They were then collected at another lecture a week later.

Measures

Internalized Shame Scale (ISS). The ISS is a 30-item self-report test (Cook, 1994, 1996). Twenty-four of these items are used to measure trait shame, or internalized shame. Participants respond on a Likert-type scale ranging from 0 = "never" to 4 = "almost always". Examples of items are "I feel like I am never quite good enough" or "I feel somehow left out".

SASB Intrex. SASB is an interpersonal model associated with well-validated measurement technology (Benjamin, 1974; Benjamin, 1996). The SASB model is an interpersonal circumplex divided into eight clusters, with love – hate on the horizontal axis, and independence versus dependence on the vertical axis, contrasting autonomy / emancipation with dominance / submission. The negative clusters Blame, Attack, and Ignore constitute the "disrupted attachment group", and were the ones used in our studies. The model contains different foci and the focus used in these studies were the "other acting" focus, more specifically how participants remembered their mothers' behavior toward them between five and ten years of age. Examples of items in the Blame-cluster are: "She put me down, told me my ways were wrong, and her ways were better." ; "She accused and blamed me. " Some examples of items in the Attack-cluster are: "She angrily left me out and completely refused to have anything to do with me."; "Looking very mean, she followed me and tried to hurt me". Examples of items in the Ignore-cluster include: "Just when she was needed most, she abandoned me, left me alone with my trouble."; "She just didn't notice or pay attention to me at all." In steps of 10, participants rate items on a 0 to 100 scale indicating increasing levels of agreement.

Statistics

We employed multiple regression analyses to explore the amount of variance in shame (ISS) explained by the different negative maternal behaviors (SASB clusters Blame, Attack, and Ignore).

A normal distribution is not to be expected in a non-clinical sample on the negative SASB-clusters. Because of the skewed distribution, we used ranked data. Bivariate outliers were sought using an a priori criterion (std. residuals +/- 2.5, StatSoft, 1994), but none were found.

Results

In Study I:1, there were substantial zero order correlations between all three clusters and the ISS (Blame .32, Attack .37, and Ignore .44). The standard multiple regression analysis, however, revealed that accounting for the variance explained by the Ignore cluster, little variance remained for the clusters

Attack and Blame. (Table 1). The second study replicated the results from Study I:1. Correlations between all cluster and the ISS were substantial (Blame .30, Attack .38, and Ignore .46). However, in the standard multiple regression analysis, when accounting for Ignore, again very little variance remained for the other two clusters (Table 1).

Table 1. Multiple regression analysis with ISS as dependent variable and SASB clusters Blame, Attack, and Ignore as independent variables. Study I:1, n=62 and Study I:2 n=122.

SASB-cluster	Std. coeff.		partial <i>r</i>		<i>t</i>		<i>p</i>	
	St. 1	St. 2	St. 1	St. 2	St. 1	St. 2	St. 1	St. 2
Blame	.04	.03	.05	-.02	.27	.27	.79	.79
Attack	.15	.12	.13	.09	.94	1.08	.35	.28
Ignore	.40	.34	.31	.29	2.68	2.81	.01	.01

Separate analyses in Study 2 for males ($n = 50$) and females ($n = 71$) did not alter this pattern. (The largest difference was in Blame, with a partial $r = -.02$ for females, and .12 for males.)

Conclusions

Two studies implied that memories of a blaming, attacking, and ignoring mother all are associated with internalized shame. However, memories of an ignoring mother consistently were more highly associated with shame than the negative behaviors blame and attack.

Study II

In Study II we explored Tomkins' concept of shame as an innate emotion activated by the impediment of positive emotion. We also examined the influence of internalized shame as a personality trait on shame as a momentary emotion. Thirdly, we explored how momentarily activated shame influences perception of self and others. Each question was addressed in two experiments, one using conscious triggers of shame and one using unconscious triggers.

The method was essentially the same in Study II and Study III, apart from an additional control condition in Study III. The method section below is therefore common to both studies.

Method

Operationalizing the shame eliciting situation

A central concern was how to stage Tomkins' proposed shame situation, with the incomplete reduction of positive emotion. We chose a common situation in studies of shame and pride: the success - failure situation (e.g. Alessandri & Lewis, 1996; Stipek, 1995). After each of a number of unsolvable, allegedly intellectual tasks presented on a computer screen, the participants received feedback, also presented on the screen. The first feedback was common to both conditions. It consisted of neutral feedback and allowed assessment of baseline shame levels. In the shame condition, participants then received success feedback interrupted by failure feedback. The sequence of positive feedback followed by negative was meant to generate the experience of impeded positive emotion described by Tomkins (henceforward referred to as the *Tomkins sequence*). Telling people they are successful on an ambiguous task is one of the most common ways to induce positive emotion (Ashby, Isen, & Turken, 1999). The tasks were designed to resemble measures of IQ, such as Raven's matrices, with the intention to activate an eagerness to perform well and joy at success. We thought it unlikely that the sudden failure feedback would completely erase the foregoing joy at

success and wish to perform, but that it would constitute the kind of impeding, mismatching information suggested by Tomkins.

In the control condition, participants received consistent failure feedback. Tomkins suggests that cumulative failure activate anger or distress, but not shame. This control sequence enabled us to eliminate the perhaps most plausible alternative explanation if an increase in shame occurred following the Tomkins sequence: that more shame in the shame condition reflects a reaction to the negative feedback, regardless of the preceding positive feedback. If this were the case, with a negative control there would be no difference between the control condition and the shame condition. In Study III, we added another control condition to explore the possibility that a shame reaction might depend on a mere shift in the emotional valence of the stimuli, rather than on the particular sequence of positive – negative suggested by Tomkins. The new control condition consisted of negative feedback interrupted by positive, i.e. a direct reversal of the shift used in the shame condition. In Study III, the new control will be referred to as "reversed" and the control we used in Study II as the "old" control.

In Study II, the experiment using conscious activation of shame will be referred to as Experiment II:cs, and the experiment using unconscious activation of shame as Experiment II:ucs. In Study III, the corresponding labels will be Experiment III:cs and Experiment III:ucs. Method and procedure for the experiments were identical, with the exception of experimenters and semantics of the feedback in the computer task (described below).

Participants and experimenters

Volunteer, non-psychology, students from Uppsala University were recruited. Sixty-five participated in Experiment II:cs and 64 in Experiment II:ucs. Due to technical problems during the coding procedure, shame sign scores are missing for five participants in Experiment II:cs and one participant in Experiment II:ucs. Seventy-five participated in Experiment III:cs and 87 in Experiment III:ucs. Again due to technical problems during the coding procedure, one participant in Experiment III:cs and nine participants in Experiment III:ucs are missing from the shame activation analyses.

Participants were randomly assigned to condition. In Experiment II:cs there were 22 women and 9 men in the shame condition (mean age=24 [4.5]) and 17 women and 12 men in the control condition (mean age=22 [1.9]). In Experiment II:ucs there were 22 women and 10 men in the shame condition (mean age=22 [1.9]) and 20 women and 11 men in the control condition (mean age=23 [3.6]). In Experiment III:cs there were 17 women and 9 men in the shame condition (mean age=25, [5.3]), 18 women and 5 men in the old control condition (mean age=24, [7.2]), and 18 women and 8 men in the reversed control condition (mean age=26, [7.2]). In Experiment III:ucs there were 16 women and 13 men in the shame condition (mean age=24, [4.0]), 18

women and 10 men in the old control condition (mean age=22, [2.2]), and 16 women and 14 men in the reversed control condition (mean age=27, [7.7]).

In Study II, one experimenter (female) conducted Experiment II:cs and another (female) conducted Experiment II:ucs. In Study III there were two experimenters per experiment. In Experiment III:cs, with conscious feedback, there was one female and one male experimenter, running half of the participants each. In Experiment III:ucs, there were two female experimenters, also running half of the participants each.

Design and procedure

We compared number of shame-signs, scores on a measure of social perception, and scores on a measure of self-image between shame group and control group participants. In Study II, internalized shame was also included as an independent variable, and a measure of general negative emotion as a dependent variable. Shame-signs after the neutral 1st feedback (Figure 1) was used as a baseline assessment to enable correction for individual differences in shame display. Experimenters were blind with regard to the independent variables.

Shame-signs were coded in the 6th to 7th task interval, which follows immediately on the point of change in feedback from positive to negative that theoretically should generate shame (Figure 1). This point of measurement will be referred to as the “shame point”.

Unmasked feedback		Masked feedback (Mask = "Wait")	
TOMKINS	CONTROL	TOMKINS	CONTROL
Wait	Wait	xxxxx	xxxxx
<i>Coding of baseline shame-signs</i>			
Correct	Wrong	Good Correct Fine Good	Wrong Shame on you! Shame on you! Wrong
Correct again	Wrong	Good! Correct! Fine! Good!	Wrong Shame on you! Shame on you! Wrong
Good!	Wrong again	Bravo Bravo Bravo Bravo	Wrong Shame on you! Shame on you! Wrong
Bravo!	Wrong!	Bravo! Bravo! Bravo! Bravo!	Wrong Shame on you! Shame on you! Wrong
Wrong!	Wrong!	Wrong Shame on you! Shame on you! Wrong	Wrong Shame on you! Shame on you! Wrong
<i>Coding of shame-signs</i>			
Wrong again! ^a	Wrong again! ^a	Wrong Shame on you! Shame on you! Wrong ^a	Wrong Shame on you! Shame on you! Wrong ^a

} baseline

 } inducing positive emotion in the Tomkins condition

 } shame point

^a The 7th task + feedback was added not to introduce a novelty after the shame feedback, i. e. participants should be exposed to a task similar to the preceding ones.

Figure 1. Design, feedback and measurement during the tasks in Experiment II & III:cs (unmasked feedback) and Experiment II & III:ucs (masked feedback). Note that the reversed control in Study III is not included in the figure.

At the time of recruitment, participants were given an envelope containing a sheet with instructions, an assurance of confidentiality, and a number of questionnaires, including ISS (Internalized Shame Scale, Cook, 1994). In the laboratory, participants received seven tasks designed to resemble a measure of intelligence. After each task the participants received feedback on a computer screen (Figure 1). In all conditions a first baseline task was followed by neutral feedback ("Wait"). In the Tomkins condition a sequence of praise was followed by blame, e. g. "Good" followed by "Wrong", while in the control condition in Study II, the old control, the feedback consisted of continuous blame. As noted, in Study III we also added another control. A sequence of negative feedback was followed by positive feedback, i. e. the Tomkins sequence reversed. In the experiments using conscious feedback, the participants saw the feedback words on the screen. In the experiments using unconscious feedback, what the participants consciously saw, the mask, was the word "Wait", displayed 10 ms after the feedback word.

Finally and still via the computer, participants were instructed to fill out a number of forms placed beside the computer screen (the tests of general negative emotion, social perception, and self-image). Before leaving they were debriefed regarding the nature of the task, i.e. that it was unsolvable and designed to elicit an emotional reaction. Participants in the experiments using unconscious feedback were also given a letter that contained information regarding the masked words. All participants were given their open movie ticket and thanked.

Measures

Measure of shame emotion. Participants were videotaped during their task performance. We counted signs of shame that occurred after each round of feedback as participants worked on the next task. To avoid confounding with time spent at a task, the scores for a particular task interval were divided by seconds spent at that task. In empirical studies there is a pool of signs used to code facial and motor signs of shame (see Stipek, 1995, for a review). This pool includes the signs suggested by Tomkins (1963). The signs were gaze averted, head averted, slumping of upper body posture (Tomkins, 1963), face touches, "smile controls" (Keltner, 1997), lip biting, and smiling (Alessandri & Lewis, 1996). In Study II, one primary rater coded the tapes. A secondary rater coded the first 29 participants. Both were blind to condition. Interrater reliability was $r = .83$, with closely comparable means and ranges (rater A = 16 and 7.4; B = 15 and 6.5). In Study III, Experiment III:cs, two raters coded the tapes (50 % each). Their reliability was tested against codings of 30 participants from Study II. Reliability for rater 1 was $r = .74$ and for rater 2 it was $.88$. The two raters also both coded 15 participants in the present experiment. Their interrater reliability was $.87$. In Experiment III:ucs one rater coded the tapes. She was trained on 30 participants coded by an-

other rater in Study II. Interrater reliability was $r = .85$. Studies of shame using coding of video material have produced reliabilities of .85 (Keltner, 1997), .80 (Alessandri & M. Lewis, 1996) and .85 (DiBasi & M. Lewis, 1997).

The Internalized Shame Scale. This measure is already described in Study I above. In Study II and III, ISS was divided at the median into a high-shame and a low-shame group. In Study II, means for high-shame across experiments and conditions ranged from 36 to 43, while the means for low-shame ranged from 17 to 21. In Study III, means had a similar range: from 41 to 45 in the high-shame group, and from 16 to 20 in the low-shame group.

Measure of social perception. The measure of social perception was a 10-item self-report form designed for these experiments (Claesson, 2000). It was intended to measure the participants' experience of themselves in relation to the experimenter. Items were meant to reflect relevant shame-issues (e.g. Nathanson, 1992), such as being seen and judged, being in contact or in isolation. Examples of items are "She/he was helpful" (reversed), "I felt evaluated by her/him", and "I felt foolish with her/him sitting there". Items were rated on a scale from 1 = "Not at all true" to 4 = "Very true". The test was presented to the participants as an instrument of evaluation to help us improve our experimental procedures, so they were led to believe it had nothing to do with the actual experiment. In Study II, reliability measured by Cronbach's alpha was marginal, with .66 in Experiment II:cs and .55 in Experiment II:ucs. In Study III, alpha was .74 in Experiment III:cs and .70 in Experiment III:ucs.

Measure of self-image. This measure is based on the same model as described in Study I, Structural Analysis of Social Behavior, SASB, (Benjamin, 1974; Benjamin, 1996). Three foci are defined: acting, reacting, and introject. In Study I, we used the other acting-focus, whereas in Study II and III we used the introject, conceptualized as self-image as a consequence of internalized interactions with significant others. Since we found relationship ratings in Cluster 8, Ignore, to be uniquely related to shame in Study I, the theoretically corresponding introject Cluster 8, Self-neglect, was the one used to test our hypothesis regarding self-image. Some examples of cluster 8 Self-neglect items in the self-report SASB Intrex we used are: "I neglect myself, don't try to develop my own potential skills, ways of being.", and "I don't care if I harm myself by ignoring my own sickness or injury". In total, the Long Form SASB Introject Intrex comprises 36 items, 4 of which index Self-neglect. In steps of 10, participants rate items on a 0 to 100 scale indicating increasing levels of agreement.

Measure of general negative emotion. We also used an implicit measure of emotion called the Early Memories Test (EMT) to assess general negative emotion. Intended particularly as an aid in interpreting effects of the masked feedback, this test has proven sensitive to unconscious stimulation in studies where self-report measures were not (Weinberger, Kelner, & McClelland, 1997). Based on the assumption of affective congruence in autobiographic memory, in the EMT participants are given four and a half minutes to write down all autobiographical events that they can remember from before age 14. They are then asked to note for each memory how intensely positive or negative it was on a 1 to 7 scale. An extremely negative memory would be scored -7, and an extremely positive +7. We computed final scores as the sum of ratings for positive memories divided by the sum of ratings for all memories. This score was then multiplied by 100 to avoid decimal points. Thus, 0 indexed maximally negative emotion resulting from a complete absence of positive memories.

Apparatus

Using a computer screen giving maximum opportunity to control stimulus on- and offset (Nokia 446F, 19 inch -screen), we presented feedback and mask with a very brief interval (10 ms). This is at the lower end of the time range within research using masking procedures, in which intervals can range up to 17 and 40 ms, and still be considered reliably below the threshold of conscious perception (see e.g. Draine & Greenwald, 1998; Lundh, Wikstrom, & Westerlund, 2001; Merikle & Joordens, 1997; Ohman & Soares, 1994).

Statistics

Effect sizes and tests of statistical significance were computed for all primary outcomes. We searched by group for outliers. Observations were eliminated if Z scores were below -3 or above +3, using an a priori definition (Tabachnick & Fidell, 1989).

Results

Shame following an impediment to positive emotion.

We expected signs of shame to be observed to a greater extent after a sequence of positive feedback followed by negative feedback, than after a sequence of negative feedback only. The data showed medium to large effect sizes (Clark-Carter, 1997) in both experiments supporting the hypothesis (Tables 2 & 3). Analyzing sex differences, effect sizes were substantially

larger for women. The effect of feedback therefore depended mostly on the female samples.

Table 2. Experiment II:cs, unmasked feedback: Differences between the Tomkins group and the control group in shame-signs (residualized scores correcting for baseTable 1. line shame) at the shame-point, and in social perception and self-neglect.

	Tomkins group M (sd)	Control group M (sd)	<i>d</i>	<i>t / F</i>	<i>p</i>
Shame-signs at the shame point					
All participants	.041 (.106)	-.069 (.078) ^a	.90	t (56) = 3.28	.001 ^b
Women (n=38)	.074 (.165)	-.074 (.060)	1.32	Condition X Gender interac- tion F [1,54]= 3.559	.06
Men (n=20)	-.047 (.141)	-.062 (.100)	.12		
Social perception					
All participants	13.2 (2.4)	15.3 (3.0)	-.78	t (63) = 3.20	.002
Women (n=42)	12.7 (2.2)	14.4 (2.8)	-.69	Condition X Gender interac- tion F [1,61] = .0242	.62
Men (n=23)	14.3 (2.7)	16.7 (2.9)	-.86		
Self-neglect					
All participants	19.4 (8.8)	28.4 (10.0)	-.96	t (62) = 3.81	.0003
Women (n=39)	17.7 (7.9)	28.7 (9.0)	-.130	Condition X Gender interac- tion F [1,61] = 3.841	.06
Men (n=20)	27.3 (14.1)	27.9 (11.6)	-.05		

^a The negative value does not indicate "less than zero" signs per second, but is the result of scores corrected for baseline values.

^bOne-tailed

Table 3. ExperimentII:ucs, masked feedback: Differences between the Tomkins group and the control group in shame-signs (residualized scores correcting for baseline shame) at the shame-point, and in social perception and self-neglect.

	Tomkins group M (sd)	Control group M (sd)	<i>d</i>	<i>t</i> / <i>F</i>	<i>p</i>
Shame-signs at the shame point					
All participants	.036 (.154)	-.036 (.105) ^a	.56	t (60) = 2.142	.018 ^b
Women (n=41)	.062 (.167)	-.046 (.088)	.85	Condition X Gender interaction F[1,58] = 2.748	.103
Men (n=21)	-.049 (.089)	-.044 (.135)	-.05		
Social perception					
All participants	14.4 (3.1)	13.2 (2.1)	.46	t(61) = 1.787	.040 ^b
Women (n=42)	14.7 (3.0)	12.7 (1.9)	.82	Condition X Gender interaction F[1,59] = 2.891	.094
Men (n=21)	13.8 (3.3)	14.2 (2.1)	-.15		
Self-neglect					
All participants	26.8 (12.3)	20.3(12.6)	.52	t (61)= 2.076	.021 ^b
Women (n=43)	27.0 (10.9)	19.7 (11.5)	.65	Condition X Gender interaction F [1,59]= .136	.710
Men (n=20)	26.3 (15.7)	21.5 (15.3)	.31		

^a The negative value does not indicate "less than zero" signs per second, but is the result of scores corrected for baseline values.

^b One-tailed

Evaluating alternative interpretations: Shame-signs as a reaction to positive feedback.

In this study, we found that participants displayed more shame-signs following the Tomkins sequence, i. e. positive feedback interrupted by negative, compared to the continuously negative control sequence. This was the case whether the feedback was consciously or unconsciously perceived. These results were in support of Tomkins' notion of shame as activated by an impediment to positive emotion. However, since the feedback sequences were not equal up to the shame point, it might be that the difference between the groups was present already after the task 5 feedback, when the participants in the Tomkins condition had received four times positive feedback and the participants in the control condition four times negative feedback (see Figure 1.) To conclude that “Tomkins shame “ indeed had occurred, one would expect a difference between the Tomkins sequence and the control sequence after task 6, i. e. the shame point, as well as an increase of shame-signs in the Tomkins group, relative to change in the control group, from task 5 to the shame point. To explore the alternative interpretation of our results, we performed post-hoc analyses of differences between the groups after task 5 as well as change over time from task 5 to the shame point (only raw scores were used in the following analyses). As can be seen from Figure 2, in Experiment 1: cs, there was a marked difference between conditions already after task 5 ($d = .69$, $t(56) = 2.427$, $p = .018$). Also, while there was a decrease in shame-signs in both conditions from task 5 to the shame point, the decrease was greater in the Tomkins group, relative to the control group, not smaller, contrary to expectation.

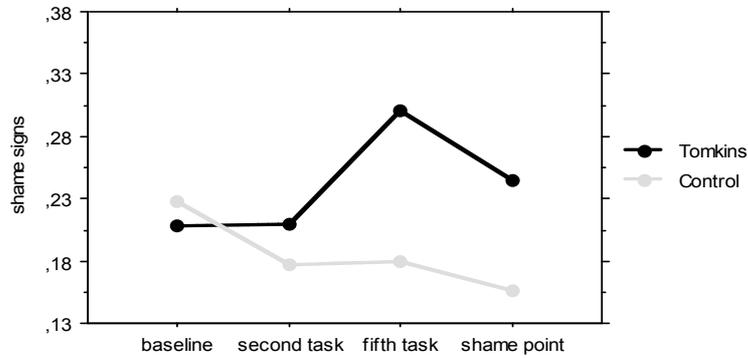


Figure 2. Experiment 1:cs. Shame signs on all points of measurement.

In Experiment 2:ucs the pattern was similar (Figure 3), although the difference between conditions after task 5 was non-significant ($d = .39$, $t(59) = 1.510$, $p = .136$).

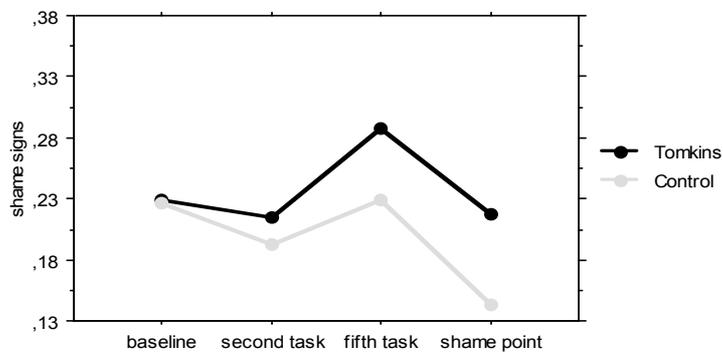


Figure 3. Experiment 2:ucs. Shame signs on all points of measurement.

In an attempt to understand why the Tomkins group in both experiments displayed more shame-signs, compared to the control group, already when they had received only praise, we performed analyses under the following assumption: perhaps the emphasized praise after task 5 (Bravo!) was at variance with some of the participants' perception of themselves as inadequately understanding the tasks (since they were indeed insolvable). If this were the case, for participants with a high degree of internalized shame the discrepancy between perception of self and feedback could have been sufficient to activate shame. If so, they might have displayed a shame reaction already after task 5.

In Experiment 1:cs a two-way ANOVA showed a trend-significant feedback X ISS-interaction on shame-signs after task 5 ($F[1,57] = 3.040, p = .087$). Figure 4 shows that mainly high ISS participants accounted for the large difference between the conditions after task 5 (for the high ISS group $d = .99, p = .050$, and for the low ISS group $d = .30, p = .429$). A repeated measures ANOVA also revealed a significant interaction between feedback and internalized shame on change from task 5 to task 6 ($F[1,53] = 4.343, p = .042$). As Figure 4 shows, for low ISS participants the main difference between the Tomkins group and the control group was found after the shame point, whereas for high ISS the main between-condition difference was found already after task 5.

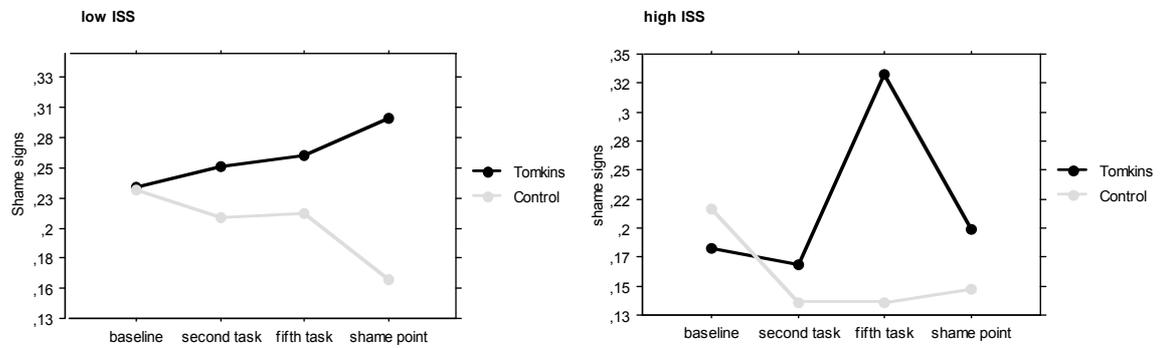


Figure 4. Experiment 1: cs. Shame signs on all points of measurement with the sample divided in high ISS and low ISS groups.

In Experiment 2:ucs a two-way ANOVA also showed a trend-significant feedback X ISS-interaction on shame-signs after task 5 ($F[1,60] = 3.223, p = .078$). The pattern of interaction was the same as in Experiment 1:cs. This time the difference between the Tomkins group and the control group was only found in the high ISS group ($d = .80, p = .043$ versus $d = -.05, p = .896$ for low ISS). And again, the repeated measures ANOVA showed a significant feedback X internalized shame interaction on change from task 5 to the shame point ($F[1,56] = 4.415, p = .040$). For low ISS participants the main difference between the Tomkins group and the control group was found after the shame point, while for high ISS the main between-condition difference was found already after task 5 (Figure 5).

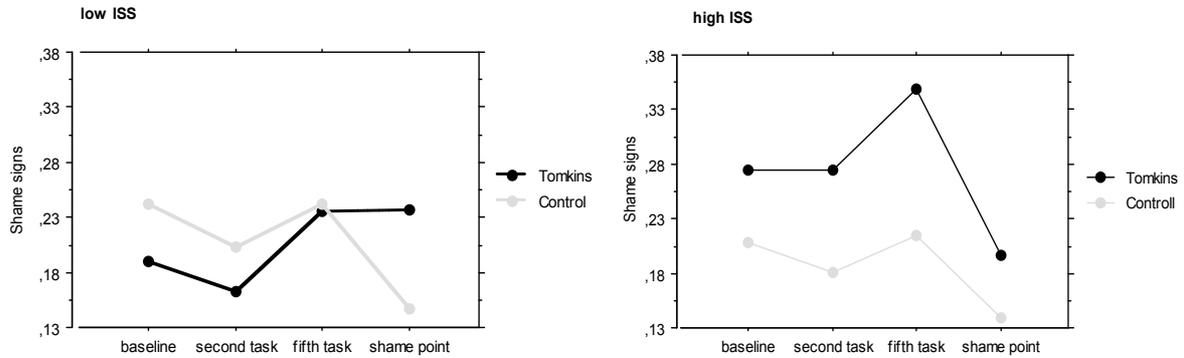


Figure 5. Experiment 2: ucs. Shame signs on all points of measurement with the sample divided in high ISS and low ISS groups.

That high ISS participants displayed shame already following positive feedback implies that we were unsuccessful in establishing Tomkins' postulated shame situation for these participants. Thus, we can only claim to have tested Tomkins' theory with the low ISS subsample. Reanalysing differences between groups in shame reactions following the intended shame feedback, i. e. after task 6, using only low ISS participants, results were still significant in Experiment 1:cs ($d = .87$, $t(28) = 2.394$, $p = .023$), and non-significant with a medium effect size in Experiment 2:ucs ($d = .55$, $t(32) = 1.539$, $p = .134$). Repeated measures ANOVAs with only low ISS participants also revealed trend-significant differences between Tomkins and control group in change from task 5 to the shame point. The Tomkins group displayed the only increase relative to the control group (Experiment 1:cs ($F[1,27] = 2.923$, $p = .099$), and Experiment 2:ucs ($F[1,30] = 3.098$, $p = .089$), although the difference between conditions at the shame point was due to a decrease in the control group as well as an increase in the Tomkins group.

Since high ISS participants had their shame reaction already following the praise feedback, investigating the influence of internalized shame on immediate shame reactions, in terms of differences between high and low ISS at the shame point, as we originally intended, was unfortunately not possible.

Consequences for social perception and self-image following activated shame

In view of the unexpected influence of internalized shame on reactions to praise, we performed a control analysis of social perception, self-image and general negative affect for high vs. low shame participants (data not shown). Results showed no significant feedback X ISS interaction. Since there had been a shame reaction for high as well as low ISS participants, albeit of different strength at different points of the feedback sequence, the total samples of both experiments could be regarded as exposed to a shame condition. Therefore it seemed reasonable to include all participants in the analyses of social perception, self-image, and general negative emotion.

We expected participants to have a more negative view of the social situation with the experimenter after the experimental stimulation than after the control stimulation. This time, results were in opposite directions depending on whether the shame activation was conscious or not. In Experiment II:cs, participants in the Tomkins group had a significantly less negative view of themselves with the experimenter, and significantly less self-neglect compared to participants in the control group, contrary to expectation. Effects were medium - to - large and large. For self-neglect, there was in addition a trend-significant sex interaction with a large effect size for women and no effect for men (Table 2). Notably, the Self-neglect cluster that formed the basis for our self-image hypothesis was the only cluster on which there was a significant difference between the conditions (Table 4).

In Experiment II:ucs results were in the expected direction with more negative social perception and more self-neglect following the shame activation, compared to the control (small - to - medium and medium effects, Table 3). For social perception, there was a trend-significant sex interaction with a large effect size in the female sample as compared to a small effect in the male sample, and for self-neglect a medium effect size in the female sample, and no effect in the male sample. Thus, although not significantly, the main effects of condition again depended mostly on the female participants (Table 3). And again it was noteworthy that there was a significant difference between conditions only for the Self-neglect cluster identified in our hypothesis, just as in Experiment II:cs (Table 4).

Table 4. Differences between shame and control condition for each cluster in the SASB model (Experiment II:cs in regular font and Experiment II:ucs in **bold**).

Cluster	Tomkins group <i>M (sd)</i>		Control group <i>M (sd)</i>		<i>t</i>	<i>p</i> ^a	
Self-emancipate	41.9 (11.5)	43.7 (13.2)	44.2 (11.1)	40.6 (13.3)	.82	.91	.42 .37
Self-affirm	59.9 (16.8)	64.1 (17.9)	60.6 (16.4)	60.9 (18.9)	.15	.70	.88 .50
Self-love	61.0 (15.9)	60.0 (15.3)	56.3 (13.5)	59.4 (15.3)	1.30	.15	.21 .88
Self-protect	57.0 (12.1)	55.1 (12.1)	54.0 (11.0)	58.8 (14.0)	1.05	-1.13	.30 .26
Self-control	53.0 (13.6)	51.9 (12.7)	48.6 (13.2)	53.4 (16.8)	1.34	.41	.18 .68
Self-blame	26.1 (18.9)	28.3 (15.4)	30.0 (17.9)	24.9 (16.2)	.85	.84	.40 .40
Self-attack	20.3 (18.3)	19.4 (17.1)	20.0 (15.3)	19.8 (16.8)	.07	.10	.94 .92
Self-neglect	20.6 (10.0)	26.8 (12.3)	28.4 (10.9)	20.3 (12.6)	-3.81	2.08	.0003 .04

^a All tests including that for Self-neglect are two-tailed here for ease of comparison.

General negative emotion following feedback

There was no difference in general negative emotion between the two conditions. In Experiment II:cs, Cohen's *d* was $-.01$ (no effect, $t(63) = -.04$, $p = .97$). No noteworthy sex interaction was found. Cohen's *d* for women ($n = 42$) was $.12$ (no effect) and for men ($n = 23$) $-.17$ (no effect). In Experiment II:ucs, Cohen's *d* was $.12$ (no effect, $t(60) = .49$, $p = .63$). As in Experiment II:cs, no noteworthy sex interaction was found. Cohen's *d* for women ($n = 42$) was $.31$ (small effect) and for men ($n = 20$) $-.21$ (small effect).

Conclusions

Results partly supported the notion of shame as a consequence of impeded positive emotion. In both experiments, participants in the Tomkins group displayed more signs of shame than the control group. However, these conclusions were only valid for low ISS participants. With high ISS participants, we failed in both experiments to establish the shame situation postulated by

Tomkins, since these participants reacted with shame already to the positive feedback.

Data showed opposing results in the two experiments regarding social perception and self-image, indicating different processes for consciously versus unconsciously activated shame. In Experiment II:cs using unmasked feedback, participants in the experimental condition who received the Tomkins sequence had a less negative view of themselves with the experimenter, and less self-neglect than did participants in the control condition. This result was contrary to our hypothesis. In Experiment II:ucs using masked feedback, participants who received the Tomkins sequence had a more negative view of themselves with the experimenter, and more self-neglect than participants in the control condition. This result was in line with the hypothesis. Further, there was no difference between conditions in general negative emotion in either experiment, indicating that the differences between the Tomkins group and the control group cannot be attributed to general mood differences. Finally, with a single exception (social perception in Experiment II:cs) both studies showed non-significant but marked tendencies for larger effects among women.

Study III

Study III consists of two experiments, as in Study II, one using unmasked feedback and one using masked. Method and procedure were described under Study II.

Beyond collecting more data, using new participants and experimenters, we also explored a new issue. Feedback in the previous experiments differed between conditions in structure as well as content. While a shift from positive to negative occurred in the Tomkins condition, constant negative feedback was given in the control condition. In Study III, a new control condition involving a shift from negative to positive was added, i.e. a direct reversal of the shift used in the shame condition. Thereby we could test if a change from positive to negative is necessary to produce shame, as assumed by Tomkins, or if a mere change in the emotional quality of the feedback is sufficient. The new control will be referred to as "reversed" and the one used in Study II as the "old" control. Since there were consistently larger effects for women in Study II, we also returned to this issue.

Based on our findings in Study II, we made predictions regarding shame activation, social perception, and self-image, specifically self-neglect. We expected participants to display more motor signs of shame after the Tomkins sequence of feedback, compared to control sequences. We also predicted this result to be the same whether the feedback was presented clearly visible to the participants, or on a level outside awareness. In addition, based on post-hoc findings in Study II, we examined the possible influence of internalized shame on participants' reactions to the praise feedback. Finally, regarding consequences of activated shame, we expected participants who were aware of the feedback to have a more positive view of themselves in relation to the experimenter and less self-neglect following the Tomkins sequence compared to control sequences. In the experiment using unconscious feedback, we expected these results to be reversed, with participants in the Tomkins condition having a more negative view of themselves in relation to the experimenter and more self-neglect, compared to control conditions.

Results

Shame activation

In our previous experiments, we found that the Tomkins sequence was associated with more signs of shame, as predicted, in low ISS participants. High ISS participants responded with shame already after the praise feedback, and were thus not successfully exposed to the shame situation proposed by Tomkins. This time there were no between condition effects. In Experiment III:cs, employing ANOVA with all three feedback sequences, there were no significant differences ($F [2,69] = .075, p = .927$).

In Experiment III:ucs, again results did not resemble those in Study II. Although an ANOVA showed significant differences between the feedback sequences ($F [2,72] = 3.166, p = .048$), comparison of mean values revealed that there was more shame in the old control condition than in the Tomkins sequence, not less (Table 5). Also, there was more shame in the old control condition than in the reversed control (Table 5). Thus, again we received no support for our predictions. On the contrary, in this experiment, the group receiving continuously negative feedback displayed more shame. As in Experiment III:cs, there was nothing to indicate that the reversed sequence activated shame, but again the absence of expected results complicates interpretation regarding this control sequence.

Table 5. Experiment III:ucs. Shame activation comparing conditions

	<i>t</i>	<i>d</i>	<i>p</i>
Tomkins vs Old control	-2.134	-.61	.038
Tomkins vs Reversed	-.288	-.07	.774
Old control vs Reversed	2.016	.57	.049

Influence of internalized shame

In Study II, post hoc analyses revealed an unexpected influence of internalized shame. In both experiments, participants with a high degree of internalized shame displayed a shame reaction already after the praise feedback following task 5, and decreased in shame-signs from task 5 to the shame point, relative to the control condition, contrary to expectation. We therefore examined a possible influence of internalized shame in the present experiments as well. Using the Tomkins sequence and the old control sequence, and a median split to divide the ISS into high and low ISS groups, we, however, found no such influence of internalized shame this time. In neither experiment were there significant feedback X ISS-interactions on shame

after task 5 ($F[1,44] = .206, p = .652$ in Experiment 1:cs and in Experiment 2:ucs $F[1,47] = .224, p = .624$)

Consequences for social perception and self-neglect

In Study II, we found dissimilar results depending on whether the feedback was consciously or unconsciously perceived. Using unmasked feedback, the Tomkins sequence was associated with more positive social perception and less self-neglect, compared to the control sequence. With masked feedback, the Tomkins sequence was, however, associated with more negative social perception and more self-neglect, as expected. In the present study however, our previous findings were not repeated. In Experiment III:cs, there were no significant differences between conditions for either social perception or self-neglect (social perception $F [2,72] = 1.398, p = .254$, and self-neglect $F [2,72] = .129, p = .880$).

In Experiment 2:ucs, there were no effects on either measure (social perception ($F [2,84] = .305, p = .738$, and self-neglect ($F [2,86] = .156, p = .856$)). Thus, there was no support for any consequences related to the Tomkins sequence regarding social perception or self-neglect in the present experiments.

Sex interaction

In Study II we found consistently larger effect sizes for women in both experiments. There was no such tendency in the present experiments. There were no significant sex interactions, and the largest effect size was found in the male sample in Experiment III:cs ($d = 1.15$, for social perception comparing the Tomkins group and the old control).

Conclusions

In Study III, there was no support for Tomkins shame conceptualization. The only notable result was contrary to Study II, with more shame after the continuously negative feedback, compared to the other feedback sequences in Experiment III:ucs.

Supplementary analyses

Comparing the experiments in Study II versus Study III

Because of the complete lack of consistency between the experiments in Study II and Study III, I examined the samples for discrepancies that might have influenced the results.

Change in shame display over time

Repeated measures ANOVA analyses of differences between conditions on change from baseline to the shame point were performed. These would answer the question of whether the feedback sequences had different influence on how participants changed their display of shame-signs from baseline (i.e. after the neutral “Wait” they all received after the first task) to the shame point. At the shame point the Tomkins group received negative feedback for the first time, the old control negative feedback as before, and the reversed control in Study III positive feedback for the first time. The aim of these analyses was, however, only comparing *between* experiments. In our studies, no predictions were made regarding how the display of shame would change over time.¹ Thus, whether participants increase or decrease from baseline per

¹ How one interprets changes over time from baseline to the shame point depends on how one understands the baseline values. At least two different perspectives can speculatively be applied:

1. Participants experienced no shame at baseline, and the motor signs represent only random motor movement.
2. The experimental situation included shame-provoking aspects also at baseline. The participants were perhaps self-conscious and eager to be evaluated positively by the experimenters. Met by the rather incomprehensible task at the computer, shame would, according to Tomkins, be a predicted reaction.

Which ever is true, the analysis of interest would be comparing conditions after the shame point. For example, if results showed a general decrease in all conditions, this could, applying

se was not the issue in the current analyses, only to see if there were notable differences *between* the experiments that could aid the understanding of our discrepant results. Note also that the plots for Study II include only low ISS participants. Since we argued that low ISS participants were the only ones exposed to the intended shame situation, it seemed logical to include only them in further analyses. In Study III, however, no ISS influence was found, and therefore all participants were included in further analyses.

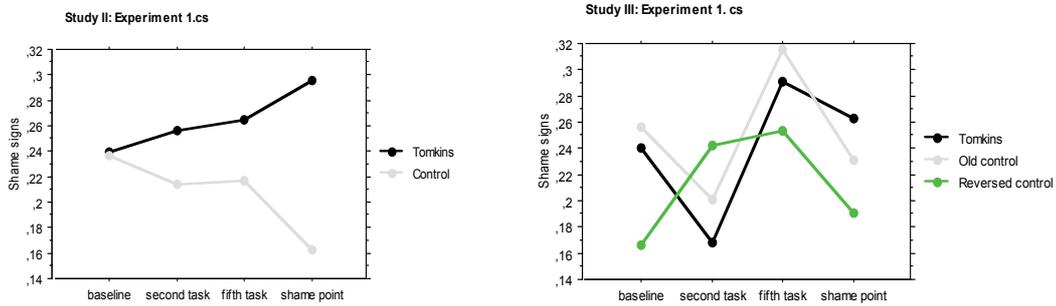
Conscious activation

Figure 6 shows that in Study II there was an increase over time of shame in the Tomkins group and a decrease in the control group (although the plots display all points of measurement, the analyses pertain only to change from baseline to shame point). Visual inspection indicates the pattern was the same in Study III for the Tomkins group and the old control group, but much less marked. The reversed control group showed the same pattern as the Tomkins group, only at lower absolute values. Thus, the patterns of shame display over time comparing the Tomkins group and the old control were similar in both experiments, but more pronounced in Study II. This could imply that in both experiments similar processes were involved, but with much weaker effects in Study III. Still, the non-significant result of the repeated measures ANOVA in Study III limits the value of this interpretation.

The pattern of the reversed control group could indicate that any sequence involving an unexpected emotional shift activates shame. However, in addition to the non-significant result of the repeated measures ANOVA, the results concerning the reversed control group were difficult to evaluate, since the absolute values at baseline were markedly different from the other groups. The increase over time from the markedly lower baseline values could be due to “regression to the mean” rather than to the feedback. Formal

the two perspectives described above, imply 1) that participants grew tired over time and therefore produced less motor signs. Support for the hypothesis would be found if the decrease in the Tomkins group were less after the shame point, compared to the other groups, indicating some process counteracting participant' general tiring. 2) Getting used to the tasks and experimental situation, all participants decreased in shame. Less decrease in the Tomkins group would again indicate some counteractive process, although the shame situation at the shame point were experienced as less shaming than the initial situation. Either way, change from baseline to shame point does not tell us whether shame is activated after the shame point or not. Another issue that concerns interpretation of differences between conditions would be that the control conditions somehow actively suppressed shame-signs, and the difference would then be due to mechanisms in the control group rather than in the Tomkins group. Although this interpretation would require several additional assumptions, it might still be true. However, since all these interpretations are highly speculative, predictions were, as mentioned above, only made concerning differences after the experimental manipulations, over which we could claim to have some control.

analyses of the baseline differences between all three conditions showed that while the p value was marginal ($F [2,74] = 2.355, p = .102$), d 's implied medium differences ($d = .43$ between the Tomkins group and the reversed group, and $d = .64$ between old control group and reversed group). This implies that there might have been unintended, systematic differences between the groups already at baseline. Whether these differences were due to unfortunate sampling, or to some systematic difference in the initial treatment of participants in this group is not clear, but they make results in the reversed group more difficult to interpret.



$$F [1,28] = 8.781, p = .006$$

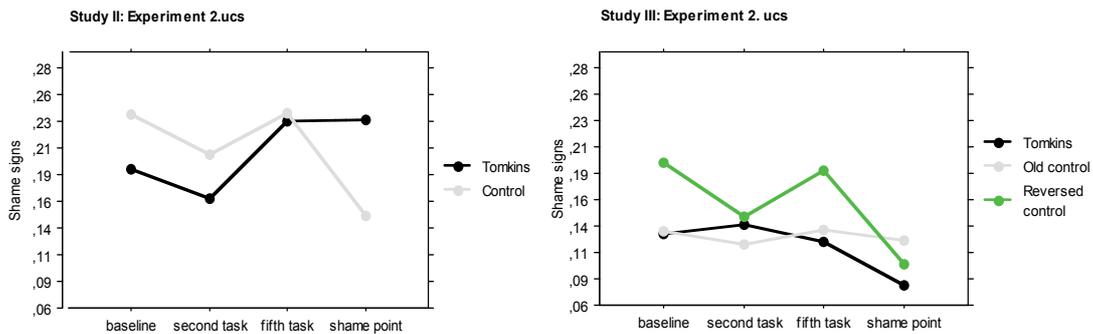
$$F [2,71] = .253, p = .777$$

Figure 6. Plots of shame-signs from baseline to the shame point using unmasked feedback. F values refer to a repeated measures ANOVA of differences between conditions on change from baseline to the shame point, using only those two points of measurement.

Unconscious activation

In the experiments using unconscious feedback, the plots show that in Study II the difference between the conditions after the shame point was due to an increase in the Tomkins group as well as a decrease over time in the old control. In Study III the pattern was reversed with the Tomkins group showing the decrease. Thus, there seem to be more fundamental differences between these experiments than in the experiments using unmasked feedback.

As with conscious feedback, the pattern of the reversed control group was similar to the Tomkins group. But again there are marked baseline differences, with the reversed group deviating from the other two, raising the question about regression to the mean. Analyzing the difference at baseline between all three conditions showed $F [2,78] = 4.082, p = .021$ ($d = -.81$ between the Tomkins group and the reversed group, and $d = -.54$ between old control group and reversed group).



$$F [1,32] = 3.869, p = .058$$

$$F [2,73] = 5.249, p = .007$$

Figure 7. Plots of shame-signs from baseline to the shame point using masked feedback. F values refer to a repeated measures ANOVA of differences between conditions on change from baseline to the shame point, using only those two points of measurement.

In summary, in the experiments using conscious feedback the changes from baseline to shame point indicate that there were similar processes involved in both experiments, but with much less strength in Study III. In the experiments using unconscious feedback, however, the processes seem to have been qualitatively different.

Experimenter influence

In Study II, we briefly discussed the influence of experimenter sex on our results in the experiment using conscious activation. Here follows a more extensive examination of the influence of experimenters. As mentioned, one of the obvious discrepancies between the experiments using conscious activation was the presence of a male experimenter in Study III:cs. There a male and a female experimenter ran half of the participants each, while there was only one female experimenter in Study II:cs. Examination of the influence of experimenter in a three-way ANOVA in Study III:cs revealed a consistent influence of baseline shame X feedback X experimenter interaction on all the outcome measures (Table 6). The baseline influence was reversed depending on experimenter (Figure 8-10). The most notable differences were found for high baseline participants, where participants with a female experimenter displayed more shame after the Tomkins sequence, compared to both control conditions, but participants with a male experimenter displayed more shame after the old control sequence, compared to the other feedback sequences. Through visual inspection only, one would say that only high baseline participants with the female experimenter, and low baseline participants with the male experimenter had the expected shame reaction after the Tomkins feedback. Looking at consequences for social perception and self-neglect (Figures 9-10) following an assumed shame reaction, patterns were similar for both experimenters, in the sense that the groups displaying more shame after the Tomkins sequence, had more negative social perception and more self-neglect, compared to both controls. That is, participants with a female experimenter and high baseline shame displayed more shame-signs after the Tomkins feedback, compared to control feedback, and had more negative social perception, as well as more self-neglect, compared to the control group. Participants with a *male* experimenter and *low* baseline shame displayed more shame-signs after the Tomkins feedback, compared to control feedback, and also had more negative social perception, and more self-neglect, compared to the control group. These findings of more negative social- and self consequences in the groups displaying more shame after the Tomkins sequence were more in line with our original predictions, but contrary to what we found in Study II.

In summary, though post-hoc observations only, influences of experimenter as well as baseline level of shame indicate that shame activation ac-

According to Tomkins might be sensitive to personal and context factors. Note, however, that sex was only the most obvious difference between the experimenters in Study III:cs. With only two experimenters it is not possible to draw any conclusions about whether the differences between the samples divided by experimenter was caused by the sex of the experimenter or by some other personality trait. However, in Study III:ucs, the two female experimenters did not produce any notable differences in any analyses, indicating that sex might be a relevant factor. Whether due to sex or some other trait, the consistent differences between the experimenters still could provide some explanation as to why the effect regarding shame activation was weaker in Study III. It does, however, not explain the contradictory results regarding social perception and self-neglect.

Table 6. Influence of baseline shame X feedback X experimenter interactions (ANOVA) on shame activation, social perception, and self-neglect.

	<i>F</i>	<i>p</i>
Shame-signs	3.519	.036
Social perception	5.126	.009
Self-neglect	3.083	.053

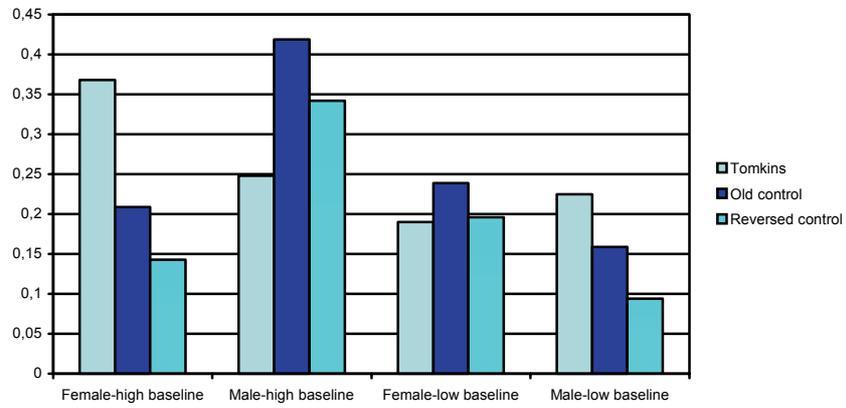


Figure 8. Shame-signs after the shame point depending on baseline levels of shame-signs and experimenter.

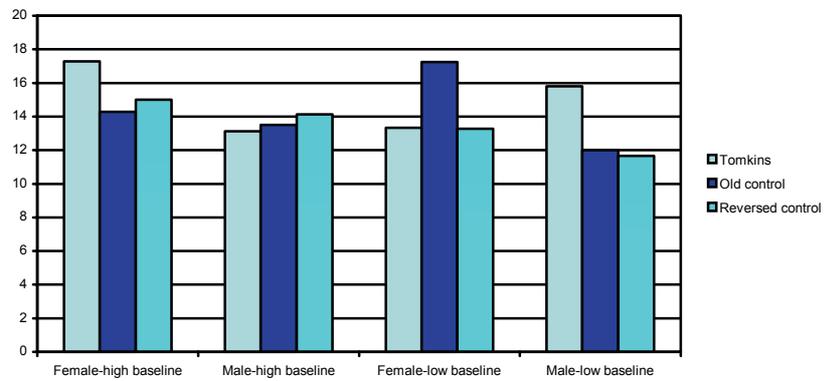


Figure 9. Social perception comparing feedback sequences depending on baseline levels of shame-signs and experimenter.

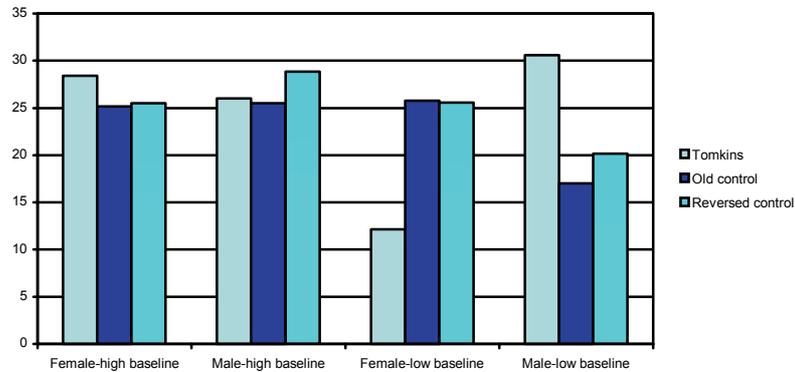


Figure 10. Self-neglect comparing feedback sequences depending on baseline levels of shame-signs and experimenter.

All effects were larger for female participants in Study II. In addition, as just shown, experimenter and baseline levels of shame had a consistent influence in Study III. I therefore speculated that perhaps a participant – experimenter sex interaction was responsible for the contradictory results in the two subsamples in Study III:cs. I therefore explored if there was a participant sex X experimenter interaction on baseline levels of shame-signs. Indeed, there was a significant interaction ($F [1,74] = 4.055, p = .048$). Comparison of female versus male participants showed that with the male experimenter, there was a substantial difference indicating that men displayed less shame than women at baseline ($d = -1.18, p = .004$). There was no difference in the female experimenter sample ($d = -.06, p = .727$). Thus, male participants displayed less shame-signs compared to female participants in the presence of the male experimenter, while the female experimenter had no such influence. This minimizing effect on shame display at baseline on male participants with the male experimenter might explain why the baseline influence was consistently opposite between the subsamples. But why was it the low baseline group that displayed more shame-signs, compared to the control group, at the shame point in the male experimenter sample? For the male participants, one, highly speculative, interpretation would be that displaying less shame-signs at baseline was the effect of defensive inhibition of emotional display, and that participants employing these maneuvers were the most shame sensitive. Unprepared for the sudden shift of feedback in the Tomkins sequence, they were accordingly the ones displaying more shame.

Baseline levels of shame

Finally, I examined between - studies differences regarding baseline levels of shame. There was a marked difference between the experiments using unconscious feedback in Study II and Study III. In Study II: ucs mean (*sd*) for baseline shame in the experimental condition was .230 (.151), and in the control condition .231 (.139). In Study III: ucs the corresponding values were .126 (.070) and .160 (.107). These between-study differences correspond to large and medium effect sizes ($d = .95$, experimental condition; $d = .58$, control condition). In Study III the difference in shame-signs following the Tomkins sequence versus the "old" control sequence was .07, virtually zero in the "high baseline" group (groups based on a median split), but $-.68$ in the "low baseline" group, with more shame in the old control group, contrary to predictions. The unexpected difference at the shame point was thus most marked for low baseline participants. Still, the baseline shame X feedback interaction on shame-signs at the shame point in Study III was not significant ($F [2, 71] = 1.385, p = .257$), leaving the implications of the large discrepancy between the studies unclear.

General discussion

In the following the main findings in the three studies presented above will be summarized. I will also discuss possible interpretations and implications of these findings, as well as limitations and considerations regarding design and methodology. At the end of each section, some suggestions for future research will be made.

Shame as a personality trait and early interactions: associations between internalized shame and memories of childhood mother-interactions

In two questionnaire studies we explored how shame defined as a self-image characterized by feelings of worthlessness, loneliness, and inferiority is associated with memories of early important interactions. We found that memories of a blaming, attacking, and ignoring mother all were associated with shame. However, memories of an ignoring mother showed the strongest association with shame. Even though all three negative clusters correlated highly with internalized shame, repeated findings in Study I as well as Study II indicate the validity of a stronger association between shame and SASB cluster 8.

As noted in the introduction to Study I, early shaming interactions are considered the main prerequisite for developing a shame prone personality, and these findings contribute some empirical support to that notion. There are, however, always difficulties in drawing causal conclusions from a cross-sectional design. Still, there is some evidence that retrospective reports cannot be discounted as accounts of past perceptions (Brewin, Andrews, & Gotlib, 1993). Whether our results concern the actual past patterns of interaction leading to internalized shame, or rather present social perception colored by shame, is however not clear. Which ever is true, a possibly clinically useful assumption would be that shame prone persons would be especially sensitive to behaviors that could be interpreted as ignoring or rejecting.

Then why do memories of an ignoring mother have a stronger relationship with shame than memories of an attacking or blaming mother? Tomkins' theory (1963, 1995) proposes that the evolutionary based function of shame emotion is to break off communication in the face of mismatching

information, e. g. a misattuned response. Nathanson (1992) in his elaboration of Tomkins' theory emphasizes the consequences of this break as a feeling of being cut off and isolated from social interaction. While blaming and attacking behaviors from significant others still can be considered relevant to experiences of shame, the maternal behaviors described in the Ignore-cluster perhaps capture this sense of non-communication, isolation and abandonment better than the Blame- and Attack-cluster. It might be that it adds that painful quality of social isolation inherent in shame according to Tomkins (1963) and Nathanson (1992). In the well-validated dimensionality underlying the SASB model, Ignore is closer to the independence pole than are Attack and Blame. Still, direct observational studies as part of a longitudinal design would be a more powerful way of testing the implications of this study.

Activation of shame emotion

We now turn our focus from shame as a personality trait involving elaborate cognitions as well as subjective emotional experiences, to shame emotion as a momentary, innate mechanism, common to all.

In four experiments we explored Silvan Tomkins' concept of shame as the consequence of impeded positive emotion. In two experiments results partly supported Tomkins' theory. Post-hoc analyses revealed that there were differences in both experiments between conditions already after the praise feedback following task 5 where the Tomkins group displayed more shame already at this point. Exploration of these results showed an influence of internalized shame in both experiments, indicating that it was participants with a high degree of internalized shame who reacted with shame to the praise. Therefore, with high ISS participants the sequence of positive feedback seemed to have failed in establishing positive emotion, i. e. the first part of the shame situation postulated by Tomkins. Thus, the hypotheses regarding shame activation in these experiments were successfully tested only with low ISS participants. With only low ISS participants in the analyses, results, however, mainly significantly or trend-significantly supported our hypothesis. That is, a positive feedback sequence interrupted by negative feedback elicited more motor signs of shame than a continuously negative feedback sequence, regardless of whether the trigger was consciously or unconsciously perceived.

Trying to understand the influence of internalized shame, we speculated that a negative sense of self might be in conflict with emphasized praise, possibly perceived as undeserved. This explanation is in line with theories of self-verification (e. g. Swann, Stein-Seroussi, & Giesler, 1992), where people have been found to prefer negative feedback verifying their current self-image, to unexpected positive feedback. Also, Miller (1996) mentions how

praise can elicit a sense of being conspicuous, and how that to some people is a cause of embarrassment.

In the two following experiments we, however, found no support for Tomkins' shame conceptualization. Neither did internalized shame have any influence on reactions to praise in these experiments. With conscious feedback there were no notable differences between the feedback sequences, and with unconscious feedback the participants in the continuously negative feedback group displayed more shame-signs, compared to the other feedback sequences, quite contrary to our predictions. In an attempt to understand the lack of consistency between Study II and Study III, I performed post-hoc analyses examining the samples for any notable pre-experimental and other differences. Comparison of the patterns of change from baseline to the shame point indicated that in the experiments using conscious activation similar processes might be involved, although with far stronger effects in Study II. I further explored reasons for the weaker support in Study III:cs. In this experiment one obvious difference was the male experimenter who ran half of the participants, with a female experimenter running the other half. In Study II:cs there was only one female experimenter. Conducting three-way ANOVAS, I found significant baseline shame X feedback X experimenter interactions on all three outcome measures. Examination of the subsamples, divided by experimenter, revealed a consistent influence of baseline shame in opposite directions in the two subsamples. This could imply that the activation of shame is far more sensitive to personal characteristics and social context than Tomkins assumed.

Further exploration of these differences related to experimenter revealed that male participants displayed significantly less shame *at baseline*, compared to women, in the presence of a male experimenter, while there were no differences in shame display between men and women in the presence of a female experimenter. This finding is in line with research showing that men are more defensively restrictive in displaying so called weak emotions, among them shame, particularly in male-male interactions (Ferguson & Eyre, 2000; Fischer, Rodriguez-Mosquera, van Vianen, & Manstead, 2004; Hall, Carter, & Horgan, 2000). The findings of Baldwin, Grantzberg, Pippus, & Pritchard (2003) also point to the relevance of investigating sex differences. They found differences between female and male participants in effects on self-evaluation following social acceptance versus rejection feedback in an experimental situation. In line with our findings in Study III:cs, their data suggested defensive strategies among the male participants. The implication of this participant – experimenter sex influence is, however, difficult to fully evaluate, since small cell sizes made the same analysis comparing conditions after the shame point unsuitable. Still, the male – male effect on baseline display of shame might contribute to the reversed patterns in the male versus female experimenter samples regarding baseline influence on the outcome measures, and subsequently to the weaker overall effects in

the total sample. Note, again, that while sex was the obvious difference between the experimenters in Study III:cs, other differences may have been the important ones.

Comparing the experiments using unconscious feedback, patterns of change from baseline to the shame point indicated qualitatively different processes in the two experiments. Further examination of the samples revealed a notable difference between the experiments regarding baseline levels of shame-signs, where Study III:ucs had markedly lower means. In Study III the difference in shame-signs following the Tomkins sequence versus the old control sequence also corresponded to 'no effect' using Cohen's criteria in the "high baseline" group (groups based on a median split), but to a 'medium' effect size, in an unpredicted direction, in the "low baseline" group. This influence at baseline was not significant, but since it was mainly the low baseline group in Study III that accounted for the unpredicted result with more shame signs in the old control group, one cannot disregard the possibility that the baseline differences between the experiments contributed to the discrepant results. Whether the differences depended on unfortunate sampling differences, or that the experimenters in Study III:ucs had a shame reducing influence on participants that the experimenter in Study II did not, is not clear.

With respect to the reversed control condition, there was nothing to indicate that a sequence of negative feedback exchange by positive activated shame. A recent unpublished study tested Tomkins' theory using similar feedback sequences and identical shame sign codings as those used here, but in a live, socially interactive setting (Ekström, 2004). In line with Study II, Ekström (2004) did find significantly more shame-signs after the Tomkins sequence than after continuously negative feedback (i.e. our "old control"), with $d = .51$. The difference between the reversed sequence and the one corresponding to our old control was not significant. Since the Tomkins sequence did not activate shame in Study III, the influence of the reversed control is, however, difficult to fully evaluate.

Thus, Study III gave no support to our findings in Study II. Still, in view of the more substantial and consistent effects in Study II, not the least the strikingly specific results on self-neglect, as well as the findings in Ekström (2004) where the Tomkins sequence generated more shame than a continuously negative control sequence, it might be premature to discard Tomkins' conceptualization altogether. Post-hoc exploration indicated that participant and experimenter characteristics possibly moderated the results in the Study III. If the between-study differences described above explain the lack of consistency in our results, the implication might be that shame is not unconditionally activated following the sequence Tomkins suggested, but highly dependent on personal characteristics and social context. This interpretation would be more in line with Gilbert (1998), who argues that although shame is an evolved regulatory mechanism, its triggering conditions and function is

limited to situations of social relevance. Although any situation involving interpersonal interaction is social, the one we created for these experiments was minimally so. As suggested by the post-hoc analyses in Study III, a weakness in Tomkins' theory might be overgenerality, i.e. that it is not restricted to social situations but described as though applying to any situation involving impeded positive emotion. Future studies might benefit from a systematic exploration of personal and social factors possibly influential to the activation of shame.

Consequences for social perception and self-neglect

Exploring consequences of shame activation, we found in the first two experiments that the Tomkins sequence was associated with more positive social perception and less self-neglect, using conscious feedback, and more negative social perception and more self-neglect, using unconscious feedback. In addition, these findings could not be attributed to differences in general mood. With regard to self-image, effects were only found for the predicted "Self-neglect" cluster, again indicating shame specific effects. The more positive reactions following the Tomkins sequence in the conscious feedback condition was contrary to our hypotheses. A speculative interpretation of these findings was that when participants were aware of the cause of their shame reaction, they also had more opportunity to regulate their emotions and restore a positive sense of self and social relatedness. These results were, however, not repeated in Study III. There were no significant differences between conditions for either social perception or self-neglect in any of the experiments. Since there were no indication of the predicted shame activation in either experiment, the absence of shame specific consequences is perhaps not unexpected. Study III therefore did not add to our understanding regarding social consequences of shame. The intriguing findings from Study II, however, indicating shame specific consequences for social perception and self-image, with different processes seemingly involved depending on whether the shame trigger is conscious or unconscious, still deserves further exploration.

Methodological issues

If the results from Study III imply that Tomkins' shame concept is far too general, and that shame is primarily a socially dependent emotion, this raises questions about our operationalization of the shame activating sequence, as well as the experimental situation. We designed a situation involving, allegedly, intellectual performance. In an attempt to keep control over as many parameters as possible, we minimized the social aspects of the situation.

Apart from knowing the sex of the experimenters, we were therefore left with little data informing us about the nature of the social influence on the experience of shame. A design involving explicitly social aspects, for example social acceptance followed by rejection, might be more externally valid than one involving intellectual achievement. Systematically varying the social aspects of the experimental situation, e.g. characteristics such as sex and status (Gilbert & McGuire, 1998) of interacting participants, and alleged purpose of the interaction, to mention a few of many possibilities, would also allow some control over factors possibly influencing the shame reaction. In line with an emphasis on the social aspects of the shame experience, more implicit, observational measures of social behavior following shame activation might also prove more valuable than self-report forms. The associations between relevant social factors and conscious versus unconscious activation will also need further exploration, with systematic variation of social context and level of awareness of the shame triggering manipulation.

Another issue regarding our operationalization of the Tomkins sequence concerns the activation of positive emotion. For shame to be activated, according to Tomkins, there must be a preceding state of positive emotion, i. e. interest and/or enjoyment. The tasks constituting the Tomkins sequence were designed to resemble an intelligence test in order to arouse interest and a wish to performed well. The success feedback we also thought would activate joy. Still, we took no direct measure of the positive emotions. However, accumulated experience within positive emotions research (Isen, 1999), proposes positive feedback after an ambiguous task as one of the preferred methods of activating positive emotion. In addition, a recent meta-analysis (Nummenmaa & Niemi, 2004) suggests that success-failure manipulation (SFM) is the superior method of inducing emotion, and bogus intelligence tasks being one of the recommended kinds of tasks with student or adult samples. Viewing our videotapes, there was also nothing that indicated that participants lost interest, e. g. that they only pushed the button to be done with it, without actually giving the task any time or effort. In line with our concerns regarding the degree of shame relevance of the experimental manipulation, it might, however, still be useful to vary the SFM in the direction of social success versus failure, i.e. acceptance and inclusion versus rejection and exclusion.

The unexpected influence of the personality trait of internalized shame found in Study II also raises the issue of how to elicit positive emotion. Although these findings were not repeated in Study III, future research might benefit from an awareness of individual differences in reactions to situations intended to be positive. Creating a situation generally experienced as positive. i. e. interesting and /or enjoying, is a challenge. Since any situation might be susceptible to moderating personality factors, inclusion of relevant measures of personality traits, such as the ISS, could allow some control over these factors.

Summary and conclusions

The aim of this thesis was the exploration of shame. I examined the relation between internalized shame and memories of early interactions, as well as Tomkins' concept of shame as an innate, momentary emotion. I also explored the influence of internalized shame as a personality trait on momentary shame emotion. Thirdly, I studied how momentarily activated shame influences perception of self and others. Finally, I compared consequences of conscious versus unconscious shame activation.

Data from two survey studies imply that memories of ignoring and abandoning behaviors from mother are those that correlate most strongly with internalized shame. In the four experimental studies, internalized shame did not seem to influence momentary shame emotion, although two experiments implied different reactions to the praise that constituted part of the shame activating sequence depending on degree of internalized shame. These four experiments are among the very first to empirically test the validity of Tomkins' shame concept. Two experiments in part supported Tomkins' notion of shame as a consequence of impeded positive emotion. However, participants with a high degree of internalized shame reacted with shame emotion to the praise feedback intended to elicit positive emotion. Therefore Tomkins' concept of shame was successfully tested only with participants with a low degree of internalized shame. With this group, Tomkins' conceptualization, however, received support. In addition these two experiments implied different processes for consciously versus unconsciously activated shame, since consequences for social perception and self-image following shame were reversed depending on whether the activating circumstances were conscious or not. The two subsequent experiments did not support the conclusions from the previous two, but gave some implications that shame activation, its consequences, and the effects of conscious versus unconscious activation are highly dependent on personal characteristics and social context.

Taken together, data give some support to the validity of Tomkins' shame conceptualization, but implies that it might be far too general, and that shame emotion might be primarily socially dependent. Future studies would benefit from a design using socially relevant situations, with the opportunity of systematic variation of constellations involving personal characteristics, social setting, and level of awareness of the shame activating manipulation.

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