**Supplemental Material**

**Supplemental Methods: Affective stimuli**

Valence ratings above 7 or below 3 were, respectively, used to identify positive and negative IAPS pictures while an average valence rating of 5 (±0.5) was used for neutral pictures [1]. Regardless of positive or negative valence, pictures were also selected on the basis of high (≥6) normative arousal ratings (supplemental Table S1). Positive images depicted adventure scenes (e.g. cliff diving, mountain climbing), negative images portrayed scenes of violence (e.g. aggression, physical brutality, and combat), or threatening figures or weapons (e.g. pointed guns, looming attackers). Neutral pictures showed buildings and household objects. Normative arousal ratings did not differ between negative and positive pictures (p > 0.05).

**Supplemental Table S1:**

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| **Table S1. Valence ratings for the stimuli used in this study** | | | | | |
| **Valence** | **Healthy individuals** | | **Patients with Bipolar Disorder** | | |
|  | Normative IAPS values | Study Sample | Remitted | Depressed | Manic |
| **Positive** | 7.40 (0.31) | 7.01 (0.65) | 6.53 (0.70) | 6.62 (1.16) | 6.29 (1.04) |
| **Negative** | 2.27 (0.39) | 2.16 (0.57) | 2.20 (0.67) | 2.46 (0.92) | 2.05 (0.58) |
| **Neutral** | 4.87 (0.23) | 5.10 (0.26) | 5.18 (1.03) | 5.62 (2.00) | 5.15 (0.73) |
| Data are presented as mean (standard deviation); IAPS Picture numbers were as follows:  Set 1: negative pictures: 3010, 3170, 3180, 3500, 6212, 6230, 6313, 6360, 6370, 6510, 6821, 6830, 9006, 9050, 9253, 9410, 9611, 9921; positive pictures: 8300, 4640, 5270, 5470, 8034, 8080, 8090, 8170, 8180, 8190, 8370, 8380, 8400, 8470, 8496, 8501, 8531, 4607.  Set 2: negative pictures: 3063, 3550, 6250, 6300, 6350, 6560, 6570, 6831, 8230, 9250, 9252, 9400, 9420, 9600, 9630, 9800, 9810, 9910; positive pictures: 4599, 4608, 4660, 5260,5450, 5460, 5480, 5621, 5623, 5629, 5700, 5910, 7502, 8030, 8200, 8210, 8420, 8490; neutral pictures (common between two sets): 7090, 7004, 7006, 7010, 7020, 7031, 7035, 7040, 7060, 7080, 7110, 7150, 7175, 7185, 7187, 7217, 7491, 7000. | | | | | |

**Supplemental Methods: Measures of physiological arousal**

***Skin conductance***

Skin conductance (SC) methodology was constantly acquired by a SC5 digital amplifier (24 bit resolution) using a constant voltage (0.5 V) method from the index and middle fingers of the non-dominant hand. Two pre-wired Ag/AgCl electrodes were filled with 0.5% Mansfield electrode paste and collars (TD-22 EL1. Med Associates Inc., St Albans. VT. USA) were used to give a constant area of 0.8 mm per electrode [2]. The channels were defined as follows: Sampling rate 1000 Hz, Hz idling 100, graph speed % of max 100, range 1 mV, high pass filter 10 Hz, low pass filter 40 Hz, buffer size 1024. The accuracy of SC measurement was checked with the two calibrator buttons [20 and 0.1 μS] provided in the pre-amplifier. At the beginning of the session there was a 15-min idling period in order to calibrate participants’ responses before SC recordings began. The signal was sampled at a rate of 100 Hz per second, measured into a SC value (in μS) and saved for later analysis. Raw data were then converted into standard ASCII format files with PSYLAB-8 software (www.psychlab.com) and then into numeric values for further analysis. All recordings were screened visually for possible artifacts.

Skin conductance responses (SCR) were identified according to the recommendations of the Committee on Electrodermal Measures of the Society for Psychophysiological Research [3]. The SCR were defined as local maxima with minimum amplitude of 0.01 μS and minimum rise time of 500 ms. For each image the amplitude of the maximum SCR peak (maximum SC amplitude) was measured from image onset until participants indicated the end of the associated emotional response by button press. Maximum SC amplitude refers to the maximum level reached compared to the start of the SC response. In each condition (passive and suppression) the maximum SC amplitude were averaged separately within each valence.

***Inter-beat interval***

Inter-beat interval refers to the interval, in milliseconds, between successive heart contractions (R waves of the ECG). We recorded participants’ ECG using three disposable electrodes each attached to the chest (beneath the right and left clavicle) and upper left abdominal quadrant. Raw data were converted into standard ASCII format files with PSYLAB-8 software. A Schmitt trigger was used to mark the occurrence of each R wave, and record IBI to the nearest millisecond. IBIs were averaged for each valence within each condition (passive and suppression).

**Supplemental Methods: Instructions for each experimental condition**

**Instructions during passive viewing**: At the beginning of the passive condition the following instructions were presented on screen: “You are going to see a number of images (one at a time) that may make you feel various different emotions. I want you to look at them and allow yourself to naturally experience any emotional reaction to these images. After each image you will see a black screen. During this black screen, I want you to press the spacebar when you feel that the emotion from the image you previously saw is gone. In other words, you need to wait until your response fades away and then press the spacebar. After pressing the spacebar, you will be asked to rate the intensity of the emotion you felt while viewing the image by clicking with the mouse on a scale that ranges from 1 (minimal intensity) to 10 (extremely high intensity): for example, clicking on the lowest bar would mean that the image had a minimal emotional effect on you while clicking on the highest bar would suggest that the images had a major emotional effect on you. Please remember that this task does not require any effort from you in order change your emotional response in any way: you may take as much time as you need before pressing the spacebar.”

**Instructions during suppression**: At the beginning of the suppression condition participants were given the following instructions: “You are going to see a number of images (one at a time) that may make you feel various different emotions. I want you to look at them very carefully allow yourself to feel whatever you see in these images each time. After each image you will see a black screen. During this black screen period, I want you to regulate any emotion you felt from viewing the image. Please press the spacebar when you feel that the emotion from the image you previously saw has been successfully suppressed by you. After this, you will be asked to rate the intensity of the emotion you felt while viewing the image by clicking with the mouse on a scale that ranges from 1 (minimal intensity) to 10 (extremely high intensity): for example, clicking on the lowest bar would mean that the image had a minimal emotional effect on you while clicking on the highest bar would suggest that it had a major emotional effect on you. Please remember that this is an active task that requires effort from you in order to make the emotional response go away; you may take as much time as you need before pressing the spacebar.”

References

[1] Lang PJ, Bradley MM, Cuthbert BN. International affective picture system (IAPS): Affective ratings of pictures and instruction manual. Technical Report A-8. University of Florida, Gainesville, FL.: 2008

{2} Fowles DC, Christie MJ, Edelberg R, Grings WW, Lykken DT, Venables PH. Committee report. Publication recommendations for electrodermal measurements. Psychophysiology 1981;18:232–9.

[3] Boucsein W, Fowles DC, Grimnes S, Ben-Shakhar G, Roth WT, Dawson ME, et al. Publication recommendations for electrodermal measurements. Psychophysiology 2012;49:1017–34.