

Appendix A: Paper-and-pencil survey component of the VV-SRP Task

Please tell us how much each word below describes 1) *how you think about yourself*, and describes 2) *how you think about other people, in general*. Since how you think about yourself may be different from how you think about other people, you will be asked to answer these questions separately. Please write beside each word a number from 0 to 10, where **0** means the word does **not** describe how you think about yourself or other people **at all**, **5** means the word describes how you think about yourself or other people “**moderately well**”, and **10** means the word describes how you think about yourself or other people “**completely**”.

When answering the question “*How much does this word describe how you think about other people, in general?*”, please answer the question in terms of what you think people are like *in general*, or *on average*, or what you think *most* people are like. Please *don't* base your answer totally on just what you think a few people that you know are like. Also, please rate what *you* think about other people, not what you think other people may think about themselves.

When answering the question “*How much does this word describe how I think about myself?*”, it may be that a word describes how someone else you know may think about you. If that doesn't make you think the same way about yourself, don't worry about that. But if their thinking influences *your own* way of thinking about yourself, you might choose to take this into account when answering. Remember though that we're interested in how much each word describes *how you think about yourself*.

If you're unsure whether a word describes how you think about yourself, you might ask yourself: “Do I think of myself as being [word]?”. If you're unsure whether a word describes how you think about other people, you might ask yourself: “Do I think other people are [word]?” or “Do I think of other people as being [word]?”.

0 = Not at all, 5 = Moderately Well, 10 = Completely...

		How much does this word describe how I think about myself?	How much does this word describe how I think about other people, in general?
1	Worthless		
2	Failure		
3	Inferior		
4	Disappointment		
5	Disgrace		
6	Unlovable		
7	Unwanted		
8	Rejected		
9	Abandoned		
10	Alone		
11	Cared for		
12	Supported		
13	Desirable		
14	Loveable		
15	Loved		
16	Strong		
17	Capable		
18	Confident		
19	Resilient		
20	Secure		

Appendix B: Affect rating debriefing component of the VV-SRP Task

What did you notice about how you were feeling and reacting when you viewed your OWN face when paired with the negative words? _____

...how about when you viewed your OWN face when paired with the POSITIVE words?

...how about when you viewed the OTHER PERSON's face when paired with the NEGATIVE words? _____

...how about when you viewed the OTHER PERSON's face when paired with the POSITIVE words? _____

Now I'd like to ask how much you felt certain specific feelings in response to each picture and word type combination. Please say a number from 0-100% Rating to indicate how much you felt each feeling where 0 = means "Not at all", 50% = "Moderately", 100% = "Strongly".

	Self-Negative	Other-Negative	Self-Positive	Other-Positive
Anger				
Sad				
Anxiety-Fear				
Disgust				
Bad about Self				
Happy				

Visual and Verbal Self Referential Processing (VV-SRP) Task –
Instructions given for Experimental Component of the Task

INSTRUCTION FOR PHOTO TAKING: “For the photograph, please present as if for a passport picture, that is, please don’t smile, but instead be in neutral expression.”

INSTRUCTION FOR TASK:

“In this task you will be required to do three things: 1) Internally rehearse some statements and read words, 2) Press buttons on your computer keyboard, and 3) *All the while pay close attention to how you are feeling throughout the different parts of the task.* I will describe the task to you in words, but if it sounds complete don’t worry; you will have a chance to ask any questions about the task that you might have, and you will have a chance to practice it before the task begins. Most people will find the task is pretty straightforward after they’ve had the chance to practice it, but please feel free to ask any questions you might have about how the task is to be performed at any time.

You will first see a “plus” sign on the screen, for about 12 seconds. Please view the plus sign until you see either the word “SELF” or “OTHER”. These words will let you know whether you are about to see either your own picture, or the picture of another person. Please consider the other person as any typical person you might meet in your day-to-day life, but presently do not know personally.

On trials when you see your own picture, you should say to yourself “I am”, and then press the ‘1’ [or 2, depending on counterbalancing] button on your keyboard, whereas on trials when you see the picture of the other person, you should say to yourself “She is” [or “He is”, depending on participant gender], and press the same button on your keyboard. Please press the ‘1’ [or 2] button with your index finger of your dominate hand [or middle finger, depending on counterbalancing and handedness].

After you see the picture, you will see either a positive or negative word. Please silently read the word to yourself, and then press the ‘2’ [or 1, depending on counterbalancing] button on your keyboard with your middle finger of your dominate hand [or index finger, depending on counterbalancing and handedness].

You will then see the same picture again, either of yourself or the other person, and a new word, again either positive or negative; this will be repeated until you have seen five pictures and five words altogether. Please note that the positive and negative words you will see are the same ones that you rated before on the questionnaire. Please continue to recite the statements “I am” or “She [He] is”, read the words, and press the buttons for all of the pictures and words that you see. After the fifth and final word, you will see the plus sign again, and can wait for the next trial of pictures and words to be presented.

Altogether, you will see eight (8) sets of picture-and-word combinations, in which half of the pictures will be of you whereas the other half will be of the other person, and in which half of the words are positive and half of the words are negative. The order in which the trials will be presented to you, whether involving presenting your own picture with positive words or negative words, or presenting the other person's picture with positive words or negative words, is completely randomized by the computer.

Altogether, in order to complete one set of eight (8) picture and word combinations, it will take about six (6) minutes. You will then have a short break, before repeating the process for another set of eight (8) picture-and-word combinations, and finally a third set of eight (8) picture-and-word combinations.

It is important that you press the buttons so that we can assess afterwards whether you were paying attention to and actually completing the task. It is also *very important* that you pay close attention to how you are feeling throughout the different parts of the task, because we will be asking you questions about this after the task is completed. Different people will respond differently to the task, and there is no *right* or *wrong* way to respond to the task. Some people will find it neutral, whereas others may find it arouses different experiences, often emotional in nature.

In summary then, depending on what trial it is, you will be viewing pictures of either yourself or another person, paired with positive or negative words. The task requires you to do three (3) things, all of which are important: 1) Internally rehearse the statements "I am" or "She [he] is" and read the words, 2) Press response buttons on your computer keyboard after saying to yourself "I am" or "She [he] is" and reading the words, and 3) All the while pay close attention to how you are feeling throughout the different parts of the task.

Do you have any questions?...[Address individual questions]

Okay, the first thing is for us to just have a look at the pictures of ourselves and the other person that we will see in the task, just to get normalized to them. Press any button to see your own picture. [Pause a few seconds...] Once you're finished taking a look at your own picture, please press any button to see a picture of the person, meant to be thought of as as any typical person you might meet in your day-to-day life, but presently do not know personally. [Pause a few seconds...]

Okay, let's practice the task now. In the first two practice trials, one will be your own picture, and the other will be the other person's picture. Just for practice, in these first trials, instead of the positive and negative words, you will only see the word "WORD". Depending on what picture is presented, either say to yourself "I am" or "She [he] is", and then press the 1 [2] key, then read "WORD" and press the 2 [1] key. Keep repeating for the other pictures and words. Press any key to begin.

[During conduct of the practice trials, the experimenter now walks around room, saying to participant and motioning with fingers the button presses as follows:] “*I AM*, and press 1 [2], *WORD*, and press 2 [1], *I AM*, and press 1 [2], *WORD*, and press 2 [1], etc etc”. Or: “*SHE [HE] is*, and press 1 [2], *WORD*, and press 2 [1], *SHE [HE] is*, and press 1 [2], *WORD*, and press 2 [1], etc etc”.

Okay, now that you have completed the practice trials, are there any other questions?...[Address individual questions]

Okay then, please feel free to begin, keeping in mind how important it is that you pay close attention to how you are feeling throughout the different parts of the task, so you can answer questions about this after the task is completed. Please press any key to begin....”

[The program pauses at a screen indicating “You have completed the first/second/third set! Please wait for further instruction.” after completion of 8 trials. At this time the experimenter says either:] “Now that you have completed the first/second set of the task, please take a moment to pay attention to and recall how you are currently feeling, and how you felt in response to the different parts of the task. When you are ready, press any button to start the second/third set, keeping in mind how important it is that you pay close attention to how you are feeling throughout the different parts of the task, so you can answer questions about this after the task is completed.”

[After the third set, the experimenter says:] “You have now completed the cognitive task. A sheet in front of you asks about what you noticed about how you were feeling and reacting during each of the different parts of the task, specifically when your OWN face was paired with the negative words versus the positive words, and when the other person’s face was paired with the negative words versus the positive words. Please complete the questionnaire to the best of your ability, and feel to ask any questions you might have about the questionnaire.”

[Upon completion of the questionnaire, participants are to be thanked, have the opportunity to ask questions about the study, and provided with a letter of information generally describing the questions of scientific interest as well as references for further reading, along with contact information of the primary investigators]

Table 3 (Supplementary)

Content analysis of subjective experiences in response to VV-SRP Task by Reference and Valence

Code	S-N ICC	S-N (n)	S-P ICC	S-P (n)	O-N ICC	O-N (n)	O-P ICC	O-P (n)	Cochran's Q (for $\chi^2[3]$)	p
1A. LIKED/Preferred...	1.0*	0	.90	5	1.0*	2	.66	4	5.71	.13
1B. DIDN'T LIKE...	.39	11 ^c	1.0*	3 ^c	.56	2	1.0*	0	20.00	<.001
2. Didn't want to...	.56	4	1.0*	0	1.0	1	1.0*	0	---	--
3A. Wanting...to press...	1.0*	0	.85	3	1.0*	0	1.0	2	---	--
3B. NOT wanting to press...	1.0	4	1.0*	0	1.0	1	1.0*	0	---	--
4. Felt detached...	1.0*	0	1.0*	0	1.0*	0	1.0*	0	---	--
5. Unexpected feeling...	1.0	6	.66	2	1.0*	0	1.0*	0	12.00	.007
6. Task was humorous...	1.0	1	1.0*	0	1.0*	0	1.0*	0	---	--
7. Felt neutral	.92	16 ^c	.96	16	.87	20 ^c	.82	21	1.84	.61
8. Felt bored	1.0*	0	1.0*	0	1.0*	0	1.0*	0	---	--
9A. LESS... with repetition	.39	4	1.0	1	1.0	1	1.0*	0	---	--
9B. MORE... with repetition	1.0*	1	1.0*	0	1.0*	1	1.0*	0	---	--
10. Caused anger...	.93	7	1.0	1	.38	3	1.0*	1	8.47	.04
11. Felt sad, upset...	.81	30	1.0*	0	.59	7	1.0*	0	72.09	<.001
12. Caused negative thinking...	.81	15	1.0*	0	1.0*	0	1.0*	0	45.00	<.001
13. Anxiety, distress...	1.0	9	1.0*	1	1.0	3	1.0	1	16.13	.001
14. Felt happy, good...	1.0*	0	.86	35	1.0*	0	.86	13	77.91	<.001
15. Felt good about	1.0*	0	.84	22	1.0*	0	1.0*	0	66.00	<.001

self...										
16. Relief...	1.0*	0	.57	5	1.0*	0	.48	0	12.72	.005
17A. AGREED...	.85	3	.89	17	.27	4	.48	6	19.23	<.001
17B. DISAGREED...	.74	20	1.0*	0	.92	6	1.0*	2	36.00	<.001
17C. PARTIALLY AGREED...	.40	4	.57	4	.66	3	1.0*	1	---	--
18. Caused reflection...	.69	6	1.0	3	.48	2	.22	2	3.69	.30
19. Caused...memories...	.80	3	1.0	1	1.0*	0	1.0*	0	---	--
20. ...as if someone else saying...	.79	5	1.0	3	1.0*	0	1.0*	0	9.82	.02
21. Impact of another condition	1.0*	0	1.0*	0	1.0*	0	.40	4	---	--
22A. INCREASE in Attention to	.80	2	.80	3	1.0*	0	1.0*	0	---	--
22B. DECREASE in Attention to	1.0*	0	1.0*	0	1.0*	1	1.0*	1	---	--
23A. POSITIVE... perception of face...	1.0*	0	.85	4	1.0*	0	1.0	4	---	--
23B. NEGATIVE... perception of face...	.66	4	1.0*	0	.52	6	1.0*	0	12.46	.006
24. Stranger influenced response...	1.0*	0	1.0*	0	.81	10	.85	3	21.65	<.001
25A. ...myself as BETTER than other...	1.0*	0	1.0*	0	1.0	1	1.0*	0	---	--
25B. ...myself as WORSE than other...	1.0*	0	1.0*	0	1.0*	0	1.0	2	---	--
26. Felt jealousy or envy...	1.0*	0	1.0*	0	1.0*	0	.93	8	24.00	<.001
27. Felt happy...for other person	1.0*	0	1.0*	0	1.0*	0	.90	12	36.00	<.001
28. ...personal connection with other	1.0*	0	1.0*	0	1.0	0	1.0*	0	---	--

29. ...sympathy, pity...	1.0*	0	1.0*	0	.97	26	1.0*	0	78.00	<.001
30. ...too judgmental/ harsh toward other...	1.0*	0	1.0*	0	.84	16	1.0*	0	48.00	<.001
31A. LIKED... other person	1.0*	0	1.0*	0	1.0*	0	.60	8	24.00	<.001
31B. Disliked other person...	1.0*	0	1.0*	0	.65	7	1.0	2	15.72	.001

Legend

Code title in Full	Example ¹ (condition example observed in)
1A. LIKED this part of the task, or Preferred (liked more, found more comfortable) than another task condition, EASIER to respond to (emotional significance implied)	easier - made it easier to say in my head and thus want to push button (S-P)
1B. DIDN'T LIKE this part of the task (or found less comfortable), or liked less than another task condition (incl. preference for negative being paired with other rather than self), More 'DIFFICULT' (emotional significance implied)	I did not like viewing my face with words negative words ... (S-N)
2. Didn't want to perform/wanted to or tried to avoid effect task has (not specific to button pressing, e.g., could be implying rehearsing the words)	I did not want to tell myself "I am" to the negative feelings... (S-N)
3A. Wanting (GREATER desire) to press the button (can be implied) or FASTER	I felt more willing to press the key sooner, more comfortable with this pairing (S-P)
3B. NOT wanting (LESS desire) to press the button (can be implied) or SLOWER	I was reacting slower, and almost felt hesitant to press the "I" key (S-N)
4. Felt detached/dissociated	...after awhile I became disengaged. (S-N)
5. Unexpected feeling (surprised/startled/stunned/weird)	...felt sort of weird calling her negative things (O-N)
6. Task was humorous, comical, silly, made me laugh	It made me laugh because I know I'm not those things (S-N)
7. Felt neutral or normal or no (presumed to be emotional) effect/impact, irrelevant	No significant feeling or reaction (O-P)
8. Felt bored	I was bored (O-P)
9A. LESS emotional impact with repetition	At first it was a bit shocking...By the last set I felt neutral (S-N)
9B. MORE emotional impact with repetition	At first I wasn't affected... but I progressively got more sad and began to believe the words I was saying (S-N)
10. Caused anger or irritability	...If anything annoyance at most negative

	words that weren't true (S-N)
11. Felt sad, upset, dysphoric, negative emotions etc	I felt very sad... (O-N)
12. Caused negative thinking about self (e.g., lowered self-esteem, lowered confidence – NOT JUST SAD)	I felt less confident about myself (S-N) I felt bad about myself (S-N)
13. Anxiety, distress, discomfort, unease, arousal (incl. 'heaviness') (DIFFERENT FROM SAD)	Some negative words made me feel a little anxious paired with my picture (S-N)
14. Felt happy, good, positive, light, or warm inside	I felt good and warm inside (O-P)
15. Felt good about self, proud of myself, empowered, good self-esteem (NOT JUST HAPPY OR POSITIVE AFFECT)	Made me feel confident and strong. Made me feel good about myself (S-P)
16. Relief, More Secure, Less distressing	I felt a little more relieved when positive words were shown on the screen (S-P)
17A. AGREED with statements, they fit, apply, are true, familiar, reinforced my current view (whether about self/other)	Felt I was reinforcing things I already believed in myself, felt good (S-P) ... disappointed in self because I felt some truth to it (S-N)
17B. DISAGREED with statements, they don't fit, don't apply, or are untrue, incorrect, undeserving	I felt like they were incorrect and didn't describe me (S-N)
17C. PARTIALLY AGREED with the statements	I felt that some of them actually applied to me... (S-N)
18. Caused reflection – e.g., assessment of truth value of statements or reason why (neutral or valence not obvious, or mildly negative/positive, e.g., 'hmmm', questioning, or uncertainty/ambivalence/not being sure)	Just found myself trying to judge from the picture if the words were applicable to that person (O-N) Some of the words made me begin to think about whether I am, say, "worthless"... (S-N)
19. Caused me to recollect memories associated with the statement	It made me think of times that I modelled those words (S-P)
20. Felt as if someone else was saying these things about me (incl. finding offensive/insulting)	As if someone were judging me associating me with the words (S-N) ...like I was receiving a compliment (S-P)
21. Impact of another (e.g. previous) condition on response to current condition.	I felt positive, strong, but felt like the negative words always stick in your head (S-P)
22A. INCREASE in Attention to	I felt more attentive, and I paid more attention and recited the words more articulately. (S-P)
22B. DECREASE in Attention to	Did not really pay attention to them (O-P)
23A. POSITIVE impact on perception of face (e.g., MORE attractive, positive expression)	Started to see things related to happiness, such as corners of lips as if he was going to smile (O-P)
23B. NEGATIVE impact on perception of face (e.g., LESS attractive, negative expression)	That I was uglier and found flaws in my face, also I thought I looked stupid (S-N)
24. Response impacted specifically as a result	I was angered and felt guilty saying mean

of the other person being a stranger	things about a person I don't know and I felt that they shouldn't be called such negative things (O-N)
25A. Caused me to view myself as BETTER than the other person	I felt as though I may have been superior than him (O-N)
25B. Caused me to view myself as WORSE or NOT AS GOOD AS the other person	I felt like I was comparing her to myself, felt a little inferior to be honest...(O-P)
26. Felt jealousy or envy of the other person	Jealous, wanted it to be myself. (O-P)
27. Felt happy, proud or good for the other person	I felt proud of her. (O-P)
28. Felt a personal connection with the other person	...I did feel connected to her; I felt like I could relate to her... (O-N)
29. Felt sympathy, pity, 'bad for' the other person	I felt a sense of sympathy for her. (O-N)
30. Felt I was being too judgmental/harsh toward the other person, unfair or unjust, guilt over	By saying it in my head, felt like I was personally attacking her; didn't much like that (O-N)
31A. LIKED/Viewed the other person favourably or saw them as having positive traits/attributes	I thought she looked like a nice girl and that she deserved those positive words. (O-P)
31B. Disliked the other person or saw them as having negative traits/attributes	Tended to see him more as a "loser" than at first (O-N)

Note: ¹ Whereas open-ended data were coded for all 147 participants, frequencies are based on only those 91 for whom reaction times were reliable, thus accounting for fact that certain codes were not observed in response to *any* task conditions as reported above. Examples given represent cases wherein agreement among independent raters was unanimous. ICC = Intraclass correlation coefficient. *n* = number of participants who reported experience in response to the four conditions of the VV-SRP Task.