1 **The robustness of individual differences in gaze preferences towards faces and eyes across**

2 **experimental designs and its relation to social anxiety– supplementary materials**

3

4 **Questions of the screen-based scenario:**

5 (The questions were asked in Hebrew, the mother-tongue of the participants.)

6   1. Were you born in Israel?

7   2. What is your hometown?

8   3. What is the name of the last book you read?

9   4. When did you read this book?

10   5. Do you care about how you are dressed?

11   6. Do you often buy clothes?

12   7. Do you feel that things do not excite you?

13   8. Are you an energetic person?

14   9. What things make you feel good?

15   10. Is it hard for you to find interest in things?

16   11. Are you easily stressed?

17   12. Do you adapt easily to new situations?

18   13. Do you go to parties often?

19   14. Do you go to music shows often?

20   15. Do you feel comfortable with yourself?

21   16. Do you feel desperate often?

22   17. Do you define yourself as an extrovert or an introvert person?

23   18. How will your friends define you? as an extrovert or an introvert person?

24   19. What is your favorite food?

25   20. When was the last time you ate your favorite food?

26   21. Have you seen a movie recently?

27   22. Have you seen this movie at home or in a cinema?

28   23. Do you listen to music often?

29   24. Do you hear oriental music?

30   25. Do you have a smartphone?

31   26. How many posts do you post on Facebook a week?

32   27. At what age did you get your own TV?

33   28. How many hours a day do you watch TV?

34

Questions of the real-life scenario:

(The questions were asked in Hebrew, the mother-tongue of the participants.)

1. What is your full name and ID number?
2. Are you a student at the Hebrew University? What are you studying and in what year are you?
3. Where do you currently live? How long have you been living there?
4. Where were you born? Have you lived in other places throughout your life?
5. What high school did you go to? Where is it located?
6. What was your primary track in high school? What was your average grade? If you do not remember exactly, give an approximation.
7. What was your SAT score? How many years ago did you do the exam?
8. Do you have ADHD?
9. Have you been abroad in the last year? Where?
10. What is your favorite sport activity? How often do you do it?

Internal consistency of gaze measures for screen-based and live interview scenarios

Internal consistency of each gaze behavior measure (face-preference, eye-preference and eyes-within-face-preference) was examined using a Pearson correlation between two separate sets of data. In the screen-based interview scenario we compared the measures extracted from the first and the second questions of each interviewer. In the live interview, we compared the odd and even questions. All measures were found to be highly reliable (see table S1).

Scenario	Eye-preference	Face-preference	Eyes-within-face-preference
Screen-based (N = 49)	r = 0.92, p < 0.001	r = 0.85, p < 0.001	r = 0.92, p < 0.001
Live-interview (N = 43)	r = 0.95, p < 0.001	r = 0.75, p < 0.001	r = 0.97, p < 0.001

54

*Table S1: **Internal consistency of each measure within each scenario.** Each column represents one gaze behavior measure. Each row presents the internal consistency in a certain interview scenario.*

57 **Face and eyes preferences – Full model results**

Predictors	Face-Preference			Eye-Preference			Eyes-Within-Face-Preference		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	**81.16**	**78.43 – 83.88**	**<0.001**	**45.14**	**38.70 – 51.57**	**<0.001**	**54.37**	**47.14 – 61.59**	**<0.001**
Intearction condition1	1.62	-1.18 – 4.42	0.255	-1.07	-5.51 – 3.37	0.635	-1.74	-6.49 – 3.00	0.468
Intearction condition2	**-7.15**	**-10.01 – -4.29**	**<0.001**	1.95	-2.53 – 6.43	0.391	**6.55**	**1.77 – 11.33**	**0.008**
Social anxiety trait score	**-6.08**	**-10.07 – -2.10**	**0.003**	-2.13	-11.43 – 7.17	0.65	-0.68	-11.11 – 9.74	0.9
Neuroticism trait score	-2.19	-6.00 – 1.62	0.257	6.45	-2.38 – 15.28	0.151	8.12	-1.77 – 18.02	0.107
Autism trait score	3.51	0.24 – 6.78	0.036	5.32	-2.26 – 12.90	0.167	4.91	-3.59 – 13.40	0.255
Intearction condition1 * Social anxiety trait Score	3.8	-0.34 – 7.94	0.072	0.27	-6.39 – 6.93	0.94	-0.85	-7.98 – 6.28	0.81
Intearction condition2 * Social anxiety trait Score	-1.19	-5.45 – 3.07	0.58	-2.68	-9.38 – 4.02	0.43	-2.7	-9.85 – 4.46	0.46
Intearction condition1 * Neuroticism trait score	1.25	-2.65 – 5.15	0.53	-2.8	-9.11 – 3.50	0.38	-3.72	-10.47 – 3.03	0.28
Intearction condition2 * Neuroticism trait score	0.73	-3.40 – 4.86	0.73	-3.25	-9.76 – 3.25	0.32	-3.37	-10.31 – 3.57	0.34
Intearction condition1 * Autism trait score	-1.03	-4.85 – 2.80	0.6	1.48	-4.75 – 7.71	0.64	1.78	-4.89 – 8.45	0.6
Intearction condition2 * Autism trait score	1.2	-2.23 – 4.62	0.49	0.62	-4.80 – 6.04	0.82	0.27	-5.51 – 6.06	0.93
Random Effects									
ICC	0.23			0.54			0.58		
N	50 Participant			50 Participant			50 Participant		
Observations	135			135			135		
Marginal R^2 / Conditional R^2	0.222 / 0.404			0.089 / 0.583			0.102 / 0.618		

58

59 *Table S2: **Mixture modelling results of gaze preference measures.** Significant results appear in bold*

60 *(p<0.016, after correction for multiple comparisons). The two bottom lines present the number of*

61 *data points included in the model (~3 for each interaction-condition – screen-based interview and*

62 *listening and speaking in the live interview), and the marginal R^2 (variance explained by the fixed*

63 *effects) and conditional R^2 (variance explained by the whole model). Interction-condition1 reflects a*

64 *contrast comparing between scenarios (screen-based interview minus the listening stage of the live*

65   *interview). Interaction-condition2 reflects a contrast comparing between live interview stages*

66   *(speaking minus listening).*

67   **Potential interfering factors face and eye preference**

68   To examine whether the effects shown in the main text are driven by other interfering factors such as

69   the experimenter identity and the participant sex, we added to the models additional factors to

70   control these potential interfering factors (dv ~ participant-sex*experimenter*interaction-condition +

71   interaction-condition*(Social Anxiety + Neuroticism + Autism-like) + (1|Participant)).

72

Predictors	Face-Preference			Eye-Preference			Eyes-Within-Face-Preference		
	Estimates	*CI*	*p*	*Estimates*	*CI*	*p*	*Estimates*	*CI*	*p*
(Intercept)	**81.69**	**78.96 – 84.42**	**<0.001**	**46.44**	**39.89 – 53.00**	**<0.001**	**55.8**	**48.34 – 63.27**	**<0.001**
Experimenter1	-3.37	-6.20 – -0.54	0.02	-2.22	-9.00 – 4.57	0.519	-1.24	-8.96 – 6.49	0.751
Participant-sex1	-0.1	-3.34 – 3.14	0.952	-7.25	-15.01 – 0.50	0.066	-8.54	-17.36 – 0.29	0.058
Intearction-condition1	1.51	-1.38 – 4.40	0.303	-1.29	-5.71 – 3.13	0.565	-2.11	-6.86 – 2.64	0.381
Intearction-condition2	**-7.48**	**-10.42 – -4.55**	**<0.001**	1.84	-2.61 – 6.29	0.414	**6.76**	**1.98 – 11.54**	**0.006**
Social anxiety trait score	**-6.59**	**-10.55 – -2.64**	**0.001**	-1.57	-10.93 – 7.79	0.74	0.36	-10.28 – 11.00	0.947
Neuroticism trait score	-1.77	-5.72 – 2.18	0.377	3.29	-5.92 – 12.49	0.481	4.32	-6.13 – 14.77	0.415
Autism trait score	3.94	0.62 – 7.26	0.02	5.55	-2.22 – 13.32	0.16	4.56	-4.27 – 13.39	0.309
Experimenter1 * Participant-sex1	0.7	-2.12 – 3.51	0.625	6.54	-0.22 – 13.31	0.058	6.02	-1.68 – 13.73	0.124
Experimenter1 * Intearction-condition1	2.16	-0.83 – 5.14	0.156	-0.38	-4.96 – 4.21	0.871	-1.54	-6.47 – 3.40	0.538
Experimenter1 * Intearction-condition2	1.72	-1.35 – 4.78	0.269	0.89	-3.75 – 5.54	0.703	-0.18	-5.17 – 4.81	0.943
Participant-sex1 * Intearction-condition1	-0.27	-3.67 – 3.14	0.877	4.78	-0.45 – 10.01	0.073	6.05	0.42 – 11.68	0.036
Participant-sex1 * Intearction-condition2	-0.6	-4.11 – 2.91	0.737	-0.55	-5.87 – 4.77	0.838	-1.04	-6.76 – 4.67	0.718
Intearction-condition1 * Social anxiety trait score	4.3	0.09 – 8.51	0.046	0.04	-6.52 – 6.59	0.991	-1.58	-8.64 – 5.48	0.659
Intearction-condition2 * Social anxiety trait score	-1.01	-5.35 – 3.33	0.646	-2.52	-9.12 – 4.08	0.451	-2.54	-9.63 – 4.55	0.479
Intearction-condition1 * Neuroticism trait score	0.9	-3.24 – 5.04	0.669	-0.24	-6.75 – 6.28	0.943	-0.56	-7.58 – 6.46	0.875
Intearction-condition2 * Neuroticism trait score	0.09	-4.34 – 4.51	0.968	-3.65	-10.39 – 3.09	0.286	-3.74	-10.99 – 3.50	0.308
Intearction-condition1 * Autism trait score	-1.62	-5.55 – 2.30	0.414	0.72	-5.47 – 6.90	0.818	1.57	-5.10 – 8.24	0.642
Intearction-condition2 * Autism trait score	1.38	-2.21 – 4.97	0.448	0.58	-4.91 – 6.07	0.835	0.1	-5.80 – 6.00	0.972
Experimenter1 * Participant-sex1 * Intearction-condition1	-1.29	-4.25 – 1.67	0.389	**-6.33**	**-10.86 – -1.79**	**0.007**	-5.37	-10.25 – -0.50	0.031
Experimenter1 * Participant-sex1 * Intearction-condition2	1.62	-1.42 – 4.65	0.293	0.39	-4.20 – 4.98	0.866	-0.15	-5.08 – 4.78	0.952
Random Effects									
ICC	0.21			0.55			0.59		
N	50 Participant			50 Participant			50 Participant		
Observations	135			135			135		
Marginal R^2 / Conditional R^2	0.287 / 0.436			0.193 / 0.638			0.187 / 0.665		

74　*Table S3: **Statistics for real-life models, one for each gaze behavior measure.** Significant results*
75　*appear in bold. The two bottom lines present the number of data points included in the model (~3 for*
76　*each interaction-condition – screen-based interview and listening and speaking in the live interview),*
77　*and the marginal R^2 (variance explained by the fixed effects) and conditional R^2 (variance explained*
78　*by the whole model). Interaction-condition1 reflects a contrast comparing between scenarios (screen-*
79　*based interview minus the listening stage of the live interview). Interaction-condition2 reflects a*
80　*contrast comparing between live interview stages (speaking minus listening).*

81

82　The models when considering the experimenter and the participant-sex revealed similar results in the
83　face-preference model – significant effect of social anxiety and a significant difference between
84　speaking and listening stages in the live interview scenario. However, in the eyes-within-face-
85　preference the influence of the neuroticism trait score did not remain significant when correcting for
86　multiple comparisons.

87

88　**Internal consistency reliability, stability and validity of mouth preference**

89　Our study focused on preference to look at the eyes and face regions, measures that were chosen
90　before running the experiment. However, in order to get a complete picture of the main facial
91　features, we also examined the mouth-preference (percent of fixation time in the mouth region) and
92　mouth-within-face-preference (percent of fixation time in the mouth region out of the total time in
93　the face region). The analysis procedure was similar to that of the eye and face preferences described
94　in the main text.

95　Mouth-preference and mouth-within-face-preference exhibit high internal consistency in the screen-
96　based interview scenario (mouth-preference: r = 0.93, p < 0.001; mouth-preference-within-face: r =
97　0.93, p < 0.001) and in the live interview scenario (mouth-preference: r = 0.93, p < 0.001 ; mouth-
98　preference-within-face: r = 0.97, p < 0.001).

99

100 Both mouth-preference and mouth-within-face-preference were significantly correlated across
101 scenarios (see table S3).

Stability across tasks	Mouth-preference	Mouth-within-face-preference
Screen-based <-> live interview – Listening (N=42)	r = 0.4, p = 0.009	r = 0.46, p = 0.002
Screen-based <-> live interview – Speaking (N=42)	r = 0.36, p = 0.02	r = 0.48, p = 0.001
live interview – Speaking <-> Listening (N=43)	r = 0.76, p < 0.001	r = 0.8, p < 0.001

102

103 *Table S4: **Cross-scenario correlations of mouth-preference and mouth-within-face-preference.** Each*
104 *column reflects correlation of one mouth-related gaze behavior measure. Each row presents the*
105 *correlation between two scenarios.*

106

107 Linear mixed models were performed in order to examine the relation between individuals' traits and
108 their mouth preference. Similar to the main text, we first examine a model without potential
109 confounds and then added them. The first model revealed three significant effects (same for both
110 mouth-preference and mouth-within-face-preference): 1) A significant difference between screen-
111 based and live interview scenario – participants look at the mouth region more in the screen-based
112 interview scenario compared to the listening stage of the live interview scenario. 2) A significant
113 difference between listening and speaking stages in the live interview scenario – participants look
114 more at the mouth region while listening compared speaking. 3) A significant effect of neuroticism,
115 suggesting that more neurotic participants look more at the companion's mouth. In the model that
116 include potential confounds (participant-sex and experimenter identity), the effect of neuroticism was
117 not significant when correcting for multiple comparisons (p = 0.037 for mouth-preference and p = 0.05
118 for mouth-within-face-preference).

119

Predictors	Mouth-Preference			Mouth-Within-Face-Preference		
	Estimates	CI	p	Estimates	CI	p
(Intercept)	15.1	11.12 – 19.08	**<0.001**	18.46	13.46 – 23.46	**<0.001**
Intearction-condition1	4.87	1.83 – 7.91	**0.002**	5.9	2.55 – 9.26	**0.001**
Intearction-condition2	-6.8	-9.87 – -3.72	**<0.001**	-6.82	-10.20 – -3.44	**<0.001**
Social anxiety trait score	-3.21	-8.97 – 2.56	0.27	-2.89	-10.11 – 4.33	0.43
Neuroticism trait score	8.45	2.96 – 13.94	**0.003**	9.9	3.05 – 16.75	**0.005**
Autism trait score	-2.48	-7.18 – 2.23	0.299	-3.49	-9.37 – 2.40	0.243
Intearction-condition1 * Social anxiety trait score	3.22	-1.32 – 7.77	0.16	4.22	-0.82 – 9.25	0.1
Intearction-condition2 * Social anxiety trait score	0.18	-4.42 – 4.78	0.94	-0.75	-5.82 – 4.31	0.77
Intearction-condition1 * Neuroticism trait score	-2.25	-6.55 – 2.05	0.3	-2.93	-7.70 – 1.84	0.23
Intearction-condition2 * Neuroticism trait score	-3.17	-7.63 – 1.29	0.16	-2.14	-7.05 – 2.77	0.39
Intearction-condition1 * Autism trait score	-1.69	-5.93 – 2.55	0.43	-2.71	-7.42 – 2.00	0.26
Intearction-condition2 * Autism trait score	0.02	-3.69 – 3.73	0.99	0.28	-3.82 – 4.37	0.89
Random Effects						
ICC	0.47			0.56		
N	50 Participant			50 Participant		
Observations	135			135		
Marginal R^2 / Condtional R^2	0.204 / 0.578			0.188 / 0.643		

*Table S5: **Statistics for mouth preferences measures**. The model of mouth-preference appears on the left column and the mouth-within-face-preference on the right column. Significant results appear in bold. The two bottom lines present the number of data points included in the model (~3 for each interaction-condition – screen-based interview and listening and speaking in the live interview), and the marginal R^2 (variance explained by the fixed effects) and conditional R^2 (variance explained by the whole model). Interaction-condition1 reflects a contrast between scenarios (screen-based interview minus the listening stage of the live interview). Interaction-condition2 reflects a contrast between live interview stages (speaking minus listening).*