ONLINE APPENDIX for *Social Communication and Discrimination: A Video Experiment*

Appendix A: Experiment Instructions

(translated from German)

Welcome and many thanks for your participation in this experiment. **Please do not touch any of the equipment before we ask you to do so.** If you have problems with the equipment or other questions, please use the microphone, or ask one of the experimenters. Please read the following instructions carefully. Instructions are identical for every participant. You are able to earn money during the experiment. The amount you earn depends on your own decisions and the decisions of other participants of the experiment.

1. The experiment

The rules of the experiment are very simple. There are three Persons X, Y and Z. There is a certain amount of money to distribute, which size is 17 Euros. In the experiment, Person X decides how she wants to divide the money. When doing so she is restricted to some rules, which are described in section 2. Before Person X decides about the distribution, she watches a video tape, which was recorded before with Persons Y and Z. Details about this are described in section 3. Exactly as Person X proposed, the amount of money will be distributed and paid out according to the rules in section 4. The procedure of this experiment requires, that the participants in the roles of X, Y and Z participate in the experiment at different dates. Specifically, the participants Y and Z are invited first, while the participants in the role of Person X participate in the experiment at a later date.

2. Rules for distribution

Person X is bound to the following rules for the distribution of the amount of money:

a) The sum of allocations to the three persons must be 17 Euros.

b) Person Y and Z may only get either 1, 2, 3, 4, 5, 6, 7, 8, or 9 Euros.

c) Person X may only get either 0, 2, 4, 6, 8, 10, 12, or 14 Euros.

Therefore, there are 40 distribution possibilities. These are listed in a table at the end of these instructions.

3. Video recording

In the experiment, persons in the role of Y and Z will be given the opportunity to one-sidedly communicate to the person in the role of X. They have 10 minutes to prepare for this. After the preparation time, participants in the roles of Y and Z have two minutes to record a video message. During this time Persons Y and Z are allowed to speak freely about everything, including the experiment. Before her decision the videos of Person Y and Z are presented to Person X. There are three possibilities: 1. Person X sees and hears none of the two Persons Y and Z. 2. Person X sees Person Y as well as Person Z, but cannot hear any of the two. 3. Person X sees Person Y as well as Person Z, but can hear either only Person Y or only Person Z.

4. Calculations of payoffs

Every participant in the role of Y makes up a pair with exactly one participant in the role of Z. The recorded video of this pair will be shown to exactly 24 different participants in the role of X. Every Person X sees 8 different pairs. She decides for every pair which she sees about the distribution of the amount of money. After the experiment one of the 8 pairs will be randomly selected for each Person X. Then, Person X gets the amount which she allocated to herself. Person Y and Z get the average of the amounts, which 3 persons in the role X have allocated to them. Due to the experimental procedure, participants in the role of Y and Z cannot be paid out immediately after the experiment, because their specific payoff can only be calculated after the participants in the role X have participated in the experiment. To handle the payoffs, one experimenter will be at the university at different times in the following week. The specific dates and locations will be sent early enough by e-mail. However, to pick up your payoff in cash

you might come directly to the institute on every working day in the same or the following week, from 9am to 4pm. Participants in the role of X are paid out in cash immediately after the experiment.

If you have any questions regarding these instructions, please ask one of the experimenters.

The 40 different distribution possibilities

x	0	0	2	2	2	2	4	4	4	4
y	9	8	9	8	7	6	9	8	7	6
z	8	9	6	7	8	9	4	5	6	7
x	4	4	6	6	6	6	6	6	6	6
y	5	4	9	8	7	6	5	4	3	2
z	8	9	2	3	4	5	6	7	8	9
x	8	8	8	8	8	8	8	8	10	10
y	8	7	6	5	4	3	2	1	6	5
z	1	2	3	4	5	6	7	8	1	2
x	10	10	10	10	12	12	12	12	14	14
y	4	3	2	1	4	3	2	1	2	1
z	3	4	5	6	1	2	3	4	1	2

Appendix B: Ratings and Rating Instructions

(translated from German)

Elicited ratings

active	o	o	o	o	o	o	o	passive
weak	o	o	o	o	o	o	o	strong
pleasant	o	o	o	o	o	o	o	unpleasant
dull	o	o	o	o	o	o	o	lively
unattractive	o	o	o	o	o	o	o	attractive
not influential	o	o	o	o	o	o	o	influential

Rating instructions

In the following, we will ask you for your evaluation of the persons viewed. Here it is described how to use the scales. In case you are not sure how to fill out the questionnaire have a look at this instruction again.
In case you find a person to rate very similar to an attribute at the end of the scale, then check one of the following boxes

active X o o o o o o passive
active o o o o o o X passive

In case you find a person to rate quite similar to an attribute at the end of the scale, then check one of the following boxes

active o X o o o o o passive
active o o o o o X o passive

In case you find a person to rate lightly similar to an attribute at the end of the scale (but not really neutral), then check one of the following boxes

active o o X o o o o passive
active o o o o X o o passive

Naturally, the horizontal direction of your cross depends on which of the two attributes on the scale describes the person you are rating best.
When the person you are rating can be described neutral with regards to the two attributes, that means that both attributes apply to the person alike, you should mark the box in the middle.

active o o o X o o o passive

Please mark down whether you knew the person you are rating before. Please mark whether you have just seen the person (e.g. at university) but not known her personally, or whether you know your partner personally.

Appendix C: External Ratings Instructions

(Translated from German. Text in curved (square) brackets appeared only for the ratings of the silent (audible) videos, respectively.)

Welcome and many thanks for your participation in this experiment. **Please do not touch any of the equipment before we ask you to do so.** If you have problems with the equipment or other questions, please use the microphone, or ask one of the experimenters. Please read the following instructions carefully. Instructions are identical for every participant. You are able to earn money during the experiment. Today you will have to watch some videos from participants from another experiment and estimate how other participants evaluated them. You will earn more money if your estimations are more accurate.

During another experiment some participants recorded a short two-minute video. These videos have been edited such that there were two participants in each video - one on the left side and one on the right side. [Only one of the participants could be heard.] The edited video was shown to other participants before they made their decisions. [These participants had to distribute an amount of 18 Euros between themselves and the two participants on the video.] After they saw the video [and made their decision,] they had to evaluate the persons on the video. The evaluating participants did not get any financial reward for their evaluations (but from their other decisions).

The evaluation questionnaire consisted of {6}[7] questions and looked for the participant on the left side as follows:

active	o	o	o	o	o	o	o	passive
weak	o	o	o	o	o	o	o	strong
pleasant	o	o	o	o	o	o	o	unpleasant
dull	o	o	o	o	o	o	o	lively
unattractive	o	o	o	o	o	o	o	attractive
not influential	o	o	o	o	o	o	o	influential

The same questionnaire was used for the participant on the right side, But the last question (about argumentation) was only asked if the participant could be heard. For the ratings the evaluating participant received instructions, which are enclosed here on a separate sheet of paper.

Today you will see 32 of these videos (taken from different experiments). You will fill in identical questionnaires as seen above. You should, however, not submit your own evaluation, but estimate how the evaluating participants from the other experiments evaluated the persons on the videos. These evaluating participants are very similar to you: They are female students in Jena.

Your payoff depends on how accurate your estimations are. You will receive 0.07 Euros for each of the {384}[416] single evaluations (32 videos x 2 participants x 6[or 7] rating scales) if your estimation is equal to the rounded average of all evaluations. If, for example, the average of all "active"/"passive" evaluations for a given participant in one of the videos from the other experiment equals 4.3, you will earn 0.07 Euros if you chose 4 on "active"/"passive" and you will earn nothing if you chose a different value. We will also ask you for every participant if you know her personally. This question will not affect your payoff. Please answer honestly.

At the end of the experiment you will be informed about how many of your estimations were correct, and you will be paid in cash.

Appendix D: Principal component analysis of social ratings

Principal component analysis uses the correlations between different variables in order to reduce their number to a small number of meaningful 'dimensions'. The social ratings obtained in the experiment include six different scales, which are theorized to correspond to three separate factors. Accordingly, we use a principal components analysis to validate the factors and test whether they can be further reduced to composite factors.

Principal component analyses based on the correlation matrix were conducted on the six rating scales, averaged for each recipient over the different dictators in the V and AV treatments. To test the robustness of the results,

we conducted separate analyses over all recipients, separately for talking and non-talking recipients, and using different rotation methods (Abdi and Williams, 2010; Joliffe, 2002).

The analysis yields two factors. The first factor, with an Eigenvalue of 3.4, explains 56.1% of the variance, while the second factor, with an Eigenvalue of 1.7, explains 28.0% of the variance. The interpretation of the two factors is facilitated by considering the loadings of the six scales on the two factors in the rotated component matrix (see Table D.1 and Figure D.1). The two scales associated with Evaluation (attractiveness and pleasantness) and the two scales associated with Potency (strength and influence) load high on the first factor. The remaining two scales, associated with Activity (activity and livelihood) load high on the second factor. The Potency scales moderately load on the second factor, but bear more affinity with the Evaluation scales, and were therefore combined with them to generate a single factor. The analysis yields similar results when conducted separately for the talking and non-talking recipients .

References

Abdi, H. and Williams, L.J. (2010), 'Principal component analysis', *Wiley Interdisciplinary Reviews: Computational Statistics* **2**, 433-459.

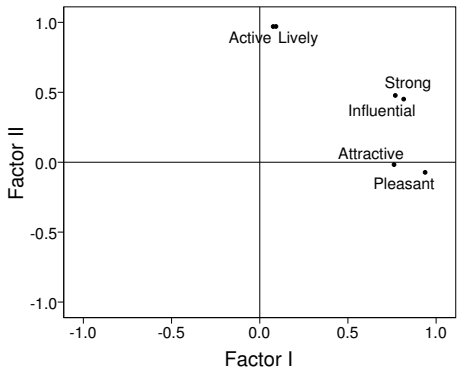
Jolliffe, I.T. (2002), *Principal Component Analysis*, 2nd ed., New York: Springer.

TABLE D.1
COMPONENT MATRICES

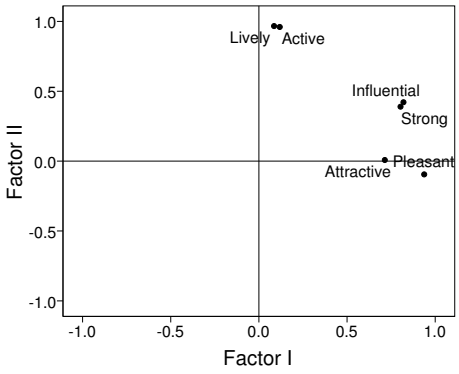
	All recipients					
	Unrotated		Varimax rotation		Quartimax rotation	
	Factor I	Factor II	Factor I	Factor II	Factor I	Factor II
Attractive	.589	-.482	.761	-.017	.759	-.059
Pleasant	.694	-.634	.937	-.072	.932	-.124
Strong	.899	-.097	.768	.477	.793	.434
Influential	.921	-.147	.816	.451	.840	.405
Active	.657	.718	.076	.970	.129	.965
Lively	.670	.709	.092	.971	.145	.964
	Talking recipients					
	Unrotated		Varimax rotation		Quartimax rotation	
	Factor I	Factor II	Factor I	Factor II	Factor I	Factor II
Attractive	.586	-.408	.714	-.008	.714	-.033
Pleasant	.709	-.621	.938	-.095	.931	-.149
Strong	.881	-.149	.803	.390	.825	.342
Influential	.913	-.133	.820	.422	.843	.373
Active	.654	.713	.118	.960	.174	.952
Lively	.631	.737	.086	.967	.142	.960
	Non-talking recipients					
	Unrotated		Varimax rotation		Quartimax rotation	
	Factor I	Factor II	Factor I	Factor II	Factor I	Factor II
Attractive	.657	-.468	.806	.018	.806	-.031
Pleasant	.699	-.621	.932	-.079	.925	-.136
Strong	.917	-.085	.785	.481	.813	.433
Influential	.932	-.158	.842	.431	.866	.379
Active	.650	.737	.079	.979	.139	.973
Lively	.687	.710	.125	.980	.185	.971

FIGURE D.1
FACTORS IN ROTATED SPACE (VARIMAX ROTATION)

(a) All recipients



(b) Talking recipients



(c) Non-talking recipients