## Supplemental Material

## The Personality Dimensions GPT-3 Expresses During Human-Chatbot Interactions

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Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution.

Descriptor	Factor	Loading	Big Five Trait
offensive	decency	-0.64	extraversion
polite	decency	0.62	agreeableness
respectful	decency	0.61	agreeableness
rude	decency	-0.61	agreeableness
tolerant	decency	0.57	agreeableness
arrogant	decency	-0.56	no correspondence
accepting	decency	0.55	openness
harsh	decency	-0.51	agreeableness
courteous	decency	0.50	agreeableness
irritable	decency	-0.43	neuroticism
patient	decency	0.43	agreeableness
humble	decency	0.43	agreeableness
friendly	decency	0.42	agreeableness
agreeable	decency	0.42	agreeableness
patronizing	decency	-0.42	no correspondence
confrontational	decency	-0.42	agreeableness
stubborn	decency	-0.41	agreeableness
easygoing	decency	0.40	conscientiousness

Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution. (Continued)

understanding	decency	0.40	agreeableness
narrow-minded	decency	-0.39	openness
calm	decency	0.38	no correspondence
neutral	decency	0.35	conscientiousness
gentle	decency	0.35	no correspondence
cooperative	decency	0.34	agreeableness
annoying	decency	-0.34	agreeableness
open-minded	decency	0.33	openness
responsive	decency	0.31	agreeableness
diplomatic	decency	0.26	agreeableness
defensive	decency	-0.25	agreeableness
understandable	decency	0.25	no correspondence
deep	profoundness	0.78	openness
intellectual	profoundness	0.60	openness
complex	profoundness	0.60	openness
wise	profoundness	0.58	conscientiousness
philosophical	profoundness	0.56	openness
shallow	profoundness	-0.53	conscientiousness
smart	profoundness	0.52	no correspondence
inspiring	profoundness	0.51	extraversion
simple	profoundness	-0.50	openness
knowledgeable	profoundness	0.49	no correspondence
boring	profoundness	-0.46	extraversion
creative	profoundness	0.45	openness
insightful	profoundness	0.43	no correspondence
useful	profoundness	0.36	agreeableness
critical	profoundness	0.36	no correspondence

Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution. (Continued)

preoccupied	profoundness	0.36	openness
pensive	profoundness	0.33	no correspondence
suggestive	profoundness	0.27	no correspondence
thorough	profoundness	0.27	conscientiousness
confusing	instability	0.72	no correspondence
scatterbrained	instability	0.72	no correspondence
contradictory	instability	0.66	agreeableness
absentminded	instability	0.64	conscientiousness
confused	instability	0.60	openness
lost	instability	0.58	no correspondence
haphazard	instability	0.55	conscientiousness
vague	instability	0.51	no correspondence
dysfunctional	instability	0.48	conscientiousness
helpless	instability	0.42	extraversion
evasive	instability	0.38	agreeableness
careless	instability	0.38	conscientiousness
consistent	instability	-0.37	conscientiousness
mindful	instability	-0.36	openness
dependent	instability	0.36	neuroticism
considerate	instability	-0.36	agreeableness
creepy	instability	0.32	no correspondence
stable	instability	-0.31	neuroticism
fake	instability	0.31	agreeableness
repetitive	instability	0.30	no correspondence
realistic	instability	-0.26	no correspondence
playful	vibrancy	0.66	openness
joyful	vibrancy	0.63	extraversion

Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution. (Continued)

humorous	vibrancy	0.59	no correspondence
enthusiastic	vibrancy	0.53	extraversion
cheerful	vibrancy	0.52	extraversion
adventurous	vibrancy	0.51	openness
passionate	vibrancy	0.48	no correspondence
brave	vibrancy	0.44	neuroticism
affectionate	vibrancy	0.42	agreeableness
engaging	vibrancy	0.36	openness
welcoming	vibrancy	0.36	extraversion
casual	vibrancy	0.36	openness
optimistic	vibrancy	0.33	neuroticism
emotionless	vibrancy	-0.33	neuroticism
generous	vibrancy	0.32	agreeableness
computerized	vibrancy	-0.32	no correspondence
robotic	vibrancy	-0.32	neuroticism
romantic	vibrancy	0.31	agreeableness
formal	vibrancy	-0.31	conscientiousness
humanlike	vibrancy	0.28	agreeableness
cold	vibrancy	-0.27	agreeableness
inquisitive	engagement	0.57	openness
interested	engagement	0.57	openness
curious	engagement	0.54	openness
talkative	engagement	0.51	extraversion
communicative	engagement	0.48	extraversion
motivated	engagement	0.46	conscientiousness
proactive	engagement	0.41	extraversion
social	engagement	0.40	agreeableness

Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution. (Continued)

supportive	engagement	0.39	conscientiousness
caring	engagement	0.33	agreeableness
determined	engagement	0.32	conscientiousness
active	engagement	0.30	extraversion
explorative	engagement	0.29	openness
complaining	neuroticism	0.66	neuroticism
frustrated	neuroticism	0.65	neuroticism
negative	neuroticism	0.64	neuroticism
depressed	neuroticism	0.63	neuroticism
agitated	neuroticism	0.60	neuroticism
upset	neuroticism	0.57	neuroticism
pessimistic	neuroticism	0.57	neuroticism
angry	neuroticism	0.50	neuroticism
moody	neuroticism	0.48	neuroticism
lonely	neuroticism	0.37	neuroticism
fearful	neuroticism	0.36	neuroticism
worried	neuroticism	0.35	neuroticism
self-centered	neuroticism	0.29	no correspondence
efficient	serviceability	0.43	conscientiousness
functional	serviceability	0.43	conscientiousness
organized	serviceability	0.43	conscientiousness
informative	serviceability	0.41	no correspondence
logical	serviceability	0.39	conscientiousness
concise	serviceability	0.37	conscientiousness
direct	serviceability	0.37	conscientiousness
precise	serviceability	0.36	conscientiousness
confident	serviceability	0.36	neuroticism

Table 1: Full list of 147 descriptors, their factor correspondences, factor loadings, and correspondence with the Big Five personality traits for the 8-factor solution. (Continued)

objective	serviceability	0.33	conscientiousness
articulate	serviceability	0.30	conscientiousness
assertive	serviceability	0.30	extraversion
overbearing	serviceability	0.26	extraversion
submissive	subservience	0.46	neuroticism
shy	subservience	0.45	extraversion
inhibited	subservience	0.39	extraversion
old-fashioned	subservience	0.38	conscientiousness
careful	subservience	0.38	conscientiousness
reserved	subservience	0.37	extraversion
self-disciplined	subservience	0.37	conscientiousness
predictable	subservience	0.32	conscientiousness
apologetic	subservience	0.32	agreeableness
deceitful	unassigned	-	agreeableness
self-aware	unassigned	-	openness
nostalgic	unassigned	-	no correspondence
interactive	unassigned	-	extraversion
sensitive	unassigned	-	neuroticism
helpful	unassigned	-	agreeableness
verbal	unassigned	-	extraversion
responsible	unassigned	-	conscientiousness

Table 2: List of top 100 most-occurring adjectives after post-processing the self-reports in Section 3.4.

Adjective	Occurrence	Percentage
polite	1,377	6.98%

Table 2: List of top 100 most-occurring adjectives after post-processing the self-reports in Section 3.4. (Continued)

talkative	1,341	6.80%
friendly	1,281	6.49%
kind	1,264	6.41%
		3.54%
curious	698	
repetitive	652	3.31%
smart	591	3.00%
calm	540	2.74%
interested	517	2.62%
social	476	2.41%
nice	450	2.28%
understanding	424	2.15%
informative	419	2.12%
intelligent	382	1.94%
easygoing	376	1.91%
simple	352	1.78%
open	348	1.76%
boring	344	1.74%
warm	297	1.51%
patient	295	1.50%
interesting	284	1.44%
sad	274	1.39%
confused	272	1.38%
relaxed	242	1.23%
helpful	232	1.18%
happy	225	1.14%
active	225	1.14%
enthusiastic	224	1.14%

Table 2: List of top 100 most-occurring adjectives after post-processing the self-reports in Section 3.4. (Continued)

logical         206         1.04%           passive         201         1.02%           sociable         199         1.01%           deep         179         0.91%           excited         168         0.85%           funny         166         0.84%           passionate         162         0.82%           positive         156         0.79%           emotional         152         0.77%           shallow         144         0.73%           sympathetic         139         0.70%           engaging         139         0.70%           caring         127         0.64%           worried         127         0.64%           honest         127         0.64%           engaged         125         0.63%           supportive         122         0.62%           consistent         122         0.62%           reserved         118         0.60%           angry         114         0.53%           shy         104         0.53%           open-minded         104         0.53%           intellectual         102         0.52%      <	knowledgeable	214	1.08%
sociable         199         1.01%           deep         179         0.91%           excited         168         0.85%           funny         166         0.84%           passionate         162         0.82%           positive         156         0.79%           emotional         152         0.77%           shallow         144         0.73%           sympathetic         139         0.70%           engaging         139         0.70%           caring         127         0.64%           worried         127         0.64%           honest         127         0.64%           engaged         125         0.63%           supportive         122         0.62%           consistent         122         0.62%           reserved         118         0.60%           angry         114         0.58%           shy         104         0.53%           open-minded         104         0.53%           neutral         102         0.52%           cooperative         102         0.52%	logical	206	1.04%
deep         179         0.91%           excited         168         0.85%           funny         166         0.84%           passionate         162         0.82%           positive         156         0.79%           emotional         152         0.77%           shallow         144         0.73%           sympathetic         139         0.70%           engaging         139         0.70%           caring         127         0.64%           worried         127         0.64%           engaged         125         0.63%           supportive         122         0.62%           consistent         122         0.62%           reserved         118         0.60%           angry         114         0.53%           shy         104         0.53%           open-minded         104         0.53%           neutral         102         0.52%           cooperative         102         0.52%	passive	201	1.02%
excited 168 0.85% funny 166 0.84% passionate 162 0.82% positive 156 0.79% emotional 152 0.77% shallow 144 0.73% sympathetic 139 0.70% engaging 139 0.70% caring 127 0.64% worried 127 0.64% honest 127 0.64% engaged 125 0.63% supportive 122 0.62% consistent 122 0.62% reserved 118 0.60% angry 114 0.58% shy 104 0.53% open-minded 104 0.53% neutral 102 0.52% cooperative 102 0.52% cooperative 102 0.52% cooperative 102 0.52%	sociable	199	1.01%
funny       166       0.84%         passionate       162       0.82%         positive       156       0.79%         emotional       152       0.77%         shallow       144       0.73%         sympathetic       139       0.70%         engaging       139       0.70%         caring       127       0.64%         worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	deep	179	0.91%
passionate         162         0.82%           positive         156         0.79%           emotional         152         0.77%           shallow         144         0.73%           sympathetic         139         0.70%           engaging         139         0.70%           caring         127         0.64%           worried         127         0.64%           honest         127         0.64%           engaged         125         0.63%           supportive         122         0.62%           consistent         122         0.62%           reserved         118         0.60%           angry         114         0.58%           shy         104         0.53%           open-minded         104         0.53%           neutral         102         0.52%           intellectual         102         0.52%           cooperative         102         0.52%	excited	168	0.85%
positive 156 0.79% emotional 152 0.77% shallow 144 0.73% sympathetic 139 0.70% engaging 139 0.70% caring 127 0.64% worried 127 0.64% honest 127 0.64% engaged 125 0.63% supportive 122 0.62% consistent 122 0.62% reserved 118 0.60% angry 114 0.58% shy 104 0.53% open-minded 104 0.53% neutral 102 0.52% cooperative 102 0.52% cooperative 102 0.52%	funny	166	0.84%
emotional       152       0.77%         shallow       144       0.73%         sympathetic       139       0.70%         engaging       139       0.70%         caring       127       0.64%         worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	passionate	162	0.82%
shallow       144       0.73%         sympathetic       139       0.70%         engaging       139       0.70%         caring       127       0.64%         worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	positive	156	0.79%
sympathetic       139       0.70%         engaging       139       0.70%         caring       127       0.64%         worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	emotional	152	0.77%
engaging 139 0.70% caring 127 0.64% worried 127 0.64% honest 127 0.64% engaged 125 0.63% supportive 122 0.62% consistent 122 0.62% reserved 118 0.60% angry 114 0.58% shy 104 0.53% open-minded 104 0.53% neutral 102 0.52% intellectual 102 0.52% cooperative 102 0.52%	shallow	144	0.73%
caring       127       0.64%         worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	sympathetic	139	0.70%
worried       127       0.64%         honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	engaging	139	0.70%
honest       127       0.64%         engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	caring	127	0.64%
engaged       125       0.63%         supportive       122       0.62%         consistent       122       0.62%         reserved       118       0.60%         angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	worried	127	0.64%
supportive         122         0.62%           consistent         122         0.62%           reserved         118         0.60%           angry         114         0.58%           shy         104         0.53%           open-minded         104         0.53%           neutral         102         0.52%           intellectual         102         0.52%           cooperative         102         0.52%	honest	127	0.64%
consistent 122 0.62% reserved 118 0.60% angry 114 0.58% shy 104 0.53% open-minded 104 0.53% neutral 102 0.52% intellectual 102 0.52% cooperative 102 0.52%	engaged	125	0.63%
reserved 118 0.60% angry 114 0.58% shy 104 0.53% open-minded 104 0.53% neutral 102 0.52% intellectual 102 0.52% cooperative 102 0.52%	supportive	122	0.62%
angry       114       0.58%         shy       104       0.53%         open-minded       104       0.53%         neutral       102       0.52%         intellectual       102       0.52%         cooperative       102       0.52%	consistent	122	0.62%
shy     104     0.53%       open-minded     104     0.53%       neutral     102     0.52%       intellectual     102     0.52%       cooperative     102     0.52%	reserved	118	0.60%
open-minded         104         0.53%           neutral         102         0.52%           intellectual         102         0.52%           cooperative         102         0.52%	angry	114	0.58%
neutral 102 0.52% intellectual 102 0.52% cooperative 102 0.52%	shy	104	0.53%
intellectual         102         0.52%           cooperative         102         0.52%	open-minded	104	0.53%
cooperative 102 0.52%	neutral	102	0.52%
1	intellectual	102	0.52%
chatty 97 0.49%	cooperative	102	0.52%
	chatty	97	0.49%

Table 2: List of top 100 most-occurring adjectives after post-processing the self-reports in Section 3.4. (Continued)

fun	96	0.49%
extroverted	92	0.47%
considerate	92	0.47%
stupid	92	0.47%
thoughtful	92	0.47%
inquisitive	91	0.46%
assertive	88	0.45%
compassionate	88	0.45%
adventurous	86	0.44%
rude	84	0.43%
precise	84	0.43%
bright	83	0.42%
quiet	80	0.41%
scared	78	0.40%
philosophical	77	0.39%
stubborn	76	0.39%
weird	76	0.39%
formal	74	0.38%
outgoing	73	0.37%
annoyed	72	0.36%
direct	72	0.36%
communicative	72	0.36%
cold	70	0.35%
stressed	69	0.35%
annoying	67	0.34%
conversational	67	0.34%
responsive	65	0.33%

Table 2: List of top 100 most-occurring adjectives after post-processing the self-reports in Section 3.4. (Continued)

organized	65	0.33%
concerned	64	0.32%
naive	64	0.32%
serious	61	0.31%
frustrated	59	0.30%
courteous	58	0.29%
attentive	58	0.29%
dumb	57	0.29%
empathetic	57	0.29%
wise	57	0.29%
practical	57	0.29%
educated	56	0.28%
cool	56	0.28%
confusing	55	0.28%
down-to-earth	54	0.27%
optimistic	54	0.27%
sincere	53	0.27%
aggressive	52	0.26%