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What happy people do: The behavioral correlates of happiness in everyday situations

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ABSTRACT

Happier individuals have a greater tendency to experience positive affect in their day-to-day lives. The present study uses a multi-method approach to assess the observable behaviors correlated with happiness in two video-recorded, experimental social contexts resembling everyday situations: an interview about oneself and a conversation with strangers. The patterns of observed behaviors associated with happiness were highly similar between the two situations. Happier people smiled, acted playful and behaved cheerfully, while unhappy people expressed criticism, displayed guilt, or acted irritated. The behaviors of happier individuals not only reflect their greater positive affect in everyday situations but also highlights what might make them more enjoyable to be around.

1. Introduction

Happiness is associated with many positive outcomes in life, such as more successful careers, better health, and longer lasting relationships. The key to long term success for happier individuals seems to arise from their higher average levels of positive affect, considered the "hallmark of a happy person" (Lyubomirsky et al., 2005, pg. 840). Happy people are in general more likable and more enjoyable to be around, both for their friends and for strangers. While the positive experiences for happy people and those around them are well-documented, less is known about the specific behaviors of happier individuals in their daily lives that make social interactions so much more pleasant for themselves and for others. The need for more psychological studies involving measures of actual behavior, rather than relying only on self-reported behavior, has been well-highlighted (Baumeister et al., 2007), including within the field of well-being (Park & Peterson, 2009). Thus, we attempt to fill this gap by reporting associations between happiness and the specific behaviors directly observed during social situations.

Previous research on the behavioral associations of happiness have largely focused on either momentary assessments of self-reported behaviors and affect or testing highly specific observable and nonverbal behavioral associations, such as smiling. Momentary assessments of behavioral correlates with happiness have largely consistent results when using self-reported assessments, such as measuring situational experiences throughout the day (Horstmann et al., 2020), and observational methods, such as daily conversations (Milek et al., 2018) or physical activity from smartphone data (Lathia et al., 2017), concluding that happier individuals experience greater positive affect and more positive situations throughout their day. However, the self-reported, naturalistic method of behavioral assessments cannot determine whether greater positive affect for happier individuals is a result of happier people experiencing greater positive affect in a specific situation or a result of happier people selecting into more positive situations overall (Rauthmann et al., 2015).

Behavioral correlates of happiness using observer ratings of behavior provide a complimentary approach to the self-reported methods of momentary assessments and largely focus on specific behaviors intuitively believed to be associated with happiness. For example, the relationship between happiness and smiling is well-documented. People are able to distinguish the genuine smiles of others (Miles & Johnston, 2007) and accurately infer these genuine smiles as a reflection of happiness (Slessor et al., 2010). Additionally, smiling more in photos, such as in high school yearbooks (Harker & Keltner, 2001) or in Facebook profile photos (Seder & Oishi, 2012) is associated with long term happiness or life satisfaction. These studies on smiling behaviors and happiness support the theory that happiness can be observed and inferred from specific behaviors but have been limited in scope and narrow in specificity. How people behave, even in a specific situation on a single day, is often multifaceted and limiting observations to a single behavior provides only a narrow insight into explaining variations in human

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behavior (Furr et al., 2010).

One notable exception assessed a broad range of behaviors observed during a series of laboratory tasks involving social interaction with strangers (Nave et al., 2008). Participants with higher self-reported happiness and psychological well-being were observed being talkative, expressive, cheerful, and exhibiting social skills, while less happy individuals were judged to be more awkward, reserved, and expressing more insecurity. These findings, however, were limited to a single sample and all within highly similar situations. Additional research is needed to test whether these results replicate and generalize to other samples and situations.

1.1. The Present Study

According to the construal model of happiness (Lyubomirsky & Dickerhoof, 2011), a person's subjective interpretations of the environment matter more than objective characteristics. Put simply, people can experience the exact same objective situation but happier people will enjoy it more. Thus, the present study assesses the behavioral correlates of happiness within two laboratory environments in which participants experience the same situation while allowing their subjective interpretations to influence how they behave. Assessments of behavior are observed in two distinct situations: giving an interview about oneself and participating in a social interaction with strangers. Both studies use a multi-method approach that combines self-reported happiness with observer ratings of a broad set of behaviors coded from the video-recorded situations. Observer ratings of behavior are coded using the Riverside Behavioral Q-sort (RBQ: Funder et al., 2000). The RBQ is designed to measures a comprehensive range of behaviors without limiting the scope of focus. The broad range of behavioral items in the RBQ means it is particularly well suited for exploratory research. Given the limited amount of empirical work in this area, we consider our analyses exploratory, but overall expect to find many behavioral correlates of happiness that reflect greater positive affect. Following the recommendations of testing item-level associations in personality outcomes research, we limited our analyses to the item-level to allow for the greatest sensitivity in the results (Mõttus, 2016). Lastly, due to the exploratory nature of the study we did not preregister any hypotheses. However, all materials, data, R code, and supplementary results are available on the project OSF page: osf.io/bs36k.

2. Method

2.1. Participants

2.1.1. Study 1: Semi-Structured interview

Participants were 297 undergraduates (M = 21.11, SD = 6.21, 59.26% female) recruited from a university in South Florida. Participants completed two lab visits and were compensated $150 for completing all portions of the study. Additionally, participants were awarded an additional $10 if they recruited two of their acquaintances to complete additional surveys. The ethnic breakdown of the sample was 40% White, 27% Hispanic/Latino, 17% African-American, 6% Asian, 8% other, and 2% did not indicate.

2.1.2. Study 2: Chat situation

Participants were 194 undergraduates (M = 19.83, SD = 1.25, 51.5% female) recruited from the psychology volunteer subject pool at a university in California. Participants completed up to four visits in the lab, spaced approximately a week apart, and were compensated with research credit and up to $115 for completing the entire study. The ethnic breakdown of the sample was 49% Asian, 23% Hispanic/Latino, 8% White, 4% Middle Eastern, 3% African American, and 12.5% other. Participants were included in the present analyses if they reported their own subjective happiness, gender, and completed the chat situation behavioral assessment (excludes 71 participants of the original sample of 256).

2.2. Measures

2.2.1. Subjective Happiness Scale

The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1991) is a 4-item assessment of overall happiness, with each item rated on a 7-point scale. Items include "In general, I consider myself…" rated from "not a very happy person" to "a very happy person." The scale has been included in a wide range of happiness studies and has demonstrated high reliability, including in Study 1 (ω = .88) and Study 2 (ω = .89).

2.2.2. Riverside Behavioral Q-sort

The Riverside Behavioral Q-sort (RBQ; Funder et al., 2000) is a 68-item forced choice measure of a wide range of behavioral characteristics that forms a quasi-normal distribution of the responses. Examples of items include "is expressive in face, voice or gestures" and "expresses criticism." For both studies, after viewing a recoded situation, raters evaluated the behavior of a participant across all 68 RBQ items on a 9-point scale from "extremely uncharacteristic" to "extremely characteristic" (see Coding Procedure below for more detail). Their ratings were averaged together to create one behavioral profile per participant. The reliability of each RBQ item across each of the four raters for study 1 and the four raters for study 2 was calculated using the intraclass correlation (ICC3). The ICC3 computes the rater intra-class correlation for a fixed sample of raters. It is a measure of consistency and is equivalent to an alpha (Shrout & Fleiss, 1979). The average reliability of the RBQ items for study 1 was .49 and the average reliability of the RBQ items for study 2 was .40. For a full list of the reliabilities for all 68 RBQ items as well as the means and standard deviations in both studies see Supplementary Results on the project OSF page: osf.io/bs36k. Note that many items had low reliability due to the low frequency of the specific behavior occurring in either situation (see table of means in Supplementary Results), despite the high level of agreement among raters for each participant (see coding procedure below).

2.3. Procedure

2.3.1. Study 1: Semi-Structured interview

Data from the first study came from a larger project comprised of three parts, from which only data from the first part are included in the current study. In Part 1, participants visited the lab, completed a brief "getting-to-know-you" interview and a bevy of personality inventories. The interviews took an average of about 5 min and consisted of introductory questions such as "Tell me a little about yourself" and "What sort of person are you?". Four trained coders rated each of the videos of the interviews using the 68-item Riverside Behavioral Q-sort (RBQ). Other findings using this dataset to address different topics on situational assessment and personality have been previously published elsewhere (Brown et al., 2017; Rauthmann et al., 2019, Sherman et al., 2015), however all analyses involving observer ratings of behavior are new.

2.3.2. Study 2: Chat situation

Participants came into the lab on four separate days approximately a week apart, as part of a larger study on situational construal and behavior. At the first visit, participants reported their happiness, along with basic demographic information. During the second visit, participants were video recorded during a 5-minute interaction with 2 other unacquainted participants. Participants were instructed to "talk about anything you like." From the video-taped interactions, trained observers rated the behavior of each participant during the situation using the 68-item RBQ. Previous findings published using this data set involved assessing personality and situational construal (Morse et al., 2015), behavioral consistency (Sauerberger & Funder, 2017), and personality disorders (Kaurin et al., 2018). All the analyses in the present article

involving observer ratings of behavior and happiness are new.

2.4. Coding procedure

The observed behavior of each of our participants was carefully coded through an extensive process. The studies included here were coded by independent research teams, but they both followed the same training and coding procedure. First, research assistants were trained to code a set of videos previously coded by 3 expert judges using the RBQ. The research assistants' ratings were then compared to those of the 3 expert judges and they were then only allowed to code participant data if they achieved an alpha of at least .70 for each of the training videos across all RBQ items. After completing the training, each of our participants' behaviors were coded by 4 research assistants using the RBQ. If any of the ratings caused the average inter-rater alpha to drop below .70, the research assistant was asked to recode the video with no specific feedback (to avoid biasing the recoding). Participants who yielded persistently low inter-rater agreement after the recoding process were dropped from the present analyses (n = 16 for Study 1 and n = 8 for Study 2). The final average inter-rater agreement for Study 1 was α = .76 and α = .82 for Study 2.

3. Results

3.1. Study 1 – Semi-Structured interview

To assess the relationship between observed behavior and subjective happiness, each RBQ item was correlated with happiness. The final sample size of 281 participants provided 80% power to detect correlations greater than |.17| across the 68 items. Given the high number of statistical tests conducted, several significant correlations could be expected to emerge by chance. Therefore, randomization tests were conducted to determine whether the observed number of correlations was significantly higher than what would be expected by chance (see Sherman & Funder, 2009). There were 33 statistically significant correlations ($p < .05$) between RBQ items and happiness for the interview situation. The randomization test results indicate that the chance of finding 33 statistically significant correlations (out of 68 total possible) is $p < .001$ (see Supplementary Results on the project OSF page for full results, including results separated by gender: osf.io/bs36k).

The strongest positive correlation between an observed behavior and happiness was being physically active ($r = .32$), followed by being cheerful ($r = .28$), and appearing to regard self as physically attractive ($r = .27$). Other positive RBQ correlates with happiness included exhibiting social skills ($r = .24$), high enthusiasm ($r = .22$), and smiling ($r = .18$). The strongest negative correlation with happiness was expressing insecurity ($r = -.37$), followed by saying negative things about the self ($r = -.32$). Other negative correlations between observed behaviors and happiness were expressing self-pity ($r = -.27$) or criticism ($r = -.25$), comparing self to others ($r = -.21$), and being reserved and unexpressive ($r = -.17$). All statistically significant correlations ($p < .05$) are presented in Table 1 (see Supplementary Results for the full list of correlates). Across the full list of correlations between the RBQ items and happiness the gender vector correlation was $r(66) = .63$, $p < .001$, suggesting a high degree of overlap in the pattern of correlates between males and females.

Table 1
Study 1: Semi-structured interview RBQ × SHS correlates.

#	RBQ item	*r*	*p*
65	Engages in physical activity	.32	<.001
49	Behaves in a cheerful manner	.28	<.001
30	Appears to regard self as physically attractive	.27	<.001
6	Appears to be relaxed and comfortable	.24	<.001
7	Exhibits social skills	.24	<.001
15	Shows high enthusiasm and a high energy level	.22	<.001
12	Seems to like other(s) present	.21	<.001
58	Makes or approaches physical contact with other(s)	.20	<.001
62	Acts playful	.19	<.001
10	Smiles frequently	.18	.001
42	Seems to enjoy the situation	.17	.002
54	Emphasizes accomplishments of self, family or acquaintances	.15	.003
28	Seems likable	.14	.010
37	Is expressive in face, voice or gestures	.14	.012
11	Is physically animated; moves around	.13	.015
59	Engages in constant eye contact with someone	.13	.023
51	Behaves in a stereotypically masculine style or manner	.12	.029
21	Expresses insecurity	−.37	<.001
44	Says negative things about self	−.32	<.001
40	Keeps other(s) at a distance; avoids development of any sort of interpersonal relationship	−.29	<.001
47	Expresses self-pity or feelings of victimization.	−.27	<.001
19	Expresses criticism	−.25	<.001
35	Is unusual or unconventional in appearance	−.24	<.001
22	Show physical signs of tension or anxiety	−.22	<.001
14	Compares self to other(s)	−.21	<.001
13	Exhibits an awkward interpersonal style	−.20	<.001
36	Behaves in a fearful or timid manner	−.20	<.001
31	Acts irritated	−.17	.003
8	Is reserved and unexpressive	−.17	.003
34	Expresses hostility	−.16	.006
39	Expresses guilt	−.15	.010
67	Exhibits physical discomfort or pain	−.13	.023
57	Speaks sarcastically	−.13	.029

Note. N = 281, Females = 164, Males = 115. The gender vector correlation of the pattern of RBQ × SHS correlates between the male and female sample is $r(66) = .63$, $p < .001$.

3.2. Study 2 – Chat situation

Following the same procedure for Study 1, randomization tests were conducted with the chat situation data to determine whether the observed number of correlations was significantly higher than what would be expected by chance, given the high number of potential correlates. There were 17 statistically significant ($p < .05$) correlations between RBQ items and happiness for the chat situation. Randomization results indicate that the chance of finding 17 significant correlations (out of 68 total possible) is $p = .008$ (see Supplementary Results on the project OSF page for full results, including results separated by gender: osf.io/bs36k). The total sample size of 186 participants provided 80% power to detect correlations greater than |.20| across items.

Compared to the interview situation from Study 1, there were fewer behavioral correlates with self-reported happiness for the chat situation in Study 2 (17 RBQ items correlated with happiness, vs. 33 RBQ item correlates in Study 1), most likely due to the smaller sample size and therefore lower power in Study 2 (N = 194 vs. N = 294 in Study 1). Out of 68 behavioral description ratings of the participants, the strongest positive correlation with self-reported happiness was smiling frequently ($r = .26$), followed by acting playful ($r = .24$) and being interested in what others had to say ($r = .22$). Other observed behaviors correlated with happiness were showing a high level of enthusiasm ($r = .20$), behaving in a cheerful manner ($r = .19$), and liking others present ($r = .19$). The strongest negative correlation between an observed behavior and self-reported happiness was expressing guilt ($r = -.23$). Other behaviors negatively associated with happiness were showing physical signs of tension or anxiety ($r = -.22$), expressing criticism ($r = -.22$), acting irritated ($r = -.21$), and having an awkward interpersonal style ($r = -.19$). All significant correlations ($p < .05$) are presented in Table 2 (see Supplementary Results for the full list of correlates). Compared to the interview situation in Study 1, there was a slightly weaker, yet still positive vector correlation for the pattern of correlates between males and females ($r(66) = .31$, $p = .01$).

Table 2
Study 2: Chat situation RBQ × SHS correlates.

#	RBQ item	*r*	*p*
10	Smiles frequently	.26	<.001
62	Acts playful	.24	.001
3	Seems interested in what someone had to say	.22	.002
15	Shows high enthusiasm and a high energy level	.20	.005
49	Behaves in a cheerful manner	.19	.007
12	Seems to like other(s) present	.19	.008
6	Appears to be relaxed and comfortable	.17	.016
29	Seeks advice	.16	.025
56	Speaks in a loud voice	.15	.034
9	Laughs frequently	.15	.040
4	Tries to control the situation	.14	.045
39	Expresses guilt	−.23	.001
22	Show physical signs of tension or anxiety	−.22	.002
19	Expresses criticism	−.22	.002
31	Acts irritated	−.21	.004
13	Exhibits an awkward interpersonal style	−.19	.008
53	Speaks fluently and expresses ideas well	−.15	.034
67	Exhibits physical discomfort or pain	−.14	.049

Note. N = 186, Females = 96, Males = 90. The gender vector correlation of the pattern of RBQ × SHS correlates between the male and female sample is $r(66) = .31$, $p = .01$.

3.3. Summary of Study 1 and Study 2

Statistically significant behavioral correlates of self-reported happiness that were replicated across both Study 1 and Study 2 are presented in Table 3. The six observed behaviors positively associated with happiness in both studies were behaving in a cheerful manner, acting playful, smiling, being relaxed, high enthusiasm, and liking others present. The six observed behaviors negatively related to happiness across both studies were expressing criticism, showing signs of anxiety, awkward interpersonal styles, acting irritated, and expressing guilt and discomfort. To statistically compute the degree of similarity between the results of Study 1 with the results from Study 2, a vector correlation between the two resulting list of correlates was computed. Overall, the pattern of correlates for all 68 items across both studies was extremely similar, with a vector correlation of $r(66) = .74$, $p < .001$.

Table 3
Behavioral correlates of happiness replicated across both studies.

RBQ	Behavior item description	*r [95% CI]* Study 1: Interview	*r [95% CI]* Study 2: Chat
49	Behaves in a cheerful manner	.28 [.17, .38]	.19 [.05, .33]
10	Smiles frequently	.18 [.06, .28]	.26 [.13, .39]
62	Acts playful	.19 [.08, .30]	.24 [.11, .37]
6	Appears to be relaxed and comfortable	.24 [.13, .35]	.17 [.03, .31]
15	Shows high enthusiasm and a high energy level	.22 [.10, .32]	.20 [.06, .33]
12	Seems to like other(s) present	.21 [.10, .31]	.19 [.05, .32]
19	Expresses criticism	−.25 [−.35, −.14]	−.22 [−.35, −.08]
22	Show physical signs of tension or anxiety	−.22 [−.33, −.11]	−.22 [−.35, −.08]
13	Exhibits an awkward interpersonal style	−.20 [−.31, −.09]	−.19 [−.32, −.05]
31	Acts irritated	−.17 [−.28, −.06]	−.21 [−.34, −.07]
39	Expresses guilt	−.15 [−.26, −.04]	−.23 [−.36, −.09]
67	Exhibits physical discomfort or pain	−.13 [−.24, −.02]	−.14 [−.28, −.01]

Note. The vector correlation of the RBQ × SHS correlates between the interview situation (Study 1) and chat situation (Study 2) for the full table of 68 correlates (of which 12 are shown here) is $r(66) = .74$, $p < .001$. Items are sorted by highest to lowest average correlation across both studies.

4. Discussion

Across both independent studies, happier individuals were observed exhibiting more positive behaviors and less negative behaviors overall. Even though participants experienced the same objective situation, the observed behaviors of the happier individuals were distinct from their less happy peers. In both situations, the specific behaviors observed in happier people were smiling frequently, acting playful, and behaving in a cheerful manner. Happier people were also less likely to express criticism or guilt, act irritated, or appear anxious. Overall, the greater positive affect and more enjoyable experiences that happier people have in their daily lives is to a considerable degree reflected in their observable behaviors.

The behaviors associated with happiness were largely consistent across both studies and, despite the study's broad, exploratory nature, converged with previous research in both laboratory and naturalistic settings. The strong vector correlation found between Study 1 and Study 2 indicates a highly similar pattern of behavioral correlates of happiness that transcended the differences between the two study situations. Thus, whether people are interacting with strangers or asked to talk about themselves, happier people exhibit highly similar behaviors in both contexts.

Replicating previously reported singular behavioral associations with happiness, happier people smiled more in both situations. However, smiling was not the only behavior associated with happiness, nor was it the one with the strongest correlation. Being cheerful and playful correlated even more highly in the interview situation, in which participants were not interacting with others. Notably, this experimental context differed from previous research assessing a comprehensive range of behavioral correlates with happiness (Nave et al., 2008). Additionally, some specific behaviors were surprisingly *not* correlated with happiness, despite theoretical similarity to previous work or common-sense expectations. For example, laughing frequently was not related to happiness in the interview situation while initiating humor was not significantly correlated with happiness in either situation, illustrating how some behaviors may be more situationally dependent rather than reflecting dispositional traits. Lastly, the findings from the present study converge with previous work in naturalistic settings outside of the lab that found happier individuals were more likely to report greater positive affect throughout the day (e.g., Horstmann et al., 2020). Thus, while it is possible that happier people may still select into more enjoyable situations throughout the day, the present findings suggest that in fact happier individuals are simply enjoying their everyday situations more, wherever they might find themselves.

The broad pattern of behavioral correlates paints an expansive picture reflecting the theoretical underpinnings of happier individuals as defined within the personality literature. The well-documented relationship between happiness and extraversion, particularly the energy facet of extraversion that most closely aligns with positive affect (Margolis et al., 2020), is reflected in the positive behavioral correlates found here. Happier individuals were observed as having a higher energy level as well as acting playful and cheerful, other aspects of a high energy level. These specific behaviors thus reflect one defining psychological characteristic of happy people, namely, their greater positive affect (Lyubomirsky et al., 2005).

4.1. Conclusions

Happier people not only have more positive life outcomes but also exhibit several positive behaviors that are observable by others, even during brief social interactions. Across a multi-study, multi-method assessment, the robust, observable behaviors associated with happiness include being cheerful, smiling, and acting playful, along with

expressing less criticism or guilt and acting less irritated. The behaviors observed of happier individuals not only reflect the positive experience happier individuals experience in everyday situations but also highlights what might make happier people much more enjoyable to be around.

Author contributions

The 1st and 4th authors developed the study concept and analysis design. The 1st author analyzed Study 1 & Study 2 data and drafted the full manuscript. The 2nd author oversaw the data collection of Study 2, cleaned the data, and assisted with data analysis. The 3rd author oversaw the data collection of Study 1. Research funding was provided by the 4th author. All authors contributed to editing the manuscript.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

All data, code, and materials are available at: osf.io/bs36k

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