
Supplementary information

Video-call glitches trigger uncanniness and harm consequential life outcomes

In the format provided by the
authors and unedited

SUPPLEMENTARY INFORMATION

Title: Video Call Glitches Trigger Uncanniness and Harm Consequential Life Outcomes

Authors:

Melanie S. Brucks^{1*}

Jacqueline R. Rifkin²

Jeff S. Johnson³

Affiliations:

1: Marketing division
Columbia Business School
Columbia University in the City of New York
665 West 130th Street, New York, NY 10027
USA

2: Marketing department
SC Johnson College of Business
Cornell University
114 East Ave., Ithaca, NY, 14850
USA

3: Department of marketing and supply chain management
Henry W. Bloch School of Management
University of Missouri-Kansas City
5110 Cherry Street, Kansas City, MO 64110
USA

Additional Information Correspondence and requests for materials should be addressed to
Melanie Brucks (mb4598@columbia.edu).

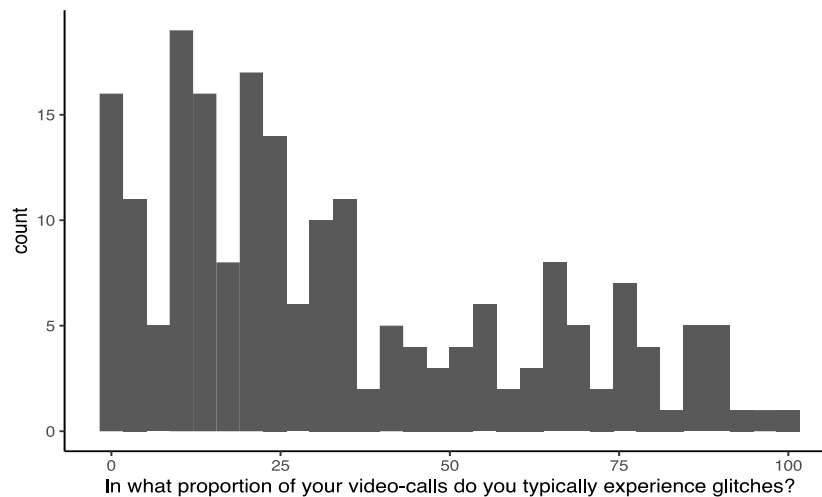
Table of Contents

- A. Survey about glitch prevalence
- B. Qualitative interview guide
- C. Intuitions about glitches survey
- D. Additional information and analyses for Study 1
- E. Tests of Discriminant Validity between Glitchiness and Uncanniness
- F. Additional analyses for Study 5
- G. Results with controls for Study 6
- H. Hiring study
- I. Setting expectation study
- J. Apology and joke intervention study
- K. Results for comprehension across all experiments

A. Survey about Glitch Prevalence

A sample of 202 MTurk participants ($M_{age} = 38.13$, $SD = 10.40$; 61.88% female) responded to a single-cell survey about their experiences with video calling and perceptual glitches. We defined glitches as small and fleeting errors in a system that occurs due to unknown causes and told participants that they often take the form of lags and freezes in video and audio. Participants responded to several questions pertaining to how often they engage in video calling, in what proportion of their calls do they typically experience glitches, and whether and how they typically deal with or address glitches.

For glitch prevalence, participants were asked to indicate how often they experience glitches during videocalls, ranging from 0% to 100%. On average, participants reported that they experience glitches in 33.48% of their calls ($SD = 26.99$). Moreover, approximately 25% of respondents indicated that over half of their calls have glitches.



This survey suggests that glitches occur in a non-trivial proportion of people's videocalls. Moreover, a subset of our sample was rather plagued by glitches, in that they were happening more often than not. With these statistics, we proceed to test the potential negative implications of such glitches.

B. Qualitative Interview Guide

I'd like to ask you some questions and let you speak as quickly on each topic as possible, so I'd like to not slow us down with notetaking. May I audiotape our conversation so your opinions are reflected as you state them? Nowhere will your name or any other identifying information be provided. When the audiotape is transcribed, the transcriptionist will simply know the date and time of our conversation.

We are interested in videocalls (e.g., Zoom, Teams, etc.) you use for nonpersonal purposes (e.g., talking with a salesperson, telehealth, etc.)

1. What do you use videocalls for?
2. Has your use of videocalls increased or decreased over the past two years? Why?
3. How has the change in videocalls affected you?
4. Are there certain contexts that are right vs. wrong for videocalls?
5. Has it affected you negatively? How so?
6. Why do you like videocalls? Why do you dislike videocalls?
7. How does videocalling compare to other communication technologies you use?
8. When you use videocalls, how often do you have your video on vs. off? Is it detrimental to have video off?

We are also interested in technological glitches in virtual communication (e.g., Zoom freezes up for a moment).

1. On what percent of calls do you experience a technological glitch when using videoconferencing?
2. When glitches happen on your calls, how (if at all) do you think it affects...
 - a. - how connected you feel to the person
 - b. - how connected they feel to you
 - c. - the outcome of the call (i.e., the target you are trying to achieve)
 - d. - how well you can understand and comprehend each other
3. Do you address a glitch when it occurs? If so, how? What do you say when it happens on your end? On the other's end?
4. Do you have any other comments or observations about technological glitches that did not come up during the interview?

Demographic information:

- Experience using videoconferencing (years)
- Average hours/week using videoconferencing
- Gender
- Age
- Education

C. Intuitions about Glitches Survey

To enter the study, participants on the online platform Prolific had to successfully complete an audio check confirming they could hear a song. 298 participants successfully completed the audio check and proceeded to the main study. We excluded observations from geolocations that occurred more than twice, resulting in a final sample of 295 participants ($M_{\text{age}} = 34.13$, $SD = 12.25$, 169 female, 119 male). The study was a 2-cell (Condition: Control vs. Glitch) between-subjects design.

The procedure and materials are similar to Study 3 CR and Study 5 in the main text. Participants were informed that they would watch a recording of a live interaction between a financial advisor and a potential new client and prompted to imagine that they were the client on the other end of the Zoom call. Participants then viewed a short financial pitch video from an ostensible financial advisor named Sam Calverton, and half of participants watched the video with four discrete freezes edited in. Following the video, participants were prompted to provide their evaluations of the call and the financial advisor on a variety of dimensions. Amongst these measures, we assessed participants' willingness to work with the financial advisor, using an item adapted from prior work (e.g., 1 = Very low, 7 = Very high⁴⁹), similar to the studies in the main paper. We also measured how glitchy the videocall seemed, echoing the manipulation checks and results from the main paper ($M_{\text{control}} = 1.34$, $SD = .79$, $M_{\text{glitch}} = 3.69$, $SD = 2.13$, $b = 2.34$, $SE = .19$, $t = 12.50$, $p < .001$).

Critically, we also asked participants in the glitch condition ($N = 149$) the extent to which they believed that any technological issues they experienced had impacted their evaluations on the key dependent measures (on a scale from 1 = *not at all* to 7 = *an extreme amount*).

Interestingly, although these participants were aware of the glitches throughout the call, they were not aware that glitches might affect their judgments: The mean response was 2.21 ($SD = 1.53$) on the 7-point scale, and 70% of the sample indicated very little (2 out of 7) or not at all (1 out of 7). These results converge with our qualitative interview insights suggesting that the negative impact of glitches is largely discounted.

D. Additional Information and Analyses for Study 1

The data dictionary for CANDOR is available upon request via the original authors.

Results of exploratory principal axis factor analysis with direct oblimin rotation

	Liking	Shared reality	Placebo Control	Feeling heard
Positive Feelings	-0.630	0.058	0.002	0.180
Conversation Enjoyment	-0.822	-0.009	0.029	0.201
Partner Liking	-0.732	-0.040	0.043	0.273
Perceived Commonality	-0.354	0.389	-0.007	0.044
Conversationalist Rating	-0.628	0.079	0.153	0.220
Future Conversation Preference	-0.432	0.181	-0.015	0.044
Speak Quickly	-0.062	0.041	0.550	-0.060
Topic Diversity	-0.260	-0.025	-0.040	-0.027
Disclosure to Partner	-0.247	0.215	-0.270	-0.003
Partner Listening Quality	-0.116	-0.028	-0.125	0.640
Total Talk Time	0.001	-0.003	0.851	0.021
Conversation Pace	-0.408	0.032	0.054	-0.061
Responsiveness Scale item 1	-0.054	0.116	0.008	0.692
Responsiveness Scale item 2	0.016	0.125	0.016	0.775
Responsiveness Scale item 3	-0.019	-0.020	-0.029	0.894
Shared Reality Scale item 1	-0.066	0.704	0.024	-0.033
Shared Reality Scale item 2	0.005	0.767	-0.010	0.102
Shared Reality Scale item 3	-0.023	0.656	0.009	0.196
Shared Reality Scale item 4	-0.130	0.372	0.024	0.272
Shared Reality Scale item 5	0.012	0.816	-0.018	0.055
Shared Reality Scale item 6	0.018	0.794	0.032	-0.121
Shared Reality Scale item 7	0.037	0.846	-0.015	-0.026
Shared Reality Scale item 8	0.003	0.737	-0.009	0.124

Note. All items were standardized using z-scoring. Bold indicates factor loading and use in averaged factor score. Full item language below.

Final items for Liking Factor:

- Positive Feelings: To what extent do you feel positive affect (e.g., good, pleasant, happy) or negative affect (e.g., bad, unpleasant, unhappy) right now? (1 - Extremely negative, 2, 3, 4, 5, 6, 7, 8, 9 - Extremely positive)
- Conversation Enjoyment: How enjoyable did you find the conversation? (1 - Not very much, 2, 3, 4, 5, 6, 7 - Very much)

- Partner Liking: How much did you like your conversation partner? (1 - Not very much, 2, 3, 4, 5, 6, 7 - Very much)
- Conversationalist Rating: Imagine you were to rank the last 100 people you had a conversation with according to how good of a conversationalist they are. "0" is the least good conversationalist you've talked to. "50" is right in the middle. "100" is the best conversationalist. Where would you rank the person that you just talked to on this scale? Please give this question some thought, and try to be as honest and precise as possible.
- Future Conversation Preference: Imagine the next 7 days of your life. If you had the option, how many of those days would you like to have another conversation with the person you just talked to? (0, 1, 2, 3, 4, 5, 6, 7)

Final items for Perceptions of Shared Reality:

- Shared Reality Scale item 1: Please rate your agreement with the following statements about you and your conversation partner: During our interaction.... We thought of things at the exact same time. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 2: Please rate your agreement with the following statements about you and your conversation partner: During our interaction.... We developed a joint perspective. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 3: Please rate your agreement with the following statements about you and your conversation partner: During our interaction.... We shared the same thoughts and feelings about things. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 5: Please rate your agreement with the following statements about you and your conversation partner: The way we thought became more similar. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 6: Please rate your agreement with the following statements about you and your conversation partner: We often anticipated what the other was about to say. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 7: Shared Reality Scale item 8: Please rate your agreement with the following statements about you and your conversation partner: We became more certain of the way we perceived things. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Shared Reality Scale item 8: Please rate your agreement with the following statements about you and your conversation partner: We saw the world in the same way. (1 - Strongly disagree, 2, 3, 4, 5, 6, 7 - Strongly agree)
- Perceived Commonality: How much did you and your partner have in common with one another? (1 - Not much at all, 2, 3, 4, 5, 6, 7, 8, 9 - An extreme amount)

Final items for Feeling Heard:

- Responsiveness Scale item 1: My conversation partner understood me. (Strongly disagree, Disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Agree, Strongly agree)
- Responsiveness Scale item 2: My conversation partner valued my abilities and opinions. (Strongly disagree, Disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Agree, Strongly agree)
- Responsiveness Scale item 3: My conversation partner really listened to me. (Strongly disagree, Disagree, Somewhat disagree, Neither agree nor disagree, Somewhat agree, Agree, Strongly agree)
- Partner Listening Quality: My partner was a good listener. (Very Strongly Disagree, Strongly Disagree, Disagree, Somewhat Disagree, Neither Agree Nor Disagree, Somewhat Agree, Agree, Strongly Agree, Very Strongly Agree)

Results, where only one partner self-reported experiencing a glitch (15.6% of calls, $n = 512$)

The person that experienced a glitch liked their partner less ($M_{\text{control}} = 5.13$, $SD = 1.02$, $M_{\text{glitch}} = 4.79$, $SD = 1.06$, $b = -0.33$, $SE = 0.08$, $t(300) = -3.96$, $p < .001$, Cohen's $d = -.32$, 95% CI = $-.50, -.15$), perceived less of a shared reality together ($M_{\text{control}} = 4.66$, $SD = 1.19$, $M_{\text{glitch}} = 4.26$, $SD = 1.19$, $b = -.37$, $SE = .10$, $t(301) = -3.84$, $p < .001$, Cohen's $d = -.33$, 95% CI = $-.51, -.16$), and felt less heard ($M_{\text{control}} = 5.96$, $SD = .83$, $M_{\text{glitch}} = 5.58$, $SD = .95$, $b = -.36$, $SE = .08$, $t(300) = -3.96$, $p < .001$, Cohen's $d = -.43$, 95% CI = $-.60, -.25$) compared to their partner, who did not experience the glitch.

Results, controlling for age, conversation length, pre-conversation affect

- Glitches lead to lower liking: $b = -0.21$, $SE = 0.05$, $t(3066) = -4.25$, $p < .001$.
- Glitches lead to lower feelings of being heard: $b = -0.18$, $SE = 0.04$, $t(2876) = -4.13$, $p < .001$.
- Glitches lead to lower perceptions of shared reality: $b = -0.26$, $SE = .06$, $t(3062) = -4.40$, $p < .001$

E. Tests of Discriminant Validity between Glitchiness and Uncanniness

We tested for discriminant validity for all studies where uncanniness and the manipulation check were measured in the same dataset.

Bagozzi et al. (1991, p. 436)⁵⁰ suggest that “discriminant validity among traits is achieved when the trait correlation differs significantly from 1.0.” Significant difference from 1.0 is assessable by running a correlation between the supposed constructs and collecting a 95% confidence interval, and discriminant validity between constructs is suggested when the confidence interval does not include 1.0.

Principle axis exploratory factor analyses with a direct oblimin rotation also support discriminant validity. All models yield strong 2-factor solutions, with one factor comprising the manipulation check items and the second factor comprising the uncanny items.

Study	Correlation: Glitchiness and Uncanniness	Eigenvalue for 2-Factor Model
Study 3	$r = .401, p < .001, 95\% \text{ CI } [.325, .472]$	1.683
Study 3 CR	$r = .372, p < .001, 95\% \text{ CI } [.293, .445]$	1.660
Study 5	$r = .273, p < .001, 95\% \text{ CI } [.214, .331]$	1.906

CR = Conceptual Replication

These methods suggest that glitchiness (the manipulation check of the independent variable) and uncanniness (the mediator) are distinct constructs (i.e., feature discriminant validity).

F. Additional Results for Study 5

Of note, although both glitch conditions significantly and sizably increase perceptions of glitchiness relative to their respective control condition ($ps < .001$, $ds > 1.5$), we observe a marginal 2 (glitch: present vs. control) $\times$ 2 (content: face-to-face vs. shared video presentation) interaction on the perception of “glitchiness” ($b = 0.35$, $SE = 0.21$, $t = 1.69$, $p = 0.091$). Given the large effect sizes of the glitch manipulation, the slight reduction in glitch perceptions for the shared video condition is very unlikely to explain the complete attenuation on the negative effect of the glitch on uncanniness and interest in working with the communicator. Further, this result is robust to replacing the manipulated condition (0 = control, 1 = glitch) with the manipulation check measure (perceived glitchiness index). Perceived glitchiness $\times$ content (face-to-face vs. shared video presentation) interactions yield parallel results (uncanny: $b = .19$, $SE = .04$, $t(965) = 5.00$, $p < .001$, willingness to work with communicator: $b = .10$, $SE = .04$, $t(965) = 2.30$, $p = .022$).

G. Results with Controls for Study 6

Results with all controls

	<i>Dependent variable:</i>
	Grant Parole (0 = no, 1 = yes)
Glitch (0 = absent, 1 = present)	-0.581** (0.239)
Age	0.008 (0.011)
Gender (0 = female, 1 = male)	1.022** (0.481)
White(0 = not White, 1 = White)	-0.436 (0.289)
Weight (pounds)	-0.005* (0.003)
Height (inches)	-0.006 (0.038)
Number of Sentences	0.035 (0.031)
Hearing Length (min)	-0.028** (0.012)
Murder Dummy	-0.524 (0.860)
Weapon Possession Dummy	-0.267 (0.908)
Sexual Assault Dummy	-2.818*** (0.805)
Drugs Dummy	-0.060 (0.646)
Assault Dummy	-1.262 (0.800)
Manslaughter Dummy	-1.278* (0.698)
Theft Dummy	-0.143 (0.647)
Constant	2.111 (2.503)
Number of Hearing Dates	24
sd(Hearing Dates)	0.394
Number of Secondary Commissioners	10
sd(Secondary Commissioners)	0.313
N	444

Note:

*p<0.1; **p<0.05; ***p<0.01

Kentucky Virtual Parole Hearings Jan-Apr 2021

Results with pared controls:

	<i>Dependent variable:</i>
	Grant Parole (0 = no, 1 = yes)
Glitch (0 = absent, 1 = present)	-0.565** (0.235)
Gender (0 = female, 1 = male)	1.080** (0.436)
Weight (pounds)	-0.005** (0.003)
Hearing Length (min)	-0.028** (0.011)
Sexual Assault Dummy	-2.797*** (0.515)
Assault Dummy	-1.238** (0.511)
Manslaughter Dummy	-1.160*** (0.333)
Constant	1.666** (0.696)
Number of Hearing Dates	24
sd(Hearing Dates)	0.378
Number of Secondary Commissioners	10
sd(Secondary Commisioners)	0.316
N	444

Note: *p<0.1; ** p<0.05; *** p<0.01
Kentucky Virtual Parole Hearings Jan-Apr 2021

H. Hiring Study

Hiring is a particularly relevant context given that an estimated 82% of companies are now conducting first round interviews over video³.

Participants

To enter the study, participants on the online platform Amazon MTurk had to indicate that they currently work with, or have previously worked with, individuals from the sales department. This was to ensure that their subsequent evaluations of an ostensible job candidate in the sales department was realistic. 418 participants qualified and proceeded to the main study. As detailed in our pre-registration, we planned to exclude observations from geolocations that occurred more than twice and any participant who failed our attention check. However, the owner of the Qualtrics survey moved institutions during data collection, and the geolocations were scrubbed from the data per that institution's policy. Thus, we are unable to check for geolocations. We excluded six failed attention checks, resulting in a final sample of 412 participants ($M_{\text{age}} = 40.8$, $SD = 11.4$; 165 female, 237 male). The study was a 2 (Condition: Control vs. Glitch) between-subjects design with stimulus replicates (Actor: Male, Female).

Procedure

Participants were asked to imagine that their company is hiring a sales manager whose job would be to interact with potential clients in the office and that their task is to watch and give their opinion on a video application of one of the candidates. Participants then viewed a ~75 second video introduction from ostensible financial advisor job applicant. To increase generalizability, we randomly assigned participants to view a video from either a female applicant ("Kate") or a male applicant ("Ken"). As with the prior study, half of participants ($n = 211$) watched the video without any audiovisual distortions (F: <https://youtu.be/sE2HuE-YD7M>), while the other half ($n = 201$) watched the video with five brief, discrete freezes inserted into the video (F: https://youtu.be/xEg_dULAIGE?si=Mo9k57x0EHnaobEP). The freezes ranged from .5 to 2 seconds in duration and were inserted during natural pauses in speech, so as to not interrupt the flow of spoken information.

Following prior work on hiring decisions^{51,52} our primary dependent variable was participants' interest in hiring the candidate. We measured this in three items, assessing their support for this applicant "joining your team," "getting an interview for the position," and "being hired to your company" (averaged; all 1 = Not at all, 7 = A great deal; $\alpha = .94$). Next, we assessed participants' memory for the video presentation's content with three comprehension items (e.g., "What did the applicant study in college?", see below for items); we used the proportion of memory items correct as our measure of comprehension.

To check our manipulation, participants evaluated the video along three dimensions: the extent to which it "was glitchy," "froze up at times," and "played smooth" (averaged; $\alpha = .95$; all 1 = Not at all, 7 = Very much). The manipulation was successful ($M_{\text{control}} = 1.54$, $SD = 1.02$ vs. $M_{\text{glitch}} = 4.71$, $SD = 1.90$, $b = 3.17$, $SE = .149$, $t = 21.26$, $p < .001$).

Finally, participants in the glitch condition indicated who they thought was most likely to be the source of the glitches (my computer/internet; the applicant's computer/internet; the survey-hosting website; other). All participants lastly completed standard demographics (e.g., age, gender, etc.) including a brief attention check. Materials available for all experiments on Research Box (<https://researchbox.org/2398>).

Results

We find that these glitches negatively impacted the likelihood of the job candidate being hired. Specifically, the presence of glitches during the ostensible job interview decreased participants' support of the candidate ($M_{\text{control}} = 5.60$, $SD = 1.05$, $M_{\text{glitch}} = 5.04$, $SD = 1.43$, $b = -.57$, $SE = .12$, $t = -4.82$, $p < .001$, Cohen's $d = -.45$, 95% $CI = -.64, -.25$).

One might wonder if glitches undermine hiring likelihood because participants (a) attributed glitches to the job candidate's low-quality internet or low competence, or (b) experienced impaired comprehension due to interruptions in the delivery of information. However, we find no evidence for these possibilities. To examine the possible role of negative signals, we asked participants in the glitch condition to indicate the most likely source of the glitch from several options, including the job applicant's internet and an external source (e.g., the survey hosting website). Suggesting that negative interpersonal attributions do not underlie the key effect, we find that participants' support of the applicant did not significantly differ between those who attributed the glitch to the applicant's own internet connection ($M = 4.93$, $SD = 1.45$) versus to an external source (e.g., the survey-hosting website; $M = 4.88$, $SD = 1.45$, $b = 0.06$, $SE = 0.23$, $t = 0.26$, $p = 0.794$, Cohen's $d = .04$, 95% $CI = -.28, .36$).

Comprehension was high across both the glitch ($M = .85$, $SD = .22$) and control ($M = .85$, $SD = .22$) conditions, with no difference across conditions ($b = -0.002$, $SE = 0.022$, $t = -0.104$, $p = 0.917$).

Suggesting that the negative effect of glitches cannot be explained by impaired information processing, comprehension was high across both the glitch ($M = .85$, $SD = .22$) and control ($M = .85$, $SD = .22$) conditions, with no difference across conditions ($b = -0.002$, $SE = 0.022$, $t = -0.104$, $p = 0.917$).

Comprehension Items

What did the applicant study in college?

- Finance / Business / Management / Management

What did the person say was their biggest weakness?

- Poor planning / Acting too quickly / Poor communication skills

What did the person say was their greatest strength?

- Leadership / Communication skills . Organization / Following directions

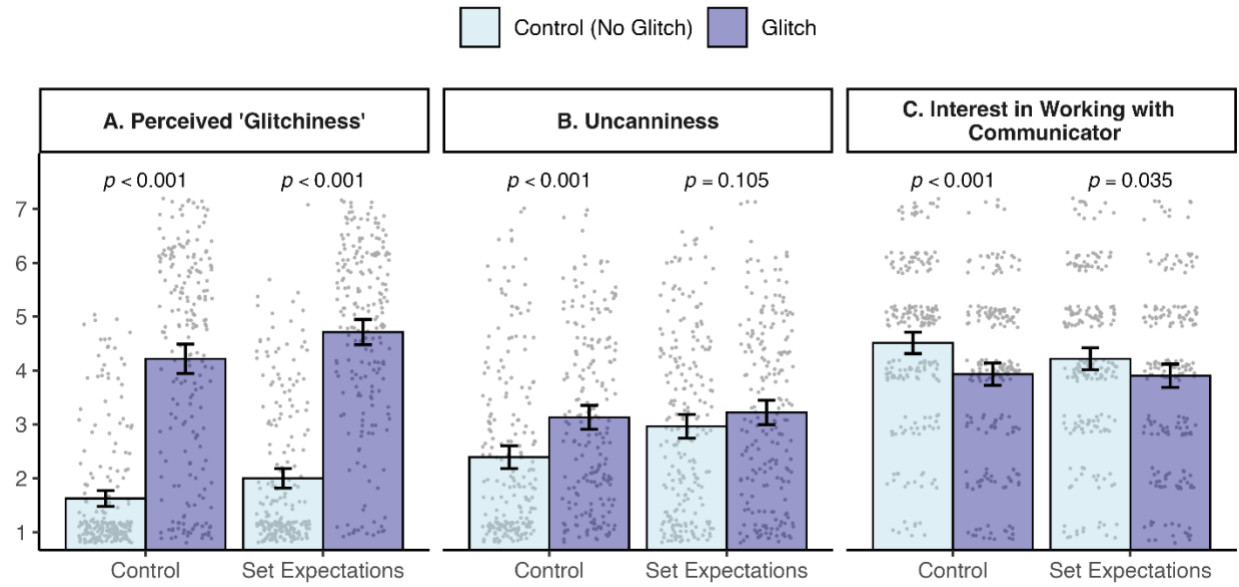
I. Setting Expectations Study

If the negative effect of the glitch is due to a feeling of uncanniness stemming from violations in *ingrained* expectations of the natural world, then could just resetting expectations mitigate the effect? As we detail in the main text, we suspected not. Specifically, we speculated that because these expectations are ingrained, it would be difficult to effectively adjust expectations. To test this, we examined whether alerting people in advance that a glitch might occur mitigates the negative effect of the glitch.

In this study (pre-registered), participants watched a short video pitch from an ostensible financial advisor, and we employed a 2 (Condition: Control vs. Glitch) x 2 (Expectations: Control vs. Set in Advance) between-subjects design. To enter the study, participants on the online platform MTurk had to successfully complete an audio check confirming they could hear a song. 1001 participants successfully completed the audio check and proceeded to the main study. As detailed in our pre-registered plan, we excluded 143 observations with more than two repeated geolocations and 13 participants who failed the attention check, resulting in a final sample of 845 participants ($M_{age} = 41.07$, $SD = 11.88$; 428 female, 399 male).

As before, we inserted in four minor (<2 seconds) freezes during natural pauses in speech in all conditions except control. The control and glitch conditions replicated the design from study 3 CR in the main text. In our two Set in Advance Expectations conditions, we inserted a line at the beginning of the video. Specifically, the financial advisor said: “And just so you know, I think I was freezing a bit in my other calls today. I just wanted to set expectations in advance.” Afterwards, participants indicated how uncanny the experience was and their interest in working with the communicator.

We do not observe a significant interaction between glitch and expectation conditions for interest in working with the communicator ($b = .27$, $SE = .21$, $t = 1.27$, $p = .207$), suggesting that setting expectations does not mitigate the negative effect of the glitch. Glitches undermined interest in working with the advisor regardless of whether the advisor did not set ($M_{control} = 4.51$, $SD = 1.48$ vs. $M_{glitch} = 3.93$, $SD = 1.53$, $b = -0.58$, $SE = 0.14$, $t = -3.908$, $p < .001$, Cohen’s $d = -.39$, 95% CI = $-.58, -.19$) or did set expectations ($M_{control} = 4.22$, $SD = 1.52$ vs. $M_{glitch} = 3.90$, $SD = 1.58$, $b = -0.32$, $SE = 0.15$, $t = -2.12$, $p = .035$, Cohen’s $d = -.20$, 95% CI = $-.39, .011$). Interestingly, whether the advisor set expectations ($M = 3.90$, $SD = 1.58$) or not ($M = 3.93$, $SD = 1.53$) did not impact participants’ willingness to work with the advisor when there were glitches during the video call ($b = -0.03$, $SE = 0.15$, $t = -.20$, $p = .843$, Cohen’s $d = .02$, 95% CI = $-.17, .21$) but setting expectations actually lowered interest in working with the advisor in the control (no glitch) condition ($M_{control} = 4.51$, $SD = 1.48$ vs. $M_{set_expectations} = 4.22$, $SD = 1.52$; $b = -.30$, $SE = 0.15$, $t = -2.00$, $p = .046$, Cohen’s $d = -.20$, 95% CI = $-.39, -.01$). This suggests that, if anything, setting expectations backfires when there are no glitches present. Indeed, we observe an interaction of glitch presence and expectations for uncanniness ($b = .48$, $SE = .22$, $t = 2.15$, $p = .032$), driven by the group who *did not view* glitches experiencing a greater sense of uncanniness when the expectations of glitches was set in advance ($M_{control} = 2.39$, $SD = 1.58$ vs. $M_{set_expectations} = 2.97$, $SD = 1.65$; $b = .57$, $SE = 0.16$, $t = 3.64$, $p < .001$, Cohen’s $d = .36$, 95% CI = $.16, .55$).



J. Acknowledgement and Joke Intervention Study

One possibility is that anything that promotes goodwill would counteract the negative affect produced by the glitch, for example acknowledging the inconvenience the glitches caused. A second, more targeted approach based on our theorization could be joking about the glitch. Indeed, research suggests that humor occurs when a violation is appraised as innocuous—a theory termed benign violation⁵³. If a joke about the glitch is successful, the expectancy violation stemming from the glitch could be reframed as benign, potentially attenuating the cost of the glitch. Following this reasoning, a book entitled *What to say when you're dying on the platform* offers various jokes and quips to say when things go awry. Thus, in this study, we put these interventions to the test in a highly powered four-cell design.

In this study (pre-registered), participants watched a short video pitch from an ostensible financial advisor, and we employed a four-cell design (control vs. glitch vs. glitch + acknowledgment, vs. glitch + joke). To enter the study, participants on the online platform MTurk had to successfully complete an audio check confirming they could hear a song. 1601 participants successfully completed the audio check and proceeded to the main study. As detailed in our pre-registered plan, we excluded 86 observations with more than two repeated geolocations and 14 participants who failed the attention check, resulting in a final sample of 1501 participants ($M_{\text{age}} = 41.01$, $SD = 13.07$; 876 female, 604 male).

As before, we inserted in four minor (<2 seconds) freezes during natural pauses in speech in all conditions except control. The control and glitch conditions replicated design in the other supplement studies. In our two intervention conditions, we inserted a line at the end of the video. In the glitch + acknowledgment condition, the financial advisor said: “You know what, I think I may have froze up a bit there. I’m sorry if there are any issues with the internet connection”. In the joke condition, we implemented a line from *What to say when you're dying on the platform*: “You know what, I think I may have froze up a bit there. They say some internet connections are better than others... I guess this is one of the others!” Afterwards, participants indicated their interest in working with the communicator.

Replicating prior studies, minor glitches during the videocall reduced participants’ interest in working with the financial advisor ($M_{\text{control}} = 4.36$, $SD = 1.47$ vs. $M_{\text{glitch}} = 3.84$, $SD = 1.56$, $b = -.52$, $SE = .11$, $t = -4.70$, $p < .001$, Cohen’s $d = -.34$, 95% $CI = -.49, -.20$, see Figure 1). Interestingly, acknowledging the inconvenience of the glitch did not improve outcomes. In fact, participants were less interested in working with the financial advisor compared to the glitch alone ($M_{\text{acknowledge}} = 3.60$, $SD = 1.43$, $b = -.26$, $SE = .11$, $t = -2.15$, $p = .031$, Cohen’s $d = -.16$, 95% $CI = -.30, -.02$). In contrast, we find evidence that a joke might somewhat mitigate the negative impact of the glitch. Participants who received the joke at the end of the pitch were slightly more interested in working with the financial advisor relative to the glitch condition ($M_{\text{glitch}} = 4.06$, $SD = 1.56$, $b = .22$, $SE = .11$, $t = 1.99$, $p = .046$, Cohen’s $d = .14$, 95% $CI = 0, .28$). However, all three glitch conditions were significantly lower than the control condition ($ps < .001$, Cohen’s $ds > .2$). These results suggest that a theoretically informed intervention which neutralizes the feeling of uncanniness using humor might attenuate the negative effect of glitch, but the uncanny wall remains difficult to traverse. Perhaps the best strategy may simply be turning off one’s camera, which should effectively prevent the glitch from producing uncanny freezes.

K. Results for Comprehension across all Experiments

Study 2

Which benefit of sunscreen did the health professional NOT say?

- reduce your likelihood of sunburn or other skin discoloration
- shield your skin from UV rays
- avoid premature wrinkling and signs of aging
- reduce your risk of getting skin cancer

Comprehension score was a proportion of correct answers. Comprehension was relatively low across both the glitch ($M = .41$, $SD = .49$) and control ($M = .31$, $SD = .46$) conditions, with no significant difference across conditions ($b = .103$, $SE = 0.057$, $t = 1.822$, $p = 0.069$). Note that the key results on trustworthiness hold even when controlling for comprehension ($b = -.292$, $SE = .142$, $t = -2.06$, $p = .040$).

Study 3 Conceptual Replication

Earlier, you watched a short video. What was the video about?

- Salary changes / Retirement planning / Mortgages / Stock portfolios

What is the name of the financial services company from the video clip you watched?

- Rockhurst Financial / Caldwell Financial / Kingston Financial / Our Family Financial

What is the favorite hobby of the financial advisor from the video?

- Golfing / Reading / Boating / Hiking

The financial services company from the video is the industry leader in:

- Return on investment / Customer satisfaction / Number of customers / Long-term appreciation

Comprehension score was a proportion of correct answers. Comprehension was high across both the glitch ($M = .86$, $SD = .20$) and control ($M = .86$, $SD = .20$) conditions, with no significant difference across conditions ($b = .00$, $SE = 0.018$, $t = .016$, $p = 0.987$).

Study 4

What did the applicant study in college?

- Finance / Business / Management / Management

What did the person say was their biggest weakness?

- Poor planning / Acting too quickly / Poor communication skills

What did the person say was their greatest strength?

- Leadership / Communication skills . Organization / Following directions

Comprehensions score was a proportion of correct answers. Comprehension was relatively high across conditions, with the lowest being the audio-loss glitches (fleeting: $M = .66$, $SD = .27$;

sustained: $M = .61$, $SD = .31$) and the remaining conditions averaging approximately 80% or greater correct.

Study 5

Earlier, you watched a short video. What was the video about?

- Salary changes / Retirement planning / Mortgages / Stock portfolios

What is the name of the financial services company from the video clip you watched?

- Rockhurst Financial / Caldwell Financial / Kingston Financial / Our Family Financial

What is the favorite hobby of the financial advisor from the video?

- Golfing / Reading / Boating / Hiking

The financial services company from the video is the industry leader in:

- Return on investment / Customer satisfaction / Number of customers / Long-term appreciation

Comprehension score was a proportion of correct answers. Comprehension was high across all four conditions, and the presence of a glitch had no impact on comprehension in either the face-to-face ($b = -0.005$, $SE = 0.017$, $t = -0.27$, $p = 0.787$) nor the shared video ($b = 0.002$, $SE = 0.017$, $t = 0.135$, $p = 0.893$) conditions (interaction: $b = -0.007$, $SE = 0.024$, $t = -0.286$, $p = 0.775$).

Face-to-Face	Control	.87 (.19)
	Glitch	.88 (.18)
Shared Video Presentation	Control	.89 (.18)
	Glitch	.89 (.18)

Mean (SD)

References (for citations appearing only in the supplement):

- 50 Bagozzi, R. P., Yi, Y. & Phillips, L. W. Assessing construct validity in organizational research. *Admin. Sci. Q.* **36**, 421-458 (1991).
- 51 Lee, S., Pillutla, M. M. & Thau, S. Fundamental social goals and the attractiveness bias in personnel decision making. *Acad. Man. Proc.*, 10415 (2012).
- 52 McElroy, J. C., Summers, J. K. & Moore, K. The effect of facial piercing on perceptions of job applicants. *Organ. Behav. Hum. Decis. Process.* **125**, 26-38 (2014).
- 53 McGraw, A. P. & Warren, C. Benign violations: Making immoral behavior funny. *Psychol. Sci.* **21**, 1141-1149 (2010).