

Contents lists available at ScienceDirect

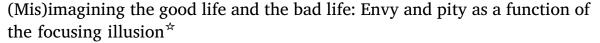
Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp











Ed O'Brien^{a,*}, Alexander C. Kristal^a, Phoebe C. Ellsworth^b, Norbert Schwarz^c

- ^a University of Chicago, United States
- ^b University of Michigan, United States
- ^c University of Southern California, United States

ARTICLE INFO

Keywords: Social judgment Focalism Everyday life

ABSTRACT

Envy is a negative state arising when we encounter others with more desirable circumstances than our own. Its converse is pity, a negative state elicited by downward comparisons towards worse-off others. Both classes of emotions first require us to infer what a person's life as a whole must be like. However, the "focusing illusion" suggests these impressions of others are incomplete: we may overweight extreme features (the exceptionally good circumstances of envied others and exceptionally bad circumstances of pitied others) at the cost of overlooking the smaller ups and downs of daily life, which inevitably dilute the other person's overall experience. If so, envy and pity could involve misperceiving that envied others have lives that are uniformly wonderful (overlooking that they still face smaller annoyances) and pitied others have lives that are uniformly awful (overlooking that they still enjoy smaller pleasures). Five studies support this possibility. First, participants evaluated different peers. Consistent with focalism, the more envy and pity they felt, the more disparities they perceived (Study 1)-yet the actual everyday lives of envied and pitied others were similar (Study 2). Participants then completed various defocusing tasks designed to bring to mind others' smaller ups and downs. This indeed reduced envy and pity (Studies 3-4a-4b-5), but pity proved harder to reduce (Studies 4b-5). These studies suggest the same underlying focalism may inflate feelings of envy and pity, with asymmetric regulation strategies: small annoyances spoil perceptions of a good life more than small pleasures enhance perceptions of a bad life.

What would life be like if you were rich? In love? Moving to sunny California? Not surprisingly, many people believe that their happiness and wellbeing would greatly improve under such conditions. By the same logic, the thought of becoming poor, being dumped, or moving to the icy Midwest leads many people to predict substantial decline.

Reality tells a different story. While people who experience positive life changes do report better quality of life in the short term, this boost tends to fade and return to baseline over time; similarly, people who experience negative changes often rebound and recover from an initial hit to happiness (Frederick & Loewenstein, 1999; Wilson & Gilbert, 2008). One reason that major life changes can fail to have lasting emotional impact is because other everyday experiences inevitably steal our attention and distract us from immersion in the big events (Diener, Sandvik, & Pavot, 1991; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Ubel, Loewenstein, Schwarz, & Smith, 2005; Wilson,

Wheatley, Meyers, Gilbert, & Axsom, 2000). Even the best among us cannot escape stubbed toes, long lines, and running late, just as those who are worse off may still derive pleasure from chit chat and sleeping in. These smaller ups and downs exert enormous influence over how we feel in daily life, despite seemingly more central circumstances.

A rich literature in social psychology highlights how broader category knowledge can lead perceivers to ignore a person's individuating features (e.g., stereotypes: Ames, 2004; Postmes & Spears, 1998) and/or assume these features are uniformly consistent with the category (e.g., halo effects: Nisbett & Wilson, 1977; Wills, 1981). Rather than addressing social categorization per se, here we focus on how people think about life events and their perceived role in everyday experiences and wellbeing. In this vein, tendencies to inflate the influence of salient life circumstances relative to the influence of more varied everyday moments fall under the umbrella of *focalism* or the *focusing illusion* (Gilbert,

^{*} This research was supported by a National Science Foundation Graduate Research Fellowship and the Willard Graham Faculty Research Award at the University of Chicago, awarded to Ed O'Brien. Linda Hagen, Sara Konrath, Taylor Rothman, and the review team provided helpful feedback. Lauren Lutzke, Allison Endres, Adam Parada, Sarah Lee, Alvin Chan, Jaewon Yoon, Miguel Ortega, Ellen Roney, and Chicago Booth's CDR labs assisted with data collection.

^{*} Corresponding author at: University of Chicago Booth School of Business, 5807 S. Woodlawn Ave., Chicago, IL 60637, United States. E-mail address: eob@chicagobooth.edu (E. O'Brien).

Pinel, Wilson, Blumberg, & Wheatley, 1998; Kahneman et al., 2004; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006; Kruger & Burrus, 2004; Lam, Buehler, McFarland, Ross, & Cheung, 2005; O'Brien, Ellsworth, & Schwarz, 2012; Schkade & Kahneman, 1998; Ubel et al., 2005; Wilson et al., 2000; Wirtz, Kruger, Scollon, & Diener, 2003). Research on focalism has focused primarily on how people (mis)predict their own emotional lives in the future. Professors overestimate the intensity and duration of their emotional reactions to tenure decisions (Gilbert et al., 1998), students overestimate the intensity and duration of their emotional reactions to football games (Wilson et al., 2000), car buyers overestimate the intensity and duration of their pleasure from a new ride (Schwarz & Xu, 2011), and medical patients overestimate the intensity and duration of their despair from some diagnoses (Ubel et al., 2005), at least partly because people fail to bring to mind the many smaller ups and downs they will inevitably still experience following these focal events.

The current paper extends the psychology of focalism beyond how people predict their own emotional lives in the future to how people think about and react to the present emotional lives of *others*. Specifically, we explore whether the same underlying focalism might contribute to (and sometimes artificially inflate) people's envy towards those who appear better off than themselves and people's pity towards those who appear worse off.

Broadly construed, envy describes people's upward comparative reactions to seemingly superior others. While small doses and some forms can be motivating and foster healthy competition (Van de Ven, Zeelenberg, & Pieters, 2009), envy quickly escalates and is viewed largely as a negative emotional state: it fosters animosity, hostility, and unhappiness (Hill, DelPriore, & Vaughan, 2011; Larson, Clore, & Wood, 1999) and generally places immense stress on the self (Parrott & Smith, 1993; Smith & Kim, 2007). The converse of envy is pity. Broadly construed, pity is also a negative emotional state but describes people's downward comparative reactions to seemingly inferior others. While small doses and some forms can elicit helping behavior (Dijker, 2001), pity is viewed largely as a problem because it fosters stigma and dehumanization (Fiske, 2010; Harris & Fiske, 2006).

Previous research typically conceptualizes envy and pity as post-hoc reactions to encountering other people of objectively superior versus inferior status. In traditional studies on envy, researchers ask participants to reflect on targets described as having factually better conditions than their own, such as asking college students to think about a classmate who earned a superior grade (Smith et al., 1996), asking children to think about a friend who has a superior toy (Bandura, Ross, & Ross, 1963), and asking consumers to think about a peer who owns a superior version of a product (e.g., a newer iPhone: Van de Ven, Zeelenberg, & Pieters, 2011). Likewise for pity, participants are asked to think about others depicted as having factually worse conditions, like targets who lack natural talent (Weiner & Kukla, 1970) or ability (Harris & Fiske, 2006). These details tend to be presented as a given, as uncontroversial proof of superiority or inferiority that perceivers passively note and respond to. Throughout, researchers care more about people's reactions to the target (e.g., how another person's superior product makes one feel) than about their perceptions of the target's life beyond the limited salient features provided.

This approach affords little insight into the active role that perceivers themselves may play in (mis)perceiving life past these initial gaps. If focalism extends to how people think about others, people may feel envy and pity not just because of obvious objective disparities, but because they overlook that enviable and pitiable others *also* face many mundane ups and downs (beyond the extremely good and extremely bad) that inevitably dilute their day-to-day emotional wellbeing. Just as potential car buyers fail to appreciate how waiting in traffic and getting gas will diminish their own dream driving experience in the future, they may envy other owners for the same reason; likewise, they may pity people who drive a "lesser" car because they fail to realize that these drivers enjoy many smaller experiences during which car-related woes

are not top of mind.

1. The present research

Five studies test the hypothesis that envy and pity are distorted by a focalized lens: people may assume envied others have uniformly wonderful lives (neglecting their experience of small frustrations and annoyances) and likewise that pitied others have uniformly awful lives (neglecting their experience of small joys and pleasures).

First, we established that envy and pity indeed lead people to see others through a more focalized lens (Study 1) Next, we compared the actual everyday ups and downs of enviable versus pitiable groups to outsiders' predictions of these experiences, confirming that these focalized perceptions are indeed *inaccurate* representations of reality (Study 2). Last, we tested the effectiveness of different defocusing interventions—bringing to mind a person's everyday ups and downs—for regulating one's envy and pity (Studies 3–5).

We predetermined sample sizes of \geq 70 per cell (cell range across studies = 65 to 104; total N=1723). This was derived from power analyses (G*Power: Faul, Erdfelder, Lang, & Buchner, 2007) using estimates from a series of pilot studies (see Supplementary Materials), yielding a recommended cell size of 71.40 for a power of 0.80. We did not check data until this point nor add participants after. We report all measures, manipulations, and exclusions. Study 5 is preregistered. All data and materials are publically available (https://osf.io/dqgep/).

2. Study 1

2.1. Establishing the basic link

First, we tested whether envy and pity are associated with focusing tendencies. Participants were instructed to take either a neutral or envious perspective while thinking about a better-off target, or either a neutral or pitying perspective while thinking about a worse-off target. All participants then estimated the target's everyday ups and downs. We hypothesized that embracing the emotions would lead to more focalized estimates.

The design of this study is more artificial than the way people may naturally think about envied and pitied others (our later studies use varied, more realistic designs). As an initial test, however, it helps isolate the direct link between the emotions and focalism. For example, if we asked participants to bring to mind a person who they strongly envied versus a person who they did not, and we found differences in life estimates, this simply may reflect a true difference between these distinct individuals. We test whether merely feeling more envy or pity indeed increases focalized perceptions of the same exact target.

2.2. Method

2.2.1. Participants

We recruited 299 participants ($M_{\rm age}=25.56$, $SD_{\rm age}=10.84$; 44.50% female; 47.20% Caucasian American/White, 21.10% Asian American/Asian, 14.00% African American/Black, 17.73% Mixed or Other Ethnicity) from the subject pool of large Midwestern university for \$3.00.

2.2.2. Procedure

Participants were invited into the laboratory in private individual sessions to complete a study about imagination. They were randomly assigned to condition (range of cell ns=70 to 80) following a 2 (type of target: enviable others or pitiable others) \times 2 (emotion: neutral or expressed) between-subjects design.

Participants evaluated 6 others one at a time in random order, each described as demographically similar to themselves (people feel envy and pity for generally similar—not dissimilar—others: Schaubroeck & Lam, 2004). We assessed a diversity of targets to better generalize the

hypothesized effect. Each of the 6 descriptions began with: "Imagine a person who is comparable to you on the surface (e.g., in terms of gender, age, and life stage). However, they differ from you in one notable way: they are..."

For participants in the *enviable others* conditions, this prompt was completed by the following 6 enviable circumstances: "...exceptionally intelligent"; "...exceptionally attractive"; "...exceptionally popular"; "...exceptionally rich"; "...exceptionally famous/known for positive things"; and "living in a town known for exceptionally pleasant weather year round." We chose these domains because past research on focalism includes similar examples of desirable circumstances (e.g., overestimating life satisfaction when imagining one's life in sunny California; Schkade & Kahneman, 1998). Participants in the *pitiable others* conditions read about 6 comparable worse-off others with the phrases "...exceptionally unintelligent"; "...exceptionally unattractive"; "...exceptionally unpopular"; "...exceptionally poor"; "...exceptionally unknown/not known for positive things"; and "living in a town known for exceptionally unpleasant weather year round."

2.2.2.1. Measuring focalism. For each target, participants responded to 5 items about the perceived presence of small negatives in the person's life and 5 items about the perceived presence of small positives, presented one at a time in random order. The items were based on past research on specific components of focalism (e.g., estimated frequency of small pleasures and pains, and perceptions that life as easy: Kahneman et al., 2006).

The "small negative" items, prefaced with the phrase "If you had this person's life," were: "How frequent would little problems be for you, compared to you now?"; "How easily would minor annoyances 'get' to you, compared to you now?"; "How often would your passing mood fluctuate for the worse, compared to you now?"; "How many small things would pop up that would bother you, compared to you now?"; and "How often would you experience brief states of stress, compared to you now?". Each item was rated on a 7-point scale anchored at -3 (*much less*) to +3 (*much more*).

The "small positive" items, each prefaced with the same phrase and rated in the same way, were: "How frequent would little joys be for you, compared to you now?"; "How easily would minor pleasures 'come' to you, compared to you now?"; "How often would your passing mood fluctuate for the better, compared to you now?"; "How many small things would pop up that would delight you, compared to you now?"; and "How often would you experience brief states of peace, compared to you now?".

2.2.2.2. Emotion manipulation. Before making these ratings, we assigned participants to emotion conditions. We adapted a manipulation from the emotional empathy literature, in which researchers assess the consequences of empathic feelings by instructing people to "take an empathic perspective" and "embrace the empathy" (versus a neutral, detached perspective) before some task (first developed by Toi & Batson, 1982). By design, this manipulation creates demand to respond in ways consistent with the emotion. However, this creates no demand for what the response should look like, thereby assessing what the emotion theoretically leads people to do (for recent applications see O'Brien, 2013, 2015). Following established procedures, participants in neutral conditions read the following instructions: "Take an objective perspective towards what is described. Try not to get caught up in your feelings and emotional reactions when imagining each person's life. Try to remain objective and detached when thinking about each person." Participants in expressed conditions read: "Take an envious [pitying] perspective towards what is described. Consider your feelings and emotional reactions when imagining each person's life. Embrace the envy [pity] triggered when thinking about each person."

As a manipulation check at the end of the study, participants rated how much they felt *envy*, *pity*, *happiness*, *sadness*, *anger*, *fear*, *surprise*, and guilt while rating the targets overall, on scales from 1 (not at all) to 7 (extremely). Finally, they completed an attention check regarding what they did (forced-choice: Rate enviable others, but was instructed to detach from envy and be neutral; Rate enviable others, and was instructed to embrace envy and be emotional; Rate pitiable others, but was instructed to detach from pity and be neutral; Rate pitiable others, and was instructed to embrace pity and be emotional).

2.3. Results and discussion

Only 7.69% of participants (23 of 299) failed the attention check. Eliminating these participants does not affect any result, so they are retained in analyses.

"Small negatives" ($\alpha=0.79$) and "small positives" ($\alpha=0.82$) were collapsed into scales across targets. Data were submitted to Multivariate GLM analyses with the two conditions as independent variables and emotion and focalism as dependent variables.

2.3.1. Manipulation check

The manipulation worked, as evidenced by significant interactions for the critical emotions of envy, F(1, 295) = 12.37, p = 0.001, $\eta^2 = 0.04$, and pity, F(1, 295) = 46.49, p < 0.001, $\eta^2 = 0.14$. Simple effects confirmed that, when thinking about envied others, participants experienced significantly greater envy when taking an envious perspective (M = 4.37, SD = 1.91) versus neutral perspective (M = 2.74, SD = 1.79), F(1, 295) = 35.97, p < 0.001, $\eta^2 = 0.11$. Likewise for pitied others, participants felt significantly greater pity when taking a pitying perspective (M = 5.09, SD = 1.61) versus neutral perspective (M = 2.76, SD = 1.84), F(1, 295) = 89.29, p < 0.001, $\eta^2 = 0.23$.

No such interactions emerged for happiness, anger, fear, or surprise, $Fs \le 2.53$, $ps \ge 0.113$, $\eta^2 s \le 0.009$. There were marginal interactions for sadness, F(1, 295) = 3.54, p = 0.061, $\eta^2 = 0.012$, and for guilt, F(1, 295) = 3.50, p = 0.062, $\eta^2 = 0.012$: participants felt sadder and guiltier when taking an envious perspective and also when taking a pitying perspective compared to the neutral control conditions, $Fs \ge 3.83$, $ps \le 0.051$, $\eta^2 s \ge 0.013$.

2.3.2. Focalism

For small negatives, there was no main effect of neutral/expressed emotion, F(1, 295) = 0.05, p = 0.817, $\eta^2 < 0.001$, and a main effect of enviable/pitiable other such that enviable others were perceived as having fewer small negatives (M = 3.65, SD = 0.72) than pitiable others (M = 4.81, SD = 0.71), F(1, 295) = 229.91, p < 0.001, $\eta^2 = 0.44$. Likewise for small positives, there was no main effect of neutral/expressed emotion, F(1, 295) = 0.22, p = 0.639, $\eta^2 = 0.001$, and a main effect of enviable/pitiable other such that enviable others were perceived as having more small positives (M = 4.81, SD = 0.76) than pitiable others (M = 3.79, SD = 0.78), F(1, 295) = 140.11, p < 0.001, $\eta^2 = 0.32$.

More important, these main effects were qualified by the critical interactions, both for small negatives, F(1, 295) = 45.73, p < 0.001,

 $^{^1}$ In terms of other main effects and interactions, "small positives" followed a statistical pattern consistent with our target comparisons: there was no incidental main effect of experiencer/predictor condition, $F(1,\,296)=0.96,\,p=0.327,\,\eta^2=0.003,$ and the reported main effect of income was in fact qualified by a significant interaction, $F(1,\,296)=4.30,\,p=0.039,\,\eta^2=0.01$. However, "small negatives" had an unexpected omnibus result: here we did find a main effect of experiencer/predictor condition, such that people predicted a significantly higher presence of small negatives than both low-income and high-income others actually encountered in reality, $F(1,\,296)=27.78,\,p<0.001,\,\eta^2=0.09$. Accordingly, the interaction did not reach significance, $F(1,\,296)=1.30,\,p=0.256,\,\eta^2=0.004$, likely due to the statistical influence of this incidental main effect (McClelland & Judd, 1993). Note that these results are indeed incidental: the critical tests for our hypothesis are the simple effects across conditions (as reported in the main text), since our hypothesis is silent on additional prediction errors that people may still exhibit. We therefore dropped these analyses from the main text in order to help facilitate interpretive ease and highlight the study's central findings.

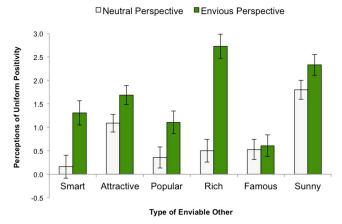


Fig. 1. Mean focalism when thinking about each envied target (Study 1). Participants were randomly assigned to take a neutral or envious perspective (between-subjects); we then assessed how much focusing they exhibited when thinking about different enviable others (within-subjects). For simplicity, this figure depicts absolute ratings of positivity (perceptions of small positives) subtracted from perceptions of small positives), such that higher bars represent a greater tendency to perceive enviable lives as uniformly good. Ratings are compared to one's own everyday positivity (0). Error bars ± 1 standard error.

 $\eta^2=0.13$, and small positives, $F(1,\ 295)=20.08$, p<0.001, $\eta^2=0.06$. Below we tease apart the simple effects of this interaction. For clarity, we report the simple effects first within enviable others and then pitiable others:

When thinking about envied others, people exhibited significantly more focusing tendencies when actively feeling envious themselves (see Fig. 1). Participants were more likely to *neglect* the presence of envied others' small everyday negatives when expressing envy (M=-0.64, SD=0.69) than when being objective (M=-0.09, SD=0.69), F(1, 295)=24.49, P<0.001, P<0

All effects replicated in the expected converse directions for pitied others. When thinking about pitied others, people exhibited significantly more focalism when actively feeling pity (see Fig. 2): they were more likely to *inflate* the presence of envied others' everyday negatives when expressing pity (M=1.07, SD=0.56) than when being objective (M=0.56, SD=0.76), $F(1, 295)=21.30, p<0.001, <math>\eta^2=0.07$. They were also more likely to *overlook* the presence of everyday positives when expressing pity (M=-0.42, SD=0.62) than when being objective (M=0.00, SD=0.87), F(1, 295)=12.24, $p=0.001, \eta^2=0.04$. When testing against scale midpoints, pitying participants perceived pitied others as having significantly more small annoyances than their own lives, t(295)=13.66, p<0.001, d=3.81, and likewise fewer small pleasures, t(295)=-4.87, p<0.001, d=1.15.

Study 1 finds evidence for the conceptual link between envy, pity, and focalism. Participants who expressed the emotions were more likely to see the everyday ups and downs of others through a focalized lens: envy was associated with the response tendency to see good lives as uniformly pleasant and lacking small frustrations; pity with the response tendency to see bad lives as uniformly unpleasant and lacking small pleasures. These effects were observed within the same target, which suggests one could reduce envy or pity for the same actual person by defocusing—which we test in Studies 3–5.

First, however, we sought to replicate and extend these effects in a more realistic context. We tested whether this increased focalism (at

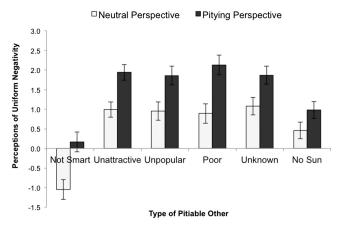


Fig. 2. Mean focalism when thinking about each pitied target (Study 1). Participants were randomly assigned to take a neutral or pitying perspective (between-subjects); we then assessed how much focusing they exhibited when thinking about different pitiable others (within-subjects). For simplicity, this figure depicts absolute ratings of negativity (perceptions of small positives subtracted from perceptions of small negatives), such that higher bars represent a greater tendency to perceive pitiable lives as uniformly bad. Ratings are compared to one's own everyday negativity (0). Error bars \pm 1 standard error.

least sometimes) indeed reflects an *inaccurate* perception of the everyday experiences of real envied and pitied others.

3. Study 2

3.1. Seeing differences where there are none

In Study 2, we recruited people at different income levels to report their own actual everyday ups and downs, and other people to predict these ratings. We used wealth as a single proxy for enviable and pitiable conditions because wealth has been shown to be highly susceptible to focalism: people notoriously believe money has the power to solve or to cause all their problems, but in many cases it matters less than one expects (Aknin, Norton, & Dunn, 2009; Kahneman et al., 2006). This is also consistent with Study 1, in which wealth showed the strongest statistical effect. We hypothesized that while (pitied) low-income and (envied) high-income people may experience similar levels of ups and downs throughout their day, focalized observers may instead see a gap.

3.2. Method

3.2.1. Participants

We recruited 300 participants ($M_{\rm age}=43.69$, $SD_{\rm age}=14.03$; 53.00% female; 74.00% Caucasian American/White, 7.30% Asian American/Asian, 10.00% African American/Black, 8.67% Mixed or Other Ethnicity) from a national panel of American adults to participate in exchange for \$5.00.

3.2.2. Procedure

Participants were recruited by Qualtrics Panels (Qualtrics, 2017). Qualtrics Panels is an independent research firm that recruits participants by invitation from traditional, actively managed market research panels. Participants were assigned to condition (range of cell ns=74 to 76) following a 2 (type of respondent: high-income or low-income) \times 2 (type of task: experiencer or predictor) between-subjects design.

Participants were targeted based on their annual household income, gleaned from the firm's prescreening data. This ranged across 7 bins: \$15,000 or less; \$15,001 to \$29,999; \$30,000 to \$44,999; Right around \$45,000 or so; \$45,001 to \$59,999; \$60,000 to \$74,999; \$75,000 or more. We recruited equal numbers from the highest bin (\$75,000 or more: enviable others) and lowest bin (\$15,000 or less: pitiable others),

who served as "experiencers." They completed the focalism scales from Study 1, phrased in terms of their own lives (e.g., "How frequent are little problems for you?"). They read:

We want to know about your everyday ups and downs, those things that still mean something to you even if they are relative (e.g., your "little problem" or "small joy" might seem small to someone else, but still matters to you and affects your everyday life). These are the sorts of things we refer to in the following questions.

We included this initial prompt to bypass incidental scaling issues; we sought to capture the small ups and downs of daily life that subjectively matter to respondents, regardless of the actual content of those things. On the next screen, we asked, "How happy are you about your current financial situation?" (1 = not at all, to 7 = extremely). This question served as an additional test of our framework. Experiencers should meaningfully differ in "checking off the big things"—money matters when people think about money—but may not differ as much in daily life, during which money may be less obviously top of mind.

In addition, we recruited equal numbers of respondents from the middle income bin (*Right around \$45,000 or so*) to serve as "predictors," who might envy the income levels above and pity the income levels below. Their task was to predict the ratings of respondents from either the low-income group or the high-income group. They read:

Recently, we recruited a panel of online participants via the same service and same pool that we recruited you. These respondents completed a survey about their everyday experiences. They were shown the following prompt: [Exact scaling prompt from above shown to predictors here]. Your task is to predict how you think certain types of participants responded.

Predictors then continued to the next screen, where they read more information about the others in question. They saw the 7-bin income question and were told to imagine a group of respondents who checked either the lowest or highest option. They read in more detail:

"Predict the average respondent's rating from this particular group, which contained about 70–80 individuals. The average age of these respondents was in their mid-40s; there were roughly equal numbers of men and women; most were White; and most had at least a college degree or higher [most did not go to or did not finish college]. All of the respondents in this group checked off the income bracket "\$75,000 or more" [\$15,000 or less] on this income question."

Predictors were then given the same focalism questions, followed by the same "income happiness" question, and were asked to predict the other person's respective ratings.

This design affords a conservative test. First, predictors saw the exact scaling prompt that experiencers read, so to underscore their task to predict others' *subjectively* important experiences. Second, they were told experiencers came from the same pool, so to not unfairly spur their imagination with extreme conditions. Third, we included other demographics of experiencers (who only differed across income, and in turn education), and this individuation might further counteract overly extreme assumptions. In sum, we tried to *calibrate* predictions as best as objectively possible, going against our hypothesis.

Finally, predictors completed a manipulation check by rating their reaction to the target on a scale from 1 (mostly pity) to 7 (mostly envy). All participants then completed the MacArthur Scale of Subjective Social Status (Adler & Stewart, 2007): they indicated which of 10 rungs of socioeconomic status they think they stand nationally (1 = I'm Rung 10 [top]), serving as a check for our income recruitment.

3.3. Results and discussion

"Small negatives" ($\alpha=0.92$) and "small positives" ($\alpha=0.89$) were collapsed into scales. For our primary analyses, data were submitted to

Multivariate GLM analyses with low-income/high-income and experiencer/predictor as independent variables and these focalism scales and the income happiness item dependent variables.

3.3.1. Condition checks

Before running our main analyses, we sought to confirm our targeted recruitment of income by analyzing responses on the SES ladder. This item required its own ANOVA because the meaningful comparisons are between all predictors collapsed in a single group (i.e., all of the middle income participants) versus each of the "experiencer" groups. As expected, we observed an omnibus effect of condition (1 = low, 2 = middle, 3 = high), F(2, 297) = 21.91, p < 0.001, $\eta^2 = 0.13$. The simple effects showed that low-income participants reported being on a lower rung (M = 4.28, SD = 2.34) than middle-income participants (M = 5.79, SD = 2.06), t(297) = 5.20, p < 0.001, t(297) = 5.20, t(297) = 5.20, t(297) = 2.13, t(297)

We also validated our manipulation of the two "predictor" conditions by comparing their emotion ratings while imagining their targets, via its own independent samples t-test. As expected, predictors who thought about high-income others reported higher emotion ratings (i.e., closer to the "envy" anchor) (M=4.96, SD=1.16) than predictors who thought about low-income others (M=3.46, SD=1.65), t(148)=6.46, p<0.001, d=1.05. Individual one-sample t-tests against the midpoint confirm that "high income" predictors reported emotions that were significantly above the midpoint (i.e., envy), t(75)=7.22, p<0.001, d=1.67, while "low income" predictors reported emotions that were significantly below the midpoint (i.e., pity), t(73)=-2.82, p=0.006, d=0.66.

3.3.2. Main analysis: income happiness

First, in terms of explicit happiness with income, we found a robust main effect of income level, F(1, 296) = 70.16, p < 0.001, $\eta^2 = 0.19$. The simple effects revealed that predictors believed high-income others were happier about their financial situation (M = 4.99, SD = 1.28) than low-income others (M = 3.09, SD = 1.97), F(1, 296) = 45.24, p < 0.001, $\eta^2 = 0.13$, and they were correct: high-income experiencers were indeed happier about their financial situation (M = 4.87, SD = 1.49) than low-income experiencers (M = 3.43, SD = 2.03), F(1, 296) = 26.21, p < 0.001, $\eta^2 = 0.08$. This was further evidenced by no main effect of experiencer/predictor, F(1, 296) = 0.28, p = 0.595, $\eta^2 = 0.001$, and no interaction, F(1, 296) = 1.29, p = 0.257, $\eta^2 = 0.004$. Having money obviously matters, when people have money on their minds.

3.3.3. Main analysis: small ups and downs

More important, predictors overextended this assumption when thinking about others' lives beyond income, in line with focalism. This was evidenced by main effects of income level for both small negatives and small positives, $Fs \ge 5.20$, $ps \le 0.023$, $\eta^2 s \ge 0.02$, which were each qualified by the critical simple effects. First, predictors believed high-income others have fewer small negatives (M = 4.31, SD = 1.31) than low-income others (M = 4.83, SD = 1.23), F(1, 296) = 5.84,p = 0.016, $\eta^2 = 0.02$, and more small positives (M = 5.05, SD = 0.94) than low-income others (M = 4.30, SD = 1.29), F(1, 296) = 16.18,p < 0.001, $\eta^2 = 0.05$. These predictions replicate the basic effect. In reality, no such differences exist: high-income experiencers reported just as many little annoyances (M = 3.69, SD = 1.39) as low-income experiencers (M = 3.86, SD = 1.33), F(1, 296) = 0.65, p = 0.420, $\eta^2 = 0.002$; and conversely low-income experiencers reported just as many little pleasures (M = 4.70, SD = 1.25) as high-income experiencers (M = 4.90, SD = 1.03), F(1, 296) = 1.19, p = 0.276, $\eta^2 = 0.004$. Their hedonic experiences in day-to-day life were similar. As hypothesized, predictors failed to see beyond others' money: they did not fully appreciate that the others in question likely live out daily life with many smaller distractions that may not provide a constant reminder of their wealth.

These findings further support our hypothesis. Focalism magnifies the impact of others' salient features (e.g., income) at the cost of mistakenly overlooking the inevitable demands of their everyday reality: enviable others reported more small annoyances than perceivers assumed they experienced, just as pitiable others reported more small joys.

This study has limitations. First, we showed predictors the same scaling prompt that experiencers responded to, to ensure that both groups made judgments on the same scale. However, perhaps predictors did not take time to incorporate this information into their estimates. Second, we showed predictors the demographic details of experiencers, which we did to calibrate their imaginations of the kinds of people they were being asked to predict. However, perhaps this had the opposite effect (e.g., some of our participants who made \$15,000 may have been students or retirees, but predictors may have imagined a much sadder state). To be sure, "wealthy" and "poor" life conditions can vary in many ways, and we do not intend to suggest that inferences about others' income are always mistaken. More research on this topic is needed (see also Aknin et al., 2009). What Study 2 does suggest is that (i.) people perceive others' everyday ups and downs in ways that are highly consistent with their salient conditions, and (ii.) at least sometimes, these focalized perceptions for enviable and pitiable lives may not be perfectly calibrated.

4. Studies 3-5

4.1. Decreasing emotion by defocusing

Next, we test a bidirectional link: can people be made to feel less envy and pity if they "defocus"—if they bring to mind more diverse moments from the other's daily life?

Given the negative consequences of envy (e.g., stress: Smith & Kim, 2007) and pity (e.g., dehumanization: Fiske, 2010), these studies have implications for wellbeing and emotion regulation. Moreover, they afford direct insight into our proposed process. We asked participants to explicitly consider the frequency of good, bad, and neutral events in others' lives, before or after different kinds of defocusing tasks (across Studies 3–5). This allowed us to assess how focalism specifically operates and what kinds of defocusing work best. When people are reminded of others' diverse ups and downs, how exactly does their homogeneous perception "break"? What components of others' lives now seem different? In turn, changes in focalism should drive changes in the emotions.

5. Study 3

5.1. Bringing to mind the mundane

In Study 3, participants were induced to "defocus" their thoughts while thinking about enviable or pitiable others. Specifically, they reflected on mundane moments that consume the person's time (e.g., sleeping, eating, commuting). We hypothesized that this kind of defocusing may help reduce experienced envy and pity, driven by a breakage in the perceived uniformity of the other person's life.

Study 3 has a number of additional important features. First, we used a well-tested "diary" defocusing task (Ayton, Pott, & Elwakili, 2007; Hoerger, Quirk, Lucas, & Carr, 2010; O'Brien & Roney, 2017; Sevdalis & Harvey, 2009; Wilson et al., 2000). Second, participants thought about others in their own lives. This boosts real-world relevance and provides stimulus sampling beyond any one kind of target. Third, we included standard trait measures to explore whether defocusing might help reduce envy and pity even among people who are

especially emotional in general (e.g., highly envious people).

5.2. Method

5.2.1. Participants

We requested 420 participants from Amazon's Mechanical Turk at \$1.00 per participant, which yielded 421 who took the study ($M_{\rm age}=34.62,~SD_{\rm age}=11.26;~45.80\%$ female; 80.30% Caucasian American/White, 5.50% Asian American/Asian, 5.00% African American/Black, 9.26% Mixed or Other Ethnicity).

5.2.2. Procedure

Participants completed a research study about how people form impressions of others. They were randomly assigned to condition (range of cell ns=65 to 75) following a 3 (type of target: *enviable other*, *pitiable other*, or *average other*) \times 2 (type of task: *control* or *diary*) between subjects design.

5.2.2.1. Manipulating type of target. "Envy" participants evaluated a person in their actual lives (not a celebrity or public figure) of whom they felt envious. Their instructions were:

Most people feel envy towards somebody else (e.g., someone who has a certain material possession, holds a higher social status, has desirable traits, or tends to do well in school, work, or at romantic relationships). Think about a real person in your own life who you envy very much.

Participants typed this person's initials and listed up to 5 reasons for their envy. Common responses were having money, owning a nice house/car, or being physically attractive.

"Pity" participants were given the converse prompt of a person whom they pitied. Common responses were having a financial or health problem, or having few friends.

Participants who thought about average others were given a prompt that was designed to specifically fall in between envy and pity. They read:

Most people feel envy towards some people, and also pity towards others. However, we also feel "neutral" about certain others as well – those people in our lives who we neither envy nor pity. We just feel "neutral" about them. They seem to live a typical, average life that is neither enviable nor pitiable. Think about a real person in your own life who you feel this way about.

They typed the person's initials and listed up to 5 reasons for feeling neutral. Common responses were having a similar job, expressing a stable mood, and being a similar age.

5.2.2.2. Task manipulation. In control conditions, participants immediately rated their emotional reactions: envy participants rated "How much envy do you feel towards this person's life overall?" while pity participants rated "How much pity do you feel towards this person's life overall?" from 1 (not very much) to 7 (an extreme amount). Neutral control participants rated both, in random order. In defocusing conditions, participants followed identical procedures but they first completed a "diary" defocusing task before reporting their emotion: they were asked to imagine a realistic, average day in the person's life and had to list one likely activity for each hour in a 24-hour period, starting with 6:00–7:00 AM. The task is designed to bring to mind the mundane moments the person inevitably encounters in a typical day (e.g., sleeping, eating, commuting), which may reduce envy and pity if the emotions are indeed driven by a neglect of them.

5.2.2.3. Additional measures. After making their emotion ratings, all participants were asked to estimate what percentage of the other person's life is filled with "bad moments," "neutral moments," and "good moments," adding up to 100%. These items served as our

measure of focalism, such that we could test which aspects of life the diary task changes and in turn whether these shifts mediate corresponding changes in emotion.

Next, participants completed trait emotion scales, in random order. For envy, we used the 8-item Dispositional Envy Scale (Smith, Parrott, Diener, Hoyle, & Kim, 1999; $\alpha=0.92$). A sample item is "Frankly, the success of my neighbors makes me resent them." Items were rated from 1 (Strongly Disagree) to 5 (Strongly Agree). We could not find pity-specific trait scales, so instead we used the well-validated 7-item Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1983: $\alpha=0.91$) given the conceptual overlap between pity and empathic responding (Chopik, O'Brien, & Konrath, 2017; Konrath, O'Brien, & Hsing, 2011). A sample item is, "I often have tender, concerned feelings for people less fortunate than me." Items were rated from 1 (does not describe me well) to 5 (describes me very well).

Finally, participants completed two attention checks, one about the target they were asked to evaluate (forced-choice: Somebody who I envy; Somebody who I pity; Somebody who I feel "neutral" about [neither envy nor pity]), and one about whether they had been asked to do the diary (forced-choice: Yes, I did that; No, I didn't do that).

5.3. Results and discussion

Only 1.66% of participants (7 of 421) failed the attention check for type of target and only 1.19% of participants (5 of 421) failed the attention check for type of task. Eliminating these participants does not affect any result, so they are retained in analyses.

As intended, envy (M = 2.02, SD = 1.25) and pity (M = 2.06, SD = 1.44) for the average other were similarly low. In order to retain the appropriate statistical model, we subtracted pity from envy for these participants, and this difference score can be tested against the single envy and pity items from the other conditions (our key results below do not meaningfully differ when reducing these ratings into a single score via other ways).

Data were submitted to Multivariate GLM analyses with the conditions (type of target and type of task) as independent variables and emotion, focalism, and trait scales as dependent variables.

5.3.1. Reducing envy and pity

For emotion, we observed a main effect of type of target, F(2, 415) = 667.76, p < 0.001, $\eta^2 = 0.76$, which simply reflects a validation of our manipulation of target: unsurprisingly, both the envied-other condition (M = 4.23, SD = 1.48) and the pitied-other condition (M = 5.19, SD = 1.12) elicited higher ratings than the average-other condition (M = 0.04, SD = 1.14). More important, we observed a main effect of task, F(1, 415) = 5.81, p = 0.016, $\eta^2 = 0.01$, which was qualified by the expected interaction, F(2, 415) = 4.52, p = 0.011, $\eta^2 = 0.02$.

The simple effects revealed that defocusing indeed attenuated envy and pity: diary participants experienced significantly less envy for envied others (M=3.91, SD=1.47) than control participants (M=4.51, SD=1.44), F(1,415)=8.18, p=0.004, $\eta^2=0.02$, and they also felt significantly less pity for pitied others (M=4.93, SD=1.22) than control participants (M=5.43, SD=0.95), F(1,415)=5.94, P=0.015, $\eta^2=0.01$. The emotions were reduced. In contrast, participants who thought about average others felt the same regardless of whether they did (M=0.15, SD=1.44) or did not (M=-0.07, SD=0.77) first complete the diary, F(1,415)=1.11, P=0.292, $\eta^2=0.003$.

People apparently overlook the fact that envied and pitied others do a variety of mundane things beyond their focal conditions; in turn, bringing those things to mind reduces envy and pity. Conversely, people may be aware of the mundane activities of average others; bringing those things to mind does not change their reactions. Consistent with focalism, envied and pitied lives appear to *lack* these mundane activities as compared to a normal life, unless we first take a

Table 1 Mean life events estimates (Study 3). The diary defocusing task led participants to estimate more neutral moments and less positive moments in the daily lives of envied others, but more neutral and less negative moments in the daily lives of pitied others. Means and standard deviations are presented. Means sharing superscripts within each row significantly differ at the $p \le 0.001$ level.

	Envied others		Average others		Pitied others	
	Control	Diary	Control	Diary	Control	Diary
Bad	15.25%	11.46%	20.76%	16.75%	42.49% ^c	26.21% ^c
mo- ments	(11.07%)	(10.69%)	(14.45%)	(11.17%)	(19.59%)	(22.29%)
Neutral	38.29% ^a	51.28% ^a	52.64%	55.88%	$36.12\%^{d}$	54.29% ^d
mo- ments	(17.74%)	(19.36%)	(17.58%)	(18.30%)	(18.59%)	(24.57%)
Good	46.45% ^b	$37.25\%^{b}$	26.60%	27.37%	21.39%	19.50%
mo- ments	(19.44%)	(19.74%)	(12.97%)	(15.90%)	(14.41%)	(13.60%)

moment to bring them to mind.

5.3.2. Life events

This observation was further confirmed by downstream differences in how people perceived the frequencies of events in the other person's life (see Table 1).

First, we observed main effects of type of target for each estimate, $Fs \ge 10.35$, ps < 0.001, $\eta^2 s \ge 0.05$, replicating the basic effect: envied others seemed to have fewer bad moments, fewer neutral moments, and more good moments than average, $Fs \ge 14.08$, ps < 0.001, $\eta^2 s \ge 0.05$, while pitied others seemed to have more bad moments, fewer neutral moments, and fewer good moments than average, $Fs \ge 14.32$, ps < 0.001, $\eta^2 s \ge 0.05$. When comparing envied others to pitied others, we found no difference in neutral moments, F(1, 415) = 0.03, p = 0.862, $\eta^2 < 0.001$, and the expected effects such that envied others seemed to have more good and fewer bad moments, $Fs \ge 112.36$, ps < 0.001, $\eta^2 s \ge 0.29$.

More critically, we observed main effects of the task for all estimates, $Fs \geq 4.72, ps \leq 0.030, \, \eta^2 s \geq 0.01,$ each of which were qualified by the hypothesized interactions, $Fs \geq 3.52, \, ps \leq 0.030, \, \eta^2 s \geq 0.02.$ The simple effects confirm the predicted directional swaps:

For enviable others, both diary and control participants thought the envied other experienced equally few bad moments, F(1, 415) = 2.08, p = 0.150, $\eta^2 < 0.01$. However, defocusing led "diary" participants to perceive a significant decline in good moments, F(1, 415) = 11.36, p = 0.001, $\eta^2 = 0.03$, with a corresponding increase in neutral moments, F(1, 415) = 15.72, p < 0.001, $\eta^2 = 0.04$. Conversely for pitiable others: diary and control participants thought the pitied other experienced equally few good moments, F(1, 415) = 0.49, p = 0.485, $\eta^2 = 0.001$, while defocusing led diary participants to perceive a significant decline in bad moments, F(1, 415) = 39.02, p < 0.001, $\eta^2 = 0.09$, with a corresponding increase in neutral moments, F(1, 415) = 31.24, p < 0.001, $\eta^2 = 0.07$. Defocusing brought to mind the inevitably mundane moments within otherwise good or bad focal circumstances.

Marking the source of the interaction, we found no such differences for average others: perceived estimates of bad, neutral, and good events were unchanged regardless of defocusing, $Fs \leq 2.21$, $ps \geq 0.138$, $\eta^2 s \leq 0.005$. This again provides additional evidence for our hypothesis: people do not necessarily overlook the mundane when thinking about life in general, but only when they see more salient information (e.g., enviable or pitiable features) that becomes magnified through focalism, and in turn drowns the mundane out.

5.3.3. Mediation

Accordingly, changes in perceived life events mediated the effect of the diary task on experienced emotion. To conduct the appropriate tests for mediation and, we created a difference score of the relevant changes by subtracting neutral estimates from positive estimates (for envied others) and neutral estimates from negative estimates (for pitied others), comprising a "life events" index.

In terms of envy, regression-based mediation analyses (Baron & Kenny, 1986) showed that condition significantly predicted envy $(\beta = -0.20, p = 0.016)$, but not when controlling perceived life events ($\beta = -0.12$, p = 0.159); however, perceived life events predicted envy ($\beta = 0.32$, p < 0.001), even controlling condition $(\beta = 0.29, p = 0.001)$. The indirect effect of the diary task on experienced envy, through perceived life events, was significant (SPSS PRO-CESS Model 4 at 5000 iterations): Effect = -0.25, SE = 0.11, 95% CI [-0.53, -0.09], which excludes 0 (Hayes, 2013). Likewise for pity, condition significantly predicted pity ($\beta = -0.23$, p = 0.006), but not when controlling perceived life events ($\beta = -0.09$, p = 0.268); however, perceived life events predicted pity ($\beta = 0.37$, p < 0.001), even controlling condition ($\beta = 0.34, p < 0.001$). The indirect effect of the diary on experienced pity, through perceived life events, was again significant (SPSS PROCESS Model 4 at 5000 iterations): Effect = -0.29, SE = 0.10, 95% CI [-0.53, -0.15].

Mediation results remain significant when including all variables in a single model: Regression analyses with data collapsed into a single model confirm the same process (see Fig. 3), as did SPSS PROCESS Model 7 (5000 iterations) treating target as a moderator: perceived life events mediated the effect of the diary on emotion for both envied others, Target = 2.82, Effect = -0.28, SE = 0.10, 95% CI [-0.50, -0.10] and pitied others, Target = 1.17, Effect = -0.46, SE = 0.11, 95% CI [-0.69, -0.26].

5.3.4. Trait envy and pity

Finally, we also explored how our primary findings might be affected by participants' dispositional tendencies towards feeling envy and pity. First, there were no differences in trait envy (M = 2.06, SD = 0.93) or trait pity (M = 3.72, SD = 0.91) across any condition, as evidenced by no main effects or interactions, $Fs \le 2.51$, $ps \ge 0.10$, $\eta^2 s \leq 0.01$. This is expected given random assignment. More important, adding trait scores to our analyses had no meaningful impact. Of relevant interest to the basic effect, we conducted regressions with control/diary condition, trait scores, and control/diary × trait interactions entered as predictors of experienced emotion. For envied others, though we found the unsurprising effect that more envious people felt more envy ($\beta = 0.63$, p = 0.012), the interaction was not significant $(\beta = -0.41, p = 0.159)$. Thus, the diary task may be effective regardless of people's initial propensity to feel envious-suggesting an effective fix for envy-related problems in general, not limited to a specific group. Similarly, while pity-prone people felt more pity $(\beta = 0.44, p = 0.089)$, the interaction was not significant ($\beta = -0.48$,

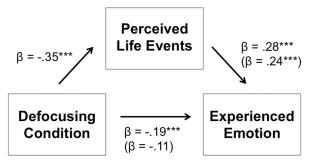


Fig. 3. Results of Study 3: multiple regression mediation analyses collapsed across envied and pitied others, with task condition as the independent variable (0 = control, 1 = diary), estimated proportion of life events as the mediator (positive - neutral for envied others; negative - neutral for pitied others), and participants' experienced emotion (envy or pity) as the dependent variable. β s in parentheses were obtained from a model that included both the independent variable and the mediator as predictors of the dependent variable. *** indicates significance at the $p \leq 0.001$ level.

p = 0.304). We return to these implications for treatment in the General Discussion.

Study 3 provides various extensions and insights. Inducing participants to defocus via the diary led them to better appreciate the frequency of mundane experiences in a person's life. In turn, knowledge of the mundane reduced emotion: people became less envious of a good life and less pitying of a bad life. These results elucidate how focalism specifically shapes how we perceive others: small routine events go underappreciated.

6. Study 4

6.1. Manipulating the other levers

One advantage of the diary task is that it probes natural, open-ended perceptions. On the other hand, because it is designed to prompt attention to dull, routine experiences, it remains unclear if other kinds of defocusing also work: Does directly reminding people that envied others experience smaller annoyances still reduce envy? And does directly reminding people that pitied others experience smaller pleasures still reduce pity?

Study 4 tested these possibilities. We systematically manipulated all remaining levers in the "life events" measure. In Study 4a, we swapped good moments and bad moments while holding neutral moments constant (e.g., do people feel less envy if an envied other turns out to have fewer good moments and more bad moments than one first realized?). In Study 4b, we retained the focal category (e.g., do people feel less envy if an envied other turns out to have just as many good moments as one had feared, but more bad moments and fewer neutral moments than first realized?). Our framework suggests this other kind of defocusing information should indeed also reduce the emotions.

6.1.1. Study 4a method

6.1.1.1. Participants. We requested and yielded 150 participants ($M_{\rm age}=34.77$, $SD_{\rm age}=11.53$; 42.00% female; 78.70% Caucasian American/White, 8.70% Asian American/Asian, 3.30% African American/Black, 9.33% Mixed or Other Ethnicity) from Amazon's Mechanical Turk at \$0.25 per participant.

6.1.1.2. Procedure. Participants completed a research study ostensibly about imagination.

Some evaluated a majority-positive life (*enviable other* condition, n = 76). First, they read: "Imagine Person X. Person X's life is filled with about 60% good moments, 30% neutral moments, and 10% bad moments." Participants then reported their experienced envy on a 1 to 7 scale like in Study 3. Then, they continued to a new screen and learned:

Now suppose you notice that Person X also has occasional small negative experiences – nothing major, but small annoyances and minor stressful things throughout the day that nonetheless add up. Including these small negatives into the equation, it turns out that Person X has more bad moments and less good moments than first realized: now 50% good, still 30% neutral, and now 20% bad.

Participants then rated their envy again. This serves as a simple (perhaps unsurprising) replication and extension of the previous study. Study 3 found that increased neutral moments plus decreased positive moments was enough to reduce envy; hence, we should find here that increased *negative* moments plus decreased positive moments also does so.

Other participants evaluated a parallel version of "Person X" described as having a majority-negative life (*pitiable other* condition, n=74). Their task was identical, except they first read Person X's life contained "60% bad moments, 30% neutral moments, and 10% good moments," reported their felt pity rather than envy, then learned the following:

Now suppose you notice that Person X also has occasional small positive experiences – nothing major, but small joys and minor pleasurable things throughout the day that nonetheless add up. Including these small positives into the equation, it turns out that Person X has more good moments and less bad moments than first realized: now 50% bad, still 30% neutral, and now 20% good.

Again, we intentionally increased small positives so to confirm that manipulating this lever would still reduce pity. Finally, all participants completed an attention check regarding what they read about (*A mostly-positive life*; *A mostly-negative life*).

This design is more artificial and has more demand than in our other studies. However, it allows us to isolate and manipulate specific categories of life events but not others—the theoretical goal of Studies 4a–4b—which is impossible to control in an open-ended task like the diary task.

6.1.2. Study 4b Method

6.1.2.1. Participants. We requested 150 participants from Amazon's Mechanical Turk at \$0.25 per participant, which yielded 153 who took the study ($M_{\rm age} = 32.81$, $SD_{\rm age} = 10.01$; 37.30% female; 73.90% Caucasian American/White, 9.20% Asian American/Asian, 8.50% African American/Black, 8.50% Mixed or Other Ethnicity).

6.1.2.2. Procedure. Participants completed a research study ostensibly about imagination. They were randomly assigned into 1 of 2 between-subjects conditions. All procedures resembled Study 4a except the defocusing information at Time 2 was framed as not actually reducing the focal conditions.

Some participants evaluated the same enviable "Person X" (*enviable other* condition, n=77). Time 1 descriptions of Person X's life were identical to Study 4a ("60% good moments, 30% neutral moments, 10% bad moments"). However, for the Time 2 description, the changes in life events were described as: "...still 60% good, now 20% neutral, and now 20% bad." Note the subtle difference in this manipulation versus the one in Study 4a: here, we also depicted the target as having more small negatives than first perceived, but in a way that did *not* reduce or swap with their focal small positives. As in Study 4a, participants reported their experienced envy at both Time 1 and Time 2.

Unique to this study, we then included an additional item on a new screen given that the focal condition remained unchanged. Participants were told to assume Person X's positive moments will remain at 60%, regardless of other changes, and were asked: "How does the remaining 40% need to change for the first point at which you'd feel less envy?" They indicated their response via a 5-point scale from 1 (20% negative + 20% neutral); 2 (25% negative + 15% neutral); 3 (30% negative + 10% neutral); 4 (35% negative + 5% neutral); 5 (40% negative + 0% neutral). This affords some insight for understanding the extent to which non-focal defocusing information wields power in changing envy.

Other participants evaluated the pitiable "Person X" from Study 4a (pitiable other condition, n=76). Time 1 descriptions were identical to Study 4a ("60% bad moments, 30% neutral moments, 10% good moments"). But for Time 2, the changes in life events were described as: "...still 60% bad, now 20% neutral, and now 20% good." Note the subtle difference: here there is an increase in small positives but without decreasing the target's focal negativity. Then, they also completed the item about the degree of change needed to reduce their pity, assuming that Person X's negative moments would remain at 60% regardless. Finally, all participants completed the attention check from Study 4a.

6.2. Results and discussion

6.2.1. Again reducing both envy and pity (Study 4a)
Only 4.67% of participants (7 of 150) failed the attention check.

Eliminating these participants does not affect any result, so they are retained in analyses.

Data were submitted to Repeated Measures GLM analyses with condition as the independent variable and experienced emotion (Time 1 and Time 2) as the dependent variables. We observed an incidental main effect of enviable/pitiable other such that participants felt more pity for the pitiable target ($M=4.91,\ SD=1.45$) compared to their envy for the enviable target ($M=3.53,\ SD=1.74$), $F(1,148)=27.72,\ p<0.001,\ \eta^2=0.16$.

More important, there was the hypothesized main effect of time, F (1, 148) = 82.17, p < 0.001, η^2 = 0.36—not qualified by an interaction, F(1, 148) = 2.48, p = 0.118, η^2 = 0.02. The simple effects showed that envy (M = 3.99, SD = 1.91) was significantly reduced after realizing the person's small negatives (M = 3.07, SD = 1.76), F(1, 148) = 57.35, p < 0.001, η^2 = 0.28. Likewise, pity (M = 5.23, SD = 1.53) was significantly reduced after realizing the person's small positives (M = 4.58, SD = 1.51), F(1, 148) = 27.69, p < 0.001, η^2 = 0.16. Replicating the impact of neutral events as in Study 3, these results confirm that bringing to mind the small bad or good moments in others' daily lives also reduces envy and pity.

6.2.2. Reducing envy—but not pity—if the focal condition "sticks" (Study 4b)

Only 4.58% of participants (7 of 153) failed the attention check. Eliminating these participants does not affect any result, so they are retained in analyses.

For our primary analyses, data were submitted to Repeated Measures GLM analyses with condition as the independent variable and experienced emotion (Time 1 and Time 2) as dependent variables. We again observed an incidental main effect of enviable/pitiable other such that participants felt stronger pity for the pitiable target (M = 4.60, SD = 1.64) than their envy for the enviable target (M = 3.18, SD = 1.72), F(1, 151) = 27.51, p < 0.001, $\eta^2 = 0.15$. Critically, however, there was main effect of time, F(1, 151) = 15.95, p < 0.001, $\eta^2 = 0.10$, which was qualified by an interaction, F(1, 151) = 8.90, p = 0.003, $\eta^2 = 0.07$. The simple effects revealed that, among participants who thought about enviable others, their initial envy (M = 3.49, SD = 1.88) was indeed significantly reduced after considering the defocusing information (M = 2.86, SD = 1.74), F(1, 151)= 24.50, p < 0.001, $\eta^2 = 0.14$. This replicates Studies 3-4a. Surprisingly, however, participants' pity at Time 1 (M = 4.64, SD = 1.79) was actually unaffected by this defocusing information and stayed just as high at Time 2 (M = 4.55, SD = 1.66), F(1, 151) = 0.51, $p = 0.478, \, \eta^2 = 0.003.$

This asymmetry was further evidenced by an independent t-test of our follow-up item of the degree of change needed given an inability to "remove" the salient conditions of the target. Participants indicated that they would demand significantly more change to occur for their pity to be reduced (M = 3.12, SD = 1.37) than the degree of change needed to reduce their envy (M = 2.43, SD = 1.57), t(151) = 2.90, p = 0.004, d = 0.47.

Studies 4a–4b replicates the basic effect while also revealing an unexpected "stickiness" of pity. This is particularly interesting because Study 4b was essentially identical to Study 4a and came with all of the same potential demand (i.e., it cannot be that the design simply led participants to infer they should change their response after we provided better information, because the pity participants in Study 4b did not do this).

See Fig. 4 for a summary of our defocusing attempts thus far. On the one hand, defocusing tasks that break the perceived homogeneity of envied others *in any form* could help reduce envy, even if the positives remain elevated. On the other hand, perhaps pity is less malleable—increasing appreciation of small positives may not matter if people still see the target as stuck in patently bad circumstances. To reduce pity, perhaps perceivers need to see active reductions in the negative rather than merely more of the positive.

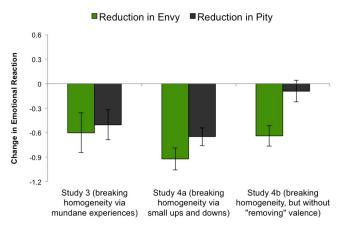


Fig. 4. Mean emotion reduction following different kinds of defocusing tasks. First, participants to complete a diary task that brought to mind others' mundane routines, and this significantly reduced both envy and pity (Study 3). Next, participants explicitly considered the smaller negatives in envied others' lives and the smaller positives in pitied others' lives, and this also significantly reduced envy (Studies 4a–4b). But while this also significantly reduced pity (Study 4a), diversity of life events did not reduce pity for sake of diversity alone; to the extent participants still perceived pitied others as "stuck" in their salient negative circumstances, defocusing did not reduce pity (Study 4b). Ratings are relative to no change in emotion following defocusing (0). Error bars \pm 1 standard error.

We designed a final study to confirm that this unexpected pity asymmetry is reliable. If so, this would suggest important nuances to the effectiveness of defocusing.

7. Study 5

7.1. Is spoiling the good life easier than boosting the bad life?

In Study 5, we sought to replicate and extend Study 4b using a more realistic design involving real targets. We changed to a fully between-subjects design and preregistered the study with AsPredicted (https://aspredicted.org/ff3ms.pdf).

Participants reflected on an envied or pitied other in their own lives and reported their emotional reactions. However, some participants reflected in a defocused way: they were instructed to consider the other person's small negatives (for envied targets) or small positives (for pitied targets), while keeping in mind that these moments do not technically "remove" the person from their focal conditions. Based on the results of Study 4b, we hypothesized that this kind of defocused reflection may help people feel less envy as compared to default reflection, but it may *not* lead people to feel less pity.

7.2. Method

7.2.1. Participants

We requested and yielded 400 participants ($M_{\rm age}=37.26$, $SD_{\rm age}=12.44$; 59.30% female; 77.50% Caucasian American/White, 5.80% Asian American/Asian, 10.30% African American/Black, 6.50% Mixed or Other Ethnicity) from Amazon's Mechanical Turk at \$0.75 per participant.

7.2.2. Procedure

Participants completed a research study about how people form impressions of others. They were randomly assigned to condition (range of cell ns=96 to 104) following a 2 (type of target: *enviable other* or *pitiable other*) \times 2 (type of task: *default reflection* or *defocused reflection*) between-subjects design.

7.2.2.1. Manipulating type of target. First, participants typed the initials of someone they knew who they either envied or pitied very much (depending on condition). The prompt was: "Please bring to mind

someone in your own life who you envy very much [pity very much]. You envy this person [pity this person] because s/he has very good life conditions [very bad life conditions], one(s) that you would hope to have yourself [avoid yourself]."

7.2.2.2. Task manipulation. Next, all participants completed a 1-minute reflection task, during which time we disabled all survey and keyboard controls. They were instructed to bring to mind this other person and consider how it makes them feel.

In "default" conditions, participants were simply asked to think about this other person as they might do normally. Their instructions were: "At the current moment, we want you to bring to mind [initials]'s life in more detail. Indeed, [initials] must experience many things." This prompt was identical across envy and pity conditions. We did not display a timer on the screen in order to reduce distractions. After the minute was over, a continue button appeared and participants could proceed to the rest of the study.

In "defocused" conditions, this procedure was identical except participants were instructed to specifically reflect on this other person's small negatives (envy condition) or small positives (pity condition). The envy prompt was:

At the current moment, we want you to bring to mind [initials]'s life in more detail, and in particular the small negatives in [initials]'s life. Indeed, [initials] must experience some small negatives from time to time. For example, even someone with a very good life on the surface inevitably encounters some annoyances, setbacks, and bad luck in everyday things. Of course, this doesn't technically remove [initials] from their broader enviable circumstances: their openly good conditions remain what they are even with these things. That's just the truth. However, please spend a moment remembering the fact that [initials] life *also* comes with occasional, sometimes more hidden, small negatives.

The corresponding pity prompt was:

At the current moment, we want you to bring to mind [initials]'s life in more detail, and in particular the small positives in [initials]'s life. Indeed, [initials] must experience some small positives from time to time. For example, even someone with a very bad life on the surface inevitably encounters some joys, pleasures, and good luck in everyday things. Of course, this doesn't technically remove [initials] from their broader pitiable circumstances: their openly bad conditions remain what they are even with these things. That's just the truth. However, please spend a moment remembering the fact that [initials] life *also* comes with occasional, sometimes more hidden, small positives.

After the reflection task, all participants reported either their experienced envy or their experienced pity for the person on a 1 to 7 scale like in Studies 3–4.

7.2.2.3. Additional measures. After making their emotion ratings, all participants completed an attention check about the target they were asked to evaluate (forced-choice: Someone who I envied very much; Someone who I pitied very much). All participants then completed a series of 5 manipulation checks regarding their reflection task. First and foremost, they completed a question about small negatives/small positives. For envy conditions, the question read: "During the reflection task, to what extent did this person's 'small negatives' come to mind? (the fact that s/he nonetheless encounters small annoyances, setbacks, and bad luck in some everyday things)." For pity conditions, the question read: "During the reflection task, to what extent did this person's 'small positives' come to mind? (the fact that s/he nonetheless encounters small joys, pleasures, and good luck in some everyday things)." All participants rated the question from 1 (I wasn't thinking about this at all) to 7 (I was thinking about this a lot). Our goal was to confirm that the defocusing task worked as intended: defocused envy participants should think more about small negatives than default envy participants, just as defocused pity participants should think more about small positives than default pity participants.

Finally, on the next page, all participants completed the remaining 4 checks: they rated how *effortful* the task was, how *confusing* their instructions were, how *believable* their instructions were, and how *quickly* the minute seemed to pass, presented in random order and rated on scales from 1 (not at all) to 7 (very). Our goal with these questions was to test and ideally confirm that the reflection task did not vary on these dimensions across conditions—in particular across defocused-envy and defocused-pity versions—which might incidentally explain why one version(s) but not the others reduces emotion.

7.3. Results and discussion

Only 0.80% of participants (3 of 400) failed the attention check. Eliminating these participants does not affect any result, so they are retained in analyses.

Data were submitted to Multivariate GLM analyses with the conditions (type of target and type of task) as independent variables and emotion and the manipulation checks as dependent variables.

7.3.1. Manipulation checks

The manipulation worked, as evidenced by the small negatives/ small positives question. We found the key main effect of task, F(1, 396) = 156.81, p < 0.001, $\eta^2 = 0.28$, which was *unchanged* by an incidental main effect of target, F(1, 396) = 30.57, p < 0.001, $\eta^2 = 0.07$, and an incidental interaction, F(1, 396) = 7.54, p = 0.006, $\eta^2 = 0.02$: not surprisingly, the simple effects confirmed that defocused-envy participants (M = 5.38, SD = 1.52) thought about small negatives to a significantly greater degree than default-envy participants (M = 2.94, SD = 1.86), F(1, 396) = 112.62, p < 0.001, $\eta^2 = 0.22$, just as defocused-pity participants (M = 5.83, SD = 1.30) thought about small positives to a significantly greater degree than default-pity participants (M = 4.26, SD = 1.69), F(1, 396) = 49.52, p < 0.001, $\eta^2 = 0.11$.

For the other manipulation checks (effortful, confusing, believable, time pass), we found no main effects of target, $Fs \le 1.14$, $ps \ge 0.286$, $\eta^2 s \le 0.003$, and no main effects of task, $Fs \le 2.72$, $ps \ge 0.100$, $\eta^2 s \le 0.01$, with a marginal main effect of task on *effort* such that the defocused versions were rated as marginally more effortful (M = 3.79, SD = 1.90) than the default versions (M = 3.45, SD = 1.88), F(1,396) = 3.22, p = 0.074, $\eta^2 = 0.01$. But importantly, there were no interactions for effort or for any of the other measures, $Fs \le 1.89$, $ps \ge 0.170$, $\eta^2 s \le 0.01$. As intended, the reflection task was generally similar across conditions aside from our intended effect on attention to small negatives/small positives.

7.3.2. The pity asymmetry: reducing envy but not pity

Overall, pitied targets (M=5.61, SD=1.03) evoked more emotion than envied targets (M=5.07, SD=1.25), F(1, 396)=23.79, $p<0.001, \eta^2=0.06$, for the main effect. Of critical interest, we indeed replicated the pity asymmetry from Study 4b—as reflected in a main effect of task, $F(1, 396)=12.97, p<0.001, \eta^2=0.03$, which was qualified by an interaction, $F(1, 396)=5.06, p=0.025, \eta^2=0.01$. Replicating the envy reduction obtained in our preceding defocusing studies, participants who thought about enviable others in a defocused way (M=4.74, SD=1.31) reported significantly less envy than participants who had not received defocusing instructions (M=5.40, SD=1.09), $F(1, 396)=16.54, p<0.001, \eta^2=0.04$. As in Study 4b, however, defocusing did not reduce pity. Participants' pity after defocusing (M=5.54, SD=1.05) was *just as high* as it was among those who reflected in a default way (M=5.69, SD=1.00), $F(1, 396)=0.95, p=0.332, \eta^2=0.002$.

These findings suggest that the pity asymmetry may be a meaningful nuance to the effectiveness of defocusing. A good life was spoiled (envy

was reduced) by spending a moment to consider the small negatives that also occur in an envied other's life—even when aware that the person still enjoys their many enviable conditions anyway. However, a bad life remained bad (pity "stuck")—bringing to mind the small positives in a pitied other's life did *not* lead participants to feel any less pity.

8. General discussion

"Be careful," a popular adage warns, "not to compare your own behind-the-scenes with someone else's highlight reel." Five studies reveal converging support for how a similar kind of focalism contributes to our emotional reactions to the lives of others.

First, we found that the more envy and pity participants felt towards others, the more they viewed others daily lives as a homogeneous exaggeration of their salient good and bad features as opposed to a more heterogeneous mix of ups and downs (Study 1). However, these differences may not be so vast: while participants believed that everyday life for high-income others was uniformly positive and everyday life for low-income others was uniformly negative, in reality their everyday moments contained a similar mix of fluctuations (Study 2). Others' salient features (e.g., income) may dwarf more accurate perceptions of life behind the scenes, consistent with focalism. Next, we sought to better understand the underlying features of this effect. Manipulating people to defocus their thoughts by bringing to mind everyday routines helps reduce envy and pity (Study 3). Interestingly, we found an asymmetry under other forms of defocusing. Although considering small annoyances within an enviable life reduced envy even if the positive conditions of the person's life remained intact (Studies 4a-4b-5), pity was reduced only if small pleasures directly cut into the person's negative conditions (Studies 4b-5). Small annoyances may have the power to spoil perceptions of an otherwise good life more than the same awareness of small pleasures can enhance perceptions of an otherwise bad life.

8.1. Theoretical insights

The process of selective person perception is not new: decades of research in social psychology document how perceivers see others through a limited lens, ignoring or distorting smaller individuating features (e.g., stereotypes and halo effects: Ames, 2004; Nisbett & Wilson, 1977; Postmes & Spears, 1998; Wills, 1981). We applied this process to a novel content area: how focalized perceptions affect inferences about what another person's life must be like, and in turn why people feel (perhaps too much) envy and pity.

A bidirectional, causal link between these two classes of emotions and focalism sheds light on a number of literatures. Previous studies on the focusing illusion have examined how people think about their own future experiences (see introduction). We extended these principles to how people think and feel about others in the present. Our defocusing results reveal interesting nuances in how interpersonal focalism operates. People believe neutral and bad episodes are largely missing from someone else's good life, with a corresponding overestimation of positive events; they also believe neutral and good episodes are largely missing from someone else's bad life, with a corresponding overestimation of negative events. In turn, reminders of any kind of diversity in others' experiences help people feel less envious, whereas defocusing must reduce the bad to reduce people's pity. These nuances build a better understanding of how focalism works, highlighting which aspects of others drive our evaluations of them (e.g., the unobserved power of mundane moments). The felt intensity of envy and pity may be just as driven by the things perceivers fail to bring to mind as by their attention to the main target features.

In terms of the envy and pity literatures, our studies suggest that envy and pity reflect not only passive reactions to salient gaps in status but also active perceptions of further inequalities at the everyday level; the emotions appear to drown out others' smaller moments, making life seem uniformly "solved" or "ruined." This highlights the emotions' potential role in *creating* perceived disparities, beyond a simple response to gaps out in the world. Our studies further suggest that cultural differences in envy and pity (Hupka et al., 1985), their links to personality (Salovey & Rodin, 1991), and their effects on behavior (Hill et al., 2011) may be critically moderated by focusing tendencies.

8.2. Practical implications

The most intriguing practical insight may be the asymmetry in emotion reduction (Study 4b–5). For pity, defocused participants accepted that pitied others faced more positive moments than initially realized, yet they still felt bad anyway. This observation is hopeful to the extent that pity inspires helping behavior (e.g., Dijker, 2001)—it is apparently difficult to make people feel less bad about others' misfortunes. However, to the extent that pity largely fosters dehumanization (e.g., Harris & Fiske, 2006), pitied individuals could face an unwinnable battle if their ordinary pleasurable experiences apparently fail to convince others of their "normality."

Defocusing did prove to be a universal strategy for reducing envy. This raises novel insights for addressing envy's destructive real-world effects, which are well documented (Larson et al., 1999; Van de Ven et al., 2011). Extant wisdom identifies 3 coping strategies to alleviate envious feelings (Salovey & Rodin, 1988): self-reliance (trying to simply persevere), self-bolstering (trying to think about one's good qualities), and selective ignoring (trying to not think about enviable others). These strategies may work if envy only reflected the focal gap; if one can never actually become a movie star, redirecting attention to other things seems reasonable. But our studies suggest a fourth (counterintuitive) strategy, since envy also seems to stem from further (mis) perceptions beyond the focal gap: think a lot about envied others, to better appreciate their less-than-enviable banalities. The popular entertainment column "Stars, They're Just like Us!"—in which celebrities are depicted performing mundane tasks like grocery shopping and tying their shoes (Bercovici, 2009)—could have a surprisingly useful psychological effect.

More generally, our findings for both envy and pity contribute to studies of costly "empathy failures" (Campbell, O'Brien, Van Boven, Schwarz, & Ubel, 2014; Cikara, Bruneau, & Saxe, 2011; O'Brien & Ellsworth, 2012). People may fail to empathize with envied others when they express discomfort, presuming their focal conditions like wealth render all problems easy to deal with; and people may dismiss pitied others who try to enjoy themselves, failing to appreciate their more diverse reality. One paper finds that low-income earners who spend food stamps on "luxury" goods (organic food) are judged as immoral (Olson, McFerran, Morales, & Dahl, 2016)—perhaps because perceivers cannot fathom how bad conditions likely still comprise smaller joys and desires. Policy debates about income and other salient resources are wise to consider how policies also impact life behind the scenes.

8.3. Future directions

Our studies invite interesting avenues for follow-up research. First, the links between envy, pity, and focalism likely depend on whether perceivers care about the domain (e.g., wealth). Future research should map out domain-specific differences. Future research should also test other emotions that may be influenced by (potentially focalized) social perceptions, such as jealousy, compassion, guilt, shame, and pride.

Second, given the real-world consequences of envy and pity, future research should test more naturalistic settings and longer-lasting effects over time. The diary task in Study 3 promises a potentially general remedy for envy-related problems given that trait envy did not moderate the effect and involved actual envied others. Naturally very envious people, such as "Emotions Anonymous" meeting goers (Emotions

Anonymous, 2017) may benefit from a simple defocusing task.

Third, future research could fruitfully unpack the source of the "gaps" that people see when imagining enviable and pitiable circumstances. Previous research has posited a similar accessibility account underlying mistaken impressions of others. For example, Facebook users tend to selectively hide negative experiences from their profiles and instead share only positive achievements and updates (Chou & Edge, 2012), and students tend to actively suppress their negative emotions around campus but not their positive emotions (Jordan et al., 2011). As a result, observers overestimate the extent to which others' lives are pleasant. On the one hand, our studies explore how observers react to others' lives after certain information is revealed, while these findings bear on the different issue of whether people choose to reveal it in the first place. Both sets of findings may converge on the broader principle of focalism: whatever information is socially shared (even when negative, as in our "pity" conditions), observers may "fill in the gaps" in kind. On the other hand, there could be novel intersection in terms of observers' reactions: when do others' public experiences actually fail to change one's evaluations? Indeed, a pure accessibility account would have wrongly predicted Studies 4b-5. Future research can fruitfully explore factors that enhance or attenuate these effects (e.g., when and why accessible information is seen as diagnostic of "genuine" change).

Finally, future research should further address why defocusing reduced envy to a more universal extent than it reduced pity. One explanation is social desirability: perhaps participants were less willing to admit they no longer felt bad for others' hardships versus good about others' fortunes. However, the studies were run in private individual sessions, participants were clearly informed their responses were anonymous, and none voiced concern or left debriefing notes suggesting that the pity version was uncomfortable. Another possibility is extremity. We observed incidental effects such that people reported more pity for pitied others than envy for envied others; perhaps it is harder to reduce emotions that start at a ceiling. However, this was also the case in Studies 3-4a and pity was reduced. We suspect our findings map onto a broader phenomenon that highlights the dominance of negative over positive across many judgment domains (O'Brien & Klein, 2017; Rozin & Royzman, 2001)—a bug easily ruins perceptions of a tasty meal but not vice versa. Our studies hint at a similar dynamic underlying people's perceptions of the changeability of "the good life" versus "the bad life."

8.4. Concluding thoughts

Everyday experiences are powerful because they inevitably demand so much of people's attention—and yet, ironically, they hide from public view. The current studies highlight how missing the small moments affects our emotional reactions to others. We envy celebrities, friends, and colleagues because we think that luxury cars, recent vacations, and workplace success have rendered their lives in general more desirable than our own. But such perceptions do not fully incorporate the ups and downs of daily life that, when brought to mind, remind us to feel less inferior. Likewise, our pity for those who lack these accomplishments do not account for the diversity of other life experiences they may still encounter. This kind of focalism provides a useful framework for better understanding why people feel envy and pity, suggesting potential differences in how we think about those who (may only) appear better off versus worse off than ourselves.

Open practices

The experiments in this article earned Open Materials, Open Data, and Preregistration badges for transparent practices. Materials and data for the experiments are available at https://osf.io/dqgep/.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jesp.2017.10.002.

References

- Adler, N., & Stewart, J. (2007). The MacArthur scale of subjective social status (Retrieved from) http://macses.ucsf.edu/research/psychosocial/subjective.php.
- Aknin, L. B., Norton, M. I., & Dunn, E. W. (2009). From wealth to well-being? Money matters, but less than people think. The Journal of Positive Psychology, 4, 523–527.
- Ames, D. R. (2004). Inside the mind reader's tool kit: Projection and stereotyping in mental state inference. *Journal of Personality and Social Psychology*, 87, 340–353.
- Ayton, P., Pott, A., & Elwakili, N. (2007). Affective forecasting: Why can't people predict their emotions? *Thinking and Reasoning*, 13, 62–80.
- Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. Journal of Abnormal and Social Psychology, 66, 3–11.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Bercovici, J. (2009). Surprise hits: "us weekly" scores by showing stars just like us. Daily finance, December 4 (Retrieved from) http://www.dailyfinance.com/2009/06/27/surprise-hits-us-weekly-scores-by-showing-stars-are-just-like/.
- Campbell, T., O'Brien, E., Van Boven, L., Schwarz, N., & Ubel, P. A. (2014). Too much experience: A desensitization bias in emotional perspective taking. *Journal of Personality and Social Psychology*, 106, 272–285.
- Chopik, W. J., O'Brien, E., & Konrath, S. (2017). Differences in empathic concern and perspective taking across 63 countries. *Journal of Cross-Cultural Psychology*, 48, 23–38
- Chou, G. H., & Edge, N. (2012). "They are happier and having better lives than I am": The impact of using Facebook on perceptions of others' lives. Cyberpsychology, Behavior and Social Networking, 15, 117–121.
- Cikara, M., Bruneau, E. G., & Saxe, R. R. (2011). Us and them: Intergroup failures of empathy. Current Directions in Psychological Science, 20, 149–153.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack, M. Argyle, & N. Schwarz (Eds.). Subjective well-being: An interdisciplinary perspective (pp. 119–139). Elmsford, NY: Pergamon Press.
- Dijker, A. J. (2001). The influence of perceived suffering and vulnerability on the experience of pity. *European Journal of Social Psychology*, 31, 659–676.
- Emotions Anonymous (2017). (Retrieved from) http://www.emotionsanonymous.org/.
 Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behavior Research Methods. 39, 175–191.
- Fiske, S. T. (2010). Envy up, scorn down: How comparison divides us. *American Psychologist*, 65, 698.
- Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N. Schwarz (Eds.). *Wellbeing: The foundations of hedonic psychology* (pp. 302–329). New York, NY: Russell Sage.
- Gilbert, D. T., Pinel, P. C., Wilson, T. D., Blumberg, S. J., & Wheatley, T. P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, 75, 617–638.
- Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. Psychological Science, 17, 847–853.
- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: Guilford Press.
- Hill, S. E., DelPriore, D., & Vaughan, P. (2011). The cognitive consequences of envy: Attention, memory, and self-regulatory depletion. *Journal of Personality and Social Psychology*, 101, 653–666.
- Hoerger, M., Quirk, S. W., Lucas, R. E., & Carr, T. H. (2010). Cognitive determinants of affective forecasting errors. Judgment and Decision making, 5, 365–373.
- Hupka, R. B., Buunk, B., Falus, G., Fulgosi, A., Ortega, E., Swain, R., & Tarabrina, N. V. (1985). Romantic jealousy and romantic envy: A seven-nation study. *Journal of Cross-Cultural Psychology*, 16, 423–446.
- Jordan, A. H., Monin, B., Dweck, C. S., Lovett, B. J., John, O. P., & Gross, J. J. (2011). Misery has more company than people think: Underestimating the prevalence of negative emotions. *Personality and Social Psychology Bulletin*, 37, 120–135.
- Kahneman, D., Krueger, A., Schkade, D., Schwarz, N., & Stone, A. (2004). A survey method for characterizing daily life experience. Science, 306, 1176–1780.
- Kahneman, D., Krueger, A., Schkade, D., Schwarz, N., & Stone, A. (2006). Would you be happier if you were richer? A focusing illusion. Science, 312, 1908–1910.
- happier if you were richer? A focusing illusion. *Science, 312,* 1908–1910. Konrath, S., O'Brien, E., & Hsing, C. (2011). Changes in dispositional empathy in American college students over time: A meta-analysis. *Personality and Social Psychology Review, 15,* 180–198.
- Kruger, J., & Burrus, J. (2004). Egocentrism and focalism in unrealistic optimism (and

- pessimism). Journal of Experimental Social Psychology, 40, 332-340.
- Lam, K. C. H., Buehler, R., McFarland, C., Ross, M., & Cheung, I. (2005). Cultural differences in affective forecasting: The role of focalism. *Personality and Social Psychology Bulletin*, 31, 1296–1309.
- Larson, R. W., Clore, G. L., & Wood, G. A. (1999). The emotions of relationships: Do they wreak havoc on adolescents? In W. Furman, B. B. Brown, & C. Feiring (Eds.). The development of romantic relationships in adolescence (pp. 19–49). New York: Cambridge University Press.
- McClelland, G. H., & Judd, C. M. (1993). Statistical difficulties of detecting interactions and moderator effects. *Psychological Bulletin*, 114, 376–390.
- Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for the unconscious alteration of judgments. Journal of Personality and Social Psychology, 35, 450–456.
- O'Brien, E. (2013). Feeling connected to younger versus older selves: The asymmetric impact of life stage orientation. *Cognition and Emotion*, 29(4), 678–686.
- O'Brien, E. (2015). Mapping out past and future minds: The perceived trajectory of emotionality versus rationality over time. *Journal of Personality and Social Psychology:* General, 144(3), 624–638.
- O'Brien, E., & Ellsworth, P. C. (2012). More than skin deep: Visceral states are not projected onto dissimilar others. Psychological Science, 23 (391-296).
- O'Brien, E., Ellsworth, P. C., & Schwarz, N. (2012). Today's misery and yesterday's happiness: Differential effects of current life-events on perceptions of past wellbeing. *Journal of Experimental Social Psychology*, 48, 968–972.
- O'Brien, E., & Klein, N. (2017). The tipping point of perceived change: Asymmetric thresholds in diagnosing improvement versus decline. *Journal of Personality and Social Psychology*, 112, 161–185.
- O'Brien, E., & Roney, E. (2017). Worth the wait? Leisure can be just as enjoyable with work left undone. *Psychological Science, 28*, 1000–1015.
- Olson, J. G., McFerran, B., Morales, A. C., & Dahl, D. W. (2016). Wealth and welfare: Divergent moral reactions to ethical consumer choices. *Journal of Consumer Research*, 42, 879–896.
- Parrott, W. G., & Smith, R. H. (1993). Distinguishing the experiences of envy and jealousy. Journal of Personality and Social Psychology, 64, 906–920.
- Postmes, T., & Spears, R. (1998). Deindividuation and antinormative behavior: A metaanalysis. Psychological Bulletin, 123, 238–259.
- Qualtrics (2017). (Retrieved from) http://www.qualtrics.com/online-sample/.
- Rozin, P., & Royzman, E. B. (2001). Negativity bias, negativity dominance, and contagion. Personality and Social Psychology Review, 5, 296–320.
- Salovey, P., & Rodin, J. (1988). Coping with envy and jealousy. Journal of Social and Clinical Psychology, 7, 15–33.
- Salovey, P., & Rodin, J. (1991). Provoking jealousy and envy: Domain relevance and selfesteem threat. Journal of Social and Clinical Psychology, 10, 395–413.
- Schaubroeck, J., & Lam, S. K. (2004). Comparing lots before and after: Promotion rejectees' invidious reactions to promotes. Organizational Behavior and Human Decision Processes, 94, 33–47.
- Schkade, D., & Kahneman, D. (1998). Does living in California make people happy? A focusing illusion in judgments of life satisfaction. Psychological Science, 9, 340–346.
- Schwarz, N., & Xu, J. (2011). Why don't we learn from poor choices? The consistency of expectation, choice, and memory clouds the lessons of experience. *Journal of Consumer Psychology*, 21, 142–145.
- Sevdalis, N., & Harvey, N. (2009). Reducing the impact bias in judgments of post-decisional affect: Distraction or task interference? *Judgment and Decision making*, 4, 287–296.
- Smith, R. H., & Kim, S. H. (2007). Comprehending envy. Psychological Bulletin, 133, 46–64.
- Smith, R. H., Parrott, W. G., Diener, E., Hoyle, R. H., & Kim, S. H. (1999). Dispositional envy. Personality and Social Psychology Bulletin, 25, 1007–1020.
- Smith, R. H., Turner, T., Garonzik, R., Leach, C., Urch-Druskat, V., & Weston, C. (1996). Envy and schadenfreude. Personality and Social Psychology Bulletin, 22, 158–168.
- Toi, M., & Batson, C. D. (1982). More evidence that empathy is a source of altruistic motivation. Journal of Personality and Social Psychology, 43, 281–292.
- Ubel, P. A., Loewenstein, G., Schwarz, N., & Smith, D. (2005). Misimagining the unimaginable: The disability paradox and health care decision making. *Health Psychology*, 24, S57–S62.
- Van de Ven, N., Zeelenberg, M., & Pieters, R. (2009). Leveling up and down: The experiences of benign and malicious envy. *Emotion, 9*, 419–429.
- Van de Ven, N., Zeelenberg, M., & Pieters, R. (2011). The envy premium in product evaluation. *Journal of Consumer Research*, 37, 984–998.
- Weiner, B., & Kukla, A. (1970). An attributional analysis of achievement motivation. Journal of Personality and Social Psychology, 15, 1–20.
- Wills, T. A. (1981). Downward comparison principles in social psychology. Psychological Bulletin, 92, 245–271.
- Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. Perspectives on Psychological Science, 3, 370–386.
- Wilson, T. D., Wheatley, T., Meyers, J. M., Gilbert, D. T., & Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology*, 78, 821–836.
- Wirtz, D., Kruger, J., Scollon, C. N., & Diener, E. (2003). What to do on spring break? The role of predicted, on-line, and remembered experience in future choice. *Psychological Science*, 14, 520–524.