

The Belief in a Favorable Future Faculty Research Working Paper Series

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We propose that people hold a *belief in a favorable future* (BFF), projecting that the future will change in ways advantageous to their current interests. People believe that their political views, entertainment preferences, and scientific beliefs will be more widely held by others in the future (Study 1). BFF is greater in magnitude than the false-consensus effect (Study 2). BFF does not reflect a generalized optimism about the future or a belief that others will become more similar to the self: people believe the future will change in self-benefitting way, in particular (Study 3). BFF is greatest when people believe their views are based on objective truth (Study 4). Ironically, BFF may make the futures people anticipate less likely to occur by undermining people's motivation to take action today to bring about the favorable futures they believe to be inevitable.

The authors of *One Party Country: The Republican Plan for Dominance in the 21st Century* imagined that Democrats would "slip into the status of a permanent, carping minority" (Hamburger & Wallsten, 2006). Meanwhile, the authors of another book, *40 More Years: How the Democrats Will Rule the Next Generation*, imagined the exact opposite future (Carville, 2009). How could these beliefs about the future be so discrepant? The first book was written by Republicans, the second by Democrats. The profound gap between these competing beliefs about the future suggests that the each set of authors believes that the future will change in ways that benefit their current (partisan) interests. People holding beliefs that the future will change to their betterment can explain a host of phenomenon, from the high frequency with which government officials "kick the can down the road" on important issues ("There will be more legislators in the future who will agree with my solutions") to the low frequency of people's engagement with political advocacy ("I don't need to attend that pro [anti] same sex marriage rally; same sex marriage will be legal [illegal] in 10 years anyway.")

We propose that people tend to hold a *belief in a favorable future* ("BFF"). That is, people project that the future will change in ways that are advantageous to their current interests. BFF has two critical features. First, BFF does not suggest the world will improve, in general, but rather that it will change in a manner that favors the self, in particular. Second, the more people feel that their current (subjective) views are based on objective truth, the more likely they are to believe that the future will manifest those views.

These predictions draw from related literatures on social projection and forecasting. First, a large body of research documents people's belief that those who co-inhabit the *present* share their

3

beliefs, attributes and preferences (Marks & Miller, 1987; Monin & Norton, 2003; Robbins & Krueger, 2005; Ross, Green, & House, 1977). Such social projection – or false consensus – has been traced to people's tendency to anchor on themselves to understand unknown others (Epley et al, 2004; Marks and Miller, 1985). As with the BFF, this projection can lead people with opposing views to hold diametrically opposed beliefs about the likely views of others. For example, liberal and conservative Christians both project that Jesus Christ would hold their (mutually incompatible) political views if he were on earth today (Ross et al., 2012). Social projection is exacerbated when people believe that their preferences are logically derived and therefore accurate – implying that logical others must hold similar beliefs (Ward & Ross, 1997).

Second, forecasting research informs our predictions about the BFF. Generally speaking, people tend to be poor forecasters of both the occurrence of events and their reactions to those events (Wilson and Gilbert, 2005; Tetlock, 2005). In addition, people tend to be optimistic about the future and engage in wishful thinking (Krizan & Windschitl, 2007; Sharot, 2011; Weinstein, 1980). As an example, people are overconfident about the future performance of their preferred sports teams (Massey, Simmons, & Armor, 2011; Simmons & Massey, 2012). Building on this research, we suggest that people believe that the future will unfold in ways that benefit them. Moreover, we differentiate the BFF from these related constructs, by comparing its magnitude to the false consensus effect, and by testing whether the BFF is distinct from a simple view that the future will be better overall.

Overview

In four studies we document the BFF, differentiate it from related constructs, and shed light on underlying mechanisms. Study 1 demonstrates the BFF as participants report their views on a wide range of topics and then forecast how common those views will be in the future. Study 2 compares the BFF to the false consensus effect. Study 3 examines whether people believe that the future will become a better place, in general, or whether it will change in ways that benefit them, in particular. Finally, Study 4 examines how participants' belief that their views are based on objective truth affects the BFF's magnitude.

Study 1: BFF: From Same Sex Marriage to American Idol

Study 1 demonstrates the BFF across a range of views, from political beliefs to television shows.

Method.

Participants. 1,502 participants ($M_{age} = 34.7$, SD = 12.6, 60% female) were recruited on Amazon's Mechanical Turk and restricted to respondents who were located in the United States. This was an add-on to a separate larger survey collection; there was no sample size determination or stopping rule.

Design. Participants were asked two blocks of questions regarding six views: ideology, abortion, same sex marriage, climate change, income taxes, and the popularity of the television show *American Idol*. One block of questions asked respondents to report their own views on the six topics, while the other block asked them to report about how the world would be different in the future; we counterbalanced block order. For example, participants indicated whether they would

describe themselves as Liberal, Moderate, or Conservative, and also reported whether America would become more Liberal, Moderate, or Conservative in 20 years (see Figure 1 and Table S1 for all questions.)

Results and Discussion.

Block Order. An ANOVA with block order entered as a between-participant factor revealed that order did not significantly affect responses to any of the current questions, F(1, 1496) < 2.14, p < .14. Order did affect two of the future questions: Abortion, F(1), 1497=5.41, p=.02 and American Idol, F(1, 1497)=14.70, p < .001. However, order did not affect the pattern of BFF reported below.

BFF. For each of the six views, participants showed the BFF. For example, consider Figure 1 Panel F. Some 90% of participants who currently believed that global temperatures are increasing predicted that Americans would be more likely to believe the same thing in 20 years, just 23% of people who currently believed that temperatures are *decreasing* predicted that more Americans would believe in global warming in the future; instead, fully 60% of these participants believed that more Americans would come to agree with them in 20 years that temperatures are decreasing, χ^2 (4) = 921.6, *p* < .001.



In 20 years, do you think income taxes in America will be...?

χ2 (4) = 28.9 p < .001

Figure 1. People Believe in a Favorable Future

Study 2: BFF > False Consensus

Study 2 aims to differentiate the BFF from a related phenomenon – the false consensus effect (Ross et al., 1977; Marks and Miller, 1987) – by comparing the magnitude of the two. We also clarify the question asked of respondents in Study 1 regarding the ideology of future Americans, since that question may have been difficult to interpret.

Method.

Participants. 152 participants (M_{age} =33.5, SD =13.2, 47% female) were recruited on Amazon's Mechanical Turk and restricted to respondents who were located in the United States. We aimed for 150 participants, which was chosen to be sufficiently powered to replicate the ideology effects found in Study 1.

Design. Participants initially answered several questions unrelated to the present study (See SOM). They then answered three questions, on separate screens in counterbalanced order: "Would you describe yourself as Liberal, Moderate, or Conservative?" (*current self*); "Which of the following do you think most Americans identify as today (in 2012): Liberal, Moderate, or Conservative?" (*current others*); and "In 20 years (in 2032), which of the following do you think the most Americans will identify as: Liberal, Moderate, or Conservative?" (*future others*).

Results.

Question Order. A MANOVA was used to examine whether the order of the questions affected participants' general responses. Order did not affect the current self question, F(5, 146)=.15,

p=.98, or the future others question, F(5, 146)=.95, p=.45, but did affect the current others question, F(5, 146)=3.23, p=.009.

BFF versus False-Consensus. To take into account the six different possible orders in which the three questions were presented, two log-linear analyses were performed, one which assessed the false-consensus effect (current self X current others X order) and the other the BFF (current self X future others X order). Using backward elimination to fit the model, order did not affect the relationship between current self and current others or the relationship between current self and future others, $\chi^2(5) = 2.2$, p = .83.

As in Study 1, we observed the BFF (current self X future others), χ^2 (4) = 25.28, p < .001; 60% percent of participants who identified as liberal believed that most Americans will identify as liberal in 2032, whereas 70% percent of participants who identified as conservative believed that most Americans will identify as conservative in 2032 (see Figure 2). In contrast, we did not observe a significant false-consensus effect (current self X current others), χ^2 (4) = 5.84, p < .21. Indeed, comparing the two chi-square values from the nested log-linear analysis shows that the BFF was larger in magnitude than the false-consensus effect, χ^2 (1) = 19.437, p < .001.

The same results emerge when using a different approach to analyzing the false-consensus effect and the BFF, 3x3 crosstabulations. We again observed a significant BFF, χ^2 (4) = 30.53, p <.001, and weak evidence for the false-consensus effect, χ^2 (4) = 6.87, p = .14. Using a chi-square for heterogeneity analysis (Zar, 1999), the BFF was again larger in magnitude than the falseconsensus effect, χ^2 (2) = 11.14, p = .03.



Figure 2. Belief in a Favorable Future > False Consensus

Discussion.

Using an improved measure of ideology, Study 2 demonstrated that the BFF is distinct from the false-consensus effect. Our paradigm, which is substantively similar to the most common paradigms used to detect the false-consensus effect (Marks & Miller, 1987), shows that the BFF is greater in magnitude than false-consensus.

Study 3: BFF \neq Optimism

Does the BFF merely reflect a general optimism that the world will improve, or – as we posit – that the world will change in ways that benefit the self, in particular? Study 3 tests this distinction by examining whether people believe that negative aspects of the world will become more common when that change would benefit the self. For instance, imagine that one of your worst traits as a person is that you are lazy. In order for the future to be beneficial, you might actually hope that the prevalence of laziness increases, such that this trait is no longer as distinctly negative: laziness becoming more common in others would make your laziness less negatively distinguishing.

Study 3 also examines if the BFF necessarily involves people believing that others will become more similar to their current selves. The logic above suggests that people will believe that their positive traits will become less common, making them more positively distringuishing.

Method.

Participants. 149 participants (M_{age} =37.1, SD =14.0, 60% female) were recruited on Amazon's Mechanical Turk and restricted to respondents who were located in the United States. We aimed for 150 participants, which was chosen based on a pilot study conducted to develop the materials used in this study.

Design. Participants initially answered several questions unrelated to the present study. They were then asked: "Please describe an attribute about yourself that you DO like" and "Please describe an attribute about yourself that you DO NOT like." On subsequent screens they were

asked, "Compared to today, in 20 years do you think that more people will have the attribute you DO like about yourself (which you described above as "[attribute]")" and "Compared to today, in 20 years do you think more people will have the attribute you DO NOT like about yourself (which you described above as "[attribute]")."

Results.

Examples of attributes that participants liked about themselves included their sense of humor, confidence, kindness, and loyalty; examples of attributes that participants disliked about themselves included a tendency to procrastinate, having a short temper, and worrying too much.

We observed a significant difference in the predicted future prevalence of liked attributes compared to disliked attributes. A 2x2 crosstabulation (like/dislike x more common/less common) revealed that liked attributes were more likely to be predicted to become less common in the future (27%) than more common (15%), while disliked attributes were predicted to become more common in the future (32%) than less common (22%), χ^2 (1) = 7.34, *p* < .001 (Figure 3). We conducted an alternative analysis using a 2x3 crosstabulation (like/dislike x more common/about as common/less common), which yielded similar results, χ^2 (2) = 7.39, *p* = .02.

Discussion.

Study 3 examined situations in which more future others becoming similar to the self does not advantage the self: having more future people share participants' liked attributes is negative, whereas having more people share disliked attributes is positive. A follow up study (N=93, M_{age} =29.7, SD=8.2; 39% Female) conducted on MTurk was consistent with this interpretation.

Participants identified a liked and a disliked attribute, and then answered this question for each attribute: "Given that you have the attribute that you [do/do not] like about yourself ([attribute]), would you be better off if more people had that attribute in the future or fewer people had that attribute?" 85% of respondents believed they would be better off if the liked attribute was less common, while 80% of respondents believed they would be better off if the disliked attribute was more common χ^2 (1) = 13.67, *p* < .001. In an open-ended feedback section at the end of that survey one respondent voluntarily offered exactly the rationale we propose "…*I chose [that] I wished fewer people [would] have [my desirable attribute] so those that did [have my desired attribute] would feel a little bit special."*

Study 3 supports the interpretation that people tend to believe the future will benefit the current self, in particular, rather than that the world will become more positive overall. In short, it isolates the "favorable" aspect of the belief in a favorable future.



Figure 3. Belief in Favorable Future is Specifically About Favorable Future

Study 4: Objective Truth and BFF

When is the BFF most likely to occur? We expected that one factor underlying the BFF might be people's belief that their current views are based on hard, incontrovertible truths (Ward et al. 1997), such that it is inevitable that such truths will eventually "win out." Study 4 explores how the BFF is affected by people's feeling that their views are based on objective facts (versus subjective taste). We expected that when people believe their views are based on objective truth that they would be especially prone to the BFF.

Method.

Participants. 121 participants were recruited for our study and initially answered a handful of questions unrelated to the present study. One participant did not complete the study, leaving 120 valid participants. Of these, 33% were women, and the average age was 33. Of the 120 participants who completed the study, 12 were excluded because they had prior knowledge of the study through user forums. They were excluded in line with findings showing that Mechanical Turk workers who have participated in a given study multiple times behave differently (Rand et al, 2014). That said, the results are unaffected by inclusion or exclusion of these participants. We did not have a specific target number of participants for this study. We aimed for 150 participants for this study based on previous results. However, the dominating factor in determining sample size was collecting participants who had not participated in any version of this study before, while leaving the study open for just a finite number of days.

15

Design. Participants were asked about their current views regarding eight topics: abortion, climate change, American Idol, cola brands, phone operating systems, gay marriage, marijuana, and gun control. They then indicated whether they felt that each view was based on objective truth or subjective taste, and then predict the future for each of those views. As an example, participants were asked "Do you prefer making it easier to obtain marijuana for recreational use or more difficult to obtain marijuana for recreational use?" and then "Would you say that your above answer is based on objective truth or subjective taste?" and finally "In 20 years, do you think it will be easier to obtain marijuana for recreational use or more difficult to obtain marijuana for recreational use?" (see Table 2 for all questions). Participants were then asked if they had heard of a study like this one through Mechanical Turk user forums.

Table 1. Study 4	Topics	
Issue	Question About Current Views	Question About Americans' Future View
Abortion	In terms of a woman's right to have an abortion, would you say that you prefer making it: easier for women or more difficult for women?	In 20 years, do you think it will be: easier for women to have an abortion or more difficult for women to have an abortion?
Marriage	In terms of legalizing marriage between two people of the same sex, would you say that you are for making it: easier for two individuals of the same sex to get married or more difficult for two individuals of the same sex to get married?	In 20 years, do you think it will become: easier for two individuals of the same sex to get married or more difficult for two individuals of the same sex to get married?
Climate Change	Do you believe that global temperatures will Increase or Stay the same/Decrease?	In 20 years, do you think Americans will be more likely to believe that global temperatures will Increase or Stay the same/Decrease?
Soda	Do you prefer Coca-Cola or Pepsi?	In 20 years, do you believe a greater fraction of people will prefer Coca-Cola over Pepsi, or will a greater fraction of people prefer Pepsi over Coca-Cola?"
Phone Operating System	Do you prefer the Android mobile operating system or the Apple mobile operating system?	In 5 years, do you believe the Android mobile operating system will be more widely used compared to the Apple mobile operating system, or will the

		Apple mobile operating system be more widely used compared to the Android
		mobile operating system?
Marijuana	Do you prefer making it easier to obtain	In 20 years, do you think it will be
	marijuana for recreational use or more	easier to obtain marijuana for
	difficult to obtain marijuana for	recreational use or more difficult to
	recreational use?	obtain marijuana for recreational use?
Guns	Do you prefer for handguns to be easier	In 20 years, do you believe it will be
	to obtain or harder to obtain?	easier to obtain handguns or harder to
		obtain handguns?
Television	In terms of the television show American	In five years, if the television show
	<i>Idol</i> , would you say that you are among	"American Idol" is still airing, do you
	the show's Fans or Not Fans?	think more people will be Fans, or
		fewer people will be Fans?

Results.

Our primary goal was to show that participants would exhibit a greater BFF for current views that they felt were based on objective facts – as opposed to subjective taste. Because each participant was asked about eight views, we used a within participant analysis, and a generalized mixed model. Here, and unlike in the above analysis, we treat the eight views as random effects because the hypothesis involves the rating of objectivity, not the views themselves. We used deviance coding such that the mean of the view would be compared to the overall mean of the entire dependent variable (BFF), rather than compared to the mean of a given reference view. The rating of objectivity was adjusted for the within-participant correlation across view, as participants differ in their propensity to rate all views as objective or subjective. To do this, contrast treatment coding was used for the participant variable. This analysis reveals that participants' rating of a current view as objective or subjective is significantly related to the extent to which the participant exhibits the BFF for that view, $\beta = .92$, p < .001, which is significant with a 95% confidence interval [1.69, 3.71]: across all views, the size of the BFF was 62% for objective views, and 45% for subjective views (see Figure 4 for results for each view). The strength of the BFF is the number of respondents who predicted a favorable future minus the

number of respondents who predicted an unfavorable future, divided by the total number of respondents predicting either a favorable or unfavorable future. To contextualize this, consider participants who reported that a view was based on objective fact (as opposed to subjective taste). On average, across all issues and all participants, for those reporting "objective" views 62% more participants believed that the future would change in a favorable direction as opposed to an unfavorable direction. We note two specific details from Figure 4. First, we observe the BFF for both objective and subjective views (nearly all lines are above the origin). And second, the size of the BFF tends to be greater for objective views across most issues, consistent with our account.



Figure 4. BFF Tends to Be Stronger When View is Believed to be Objective

Bars represent the strength of belief in a favorable future, calculated as follows: [(number of respondents who predicted a favorable future) minus (number of respondents who predicted an unfavorable future)]/ [(number of respondents who predicted a favorable future) plus (number of respondents who predicted an unfavorable future)].

Discussion.

People vary in the extent to which they believe their views are based on objective truth. Studies 1-3 demonstrated that people tend to believe that the future favors them; Study 4 shows that this effect is moderated by the self-assessed objectivity of people's views: When people believe that their view on an issue is objective (subjective) they are more (less) likely to believe that the in the future others will share their view. Note that we observe the BFF even for views that people believe are taste-based, suggesting that while objectivity plays an important role in the underlying the psychology of the BFF, there are likely other factors as well.

General Discussion

In four studies, we demonstrate the robustness of the BFF, examine several underlying mechanisms, and distinguish it from other related phenomena. In Study 1, people believe that their views on politics (abortion, gay marriage, and taxes), entertainment (regarding *American Idol*), and science (climate change) will be more widely held in the future. Study 2 reveals that beliefs about the ideology of future others are substantially more biased than beliefs about the ideology of current others. Study 3 demonstrates that the BFF does not merely reflect either a general optimism about the state of the world – since people believe that their disliked attributes will be more common in the future – or a general belief that others will become more similar to the self – since people believe that their liked attributes will become *less* common in the future. These results instead suggest that the BFF reflects people's tendency to believe that the future will change in ways that benefit them, in particular. Finally, Study 4 reveals that the BFF is greatest when people consider their views to be based on objective facts, and weakest – though still present – when they consider their views to be based on subjective taste.

What other mechanisms might underlie the BFF? Since the false consensus effect is largest when people consider the views of others whom they know as opposed to others whom they do not know (Robbins and Keugger, 2005), one might hypothesize that the BFF would be largest for known or similar others, and smallest for unknown or dissimilar others. This suggests that the four studies reported above might reflect relatively small BFF magnitudes since the future others about which people projected were vague and unknown. Another possible moderator of the BFF might be mortality salience since thinking about one's own mortality tends to amplify the extent to which one projects one's own views and preferences onto others (Arndt et al, 1999).

What are the implications of people's belief that the future will come around to their current views? Some biases in the way people think about the future increase their willingness to commit to prosocial behaviors (Rogers & Bazerman, 2008). The BFF likely has the opposite effect. If people biasedly believe that their preferences will be manifest in the future, it may undermine their motivation to take costly action now. For example, people who support (or oppose) same sex marriage might believe that others will come to share their view in the future. This may undermine their motivation to engage in rallies and lobby their legislators today. Indeed, Bain et al. (2013) show that changing people's beliefs about what will occur in the future changes their likelihoods of taking action today. Thus the BFF has disturbing implications for people's willingness to take political action today: it ironically might undermine people's likelihoods of actually making their preferred futures come to fruition.

20

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