

## Original Research Reports

# The Social and Psychological Characteristics of Norm Deviants: A Field Study in a Small Cohesive University Campus

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### Abstract

People who deviate from the established norms of their social group can clarify group boundaries, strengthen group cohesion, and catalyze group and broader social change. Yet social psychologists have recently neglected the study of deviants. We conducted in-depth interviews of Princeton University upperclassmen who deviated from a historical and widely known Princeton norm: joining an “eating club,” a social group that undergraduates join at the end of their sophomore year. We explored the themes of these interviews with two rounds of surveys during the semester when students decide whether to join an eating club (pilot survey, N = 408; and a random subsample of the pilot survey with 90% takeup, N = 212). The surveys asked: what are the social and psychological antecedents of deviance from norms? The data suggest that deviance is a pattern: compared to those who conform, students who deviate by not joining clubs report a history of deviance and of feeling different from the typical member of their social group. They also feel less social belonging and identification with Princeton and its social environment. Students who deviate are lower in self-monitoring, but otherwise are comparable to students who conform in terms of personality traits measured by the Big Five, and of their perception of the self as socially awkward, independent, or rebellious. While some of these findings replicate past research, worth further exploration is the role of previous experience with deviance and its meaning for individuals as they decide whether to deviate.

*Keywords:* social norms, deviance, social change, reference groups, field research

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Modern social psychology emerged as a field interested in the study of the forces that lead people to conform: forces like social norms, social roles, or authority figures. Social norms, or a person’s impression of the average or desirable attitudes and behavior of a group (Miller & Prentice, 1996), can explain a broad range of behavioral conformity within a group or community (Miller & Prentice, 2016; Prentice, 2012). To the question of what leads individuals to conform to norms, social psychologists have well-established answers: people are motivated to preserve their sense of belonging to their social groups, avoid social rejection, and feel that they have an accurate grasp of social facts (Blanton & Christie, 2003; Cialdini & Goldstein, 2004).

Although social forces do shape human behavior, individuals often exercise agency, and their behavior is sometimes at odds with social expectations (Swann & Jetten, 2017). Perhaps surprisingly, social psychology has focused much less on the determinants of social norm *deviance*, defined as behavior that transgresses established group norms (Marques, Yzerbyt, & Leyens, 1988). Monin and O'Connor (2011), for instance, highlighted that because “less work documents why deviants end up in this situation in the first place, deviance remains a psychological question mark” (p. 264).

Deviants play important roles in social groups, so much so that scholars have long argued that healthy societies need deviants (Durkheim, 1938; Erikson, 2005). Deviants can, on the one hand, clarify the group's boundaries, improve the group's decisions, and strengthen cohesion among group members; on the other hand, they can disrupt existing norms and catalyze change (Dreu, 2002; Hornsey, 2006; Moscovici, 1976; Nemeth, Brown, & Rogers, 2001). Sherif and Sherif (1972) highlighted: “departure from established, accustomed or expected ways of behaving is a prominent feature of human historical change” (Sherif & Sherif, 1972, p. 4).

When social psychologists have studied deviance, they have not explored the antecedents of deviance. Instead, their studies have examined what happens once deviance occurs—for the individuals who deviate, and for their groups. Past research has demonstrated, for instance, that deviants are subsequently perceived as “black sheep”, marginalized, and stigmatized (Brewer & Pickett, 1999; Crocker, Major, & Steele, 1998; Festinger, 1950; Marques, Yzerbyt, & Leyens, 1988; Moscovici, 1994). Additionally, deviating from a norm leads to being stereotyped, identifying less with the group, and negatively impacts the deviant's self-esteem and well-being (Jetten, Branscombe, & Spears, 2002; Jetten, Spears, & Manstead, 1997; Link & Phelan, 2001; Major & O'Brien, 2005).

In this paper, we revisit questions about the social and psychological antecedents of deviance from peer influence and social norms. Using a field study in a university context with a cohesive student body and an established social norm, we ask: who deviates, and why? Specifically, we designed a series of studies that are inductive and qualitative examinations of real-world deviance from a century-old, widely-followed social norm at Princeton University—*joining an eating club*<sup>1</sup>. We followed qualitative interviews with repeated surveys using representative sampling to assess the robustness of the findings from the qualitative interviews. This approach is in line with a pragmatist philosophy of science, which “urges scientists to observe what behaviors emerge in the complexity of real life” (Gantman et al., 2018, p. 18; James, 1907), to describe the phenomenon at play, and to formulate hypotheses about the regularities surrounding the phenomenon (Rozin, 2001). The work is observational, and intended to be generative of future hypothesis-testing and theory building about the causes of everyday behavioral deviance.

We designed our interviews and formulated early hypotheses about the potential drivers of deviance by drawing on a wide literature from social psychology and sociology, which suggests that deviance is driven by both individual and contextual factors. Contextual factors that drive deviance may be very broad, as in the time period and culture (e.g., Swidler, 1986), or more local, as in the types of identity groups that surround an individual (e.g., Monin & O'Connor, 2011). Individual difference factors may include a person's level of identification with their group (Packer & Chasteen, 2010), personality traits (e.g., Snyder, 1979), or moral beliefs (Monin & O'Connor, 2011).

## Contextual Factors That May Drive Deviance

Predicting which members of a given group will deviate from an established social norm may depend on a set of contextual factors. Social norms interact with the institutions, ideologies, symbols, and material products that to-

gether form a group's culture, broadly defined as "a system of meaning linked to a set of available behavioral practices" (Paluck & Green, 2009, p. 623; Sewell, 2005). Few perspectives in the psychology of deviance take seriously the contextual factor of culture, although a rich literature exists in sociology. For example, Swidler (1986) differentiates between settled and unsettled cultural periods when studying the power of social norms over behavior.

In settled times, norms are strong, injunctive, and privately endorsed by most ingroup members; few or no resources are available for those who may consider deviating. Swidler (1986) predicted and found through case study evidence that deviation from social norms may be nonexistent or extremely rare during settled times. Ingroup members may conform to social norms against their will, and underestimate the probability that others hold similar attitudes against the norm. This phenomenon, studied in psychology as pluralistic ignorance, constitutes a major obstacle to social change in groups (Miller & Prentice, 1996; Prentice & Miller, 1996). Swidler's (1986) research suggests that, because contextual factors are strongly in favor of status quo norms, deviance in settled times is more extraordinary.

By contrast, in *unsettled* times there is a greater opening for deviance, due to the emergence of structural opportunities for action against norms. In times of unsettledness or "periods of social transformation" (Swidler, 1986, p. 278), resources emerge for those who hold attitudes against the norm. This perspective suggests that unsettled cultural periods may shake perceptions of pluralistic ignorance and facilitate deviance. Deviance may be more frequent during unsettled times, and may not need to involve individuals with extreme levels of moral resolve, or defiant stances toward their social groups.

Research on who deviates in settled times is a crucial component of our understanding of deviance. However, in order to better understand deviance as a broad and more ordinary phenomenon, it is also crucial to study deviance in less settled periods, when change is afoot or resources are available for change. Less research has examined deviance in these cultural periods.

Some psychological researchers have theorized about contextual drivers of deviance, including van Kleef, Wanders, Stamkou, and Homan (2015) whose research demonstrates that high power predicts deviance, or Monin and O'Connor (2011) in their work on defiance who categorize deviance according to the intention of the actor. In this framework, when one deviates unintentionally, deviance constitutes a *status*. For example, people may unintentionally deviate because they are forced by contextual factors like job loss or living in a foreign country. This research helpfully points out that deviance is not always chosen by an individual, in contrast to deviance as a choice, which is the subject of interest for this paper.

## Individual Factors That May Drive Deviance

When individuals have the means and ability to conform and make the intentional decision to deviate, deviance constitutes a *stance* (Monin & O'Connor, 2011). Social psychologists have theorized that people may consciously decide to deviate from a norm because they consider it wrong, because they feel above it, or because they want to be at odds with it (Monin & O'Connor, 2011; Morrison & Miller, 2012).

Psychologists studying dissent, which may or may not include dissent from social norms, have suggested other individual differences may drive deviance—in particular, levels of identification with an ingroup. On average, ingroup members who identify weakly with their group are more likely to voice out minority opinions (Hornsey, Majkut, Terry, & McKimmie, 2003). Ingroup members who strongly identify with their group may publicly criticize a social

norm, as long as they believe that the norm may be harmful for the group. On the contrary, when low identifiers notice that a norm may be harmful for the group, they tend to remain silent or disengage (Packer, 2012)

Psychologists have also tested whether certain personality traits predict deviance. The theory of self-monitoring (Snyder, 1979), on the one hand, considers the existence of enduring individual differences in the extent to which individuals regulate their behavior based on the expectations of their social context, with high self-monitors regulating more than low self-monitors (Lennox & Wolfe, 1984; Snyder, 1979). On the other hand, some studies have found associations between deviance and some of the Big Five personality traits. For instance, a study by Bodankin and Tziner (2009) suggests a relationship between deviance in the workplace, and traits such as agreeableness, neuroticism and conscientiousness. In their study, Bodankin and Tziner (2009) distinguish between constructive and destructive deviance, and suggest that the direction of the relationship between these personality traits and deviance depends on the norm at play. As described in greater length below, we study a norm that is essentially social. Therefore, we expected negative relationships between deviance and the personality traits typically associated with enhanced social lives: agreeableness and extraversion.

Much research remains to be done in order to understand what leads individuals to choose to deviate from social norms. Accumulated research suggests that some individual differences matter, such as a person's group identification or personality traits (Kirsch, Lubart, & Houssemand, 2015; Packer, 2012). Most of the research on individual differences has been conducted in the laboratory. It will be interesting to note whether these relationships hold in a real-world context regarding a consequential decision about deviation. Further, it is impossible to know what types of predictors we may be missing as a result of not studying these types of decisions in the world. Monroe's (2008) work on heroes who broke with norms to save lives during genocide is a notable exception to this rule, but also may not inform theories of more ordinary, regular occurrences of deviation in the world.

Finally, while we are interested in the characteristics of individuals who *choose* to deviate, theory proposes that many individuals are marked as deviants even though they did not choose to deviate in any meaningful behavioral manner (Monin & O'Connor, 2011). These individuals may perceive themselves as different from others because of the words or actions of other people, rather than a choice they initiated. The relationship between feeling different from other people and deviating by choice is of interest. For example, individuals who choose to deviate may end up feeling different from others and as a result, be more likely to deviate again. Or more simply, deviance may become a pattern composed of a history of feeling different and acts of deviance by choice.

## The Present Research

### The Eating Club Norm at Princeton

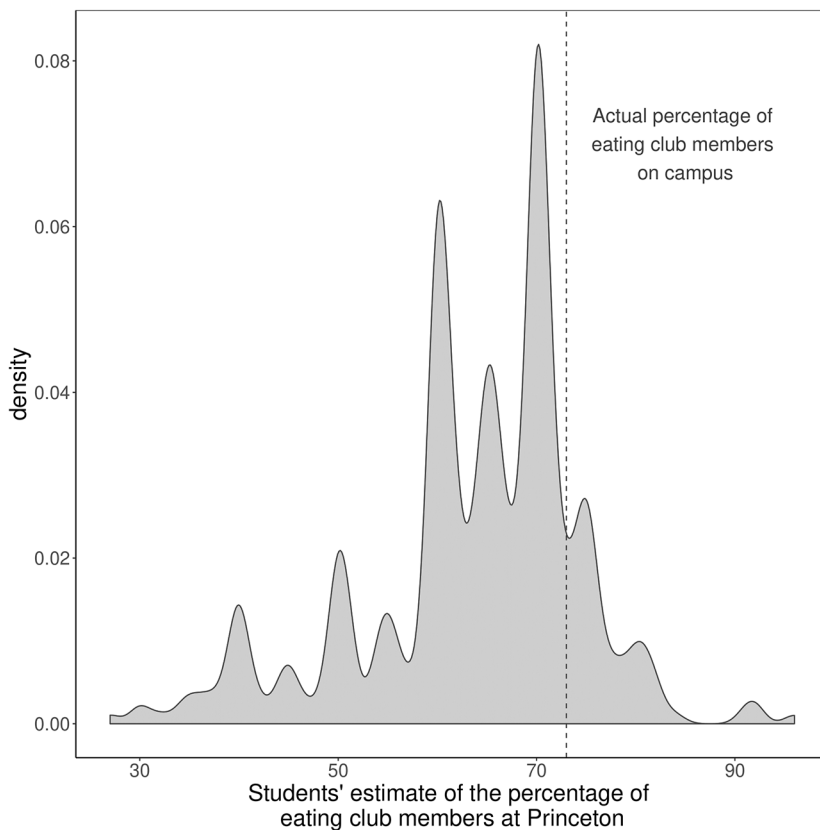
For the past century, the great majority of Princeton undergraduate students have joined Princeton's eating clubs, which are independent and private institutions where students have meals and parties. To quote an undergraduate student, becoming a member of one of the eleven eating clubs has been considered a "rite of passage." In short, belonging to an eating club at Princeton is a social norm.

Technically, any Princeton student who wants to conform to this social norm by joining an eating club has the means and ability to become a member. Although the clubs are private institutions, Princeton increases students' financial aid packages to assist students to join, in recognition of the eating club's importance to undergraduate life. Furthermore, while some clubs are selective ("bicker clubs"), others ("sign-in clubs") will accept any under-

graduates who decide to join. In the spring of their sophomore year, all Princeton students make a choice to conform to the eating club norm by becoming a *member*, or to deviate by becoming an *independent*.

Historically the eating club norm could be characterized as part of a settled culture at Princeton (Swidler, 1986), because almost all students belonged and projected the idea that one should belong, as a Princeton student (characterizing a strong descriptive and injunctive norm, respectively). Also, few or no resources were available for those who would consider deviating, such as alternative cafeterias or kitchens in dorm rooms.

Today, however, the eating club norm might be characterized as part of a more unsettled culture at Princeton. Fewer students are joining eating clubs, in part because the University is providing more alternatives for eating and socializing on the campus including co-ops, alternative eating groups where students cook and eat together. As a consequence, the norm is perceived “on the decline” by Princeton undergraduates, which is reflected in recent news articles about Princeton eating clubs, stating that eating clubs Presidents “are combatting declining membership” (Shashkini, 2018). This is also illustrated in the survey data that we collected in Spring 2017 from 408 Princeton students: the eating club norm is perceived by the students, on average, as weaker than it actually is. We asked the participants to estimate the percentage of eating club members on campus, and although the reality is that 73% of the upperclassmen were members in 2016 (L. Schmucki, personal communication, September 7, 2019), participants’ median and the mean response were approximately 10 percentage points lower (median = 65%, mean = 63%). Three quarters of all participants estimated that less than 70% of all students were eating club members (Figure 1).



**Figure 1.** Density of the students’ estimate of the proportion of eating club members. The vertical dashed line represents the actual proportion of eating club members on campus.

Additionally, the norm of joining clubs is explicitly and publicly debated, as demonstrated by a recent referendum students held on the topic of whether students should have to “bicker” to gain entry to the club. The referendum did not pass, but it was notable as the first time in the history of Princeton that the tradition was up for debate. Statistics released by the eating clubs show that the proportion of sophomores who participated in the admission process between 2013 and 2016 nonetheless remained stable: between 79% and 81% of sophomores took part in the process each year.

Thus, the current climate at Princeton provides an excellent opportunity to study deviants, because they are growing in number even though the norm remains relatively strong, clear, and tied to the Princeton student identity. However, while the choice to become a deviant has grown more common, the experience could not be characterized as an easy one. While some independent students join an alternative eating group, for the most part students who deviate are not automatically part of an alternative social group for eating or socializing.

To conclude, Princeton has recently become an *unsettled* environment in relation to Eating Club, which provides us with the unique opportunity to study a larger sample of deviants at a time where the norm is clear, but debated. In this context, we take the opportunity to study: who deviates? What guides their choice to not join an eating club? Although some of the reasons why students decide not to join eating clubs may be specific to eating clubs themselves, this context constitutes a unique opportunity to study a reasonable sample of deviants (over 30% of the sophomore class), and provides an opportunity to derive more general lessons about the types of contexts that give rise to a decision to stray from the norm and the types of people who make those decisions.

### Overview of the Studies

In this paper, we integrate qualitative and quantitative research to understand who deviates from a well-established social norm in a real-world setting. We ask: who deviates? How do they perceive their choice to deviate, how do they identify with their group, and how do they describe themselves and their history of deviation or conformity?

We first conducted in-depth interviews with all Princeton upperclassmen who responded to an advertisement to talk about their decision to join or not join an eating club at Princeton. The first author used a semi-structured interview approach, in which general questions guided the conversation but did not attempt to test hypotheses. The purpose of the interview was to elicit students' open-ended thoughts about their decision, their views of Princeton, their identities and previous experiences. We analyzed the general themes of these interviews, and used them to construct a pilot survey that targeted all Princeton sophomores as they considered whether to join an eating club. The objective of the pilot survey was twofold: first, identify the population of sophomore students who forecasted that they would deviate or conform to the eating club norm, and second, test the survey questions and scales that we designed after conducting the interviews on a larger sample of Princeton students. Following this, we conducted the main survey, for which we sampled a representative subset of the original sample, balanced by students who forecast that they would deviate vs. conform to the eating club norm. The main survey took place at the end of the students' semester, after they had been living with their decision to deviate or conform.

## Study 1: Qualitative and Quantitative Data Collections on Students Who Decided to Deviate vs. Conform

### Study 1a: Interviews of Deviant and Conformist Students

#### Method

**Semi-structured interview approach** — The objective of this set of interviews was to gain a better understanding of the population of interest and learn about Princeton students' social life. Specifically, interviews with students who did or did not deviate from the eating club norm allowed us to gather crucial insights from the students about their perception of the clubs, the context of their decision to join or not join, and their lives more generally.

**Recruitment** — Since the objective of the interviews was to understand the reasons why a minority of students on campus decide to deviate from the eating club norm, we primarily recruited students who decided not to join an eating club. We also interviewed some eating club members in order to get a sense of the common reasons why students join the clubs. We recruited independents and eating club members separately, by advertising the study to different Princeton undergraduate mailing lists (see recruitment materials in Appendix A in the [Supplementary Online Materials \[SOM\]](#)). The interviews lasted for 30 minutes on average, and participants were paid at a rate of \$12 per hour for their time.

We interviewed a total of 26 Princeton upperclassmen (8 juniors and 18 seniors). Overall, the students that we interviewed covered 16 different departments and majors (e.g., History of Science, Engineering, Psychology & Neuroscience, Journalism, French, Economics, and Computer Science). Interviewees were White (46%), Asian (42%), Black (7%) and Hispanic (3%). The great majority of the interviewees were women; only 1 interviewee identified as a man.

**Procedure** — We set up meetings in the psychology department with the juniors and seniors who agreed to participate. Interviews were semi-structured and conducted by the first author. The interviewer had a pre-determined set of open questions to ask to the participants, but allowed himself to explore some particular themes or responses whenever something relevant came up in the conversation. The interviews were not recorded; the interviewer took written notes during the session that he later typed.

We asked open questions to the independent interviewees about what it feels like to be an independent at Princeton, the reasons why they decided to go independent, their perception of eating clubs and the eating club norm at Princeton, and their identification with Princeton. In addition, we asked a set of questions about their background and experiences with past social groups. In particular, we asked whether they deviated from their group norms in the past, if their past social groups were different from Princeton, and how different they felt from the typical member of their past groups (see Appendix B, [SOM](#), for interview question prompts).

The purpose of Study 1a was not to identify systematic differences between the students who deviated vs. conformed to the eating club norm. To do so, we would have needed a much larger sample of Princeton upperclassmen. Instead, we conducted an inductive thematic analysis to identify recurring themes in the qualitative data ([Braun & Clarke, 2006](#)). We then used these themes to understand better the context of the eating club norm at Princeton on the one hand, and formulate hypotheses about the antecedents of norm deviance on the other hand.

Our thematic analysis strategy closely followed the guidelines introduced by Braun and Clarke (2006). During data collection, we went through a phase of iterative reading of the interviews, during which we familiarized ourselves with the data. Every time we had conducted and transcribed two to four interviews, the authors would meet to read the interview transcripts together and discuss initial ideas about the content. By the end of this familiarization phase, our meeting notes included a list of themes that we had identified in the data. Once data collection was over, both authors reviewed the interview transcripts and meeting notes again to build together a list of the primary patterns of responses about: i) the reasons why participants decided to join or not join an eating club (e.g., the different costs associated with deviating from the norm), ii) their past and current social life, and iii) their tendency to deviate from other social norms. Then, we reviewed and named the themes (Braun & Clarke, 2006) by going through the interview transcripts again, and confirmed the prevalence of these themes in the data. Finally, we selected vivid examples that illustrate each of the themes that we identified (Braun & Clarke, 2006), which we report in this article.

## Interview Findings

We organize this findings section into three main themes that we identified from an analysis of interview notes. The first theme is about the social and logistical costs of deviating from the eating club norm at Princeton. The second is about the deviants' relationship with their past groups, and the third about their feeling of belongingness and identification to a current group, Princeton University.

**Theme One: The costs of deviance from the eating club norm** — Participants highlighted two types of costs<sup>ii</sup> associated with deviating from the eating club norm at Princeton: social and logistical costs.

*The social costs associated with deviating from social norms.* In sixteen of eighteen interviews, participants who were independents talked about feeling isolated, ignored, or left out by friends who belong to clubs. We quote three of these participants as examples of what most of them told us about how it feels to not be an eating club member on campus:

*“People who go independent are kind of marginalized and are perceived as not fitting. There’s also no cohesion between independents. The listserv was created last year, but in any case, you never know who else is going independent.”*

*“There’s a huge culture of eating meals with others here, and when you’re an independent you have to plan a lot more to see your friends. It’s kind of hard, but I manage to see them once a week.”*

*“Independents are ignored. It’s just a general vibe, perceived as less social or doing their own thing.”*

The participants also expressed feeling judged, even ashamed for being independent. One of them said that since she dropped out of her eating club, she feels that her social status is different, *“in particular with underclassmen who perceive independents as not super cool.”* Another student explicitly mentioned that *“people segregate because of eating clubs; they are judging you, judging if you are socially apt.”* On this note, a different interviewee shared the following story:

*“Recently at a Shabbat dinner, the eating club question came up. I had to say that I was an independent. I could see that they were judging me from the face they made. It makes me uncomfortable and angry, but I understand them in a way, because I used to be like that too.”*



*The logistical costs associated with deviating from social norms.* Going independent not only involves this type of social cost, but also has negative logistical implications. One of the interviewees thought that undergraduates “have no freedom of choice, because it is really hard to go to grocery stores, there’s not a lot of options and most of us don’t have a car.” She added, “the university is forcing the students to take the most conventional route.”

Another participant shared thoughts about how the current structure makes it difficult to be an independent: “Independents are a little off the grid, even housing is on one side of campus. Freshmen and sophomores interact with a lot of people, then there’s no more community. Also, there’s no support on campus, I have to take a bus once a week to go get groceries, and that’s not easy.” Finally, a senior confessed: “I just want to graduate, leave this place, and be part of a world where you can eat with whoever you wanna eat with anytime.”

**Theme Two: Independents’ past relationship with membership groups** — We explored how participants described their relationship with their social groups in the past. In contrast to eating club members, independent students emphasized having a history of both deviating from social norms and feeling different from others.

*Past instances of deviance.* The interviewer asked the students if they felt that, before becoming a Princeton student, they were the type of person who would tend to not follow mainstream behavior. The majority of the independent interviewees responded to this question with ease, in contrast with the reaction of most of the eating club members. The content of the independents’ responses also appeared qualitatively different: three of the seven eating club members said that they mostly conformed or always tried to fit in. Another one just said that she didn’t party too much in high school. On the contrary, independent students expressed much more interest in the question and were eager to share stories. One of them responded: “my whole life!” Another student explained:

*“Yes. I was not a typical student in high school. I worked at a grocery store and I really liked the people at the grocery store. But in school, I never wanted to follow the crowd. Also, most people in my hometown get married very young, don’t go to college, and don’t even understand why I am going to Princeton.”*

A third participant responded that she had not followed the mainstream much and told the interviewer:

*“Here at Princeton, I created and tailored my major in Visual and Performing Arts<sup>iii</sup> and I am the only one who is doing that.”* A final example comes from a student who voiced out: “I don’t take into account what other people think and do. I do what I want to do, and I’m not prone to social pressure. People in my band do a lot of stuff that I don’t really understand, such as dating. I think that people go on date because of social pressure.”

*Feeling different from the typical ingroup member.* Interview data also suggested that the independents, on top of reporting deviating from norms in the past, also mentioned feeling different from the typical member of their past groups. One student explained that she never felt like a “typical person because she is a twin, gender non-conforming, and not the kind of typical Muslim person who fits at the typical religious event.” Another interviewee mentioned that she was never part of the main crowd. She explained: “kids were looking at me differently. I performed better, because I was more intelligent.” A senior said that she “always felt different”, and added: “I had a different childhood, mostly because I lived in developing countries and that makes you grow up maybe too fast. I saw stuff that are hard to process for a 12-year old kid. I feel 5 years older than the students here.” As a final example, one of the independent interviewees shared:

*“I always felt different. I am Malaysian, but I was born in New Zealand, from Chinese parents. My parents met in New Zealand, but then they moved to Malaysia. I don’t really feel part of any of any of these cultures*

really. I also went to a British school and never really felt part of that either. So I was always aware that I was not like everyone. But being at Princeton made it even more salient how unique my life is.”

**Theme Three: Identification and belonging** — One of our objectives during the interviews was to explore how the independents would respond to questions related to their identification to Princeton. Although a few students responded negatively, the answers were overall positive.

We noticed that the independents tended to emphasize their institutional more than their social identification with Princeton. For instance, an interviewee specified, *“I do identify with my department, anthropology, and the pursuit of knowledge at Princeton.”* Another student expressed her love for architecture and said that she really threw herself into the department. A third independent responded, *“I try to identify with the best parts of what Princeton is. And a part of identifying with a group is to be able to criticize it. I won't be back for each Reunions, but I identify, although I'm wary and critical.”*

In the surveys we explored further the idea that independent students may separate out the social and institutional dimensions of their identification to resolve the psychological conflict triggered by deviating from a well-established social norm.

### **Who Are the Deviants? Summary of the Interview Findings**

Our analysis of the exploratory interviews suggests that deviating from the eating club norm at Princeton may come with substantive costs of two types: social and logistical. Socially, most junior and senior independents reported feeling left out, ignored, and isolated from others. Some of them also expressed feeling ashamed or judged by others, which adds a prescriptive component to the eating club norm at Princeton. These social costs often coexist with logistical costs. For instance, most independents do not have access to a kitchen, and when they do, they need to make extra efforts to find groceries. Also, it is difficult logistically for independent students to have meals with friends who belong to eating clubs.

The interviews also allowed us to explore factors in the deviants' past and present social lives that may be responsible for their decision to deviate from the eating club norm at Princeton. Interviews with deviants, as opposed to eating club members, featured stories in which they deviated from norms in the past, and felt different from the typical member of their past social groups on dimensions such as intelligence, gender identity, and other characteristics. Finally, the interviews suggest that the deviants identified with Princeton as an institution, but described belonging less on a social level, particularly in comparison to conformists.

Overall, we concluded from the interviews that the setting at Princeton would be interesting for a more systematic investigation of the social and psychological characteristics of people who deviate from an ingroup norm. The setting features both costs of deviation (social and logistical), but also a relatively numerous group of people who do choose to deviate, which would make generalization about deviants more reliable. Using our descriptive findings from the interviews, we designed a survey for Princeton sophomores who were currently deciding whether or not to join an eating club.

### **Study 1b: Students Deciding to Deviate or Conform**

We used ideas generated from the interviews to create a pilot survey, which had two goals. First, we used the pilot survey to identify a large sample of *prospective* deviants and conformists among students on campus,

meaning second year students facing their mid-year decision about whether to join an eating club or not. We planned to invite these students to participate in a subsequent survey at the end of the semester (Study 2) after they had been living with their decision to deviate or conform from the eating club norm. Second, we used the pilot survey to test the relevance of survey questions and scales for assessing some of the themes that arose in our interviews, with a broader population of students.

## Method

We fielded the pilot survey in the first week of the Spring semester, when students have their first opportunity to either conform to the eating club norm (“prospective conformists”), or deviate from the norm and become an independent (“prospective deviants”). To recruit participants, we sent an email to all Princeton sophomores from an undergraduate research assistant inviting them to participate in the survey in exchange for a \$5 Amazon gift card (Appendix A, SOM). The participants completed the survey online by clicking the link to the Qualtrics survey from the email. In order to encourage participation, we mentioned in the recruitment email that we would possibly contact them back at the end of the spring semester with the opportunity to take part in a \$20 follow-up survey (Appendix A, SOM). We collected as many respondents as possible, in an attempt to identify a relatively large proportion of students who planned to deviate. The survey remained open for six days: out of the 1,308 sophomores of this class year, 408 participated (i.e., 31% of the entire population of sophomores).

Although identifying systematic differences between the students who deviated vs. conformed to the eating club norm was not the primary objective of the pilot survey, we briefly describe the main correlates of deviance that appeared in the data. The full text of the pilot survey can be found in Appendix C (SOM). We include a table of item means in Appendix D (Table S1, SOM) and a correlation matrix (Table S2, SOM) in Appendix E (SOM). Finally, the data are available at <https://osf.io/gxy6v/>.

In addition to asking the students if they were about to join an eating club, the survey asked about their past and present experiences with norms and social groups (e.g., past norm deviance, perception of norms, belongingness and identification, expectations about Princeton), and mental health and demographic characteristics. We pre-registered groups of explanatory variables (see SOM), but we treated all predictors but belonging and identification as exploratory, given the nature of this survey as a pilot and as a tool for identifying the population of “new” deviants and conformists on campus.

## Main Results

**Feeling different from others in the past and present** — Prospective deviants reported feeling more different from the typical ingroup member than prospective conformists by 10.42 percentage points (0 = feel very different, 100 = feel very similar;  $M_{\text{deviants}} = 47.08$ ;  $M_{\text{conformists}} = 57.51$ ;  $SD = 18.97$ ;  $p < .001$ ; Appendix D, Table S1, SOM). This analysis suggests a significant positive relationship between feeling different from others and choosing to deviate, which supports qualitative data collected in the context of study 1a.

**Deviance as a choice in the past and present** — Prospective deviants reported deviating in the past from social norms at a greater rate than prospective conformists (1 = never chose to deviate, 5 = always chose to deviate;  $M_{\text{deviants}} = 2.91$ ;  $M_{\text{conformists}} = 2.54$ ;  $SD = 1.04$ ;  $p = .002$ ; Appendix D, Table S1, SOM). This finding, in line with the interview results, suggests the existence of a significant positive relationship between choosing to deviate in the past and in the present.

**Belonging and identification** — Prospective deviants reported lower levels of identification with and belonging to Princeton University than prospective conformists by 6 percentage points (0 = I do not belong / identify at all, 100 = I belong / identify a lot;  $M_{\text{bel.deviant}} = 61.95$ ;  $M_{\text{bel.conformists}} = 68.05$ ;  $SD = 22.01$ ;  $p = .02$ ;  $M_{\text{ident.deviant}} = 71.82$ ;  $M_{\text{ident.conformists}} = 77.91$ ;  $SD = 21.83$ ;  $p = .02$ ).

## Study 2: Main Survey of Deviant and Conformist Students

Using results from our pilot survey and combining those insights with our qualitative data, we launched our main survey toward the end of the spring semester after students had officially made their decisions about whether or not to join an eating club (i.e., to be a conformist or deviant, respectively). The objectives of the survey were descriptive, but we hypothesized several relationships between characteristics and experiences of the students on the one hand, and their decision to deviate on the other. The survey's pre-registration can be found at <https://osf.io/gxy6v/>

### Theory- and Data-Driven Hypotheses

Based on both theory and our data from Studies 1a and 1b, we formulated the following hypotheses.

- **Hypothesis 1: Feeling Different From Others in the Past and Present.** We expected deviants to report feeling more different from the typical members of their group in the past and in the present. This hypothesis emerged from the findings of both the interviews and survey data. This relationship has been suggested by theoretical work (e.g., Monin & O'Connor, 2011), but was never empirically tested.
- **Hypothesis 2: Deviance as a Choice in the Past and Present.** We expected deviants to report deviating from social norms in the past and in the present at greater rates than conformists.
- **Hypothesis 3: Belonging and Identification.** We expected deviants to have lower levels of identification with Princeton and to feel that they belong to the Princeton community less than conformists. Additionally, based on some hints from the interviews, we added items exploring possible differences between how the deviants' and conformists' identification and belongingness relate to the academic vs. social aspect of Princeton.
- **Hypothesis 4: Self Monitoring.** We expected deviants to have lower levels of self-monitoring than conformists.
- **Hypothesis 5: Big Five Personality Traits.** We expected extraversion and agreeableness to negatively correlate with deviance, and neuroticism to be negatively associated with deviance.

### Additional Measures: Individual Differences and Mental Health

In order to explore further how deviating from the eating club norm may be related to one's self-perceived willingness and ability to socialize, we asked the participants about the extent to which they see themselves as: socially awkward, a rebel, an independent thinker, and a maverick. In addition, we measured participants' mental health, which is a typical correlate of belongingness (Cialdini & Goldstein, 2004), hypothesized to be a predictor of deviance from the eating club norm in this study.

## Method

### Recruitment Strategy

At the end of spring 2017, we contacted all prospective deviants ( $n = 116$ ) and a representative subsample of the prospective conformists ( $n = 120$ ) from Study 1b, and invited them to participate in a follow-up survey (i.e., Study 2). We offered a \$20 Amazon gift card for their participation in the 30-minute follow-up survey. We deliberately made this compensation large in order to limit attrition. In the end, a total of 212 “deviating” and “conforming” sophomores took the survey, that is, 90% of those who were recruited. Although attrition is rather small (i.e., 10%), we conducted robustness checks using inverse probability weighting, in which we attribute greater weight to the participants who are most similar to those who are missing in our final follow-up survey sample. Our results are the same with this procedure and so below we present only the unweighted results.

### Materials and Procedure

At the beginning of the survey, the participants were asked if they joined an eating club. This binary variable returns 1 for deviants, 0 for conformists, and constitutes the norm deviation indicator that we use in subsequent analyses. Out of the 116 prospective deviants that we recontacted, 109 participants (i.e., 94%) reported having actually deviated from the norm. Deviants (vs. conformists) constituted 50.4% of our main survey sample.

Subsequently, the participants responded questions exploring different characteristics and experiences we hypothesized would correlate with their decision to deviate from vs. conform to the eating club norm. At the end of the survey, the participants were asked to answer demographic questions (gender, ethnicity, family income and religiosity), which we use as covariates in all regressions. We now turn into describing the survey in more detail. For the full list of items, please refer to Appendix F (SOM).

### Measures

**Feeling different from others in the past and present** — The objective of this series of questions was to explore the idea that feeling different from the typical ingroup member in the past may increase one’s probability of deviating from norms. We first asked the participants to name their most important past membership groups and asked them: i) “did you usually feel like you fit in?” (0 = not at all; 100 = completely); ii) “how often did people from these groups intentionally make you feel different?” (0 = never; 100 = all the time); iii) “Before becoming a Princeton student, in your social life, how often did you feel different from other people?” (scales: 1 = never; 4 = always); iv) “At what age do you think you started to feel different from other people?”; v) “Do you feel that you have a lot in common with the average Princeton student?” (0 = I have nothing in common; 100 = I have a lot in common).

We also explored the different ways in which respondents have felt different from other members of their social groups. We asked the participants to select all the characteristics that made them feel different from others in the past from the following list: religion, race, values, gender identity, sexual orientation, ideas, personality, skills, habits, and interests.

**Deviance as a choice in the past and present** — We asked participants the following three questions: i) “How often do you not behave in accordance with the mainstream or socially expected behavior at Princeton?” (0 = never; 100 = all the time); ii) “Prior to arriving at Princeton, how often would you behave in opposition to mainstream social behaviors?” (0 = never; 100 = all the time); iii) After asking participants to think about the first time they deliberately deviated from a norm, we asked: “how old do you think you were”.

**Belonging and identification** — The series of questions about belonging and identification were composed of eight items: four items dedicated to belongingness, and the other four items dedicated to identification. Both subseries of four items were formulated in the exact same way, using the same scale from 0 (not at all) to 100 (a lot). The series of questions about belongingness came first, in the following order: i) “To what extent do you feel that you belong to the Princeton community, in general?”; ii) “To what extent do you feel that you belong to the Princeton community, socially speaking [iii) academically speaking]?”; iv) “Is it more important to you to belong to Princeton socially or academically?”

Following this series of questions about belonging, the participants responded to the same series of question about identification (e.g., “To what extent do you feel that you identify with the Princeton community, in general?”, etc.)

**Personality** — We used the Ten Item Personality Measure (Gosling, Rentfrow, & Swann, 2003) to assess the Big five personality traits of the participants, who were asked to rate the extent to which they perceived themselves as, for instance: extroverted and enthusiastic; critical and quarrelsome; or open to experience and complex. To assess the participants’ level of self-monitoring, we used items from the Self-Monitoring Scale (Lennox & Wolfe, 1984;  $\alpha = .65$ ).

**Mental health** — We assessed the participants’ mental health through self-report of sadness and depression on the one hand (e.g., “Please select the options that most closely describe the level of depression or sadness that you have been feeling in the past 2 weeks: none, mild, moderate, moderately severe, severe”), and happiness on the other hand (i.e., “How happy are you”, scale from 1= not at all happy to 100 = extremely happy). We created an index of negative mental health ( $\alpha = .81$ ) by averaging three items: the participants’ self-reports of sadness, depression, and happiness (reverse coded).

**Demographics** — We asked the participants for their gender, race, family income, and religiosity. We controlled for these variables in each of the regression analyses presented below.

**Unreported survey items** — We also measured other potential social and psychological correlates of norm deviation, such as levels of anticipatory socialization, items from the Self-Determination Scale (Sheldon, 1995), and emotions about the eating club norm, which were for exploratory purposes and not reported here (but see Appendix F, SOM, for the full survey).

## Results

Our objective was to understand and describe the relationships between deviance decisions and variables describing students’ social memberships, past instances of deviance, and their personality, rather than to build a predictive model. As such, we run multiple linear regressions<sup>IV</sup> of the binary deviance indicator (Hellevik, 2009) on each of these variables separately. Bivariate models also recognized the fact that many variables correlated with one another, creating problems of multicollinearity<sup>V</sup>. For each regression, we used robust standard errors and controlled for demographic variables (i.e., gender, ethnicity, family income, and religiosity).

$$Y_{deviance} = \beta_0 + \beta_1 predictor_i + \beta_2 demographic_1 + \dots + \beta_5 demographic_4 + \varepsilon$$

For each outcome variable of interest, we first conduct a multiple regression using the aforementioned model (Hellevik, 2009). When we run separate multiple regressions on variables that are part of the same theme (e.g., “deviance as a status in the past and present”), we use the Bonferroni correction to compute adjusted p-values. All the significance levels of the predictors are robust to this correction. Significance stars in the Results section reflect adjusted p-values. Finally, we illustrate the relationship between deviance and the independent variable under consideration by computing and displaying the probability of an individual’s deviation for different values of the independent variable, maintaining the pre-specified demographic covariates at their mean.

### Deviance as a Pattern

In line with Hypothesis 1, the set of regressions examining the difference between deviants’ and conformists’ past and present experiences with their group suggests that deviants tend to feel less similar from the “typical Princeton student” than conformists ( $b_1 = -.006$ ,  $SE_{\text{robust}} = .001$ ,  $p_{\text{adj}} = .002$ ;  $R_{\text{adj}}^2 = .17$ ; Figure 2).

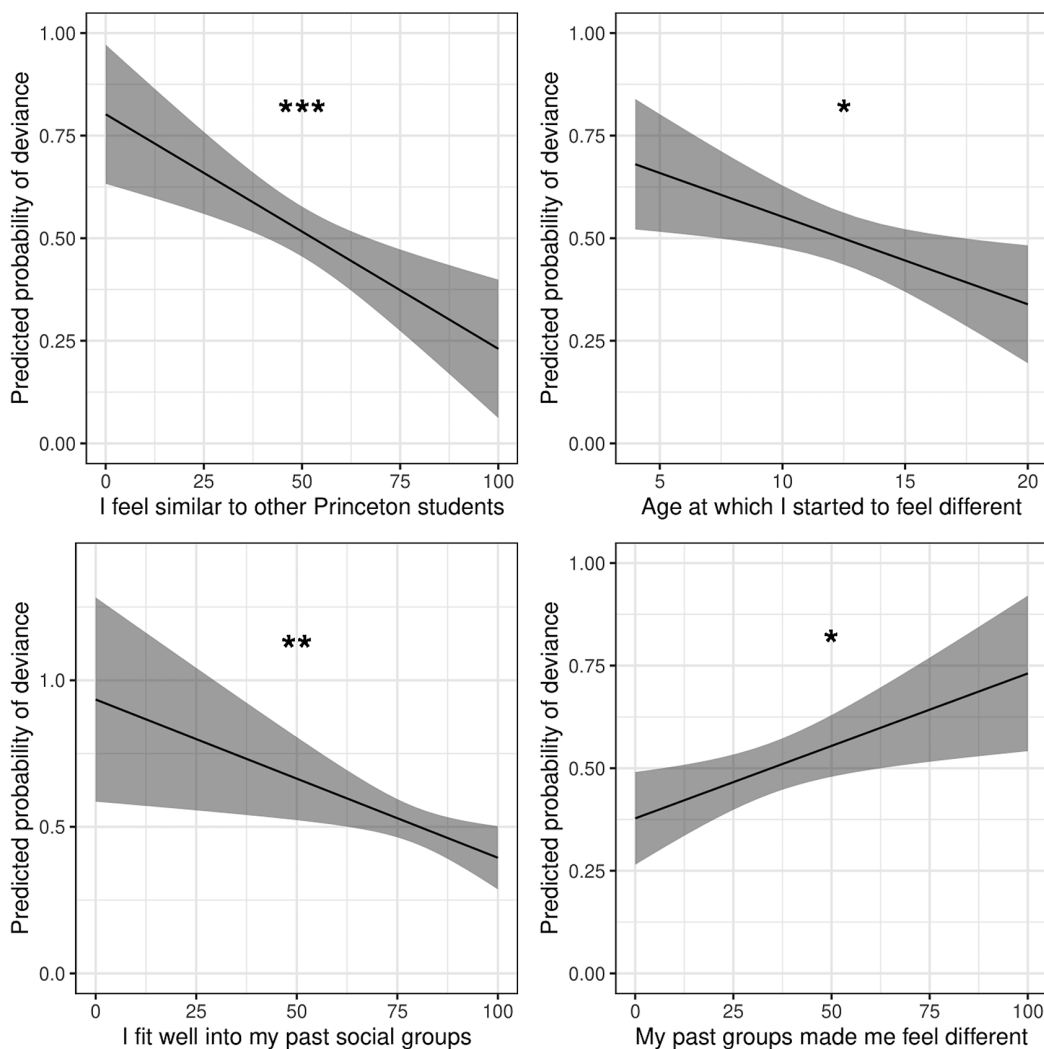


Figure 2. Predicted probability of deviance from the eating club norm, based on separate regressions of the binary eating club deviance item on each self-reported item of deviance as status in the past and present, controlling for demographic variables set at their mean.

The data also support the idea that the deviants have a history of feeling more different from other people in their groups compared to the conformists (Hypothesis 1). Self-reports of feeling different from the typical group member are recalled at a younger age by deviants ( $b_1 = -.02$ ,  $SE_{\text{robust}} = .009$ ,  $p_{\text{adj}} = .035$ ;  $R_{\text{adj}}^2 = .14$ ; Figure 2). Also predicting deviance are self-reports of perceiving oneself as not fitting well in their past social groups ( $b_1 = -.005$ ,  $SE_{\text{robust}} = .002$ ,  $p_{\text{adj}} = .035$ ;  $R_{\text{adj}}^2 = .14$ ; Figure 2) and that former group members made one feel different ( $b_1 = .003$ ,  $SE_{\text{robust}} = .001$ ,  $p_{\text{adj}} = .035$ ;  $R_{\text{adj}}^2 = .14$ ; Figure 2).

Although deviants are more likely to report feeling different from others than are conformists, and that they started to feel this way at a younger age compared to conformists, Figure 3 reveals that deviants do not have significantly different reasons for feeling different. When asked for the reasons they sometimes felt different from others, Figure 3 reveals that deviants and conformist report at similar rates feeling different from other members of their social groups because of their personality, values, gender identity, and religion. Descriptively, those who deviated from the eating club norm picked more dimensions along which they felt different than those who conformed, but the difference is not statistically significant ( $M_{\text{deviants}} = 4.01$ ;  $M_{\text{conformists}} = 3.63$ ;  $1.55$ ;  $p = .12$ )

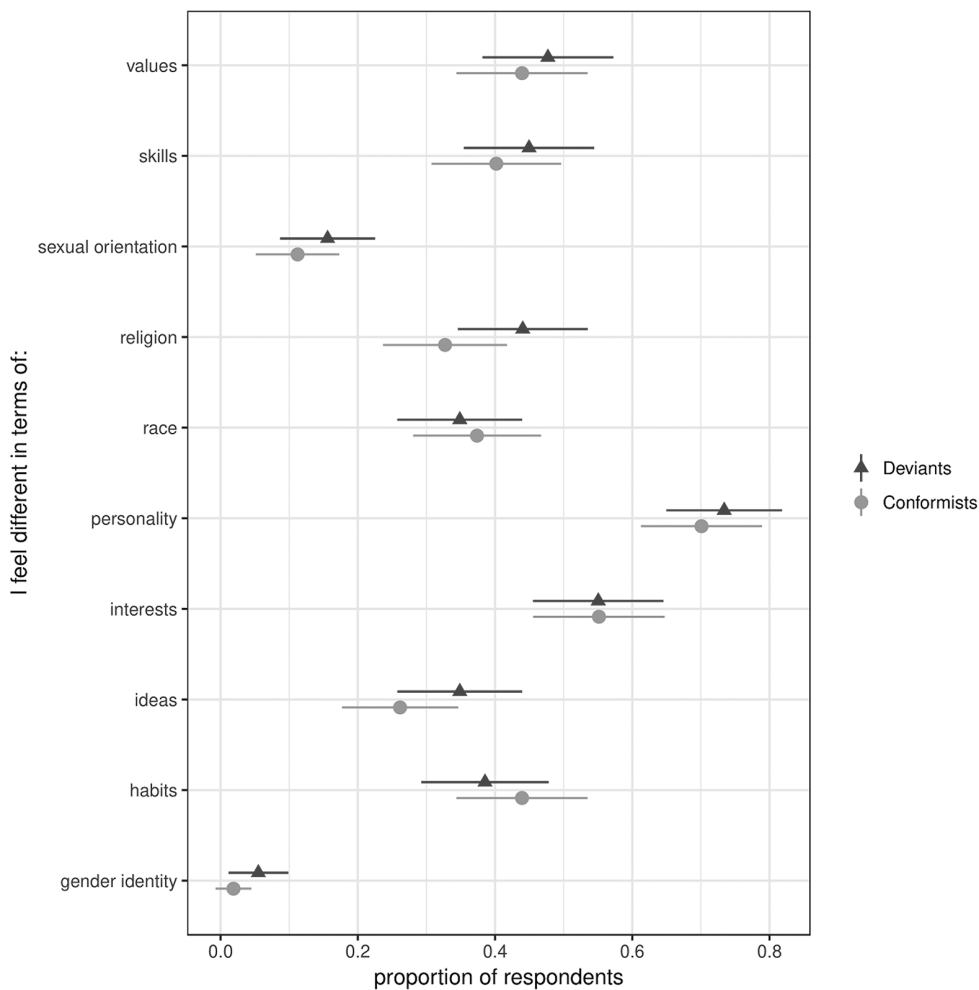
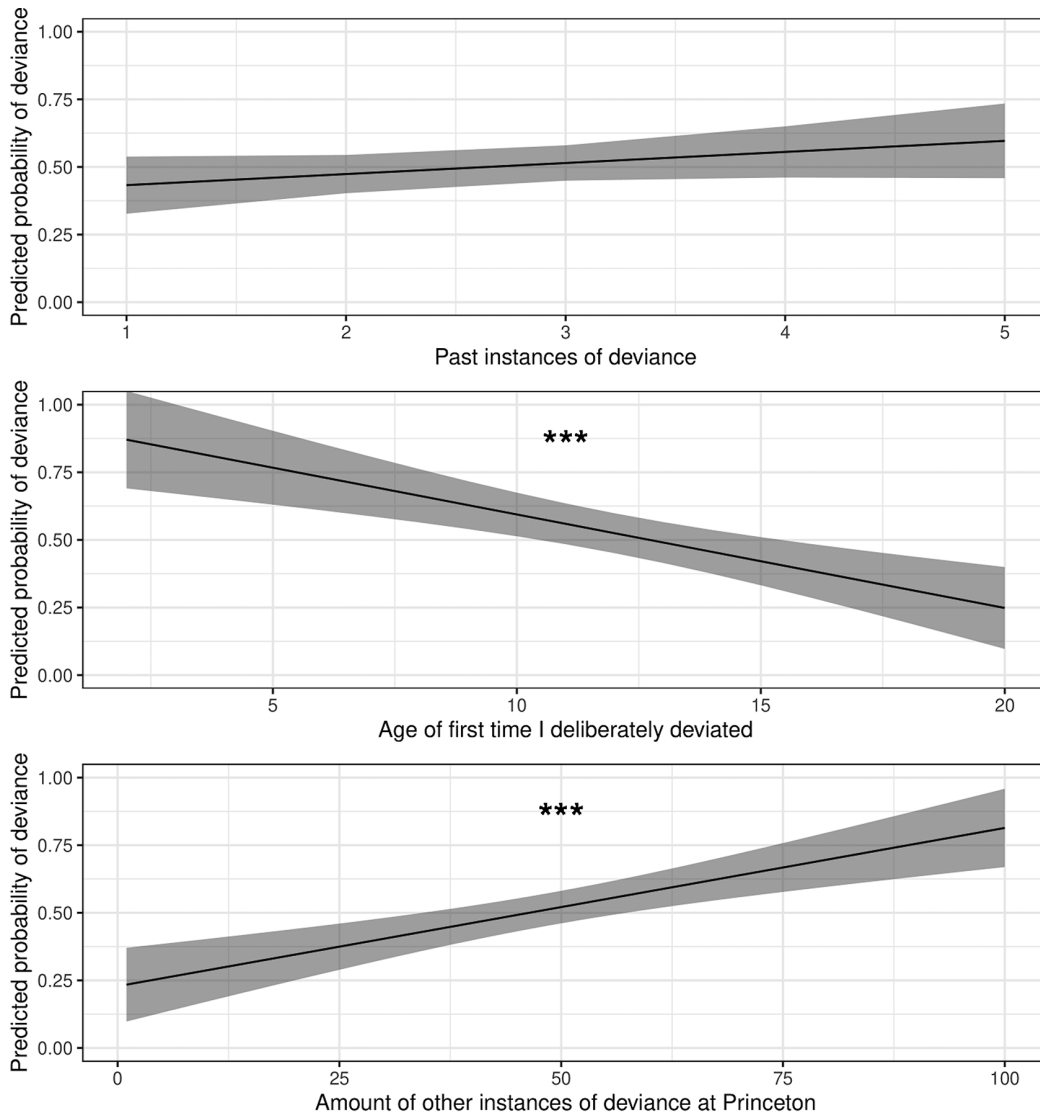


Figure 3. Proportion of deviants and conformists who reported that the items displayed on the y-axis (e.g., personality, values, race, etc.) have made them feel different from other members of their social groups, and 95% confidence interval bars.



In line with Hypothesis 2, deviants reported more active choices to deviate from social norms in the present and past, compared to conformists (see Figure 4). The results revealed that deviants were significantly more likely to report that they chose to deviate earlier in their life ( $b_1 = -0.03$ ,  $SE_{robust} = .008$ ,  $p_{adj} < .001$ ;  $R_{adj}^2 = .18$ ). Specifically, deviants reported starting to deviate at a significantly younger age, on average 11.3 years old, than conformists, who reported starting to deviate at 13.4 years old on average. In addition, deviants reported deviating at higher rates than conformists in the past, although this difference does not reach conventional levels of statistical significance ( $b_1 = 0.04$ ,  $SE_{robust} = .03$ ,  $p = .12$ ;  $R_{adj}^2 = .14$ ). Finally, deviant students also reported that they currently choose to deviate from social norms other than eating club norms compared to students who conform to the eating club norm ( $b_1 = 0.006$ ,  $SE_{robust} = .001$ ,  $p_{adj} < .001$ ;  $R_{adj}^2 = .19$ ).



**Figure 4.** Predicted probability of deviance from the eating club norm, based on separate regressions of the binary eating club deviance item on self-reported deviance from other norms in the past and present, controlling for demographic variables set at their mean.

## Belonging and Identification

The results also support Hypothesis 3, demonstrating that deviants report lower levels of belongingness and identification than conformists ( $b_{1,\text{belonging}} = -0.005$ ,  $SE_{\text{robust}} = .001$ ,  $p_{\text{adj}} = .001$ ;  $R_{\text{adj}}^2 = .16$ ; Figure 5;  $b_{1,\text{identification}} = -0.004$ ,  $SE_{\text{robust}} = .001$ ,  $p_{\text{adj}} = .005$ ;  $R_{\text{adj}}^2 = .15$ ). For instance, the regression model predicts that, compared to those who feel that they belong “a lot” to the Princeton community, the students who feel that they belong “a little” to the Princeton community are more likely to deviate from the eating club norm by around 35 percentage points. The magnitude, direction and significance of the relationship between deviance and identification items mirrors those of belonging, and are displayed in Appendix I (Figure S2, SOM).

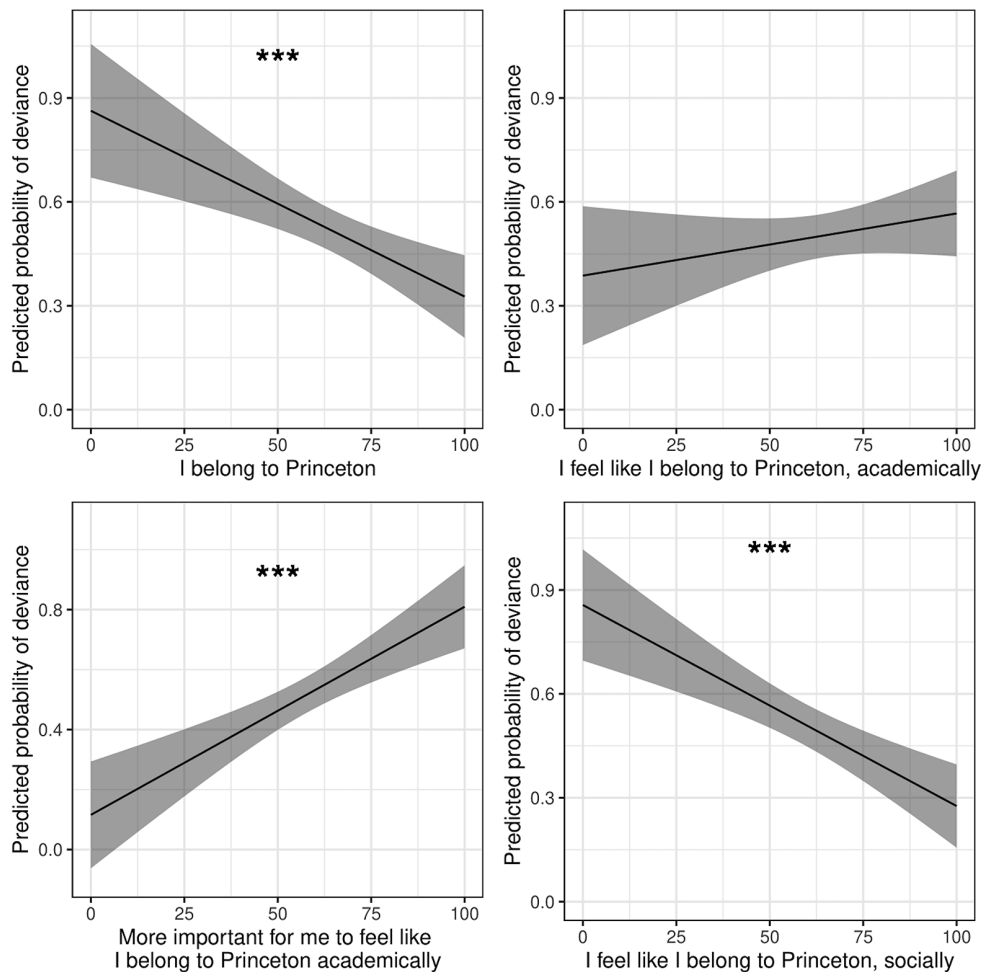


Figure 5. Predicted probability of deviance from the eating club norm based on separate regressions of the binary deviance item on self-reported belongingness items, controlling for demographic variables set at their mean.

Although we did not find significant differences between the deviants and the conformists in terms of academic belonging ( $b_1 = 0.002$ ,  $SE_{\text{robust}} = .002$ ,  $p = .2$ ;  $R_{\text{adj}}^2 = .11$ ) and identification ( $b_1 = -0.0009$ ,  $SE_{\text{robust}} = .001$ ,  $p = .55$ ;  $R_{\text{adj}}^2 = .11$ ), deviants reported prioritizing their academic belonging over their social belonging ( $b_1 = 0.006$ ,  $SE_{\text{robust}} = .002$ ,  $p_{\text{adj}} = .001$ ;  $R_{\text{adj}}^2 = .20$ ), and their academic identification over their social identification ( $b_1 = 0.007$ ,  $SE_{\text{robust}} = .001$ ,  $p_{\text{adj}} < .001$ ;  $R_{\text{adj}}^2 = .17$ ).

### Self-Monitoring and Personality Traits

The results supported Hypothesis 4, with deviant students scoring significantly lower in self-monitoring than conformist students ( $b_1 = 0.18$ ,  $SE_{\text{robust}} = .056$ ,  $p = .002$ ;  $R_{\text{adj}}^2 = .15$ , Figure 6). However, contrary to Hypothesis 5, there were no differences between conformists and deviants for any of the items of the Big five, that is, extraversion ( $b_1 = -0.027$ ,  $SE_{\text{robust}} = .02$ ,  $p = .15$ ;  $R_{\text{adj}}^2 = .12$ ), neuroticism ( $b_1 = 0.00$ ,  $SE_{\text{robust}} = .02$ ,  $p = .99$ ;  $R_{\text{adj}}^2 = .11$ ), openness to experience ( $b_1 = 0.02$ ,  $SE_{\text{robust}} = .03$ ,  $p = .48$ ;  $R_{\text{adj}}^2 = .11$ ), conscientiousness ( $b_1 = 0.002$ ,  $SE_{\text{robust}} = .02$ ,  $p = .92$ ;  $R_{\text{adj}}^2 = .11$ ) and agreeableness ( $b_1 = -0.02$ ,  $SE_{\text{robust}} = .03$ ,  $p = .44$ ;  $R_{\text{adj}}^2 = .12$ ). Similarly, we found no difference between deviants and conformists in terms of how much of a maverick ( $b_1 = 0.01$ ;  $SE_{\text{robust}} = .02$ ,  $p = .75$ ;  $R_{\text{adj}}^2 = .11$ ), a rebel ( $b_1 = 0.02$ ,  $SE_{\text{robust}} = .02$ ,  $p = .25$ ;  $R_{\text{adj}}^2 = .12$ ), an independent thinker ( $b_1 = 0.04$ ,  $SE_{\text{robust}} = .02$ ,  $p = .14$ ;  $R_{\text{adj}}^2 = .12$ ), or how social awkward they feel ( $b_1 = 0.03$ ,  $SE_{\text{robust}} = .02$ ,  $p = .09$ ;  $R_{\text{adj}}^2 = .13$ ).

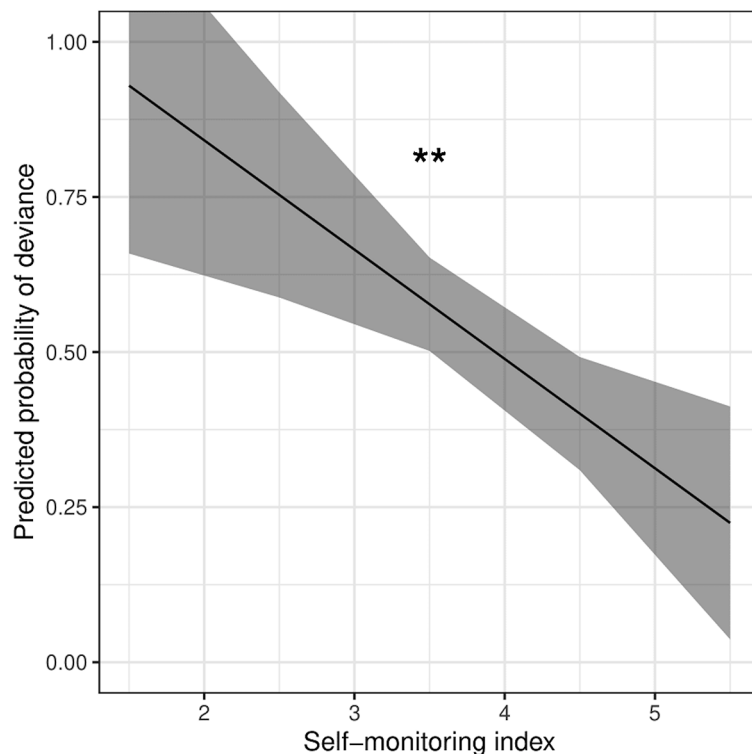


Figure 6. Predicted probability of deviance based on separate regressions of the binary deviance indicator on the self-monitoring index, controlling for demographic variables set at their mean.

### Mental Health

Deviants and conformists did not differ in terms of their mental health ( $b_1 = -0.04$ ,  $SE_{\text{robust}} = .03$ ,  $p = .18$ ;  $R_{\text{adj}}^2 = .12$ ; Appendix J, Table S6, SOM).

## General Discussion

We used an established Princeton University norm (i.e., joining an Eating Club) to which 73% of the undergraduate students adhere, to examine the social and psychological correlates of deviance from social norms. Exploratory interviews of junior and senior undergraduates revealed that deviating from the eating club norm at Princeton by refusing to join an eating club comes with substantive social costs. This suggests that the norm is prescriptive (students *should* join eating clubs), and not just descriptive (most students *do* join clubs).

However, deviance from the eating club norm may have become relatively easier than it used to be because of recent developments. The university offers financial subsidies to students who do not join eating clubs, and increasing numbers of students are choosing to remain independent from clubs. This may make the eating club norm seem less “settled” (Swidler, 1986). In addition, our data suggest this to be the case: students perceive the norm to be weaker (fewer students joining eating clubs) than it actually is. As a result, our survey findings, which highlight the personality and social experiences that differentiate students who deviate from the students who conform, paint a picture of deviance from a social norm that is undergoing change. As a result, while deviance from the eating club norm still comes with costs, the present research focuses on more “ordinary” deviance. This feature of this research addresses a gap in the literature on more “ordinary” deviance, as opposed to previous scholarship on deviation from strong and highly punitive norms (e.g., rescuing Jews during the Holocaust; Monroe, 2008). During “unsettled” times, the norm seems to be on the decline and structural opportunities exist for those who decide to deviate.

Our qualitative and quantitative data consistently suggest three themes regarding those who deviate. First, deviance is a pattern. Individuals who decide to deviate from social norms deviated more in the past, started to deviate earlier, and deviate more in the present. These results are true for two different experiences of deviance: being made to feel different by members of previous social groups, and intentionally deviating from norms of previous and present social groups. Second, individuals who choose to deviate tend to be low identifiers who feel that they belong to their social group less than those who decide to conform. Third, we found that deviants tend to be lower self-monitors (Snyder, 1979) than the conformists, but we found no differences in personality traits as measured by the Big Five, or in levels of mental health between deviants and conformists.

On the one hand, the finding that people deviating in the present also report deviating in the past seems intuitive and in need of no explanation: individuals strive to maintain a coherent and consistent self (Fiske, 1993; Ross, Lepper, & Ward, 2010; Swann & Bosson, 2010), which may explain that past behavior is a good predictor of future behavior. On the other hand, patterns of deviance seem to need more explanation. Most research on social norms focuses on the rewards of following social norms and the strong costs of violating them. Previous findings, as well as our own, show that deviance comes with high social and psychological costs (respectively, social sanctions, and feeling odd or guilty for deviating; Almenberg, Dreber, Apicella, & Rand, 2010; Asch, 1955; Cialdini & Goldstein, 2004). Related research suggests that social sanctions effectively promotes more conformity and fewer instances of deviance on a collective level (Fehr & Fischbacher, 2004).

On an individual level, there is less research, and a possible question for future experimental research is why individuals choose deviance repeatedly over the course of time. For example, do some people who repeatedly deviate from norms over time have a different way of predicting or dealing with the social and psychological costs? Individuals in general may overestimate social sanctions incurred by deviance. For those who actually deviate,

they may discover that they experience lower social costs than expected. Additionally, acts of deviance may lead individuals to learn new strategies for minimizing the social consequences of deviating, and as a result, may feel more capable about deviating again. Strategies may include the ability to justify their deviant behavior to others or seeking other forms of belonging to the same context (see below).

Another way deviance may become part of one's identity is through the development of narratives around the deviant self. An experience of deviation as a choice (or as something imposed on them, as we observed in our survey), may shape the individual's own perception of the self as deviant. Individuals may present themselves as deviant by status (e.g., "I've always been different from others"), or by choice (e.g., "I'm the type of person who likes to do different things"). These themes have been previously explored by [Monin and O'Connor \(2011\)](#), who theorized about deviation by choice vs. status; and by [Blanton and Christie \(2003\)](#), who theorized and showed how individuals prefer to define the self as deviants in positive ways from others ("sticking out in good ways"). These narratives and identities may influence one's own and others' expectations for and actual instances of deviant behavior.

Those who deviated from the eating club norm at Princeton feel that they socially belong and identify less to the typical Princeton student. Deviants and conformists both feel that they belong and identify with Princeton academically, but deviants were more likely than conformists to say that they prioritized academics over social life. One possibility is that those who deviate may compensate their decreased level of social belonging by increasing their feelings of academic and institutional belonging. This may be one strategy to minimize the costs of deviation for future investigation.

## Limitations

One limitation of this study is that we study deviance from one specific type of norm, which is highly social—membership in a club. Thus, our description of deviants from this norm may only apply to the type of people who do not wish to be as social as others, or who do not get along as well with others. This is a possibility, and is one more reason why we need more research on the topic of deviance. However, we also point out that we did not find personality differences that one might expect if deviance in this specific case had everything to do with degree of sociality—in particular, we do not find differences in terms of personality traits as measured by the Big Five ([Bodankin & Tziner, 2009](#)). Furthermore, those who deviated from the eating club norms did not differ from others in their perception of the self as socially awkward, as independent thinker, or as rebellious. Finally, deviants and conformists did not differ either in the way they feel different from other people, and we did not find differences in terms of mental health or academic identification or belonging. Still, we hope that this research inspires similar descriptive and experimental research exploring other types of norms in other settings.

A limitation to causal inference is that the series of studies described in this paper are not experimental. The objective of the set of studies presented in this article was to explore the social and psychological correlates of deviance, not to make causal or directional claims about the causes of deviance. In this sense, we did not manipulate any treatments and our results rely only on participants' self-reports about their past and present, which implies that they might have erroneously retrieved and reported information from their past. More research, especially experimental research, is needed to understand whether individuals who deviated from a norm build narratives around their past and present self that are coherent with their deviant behavior, such as reporting more acts of deviance in the past, or whether deviance is part of a causal loop in which feeling different from others and deviating begets deviance.

Although we cannot rule out the possibility that demand characteristics may have driven the differences between deviants and conformists, it is unlikely. During the recruitment period, we never mentioned to the students that this study was about deviance from norms or eating clubs. We deliberately called the surveys “the sophomore survey”, and made sure that the question asking the participants about their decision to join an eating club was part of a broader set of general questions. As a result, we believe that the participants were not actively seeking to respond to the object of the study.

These descriptive results point the way toward more research on social norm deviance. First, researchers should seek to understand how and why the social and psychological costs that one endures after deviating correlate with their probability to deviate again. Experimental designs in various settings and that involve deviance from different kinds of social norms are necessary to understand what kinds of characteristics and experiences are general drivers of deviance, and which are specific to context. Second, future research should explore if and how feeling different from other members of one’s group may increase one’s probability to deviate, and why. Third, because acts of deviance often come with negative consequences, individuals may update their perception of the self, or of the costs, after deviating from a social norm. What types of narratives do deviants develop about the self or about the act of deviating, that shape their own and others’ expectations about future behavior? Investigations into these and other questions will greatly contribute to our understanding of patterns of deviance.

## Notes

- i) We describe the eating club norm and its prescriptive component later on. To provide some context to the reader, eating clubs are student-led private institutions that upperclassmen may join. This is where most Princeton upperclassmen have meals and party. In 2016, 73% of Princeton upperclassmen were members of an eating club, which by definition makes it a descriptive norm.
- ii) In addition to costs, the participants brought up barriers to conforming to the eating club norm during the interviews, which stem from economic and religious constraints. In particular, students mentioned that they would not join eating clubs for materialistic (expensive membership) or religious reasons (concerns related to religious laws about diet and alcohol consumption).
- iii) The real title of this participant’s major was modified to protect their privacy; details from other quotes have also been changed for this reason.
- iv) The findings described in the results section are robust to logistic regression analyses. Because the objective of these analyses is to estimate the average marginal effects of our predictors of interest in terms of probabilities, we report the results of linear regression analyses (see Woolridge, 2002, pp. 455-456; e.g., Hoffman, Trawalter, Axt, & Oliver, 2016).
- v) We provide a correlation matrix (Table S3) in Appendix G (SOM). In addition, we used Factor Analysis (Appendix H, Tables S4, S5, and Figure S1, SOM) to confirm that the items that we used to test each hypothesis contribute together to separate components of the PCA. This analysis revealed 4 principal components that together, explain 75% of the variance (Appendix H, SOM). PC1 can be defined as social belonging and identification, PC2 as academic belonging and identification, PC3 as feeling different in the past and present, and PC4 as deviating in the past and present.

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## Competing Interests

The authors have declared that no competing interests exist.

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## Data Availability

A dataset and supplementary materials for this study are freely available (for access, see Index of [Supplementary Materials](#) below)

## Supplementary Materials

The OSF project folder includes: i) the entire dataset along with its codebook, ii) the R code, which includes all of the analyses reported in this article, iii) an online appendix document with all of the appendices mentioned in the main body of this article, and iv) the pre-registration of the pilot and main surveys (for access see Index of [Supplementary Materials](#) below).

## Index of Supplementary Materials

Gomila, R., & Paluck, E. L. (2020). *Deviance from social norms: Who are the deviants* [Code, data, online appendix, & pre-registration information]. OSF. <https://osf.io/gxy6v/>

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