How Should I Feel About This?

Investigating the Emotions and Processes Involved in Indulging in Guilty Pleasures

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Abstract

Many circumstances trigger mixed feelings and understanding how people navigate ambivalent affective states sheds light on how social motivations guide behavior. We adopted a discrete, functionalist account of emotion to explore the positive and negative emotions experienced when indulging in guilty pleasures (GPs) and how these outcomes implicate cognitive dissonance and self-presentation processes. Study 1 randomly assigned participants to reflect on a GP or their previous morning routine, whereas Studies 2 (student sample) and 3 (general population sample) assessed participants' GPs, emotions experienced, and self-presentation concerns. Across these studies, GPs elicited positive emotions of amusement, contentment, and enthusiasm, and negative emotions of guilt, embarrassment, and shame, highlighting their ambivalent nature. Participants consistently reported being less likely to share their GPs with more interpersonally distant audiences (e.g., strangers, acquaintances, grandparents) than closer audiences (e.g., friends, immediate family). These findings suggest cognitive dissonance and self-presentation processes are implicated in GP behaviors.

Keywords: guilty pleasures, emotion, self-presentation, cognitive dissonance, embarrassment

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Emotions guide behavior (Keltner & Lerner, 2010; Lazarus, 1991), with positive emotions fostering engagement with pleasurable stimuli and negative emotions encouraging avoiding discomfort. Yet, many situations evoke mixed feelings, and the coexistence of positive and negative reactions complicates people's actions. Research on ambivalence has predominantly explored attitudinal ambivalence (Priester & Petty, 1996; Schneider & Schwarz, 2017), however, less is known about how people manage mixed emotions in everyday contexts and how doing so serves social motivations. The current work examines the psychology underlying indulging in guilty pleasures to explore these issues.

Guilty pleasures (GPs) are instances when someone feels negative affect for enjoying a particular activity. According to Goffin and Cova (2019), people classify behaviors as GPs because they are enjoyed despite being at odds with their personal values (i.e., who one is or aspires to be) or social expectations (i.e., what one believes *others* believe about an activity). For example, people might consider watching "trashy reality television programs" a GP because they enjoy the ridiculousness of the casts' actions (e.g., hyperbolized interpersonal drama) while also feeling embarrassed because they believe peers expect them to like more "sophisticated" entertainment.

To date, the study of GPs has received limited attention by psychologists, with past work focusing on specific GPs (e.g., eating unhealthy foods) or investigating social cognitive outcomes associated with GPs (e.g., Bastian et al., 2012; Elder & Mohr, 2020; Goffin & Cova, 2019; Hur & Jang, 2015; Johnson & Ranzini, 2018). The current research conducts the first systematic investigation of GPs, including building a taxonomy of types of GPs, understanding

the conditions under which people indulge in GPs, and identifying the emotions and processes underlying GP-related behavior. Although GPs are a topic of popular interest (e.g., Higgs, 2019), they provide an excellent testbed for examining how people wrestle with ambivalence on an everyday basis. Indeed, although aspects of the current research are descriptive, it aligns with calls to broaden the scope of psychological inquiry to include underexplored, yet socially significant domains, such as food, leisure, and media consumption (Rozin, 2001). As Rozin argues, systematic exploration of real-world phenomena is paramount to advancing the field of social psychology, providing foundational insights that subsequent theoretical frameworks can be built upon. By investigating GPs, we advance our understanding of ambivalence in everyday contexts, and we examine consequences of holding mixed discrete *emotions* about one's behavior.

The current work adopts a discrete, functionalist account of emotion, meaning that emotions are viewed as rooted in cognitive appraisals that result in specific emotions having unique roles or orienting functions (Ekman, 1992; Keltner & Lerner, 2010; Shiota et al., 2014). Specifically, emotions stem from appraisals about the person-environment interaction as it relates to one's motivations (Keltner & Lerner, 2010; Lazarus, 1991). An appraisal gives rise to emotional experiences that orient how one acts or thinks in the perceived context. Thus, understanding discrete emotions experienced with GPs elucidates how people think about their GPs, providing insights for the social motivations underlying GPs.

Accordingly, the current research explores the potential roles of cognitive dissonance and self-presentation in directing GP behavior to extend Goffin and Cova's (2019) past work. Because Goffin and Cova contended that people classify things as GPs either based on their personal values (i.e., expectations one holds for oneself) or social expectations (i.e., what one

thinks *others* believe), we predicted that conflicts of personal values should be driven by dissonance processes whereas social expectations should underlie self-presentation motivations.

Cognitive Dissonance

One phenomenon potentially implicated in GP indulgence is cognitive dissonance. Cognitive dissonance theory proposes that people experience discomfort when holding inconsistent cognitions or performing counterattitudinal behaviors (Aronson, 1992; Festinger, 1957), and some scholars identify guilt as the emotion best describing this discomfort. For instance, Stice (1992) argues that guilt and dissonance are similar in that they are both states of negative affect, both require that the actor take personal responsibility for some behavior, and that both states can be reduced via self-affirmation (Sherman & Cohen, 2006; Steele, 1988). More recently, Kenworthy et al. (2011) conducted a meta-analysis of 113 publications to identify the variables most strongly associated with dissonance effect sizes. Their findings suggest that of all variables considered (e.g., embarrassment, perceived choice, potential for negative evaluation), guilt was the strongest and most robust predictor of dissonance effect sizes. This perspective is consistent with many views of cognitive dissonance. For instance, Cooper and Fazio (1984) posit that people feel dissonance when they assume personal responsibility for causing aversive consequences. Similarly, Thibodeau and Aronson (1992) assert that people experience dissonance when they behave or think in ways inconsistent with their positive self-concept. These conceptualizations of dissonance align with what researchers understand about the self-conscious, moral nature of guilt. To experience guilt, people must engage in behaviors running counter to their moral standards (Haidt, 2003; Tracy & Robins, 2004).

Dissonance being implicated in GPs is supported by Bastian et al. (2012), who found that people were more likely to indulge in a GP (eating chocolate) following experiences of

physical pain. Importantly, these findings only emerged for those who believed their experience of physical pain was unwarranted. Thus, these findings provide some insight into the motivations people have for indulging in GPs, such that people might perceive the need for some aversive external circumstance (e.g., stress) to justify indulging in something they feel that they typically would not enjoy (i.e., rationalizing engaging in counterattitudinal behavior; McGrath, 2017).

Self-Presentation

Self-presentation involves trying to manage others' impressions of oneself to serve interpersonal goals (Leary & Kowalski, 1990; Schlenker, 2012). Regarding GPs, Goffin and Cova (2019) demonstrated that people are generally concerned with violating social norms for liking a GP (e.g., indulging in an activity others might view as taboo). Accordingly, Goffin and Cova (2019) argue that GPs might be linked to feelings of embarrassment, an emotion felt when people evaluate themselves negatively or when they believe others are evaluating them negatively for a transgression made in public (Krishna et al., 2018; Tangney et al., 2007). Thus, avoiding embarrassment serves self-presentational motivations by appearing more desirable to others.

Indeed, there is evidence that people are selective with disclosing GPs to others. Johnson and Ranzini (2018) investigated people's willingness to share GPs (e.g., embarrassing music or movies) on social media, finding that more embarrassing media were less likely to be posted. Further, research examining common GPs (e.g., watching "trashy" movies, listening to ironically-enjoyed music) finds that these activities are often engaged in privately or with friends (Sarkhosh & Menninghaus, 2015; Sealey, 2023; von den Tol & Roger-Sorolla, 2017), indicating that people consider others' evaluations of them in GP disclosures.

Overview

Across three studies and an internal meta-analysis, we examined the role of dissonance and self-presentation underlying GPs by identifying the discrete positive and negative emotions felt when indulging in GPs. Study 1 asked participants to reflect on either a GP or a control stimulus before responding to measures of emotions felt, self-presentation concerns, and characteristics of their attitudes toward their GP. To better understand the relation between emotions and the processes under consideration, participants in Studies 2 (undergraduates) and 3 (general population) reported on their GPs and the emotions and motivations underlying them. Finally, an internal meta-analysis comprehensively assessed the magnitude of our findings.

For all studies, data collection was completed before conducting statistical analyses. Data, analysis scripts, and materials for all studies are available on this project's Open Science Framework page (https://osf.io/5rh2v/). No studies in this manuscript were preregistered, but they were developed *a priori* with the first author's dissertation committee.

Study 1

Study 1 examined the emotions elicited when indulging in GPs. By definition, GPs are ambivalent emotional experiences (e.g., Goffin & Cova, 2019; Miao, 2011). However, little is known about the discrete emotions associated with GPs. We explored candidate positive and negative emotions, as well as comparison positive and negative emotions expected to be uninvolved with GPs.

Past research suggests that the negative affect associated with GPs is guilt and embarrassment (Goffin & Cova, 2019), although this assertion has not been tested. Further, we examined shame as well because it, along with embarrassment and guilt, are negatively valanced, self-conscious, moral emotions (Haidt, 2003; Tracy & Robins, 2004) experienced when one transgresses against personal (guilt and shame) or social (embarrassment) norms. However, these

emotions are distinct from each other (Tangney et al., 2007). For instance, guilt is often felt when people perceive that *a specific behavior they performed* (e.g., lying) transgressed a personal value, whereas shame is often felt when people perceive *the global self* as transgressing a personal value (e.g., seeing oneself as a dishonest person). Because of their conceptual similarities, it was predicted that participants would associate their GP with feelings of embarrassment, guilt, and shame more so than anger and sadness, two negative emotions not likely associated with GPs. Anger is an emotion based on appraisals of one's being offended, and sadness is an emotion based on appraisals of irrevocable loss (Lazarus, 1991; Keltner & Lerner, 2010), with neither appraisal linked to GPs (Goffin & Cova, 2019). Additionally, people tend to feel greater embarrassment when behaviors are viewed by strangers compared to friends (MacDaniels & Davies, 1983). Thus, regarding self-presentation, we predicted that people would be more likely to indulge in their GPs either in private or with close others (e.g., friends) than with distant others (e.g., acquaintances, strangers).

Regarding positive affect, although recent work suggests people experience positive affect when thinking about their GPs (Goffin & Cova, 2019), there are no data investigating the discrete positive emotions that might be implicated in enjoying GPs. Based on what is known about the negative affective experience likely associated with GPs, one could anticipate positive emotions being involved. Specifically, the positive emotions of enthusiasm, amusement, and contentment were considered as candidates. Enthusiasm is elicited based on appraisals of anticipating a reward (Lazarus, 1991) and increases goal-approach motivation (Berridge & Kringelbach, 2013; Small et al., 2006), thus enthusiasm might be implicated in GPs (e.g., Bastian et al., 2012). Accordingly, it seemed reasonable that enthusiasm draws people toward GPs

because they look forward to GP's content (e.g., the sweet taste of a high-calorie desert, the sound of a controversial musician's discography) and thus are motivated to indulge in it.

Another positive emotion potentially implicated in GPs is amusement, the emotion experienced when one perceives humorous stimuli (Herring et al., 2011; Ruch, 1993). Amusement is elicited when people perceive incongruity between their expectations and an event outcome. For instance, jokes elicit amusement because the punchline is incongruous with the joke's set up such that the punchline reflects an outcome that was unexpected (Roberts, 2019). If GPs involve transgressing personal values and social norms (Goffin & Cova, 2019), then GPs might elicit amusement because of incongruities between the self-concept and characteristics of the GP. As a means of trivializing the inconsistency, the actor may appraise the incongruity positively, resulting in amusement. Indeed, humor can offer cognitive distraction from negative stimuli (Strick et al., 2010), and humor and amusement provide a means to cope and reappraise adverse events (Samson et al., 2014). Because GPs likely elicit some negative self-conscious emotions (Goffin & Cova, 2019), indulging in GPs might elicit amusement to mitigate the negative affect and result in finding pleasure in the GP.

One final positive emotion potentially involved in GPs is contentment, which is felt when perceiving a pleasant, comforting, stimulus (Lazarus, 1991) that results in savoring (Lerner et al., 1998; Small & Lerner, 2008). Because GPs involve enjoyment (Goffin & Cova, 2019), it seems reasonable that contentment might be implicated in GPs because people are drawn to the activity.

As a point of comparison, we predicted that the positive emotion of pride should *not* be involved in GPs. That is, just as negative self-conscious emotions are experienced when one engages in behavior resulting in negative self-evaluation, positive self-conscious emotions are experienced when one engages in behavior resulting in positive self-evaluation (Tracy & Robins,

2004). If GPs are viewed as transgressing personal and social values (Goffin & Cova, 2019), it is unlikely that pride is involved. Accordingly, we predicted that participants reflecting on their GPs would feel weaker pride compared to amusement, contentment, and enthusiasm.

Additionally, because of the scarcity of GP research, Study 1 explored the GPs people identify and people's metacognitive perceptions about them. Specifically, we investigated the extent to which people's attitudes toward their GPs were characterized by attitudinal ambivalence (i.e., having simultaneous positive and negative reactions to an object; Priester & Petty, 1996) and moralization (i.e., the extent to which one's attitude towards an object reflects their moral values; Skitka, 2010). Because GPs generate ambivalent emotional reactions (Goffin & Cova, 2019; Miao, 2011) and because it is likely that GPs elicit the moral emotions of guilt, shame, and embarrassment (Goffin & Cova, 2019), it was predicted that attitudes toward GPs would be characterized by greater ambivalence and moralization.

Method

Participants

One hundred and forty-seven undergraduate students participated in the study for course credit (12.3% male, 84.2% female, 3.5% preferred to self-describe; M_{age} = 19.01, *SD* = 1.11). Sample size was determined using an a priori sample size analysis ($\alpha = 0.05$, power = .80) conducted in G*Power (Faul et al., 2007) assuming a small-to-medium effect size ($r = .35$) for independent-samples t-tests based on the average effect size in social psychology (Richard et al., 2003).[1] One participant failed an attention check item and was excluded from analyses (Aust et al., 2013), resulting in a final sample of 146 participants.

Materials and Measures

Guilty Pleasures

Participants were randomly assigned to one of two conditions, either the GP or the control condition. Control condition participants recalled and described the events of their previous morning (Bernstein et al., 2008). Following Goffin and Cova (2019), GP condition participants were provided with a definition of GPs as, "a seemingly paradoxical experience of a work of art (e.g., a movie, a song or musical artist, a painting, a TV show, food, a book): you enjoy it, but at the same time you feel bad about enjoying it." Then, they were asked to identify a GP of theirs and describe *why* they consider it a GP in an open-ended response. Following Sarkhosh and Menninghaus (2015), participants were then asked to report the likelihood that they would feel comfortable discussing and indulging in their GPs with a variety of social audiences: no one (in private), a close friend, a sibling, a parent, a grandparent, an acquaintance, or a stranger. Item responses ranged from 1 (not likely at all) to 7 (very likely).

Next, all participants reported the extent to which they experienced ambivalence about their GP or previous morning by responding to measures of objective and subjective attitudinal ambivalence. Objective ambivalence is the degree to which people acknowledge having both positive and negative evaluations of an object (i.e., having mixed reactions), whereas subjective ambivalence is the psychological experience (i.e., affective response) of felt conflict or indecision for an object (Priester & Petty, 1996). Objective ambivalence was assessed using two items where participants reported the extent that they had negative (or positive) thoughts toward their GP or their previous morning routine while ignoring any positive (or negative) information, each on a 0 (no negative [positive] thoughts or feelings) to 10 (maximum negative [positive] thoughts or feelings) scale (Priester & Petty, 1996). Objective ambivalence scores were calculated using an established formula: $(POS + NEG) / 2 - |POS - NEG|$, where "POS" and "NEG" indicate responses to each single-valence item (Thompson et al., 1995), with greater

scores reflecting more objective ambivalence. Subjective ambivalence was assessed by asking participants about how "conflicted," indecisive," and "mixed" they feel (Priester & Petty, 1996). Each response used an 11-point scale, anchored at 1 (feeling no conflict/indecision/mixed feelings) and 11 (feel maximum conflict/indecision/mixed feelings), with the mean response (α = .91) indicating greater subjective ambivalence.

Next, participants reported the extent to which their attitudes toward their GP or previous morning routine reflects their core moral beliefs and convictions (Skitka, 2010), assessed by a single item measure with response options ranging from 1 (not at all) to 11 (extremely).

Emotions

Following van Tilburg et al. (2019), participants reported how strongly they felt embarrassment, guilt, shame, anger, sadness, pride, enthusiasm, contentment, and amusement when thinking about their identified GP or about their previous morning routine, indicating their responses on a scale ranging from 1 (not at all) to 9 (very strongly).

Procedure

Participants were randomly assigned to the GP or control condition, completing the study on computers in individual rooms. Control participants were oriented toward their previous morning while GP participants identified their GP and reported on the audiences with whom they might indulge in it. Afterwards, participants responded to the remaining measures (i.e., emotions, ambivalence, perceived morality, an attention check) in a randomized order.

Results

GP Taxonomy

We first examined what types of GPs were identified by participants in the GP condition. A team of three research assistants individually coded the GPs based on an a priori coding

scheme generated by the lead author based on past research (e.g., Bastian et al., 2012; Elder & Mohr, 2020; Hur & Jang, 2015; Miao, 2011; Sarkhosh & Menninghaus, 2015; Sealey, 2023; van den Tol & Roger-Sorolla, 2017) and a cursory review of the current GPs. These GP categories were eating or food-related, audiovisual media (e.g., streaming movies or television shows, watching YouTube), music (e.g., genre of music, specific musical artist), social media (e.g., Facebook, TikTok), games (e.g., sports, board games, video games), romance or sex-related (e.g., pornography, erotica), spending money (e.g., gambling, online shopping), or literature (e.g., novels, comics). Participants who identified multiple GPs in their response (e.g., playing video games or watching Netflix) were placed in a separate, multiple GP category. Those whose GPs did not fit with any category were labeled as "other." Interrater reliability among judges was good (α = .87).

Table 1 shows the most common GPs across all three studies, and in terms of prevalence, participants listed food-related (e.g., candy, fast food) or some form of audiovisual media, accounting for more than half of their GPs. The most common "other" GPs related to sleeping or napping (e.g., enjoying the rest but feeling unproductive) or voyeuristic behaviors (e.g., enjoying others' interpersonal drama on social media).

Table 1
Guilty Pleasure Taxonomy Based on Self-reported Guilty Pleasures in Studies 1-3

	Study 1		Study 2		Study 3		All Studies	
Category	*n*	%	*n*	%	*n*	%	*n*	%
Eating or food-related	21	28.4	77	27.2	67	33.2	165	26.1
Watching TV, movies, YouTube	21	28.4	87	30.7	49	24.3	157	24.9
Music	10	13.5	26	9.2	17	8.4	53	8.4
Using social media	6	8.1	18	6.4	11	5.4	35	5.5
Sports, board or video games	0	0	12	4.2	14	6.9	26	4.1
Romance or sex-related	0	0	12	4.2	4	2.0	16	2.5
Spending money	2	2.7	5	1.8	6	3.0	13	2.1
Literature	1	1.4	2	0.7	5	2.5	8	1.3
Multiple categories	2	2.7	9	3.2	3	1.5	14	2.2
Other	11	14.9	31	11.0	25	12.4	67	10.6
No guilty pleasure	0	0	4	1.4	1	0.5	5	0.8

Note: Study 1 $N = 74$ undergraduates in the GP condition, Study 2 $N = 283$ undergraduates, Study 3 $N = 202$ Prolific users, All studies $N = 559$

Ambivalence and Moralization

Independent samples t-tests examined differences between conditions on emotions, ambivalence, and morality measures. As shown in Table 2, and consistent with predictions, participants who reflected on their GP reported significantly more subjective and objective ambivalence than did control participants. However, contrary to predictions, participants who reflected on their GP did not view their attitude toward their GP as being more rooted in morality compared to control participants' attitudes toward their morning routine.

Emotions

Next, independent samples t-tests compared emotion reports between conditions. As shown in Table 2, and consistent with predictions, participants who reflected on their GP felt more embarrassment, guilt, shame, and amusement, as well as less pride, compared to control participants. Contrary to predictions, participants who reflected on their GP felt significantly more anger and sadness, but less contentment compared to control participants. There were no differences between conditions on felt enthusiasm.

Table 2

Descriptives and Between-condition Differences on Emotions and GP Characteristics in Study 1

Dependent Variable	GP	Control	*t*	*Cohen's d*	*p*
Characteristics					
Subj. Ambiv.	5.73 (2.01)	3.43 (2.24)	6.55	1.08	.001
Obj. Ambiv.	3.23 (2.47)	1.45 (3.00)	3.91	.65	.001
Morality	5.31 (2.70)	6.10 (2.57)	1.80	.30	.07
Emotions					
Amusement	5.38 (2.55)	3.38 (2.36)	4.93	.82	.001
Contentment	4.90 (2.40)	5.82 (2.41)	2.29	.38	.02
Enthusiasm	4.88 (2.27)	4.64 (2.58)	0.59	.10	.56
Pride	2.55 (1.89)	4.41 (2.74)	4.79	.80	.001
Embarrassment	3.54 (2.23)	1.57 (1.06)	6.81	1.13	.001
Guilt	4.49 (2.48)	2.04 (1.85)	6.73	1.12	.001
Shame	3.63 (2.40)	1.96 (1.76)	4.78	.79	.001
Anger	2.49 (1.98)	1.65 (1.30)	3.02	.50	.001
Sadness	3.05 (2.28)	2.15 (1.85)	2.61	.43	.01

Note. $df = 143$. *SD*s in parentheses.

Additionally, a repeated measures ANOVA was conducted among GP condition participants only to examine differences in emotions magnitude among those thinking about their GPs, and the nine emotions demonstrated variability, $F(8, 1152) = 38.65$, $p < .001$. Post hoc pairwise comparisons (Tukey's HSD test) revealed that the most intense emotions felt were amusement, contentment, enthusiasm, and guilt, with mean scores for these four emotions significantly greater than the mean scores for the remaining five emotions (*p*s < .05). No significant differences emerged among those top four emotions, and similarly, shame and

embarrassment did not reliably differ from one another. However, shame and embarrassment were both greater than pride, sadness, and anger.

Audiences

A repeated-measures ANOVA examining audience type differences among GP condition participants (see Table 3) found support for predictions that participants were more likely to indulge in GPs with audiences composed of closer others, $F(6, 438) = 49.80$, $p < .001$. Post hoc pairwise comparisons revealed that each social audience significantly differed from others ($ps < .05$), with the exception being no difference between grandparents and acquaintances ($p = .19$).

Table 3
Descriptive statistics for audiences in Study 1

Dependent Variable	M	SD
In Private	6.26	1.46
Close Friend	5.81	1.59
Sibling	5.47	1.73
Parent	4.69	1.97
Grandparent	4.00	2.18
Acquaintance	3.66	2.05
Stranger	2.96	2.13

Discussion

Study 1 found that GPs elicited stronger feelings of amusement, guilt, embarrassment, and shame compared to reflecting on one's morning routine. Similarly, within-subjects analyses among GP condition participants found that the most intense emotions reported were the positive emotions of amusement, contentment, and enthusiasm, as well as the negative emotion of guilt. These analyses indicated that pride was not involved in GPs because pride was felt less when thinking about GPs compared to a control stimulus. Further, although the between-subjects

analyses suggested that GPs elicit greater feelings of anger and sadness compared to the control condition, the within-subject analyses indicated that feelings of anger and sadness did not differ from feelings of pride. Taken together, and consistent with predictions, these findings indicated GPs elicit the positive emotions of amusement, contentment, and enthusiasm, and the negative emotions of guilt, embarrassment, and shame.

Relatedly, Study 1 observed evidence that people's attitudes toward their GPs are characterized by greater attitudinal ambivalence. Consistent with the emotion findings, attitudes toward GPs were characterized by simultaneous positive and negative reactions (objective ambivalence) and by feelings of internal conflict (subjective ambivalence). However, attitudes toward GPs were not a reflection of one's moral beliefs, despite relatively greater levels of moral perception among GP condition participants. These findings were surprising because GPs seem to elicit the moral emotions of guilt, shame, and embarrassment (Haidt, 2003).

Study 1 also found evidence that self-presentation processes underlie GP-related sharing behavior. Specifically, people reported being more comfortable indulging in their GPs with interpersonally closer audiences (e.g., friends, family, in private) compared to more distant audiences (e.g., strangers, acquaintances).

Study 2

Study 1 identified common types of GPs and the experiences and processes underlying them. Specifically, people reflecting on their GPs revealed more ambivalence, stronger emotions both positive (i.e., amusement, contentment, enthusiasm) and negative (i.e., guilt), and they were more likely to share GPs with closer others than more distant others. These findings provide initial support for both dissonance (e.g., greater guilt) and self-presentation (e.g., selective disclosure of GPs) processes. To further explore GP processes, Study 2 had two primary goals.

First, it collected a larger sample focused solely on participants' GPs, increasing the size and potential diversity of GPs identified, and this larger sample allowed Study 2 to examine how discrete emotions (e.g., embarrassment) associated with GPs predicted audience disclosure to further explore the role of self-presentation in GPs.

Method

Participants

A sample of 311 undergraduate students were recruited to participate in exchange for course credit (27.3% male, 71.4% female, 1.3% preferred to self-describe; M_{age} = 19.10, *SD* = 1.55). Sample size was determined using an a priori sample size analysis ($\alpha = 0.05$, power = .80) conducted in G*Power (Faul et al., 2007) assuming a small-to-medium effect size ($r = .35$) for correlational analyses. Twenty-eight participants were excluded from analyses due to failing an attention check item (Aust et al., 2013), resulting in a final sample of 283 participants.

Materials and Procedure

Because Study 2 only investigated people's perceptions of their GPs, all measures and procedures from the Study 1 GP condition were used in Study 2.

Results

GP Taxonomy

GP types identified by participants were examined using the same approach as Study 1 (i.e., same team of three research assistants individually coded the GPs using the same coding scheme). As seen in Table 1 and consistent with Study 1, the most common GPs were food-related or audiovisual media, accounting for more than half of the GPs.

Emotions

A repeated measures ANOVA was conducted to examine variability in emotion intensity reported by participants when thinking about indulging in their GPs. Table 4 shows the intensity of the nine emotions varied, $F(8, 2248) = 80.23$, $p < .001$. Post hoc pairwise comparisons revealed that the most intense emotions felt were amusement and contentment (they did not differ from each other, $p = .17$), but their intensities were greater than the remaining seven emotions (ps $< .05$). Similarly, enthusiasm was more intensely felt than the six remaining emotions. Guilt was comparable to embarrassment ($p = .06$), but it was more intensely felt than shame, anger, pride, or sadness (ps $< .05$). Similarly, embarrassment and shame did not differ from each other ($p = .15$), but both were more intensely felt than anger, sadness, and pride (ps $< .05$). In sum, Study 2 replicated the main findings from Study 1, which indicated that the more intense emotions felt when indulging in GPs were amusement, contentment, and enthusiasm, followed by negative self-conscious emotions (i.e., guilt, embarrassment, shame).

Table 4
Descriptive statistics for variables in Study 2

Dependent Variable	M	SD
Emotions		
Amusement	5.54	2.69
Contentment	5.31	2.41
Enthusiasm	5.01	2.58
Pride	2.87	2.09
Embarrassment	3.67	2.50
Guilt	4.01	2.65
Shame	3.49	2.40
Anger	2.17	2.04
Sadness	2.62	2.28
GP Characteristics		
Subj. Ambiv.	4.98	2.62

Obj. Ambiv.	2.33	3.35
Morality	4.85	2.94
Audiences		
In Private	6.05	1.78
Close Friend	5.39	1.93
Sibling	5.12	2.05
Parent	4.57	2.26
Grandparent	3.73	2.33
Acquaintance	3.54	2.10
Stranger	2.93	2.11

Audiences

A repeated measures ANOVA examined the extent to which people indulge in their GPs with various social audiences. As seen in Table 4, and consistent with Study 1, participants reported being more likely to indulge in their GPs with interpersonally closer audiences, $F(6, 1686) = 141.28$, $p < .001$. Post hoc pairwise comparisons revealed that every social audience differed from each other (ps < .05), with the exception of no reliable differences between grandparents and acquaintances ($p = .15$), completely replicating Study 1.

Emotions and Cognitive Processes

To further explore the possible mechanisms underlying GPs, correlational analyses examined relations between the emotions felt when thinking about GPs and the reported likelihood of indulging in that GP for each social audience type. Table 5 shows that embarrassment was found to predict less likelihood of indulging with all social audiences and to be unrelated to indulging in private. Similarly, guilt only predicted less indulging in GPs in private settings, and it was unrelated to the likelihood of indulging in settings involving others. Finally, shame predicted less indulging in GPs with close friends, siblings, and parents.

Table 5
Correlations among emotions and GP-sharing behavior for each audience type in Study 2

Variable	In Private	Close friend	Sibling	Parent	Grandparent	Acquaint.	Stranger
1. Amusement	.18**	.22**	.22**	.16**	.01	.17**	.03
2. Contentment	.20**	.27**	.30**	.26**	.19**	.18*	.08
3. Enthusiasm	.20**	.26**	.24**	.19**	.14*	.13*	.05
4. Pride	-.01	.05	.10	.10	.10	.11	.14*
5. Embarrassment	.00	-.25**	-.23**	-.26**	-.17**	-.31**	-.16**
6. Guilt	-.12*	-.05	-.03	-.07	.08	-.04	.02
7. Shame	-.03	-.16**	-.13*	-.16**	-.01	-.12	.03
8. Anger	-.17**	-.11	-.12*	-.10	-.01	.01	.07
9. Sadness	-.08	-.13*	-.07	-.10	-.02	-.04	.03

$n = 282$; * $p < .05$, ** $p < .01$.

To better isolate the unique ability of emotions to predict audience indulgences, multiple regression analyses simultaneously regressed the nine emotions on GP-sharing behavior for each audience type (criterion variable). Table 6 shows that the only emotion to uniquely predict sharing GPs with strangers was less embarrassment. Similarly, for all remaining social audiences, two emotions emerged as unique predictors: embarrassment and contentment. These findings indicated that the more embarrassment felt regarding GPs, the less likely people were to share their GPs with the audience. Similarly, the more contentment felt regarding GPs, the more likely people were to share their GPs with the audience. In addition to embarrassment and contentment, enthusiasm also emerged as a unique predictor for close friends, suggesting that not only do people report enjoying indulging in GPs with close friends (contentment), but these indulgences with close others appear to be activities that one looks forward to (enthusiasm).

	Private			Friend			Sibling			Parent			Grandparent			Acquaint.			Stranger		
Emotion	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*
Amusement	1.00	0.05	0.19	0.04	0.05	0.60	0.04	0.06	0.58	-0.03	0.06	0.66	**-0.17**	**0.07**	**0.02**	0.07	0.06	0.36	-0.05	0.06	0.55
Contentment	0.12	0.05	0.08	**0.17**	**0.05**	**0.01**	**0.22**	**0.06**	**0.00**	**0.21**	**0.06**	**0.00**	**0.18**	**0.07**	**0.01**	**0.15**	**0.06**	**0.03**	0.09	0.06	0.21
Enthusiasm	0.13	0.05	0.09	**0.16**	**0.06**	**0.03**	0.12	0.06	0.13	0.08	0.07	0.26	0.14	0.07	0.07	0.00	0.06	0.97	0.00	0.06	0.98
Pride	-0.12	0.05	0.05	-0.07	0.06	0.28	-0.01	0.06	0.83	0.01	0.07	0.92	0.06	0.07	0.32	0.02	0.06	0.75	0.11	0.07	0.08
Embarrassment	-0.01	0.05	0.95	**-0.23**	**0.05**	**0.00**	**-0.22**	**0.06**	**0.00**	**-0.24**	**0.07**	**0.00**	**-0.24**	**0.07**	**0.00**	**-0.36**	**0.06**	**0.00**	**-0.27**	**0.06**	**0.00**
Guilt	**-0.19**	**0.06**	**0.03**	0.08	0.06	0.37	0.08	0.07	0.34	0.04	0.08	0.65	0.12	0.08	0.17	-0.01	0.07	0.89	-0.07	0.07	0.48
Shame	**0.23**	**0.08**	**0.02**	0.01	0.08	0.96	0.01	0.09	0.96	-0.02	0.10	0.81	0.06	0.10	0.56	0.01	0.09	0.45	0.20	0.09	0.06
Anger	**-0.16**	**0.07**	**0.04**	0.00	0.07	0.99	-0.07	0.08	0.36	0.02	0.09	0.85	0.05	0.09	0.57	0.12	0.08	0.13	0.10	0.08	0.21
Sadness	0.07	0.07	0.42	-0.01	0.07	0.94	0.08	0.07	0.34	0.02	0.08	0.85	-0.05	0.09	0.59	0.03	0.08	0.70	-0.02	0.08	0.85

Table 6. Multiple regression analyses beta weights examining which emotions explored in Study 2 uniquely predicted GP-sharing behavior with different audiences. ***Boldface indicates p < .05***

Finally, three emotions were unique predictors of indulging in GPs in private: guilt, shame, and anger. Consistent with the correlational findings, the more guilt people anticipate with their GP, the less likely they were to indulge in private. Conversely, the pattern for shame was opposite of the correlational findings. That is, greater (rather than less) shame uniquely predicted indulging in private. Finally, unexpectedly, anger emerged a unique predictor of indulging in fewer GPs in private, with greater anger associated more indulging alone.

Discussion

Study 2 replicated Study 1 showing that indulging in GPs was associated with the positive emotions of amusement, contentment, and enthusiasm, and with the negative emotions of guilt and embarrassment. Additionally, Study 2 replicated Study 1 demonstrating that GPs were more likely to be indulged with interpersonally close, compared to distant, audiences, highlighting self-presentation motivations.

Further, Study 2 found that these self-presentation concerns can be understood via discrete emotions. Specifically, embarrassment predicted less indulging with all social audiences examined except for in private. Conversely, guilt only predicted less indulging in private settings, but it was unrelated to indulging in public contexts. These findings are consistent with a self-presentation account because embarrassment requires an audience to be felt, whereas audiences are not necessary to experience guilt (Crozier, 2014; Krishna et al., 2018; Tangney et al., 2007). Indeed, this interpretation was further supported by the multiple regression analyses, which found that embarrassment uniquely predicted less indulging with others, whereas less guilt and more shame uniquely predicted indulging in private. Finally, enthusiasm emerged as a significant predictor of indulging with close friends but not with other social audiences. These

results indicate that GPs, despite having a potential for negative social evaluations, might strengthen social connections with close others.

Study 3

One limitation of Studies 1 and 2 was the relative homogeneity of the samples, which were composed of undergraduate participants who self-identified as predominantly female, potentially limiting generalizability of the findings. Thus, Study 3 examined whether the previous emotional and cognitive reactions linked to GPs would extend to an older, more gender-balanced sample. Study 3 also explored what triggers one to indulge in a GP? There is suggestive evidence that people indulge in GPs to cope with negative experiences (e.g., Bastian et al., 2012) or because of low self-control (e.g., Miao, 2011), but these possibilities have not been investigated systematically. Thus, multiple GP motivations were examined in Study 3.

Method

Participants

A sample of 208 Prolific users participated in exchange for $1.75 (42% male, 55.5% female, 2.5% preferred to self-describe; M_{age} = 38.14, SD = 13.40). Sample size was determined using an a priori sample size analysis ($\alpha = 0.05$, power = .80) conducted in G*Power (Faul et al., 2007) assuming a small-to-medium effect size ($r = 0.35$) for correlational analyses. Six participants were excluded from analyses due to failing an attention check item (Aust et al., 2013), resulting in a final sample of 202 participants.

Measures and Procedure

The Study 3 procedure was identical to Study 2 except for including items assessing motivations to indulge. Specifically, participants were provided several reasons for why one might indulge in their GP: boredom, seeking social interaction with others, being tired or lacking

energy, feeling overwhelmed, it being a planned reward, it being an uncontrollable habit, coping with a negative self-view, or alleviating stress. These motivations were selected based on past research and the qualitative responses provided Study 1 and 2 participants (e.g., Bastian et al., 2012; Goffin & Cova, 2019; Miao, 2011; Sealey, 2023). Participants reported the extent to which each reason leads them to indulge in their GP using a scale ranging from 1 (does not apply to me at all) to 7 (applies to me a lot).

Results

GP Taxonomy

GPs identified by participants were assessed by two new research assistants using the same coding scheme as Studies 1 and 2. Interrater reliability was good (α = .93). As seen in Table 1, and similar to the previous studies involving undergraduates, the most common GPs were food-related and audiovisual media, accounting for more than half of the GPs disclosed.

Emotion

A repeated measures ANOVA was conducted to examine differences in emotions felt when thinking about indulging in GPs. Table 7 shows that the intensity of the nine emotions varied, $F(8, 2178.289) = 63.03$, $p < .001$. Post hoc pairwise comparisons revealed that the most intense emotions felt were amusement and contentment, which did not differ from each other ($p = .94$), and they were greater than the seven other emotions (ps < .05). Similarly, enthusiasm and guilt did not differ from each other ($p = .67$), but these two emotions were felt more intensely than the other five emotions (ps < .05). Embarrassment was felt more intensely than shame, anger, pride, and sadness, (ps < .05). Finally, shame was more intensely felt than anger, sadness, and pride (ps < .05).

Table 7
Descriptive statistics for key variables examined in Study 3

Dependent Variable	M	SD
Emotions		
Amusement	5.16	2.63
Contentment	5.17	2.34
Enthusiasm	4.75	2.50
Pride	2.68	2.04
Embarrassment	4.07	2.48
Guilt	4.62	2.44
Shame	3.78	2.42
Anger	2.07	1.82
Sadness	2.63	2.18
GP Characteristics		
Subj. Ambivalence	5.47	2.43
Obj. Ambivalence	2.71	3.03
Perceived Morality	4.92	3.04
Audiences		
In Private	6.06	1.72
Close Friend	5.09	1.85
Sibling	4.32	2.12
Parent	3.61	2.27
Grandparent	2.75	2.04
Acquaintance	3.39	1.99
Stranger	2.89	2.00
Motivations		
Stress Relief	4.74	1.82
Planned Reward	4.12	2.08
Boredom	4.15	2.18
Feeling Overwhelmed	3.54	2.16
Being Tired	3.26	2.09

Uncontrollable Habit	3.25	2.04
Negative Self-view	2.77	2.04
Social Interaction	2.48	1.86

Audiences

A repeated measures ANOVA examined the extent to which people indulge in GPs with different social audiences. Consistent with the previous studies, Table 7 reports that participants were more likely to indulge in GPs with closer interpersonal audiences, $F(6, 1686) = 141.28$, $p < .001$. However, there were two differences in these findings compared to Studies 1 and 2. Specifically, in Study 3 participants reported grandparents as being the audience with whom they were least likely to share GPs, and post hoc pairwise comparisons revealed that participants were equally likely to share GPs with grandparents as much they were with a stranger ($p = .37$). Also, participants in Study 3 reported being just as likely to share GPs with parents as they were with an acquaintance ($p = .20$).

Emotions and Cognitive Processes

To examine how distinct emotions predicted the likelihood of indulging in GPs with specific audiences, multiple regression analyses simultaneously regressed the nine emotions on GP indulgence separately for each audience type. As seen in Table 8, the pattern observed in Study 2 did not replicate. For instance, none of the emotions uniquely predicted sharing GPs with a stranger, and the only emotion that uniquely predicted sharing with an acquaintance was less embarrassment. Similarly, the only emotion uniquely predictive of sharing with parents was greater enthusiasm, whereas sharing with grandparents was uniquely predicted by greater enthusiasm and greater embarrassment. Indulging with a close friend revealed results more consistent with Study 2, such that less embarrassment and greater contentment were once again

unique predictors, however, so too was greater amusement and less pride. The remaining two social audiences (siblings and in private) showed the greatest deviation from Study 2. Greater sharing of GPs with siblings was uniquely predicted by more shame and less guilt, whereas in Study 2 it was uniquely predicted by less embarrassment and greater contentment. Similarly, indulging in private was uniquely predicted by less sadness and less pride, whereas in Study 2 it was uniquely predicted by greater shame and anger and less guilt.

	Private			Friend			Sibling			Parent			Grandparent			Acquaint.			Stranger		
Emotion	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*	β	SE	*p*
Amusement	0.09	0.05	0.30	**0.20**	**0.06**	**0.02**	0.01	0.07	0.95	-0.04	0.07	0.67	-0.11	0.07	0.22	0.03	0.07	0.71	0.07	0.07	0.41
Contentment	0.16	0.06	0.06	**0.17**	**0.07**	**0.04**	0.09	0.08	0.28	0.10	0.08	0.24	0.05	0.08	0.56	0.12	0.07	0.19	0.06	0.08	0.49
Enthusiasm	0.04	0.07	0.66	0.07	0.07	0.47	0.12	0.08	0.22	**0.24**	**0.09**	**0.01**	**0.21**	**0.08**	**0.04**	-0.03	0.07	0.77	-0.20	0.08	0.85
Pride	**-0.37**	**0.07**	**0.00**	**-0.24**	**0.08**	**0.01**	-0.07	0.09	0.44	-0.14	0.10	0.11	-0.06	0.09	0.47	0.03	0.08	0.70	-0.03	0.09	0.70
Embarrassment	-0.08	0.07	0.42	**-0.25**	**0.07**	**0.01**	-0.13	0.09	0.19	-0.17	0.09	0.09	**-0.24**	**0.08**	**0.02**	**-0.23**	**0.08**	0.03	-0.19	0.08	0.06
Guilt	-0.01	0.07	0.95	-0.07	0.07	0.49	**-0.23**	**0.09**	**0.02**	-0.17	0.09	0.09	-0.04	0.08	0.70	0.10	0.08	0.32	0.06	0.08	0.57
Shame	0.14	0.09	0.25	0.16	0.10	0.21	**0.33**	**0.11**	**0.01**	0.17	0.12	0.17	0.20	0.11	0.12	0.04	0.11	0.77	0.14	0.11	0.27
Anger	0.18	0.09	0.06	0.16	0.10	0.11	-0.01	0.12	0.94	0.06	0.12	0.53	0.13	0.11	0.20	-0.11	0.11	0.26	0.02	0.11	0.85
Sadness	**-0.23**	**0.08**	**0.03**	0.01	0.09	0.92	-0.08	0.11	0.45	0.09	0.11	0.43	-0.01	0.10	0.92	0.20	0.10	0.06	0.05	0.10	0.65

Table 8. Multiple regression analyses examining which emotions explored in Study 3 uniquely predicted GP-sharing behavior with different audiences. ***p < .05***

Motivations

Finally, a repeated measures ANOVA examined mean differences in motivations to indulge in GPs. As seen in Table 7, the motivations varied, $F(8, 2178.289) = 63.03$, $p < .001$. Post hoc pairwise comparisons revealed that the greatest motivation for indulging in GPs was relieving stress, which was greater than the other eight motivations ($ps < .05$). To a lesser degree, people reported indulging in GPs to alleviate boredom or as a planned reward (these motivations did not differ, $p = .88$), and these two motivations were greater than the other five. There were no differences in motivations involving feeling overwhelmed, feeling tired, viewing it being an uncontrollable habit, coping with a negative self-view, or facilitating social interaction ($ps < .05$).

Discussion

Study 3 replicated Studies 1 and 2 in that the positive emotions elicited when indulging in GPs included amusement, contentment, and enthusiasm, and the negative emotions of guilt and embarrassment. Additionally, Study 3 partially replicated findings from the previous studies that GPs were more likely to be indulged with interpersonally close audiences compared to interpersonally distant audiences, highlighting self-presentation motives.

Regarding how specific emotions uniquely predicted self-presentation concerns, Study 3 differed from Study 2 because there were fewer discernable patterns of emotions elicited across the various social audiences. One potential explanation for these differences is that negative self-conscious emotions tend to be reported less frequently and felt less intensely in older adults than in younger adults (Henry et al., 2018). These cohort differences stem from, in part, older adults avoiding negative situations more regularly than younger adults (Birditt & Fingerman, 2005). Thus, these cohort differences in experiencing embarrassment, guilt, and shame coupled with the

possibility of some social audiences not being as relevant to our older sample (e.g., grandparents may no longer be alive), might make drawing conclusions from these differences difficult.

Finally, Study 3 provided preliminary insights into the motivations people have for indulging in GPs. The findings suggested that the leading motivator was relieving stress. Indeed, this outcome is consistent with past research demonstrating that GPs are more likely to be indulged in following negative circumstances (e.g., Bastian et al., 2012). Although not as prevalent as stress relief, other motivations for indulging in GPs included alleviating boredom or providing a planned reward, suggesting that at times GPs may reflect both reflexive and intentional behaviors, respectively.

Internal Meta-analysis

To ensure sufficient statistical power for the fixed effects and to more comprehensively gauge the magnitude of our findings on the relations between emotions and audience self-presentation, we conducted a mini meta-analysis (Goh et al., 2016) of the multiple regression analyses from Studies 2 and 3. For this analysis, the standardized beta-coefficients were used as effect sizes, which were then pooled and weighted based on their precision (standard error, sample size) to estimate overall effect sizes for each emotion and social audience (Card, 2015). The newly calculated beta-coefficients and standard errors were then used to calculate a Z-score for the relation between each emotion and audience type, with *Z*-scores of 1.96 or greater indicating a significant relationship. These results are presented in Table 9.

Regarding indulging in GPs with strangers, embarrassment predicted less sharing, whereas shame predicted more sharing. Further, consistent with Study 2, for all remaining social audiences involving others, two emotions emerged as significant predictors: embarrassment and contentment. These findings showed that the less embarrassment and the more contentment

people felt regarding their GP, the more likely they were to indulge in it with that audience. In addition to embarrassment and contentment, enthusiasm emerged as a significant predictor of sharing GPs more with close friends and family members. Amusement emerged as a significant predictor for sharing with grandparents and friends but in different directions, such that greater amusement predicted less sharing with grandparents but more sharing with friends. Greater shame significantly predicted more sharing with siblings. Pride emerged as a significant predictor for sharing with close friends, such that less pride was associated with greater likelihood of sharing.

Finally, six emotions emerged as significant predictors for indulging in one's GP in private. Specifically, less guilt and greater shame predicted more indulging in private. And consistent with the social audiences, greater contentment, enthusiasm, and amusement predicted more indulging in private, whereas less pride predicted indulging in private.

This meta-analysis synthesizes findings across Studies 2 and 3 to examine relations between emotions felt and indulging in GPs in different social settings. Specifically, when indulging with others, less embarrassment was the most consistent predictor of sharing one's GP across social contexts. These findings support a self-presentation process in that embarrassment is derived from considering the values and preferences of a social audience (Leary & Kowalski, 1990; Krishna et al., 2018). Similarly, these findings indicated that contentment, enthusiasm, and to a lesser extent, amusement, were positive emotions predicting more indulging. Finally, an entirely different emotional profile emerges when alone, with private indulging eliciting greater guilt and shame, and less pride. Because these are all self-conscious emotions (Tracy & Robins, 2004, 2007), it suggests that indulging in private might elicit greater degrees of self-evaluation via self-awareness than does indulging with others.

	Private			Friend			Sibling			Parent			Grandparent			Acquaint.			Stranger		
Emotion	β	SE	*Z*	β	SE	*Z*	β	SE	*Z*	β	SE	*Z*	β	SE	*Z*	β	SE	*Z*	β	SE	*Z*
Amusement	**0.10**	**0.04**	**2.69**	**0.11**	**0.04**	**2.75**	0.03	0.05	0.60	-0.03	0.05	-0.75	**-0.14**	**0.05**	**-2.83**	0.05	0.05	1.16	0.00	0.05	0.02
Contentment	**0.14**	**0.04**	**3.55**	**0.17**	**0.04**	**4.18**	**0.17**	**0.05**	**3.61**	**0.17**	**0.05**	**3.55**	**0.12**	**0.05**	**2.35**	**0.14**	**0.05**	**3.01**	0.08	0.05	1.65
Enthusiasm	**0.10**	**0.04**	**2.45**	**0.12**	**0.05**	**2.68**	**0.12**	**0.05**	**2.50**	**0.14**	**0.06**	**2.54**	**0.17**	**0.05**	**3.23**	-0.01	0.05	-0.28	-0.07	0.05	-1.50
Pride	**-0.20**	**0.04**	**-5.03**	**-0.13**	**0.05**	**-2.73**	-0.03	0.05	-0.57	-0.04	0.06	-0.69	0.01	0.06	0.27	0.02	0.05	0.49	0.06	0.06	1.04
Embarrassment	-0.03	0.04	-0.83	**-0.24**	**0.04**	**-5.82**	**-0.19**	**0.05**	**-3.85**	**-0.21**	**0.06**	**-3.87**	**-0.24**	**0.05**	**-4.56**	**-0.31**	**0.05**	**-6.53**	**-0.24**	**0.05**	**-5.03**
Guilt	**-0.11**	**0.05**	**-2.50**	0.02	0.05	0.36	-0.04	0.06	-0.67	-0.05	0.06	-0.88	0.04	0.06	0.71	0.04	0.05	0.72	-0.01	0.05	-0.26
Shame	**0.19**	**0.06**	**3.18**	0.07	0.06	1.10	**0.14**	**0.07**	**1.99**	0.06	0.08	0.75	0.12	0.07	1.67	0.02	0.07	0.32	**0.18**	**0.07**	**2.53**
Anger	-0.03	0.06	-0.58	0.05	0.06	0.92	-0.05	0.07	-0.77	0.03	0.07	0.48	0.08	0.07	1.18	0.04	0.06	0.62	0.07	0.06	1.12
Sadness	-0.06	0.05	-1.14	0.00	0.06	-0.04	0.03	0.06	0.57	0.04	0.06	0.68	-0.03	0.07	-0.48	0.10	0.06	1.54	0.01	0.06	0.12

Table 9. Meta-analysis examining which of the emotions explored in Studies 2 and 3 predict GP-sharing behavior. ***Boldface indicates p < .05***

General Discussion

The current work observed strong evidence that GPs are experienced as ambivalent, simultaneously eliciting positive and negative emotions that both attract people to the behavior (amusement, enthusiasm, contentment) yet trigger dissonance (guilt, shame) and self-presentational concerns (embarrassment). Moreover, we found that these positive emotions were felt more strongly than the negative emotions. Accordingly, these findings indicate that enthusiasm draws people toward their GPs because they look forward to these activities (e.g., Bastian et al., 2012; Miao, 2011), and the positive emotions of contentment and amusement underlie feelings of pleasure and savoring that comes from indulging in GPs.

Based on this emotional profile, we can speculate on what processes underlie GP behavior. Because GPs involve fear of negative social evaluation (Goffin & Cova, 2019), we assumed that self-presentation influences GP-sharing behavior. Consistent with these predictions, across all three studies we found that people were more likely to share their GPs with interpersonally closer audiences. Further, analyses examining which emotions uniquely predicted sharing behavior indicated that these self-presentation concerns were a function of anticipated embarrassment. That is, the more one anticipates feeling embarrassed by their GP, the less likely they are to share it with others, suggesting that people are engaging in self-presentation to maintain a positive public persona. This finding is consistent with research demonstrating that GPs are most likely enjoyed either in private or with close friends (e.g., Johnson & Ranzini, 2018; Sarkhosh & Menninghaus, 2015; von den Tol & Roger-Sorolla, 2017).

Because people classify interests as GPs because they seem inconsistent with their desired self-concepts (Goffin & Cova, 2019), we predicted that cognitive dissonance processes

might also underlie GPs, and our findings were consistent with this possibility. For instance, guilt was consistently the most intensely felt negative emotion observed in these studies, which is noteworthy because guilt is the discrete emotion conceptually closest to dissonance affect (e.g., Kenworthy et al., 2011; Klass, 1978; Stice, 1992). Relatedly, we observed that guilt and shame, rather than embarrassment, uniquely predicted private indulgence, findings consistent with dissonance theory as well as a discrete, functionalist account of emotion. That is, when people indulge in GPs in private, they cannot attribute their negative affect to others' appraisals, resulting in self-attributions of the negative affect (i.e., appraising counterattitudinal behavior with respect to their self-concepts; Aronson & Thibideau, 1992; McGrath, 2017; Crozier, 2014; Keltner & Lerner, 2010; Krishna et al., 2018; Tangney et al., 2007). Accordingly, it seems reasonable that dissonance is implicated in GPs, though additional work should more directly examine this possibility.

Finally, Study 3 found that the biggest motivator for indulging in GPs is relieving stress, which is consistent with past research (e.g., Bastian et al., 2012). These findings provide insight for why people engage in activities they feel that they should not and for how they navigate their conflicted feelings. For example, this work finds evidence consistent with the role of cognitive dissonance when indulging in GPs because it seems that people might require some external justification for indulging in the activity (e.g., stress following a long day's work) to rationalize engaging in it. Admittedly, these conclusions await further investigations to replicate and expand our understanding of these outcomes.

Our research extends Goffin and Cova's (2019) findings by demonstrating that self-presentation and dissonance reflect distinct processes underlying why people consider something a GP. If someone considers an activity a GP because it is at odds with their self-concept, this

recognition triggers guilt and dissonance. Alternatively, if someone considers an activity a GP because they fear others' negative judgment, this recognition triggers embarrassment and self-presentation concerns. This analysis identifies an interesting opportunity for future work to explore the consequences of considering something a GP for *both* personal and social reasons. For example, heightened dissonance about a morally transgressive GP (e.g., drug use, pornography) may amplify self-presentation concerns because individuals are sensitive to being judged negatively. Conversely, self-presentation strategies, such as selectively sharing GPs with trusted friends, may help alleviate dissonance by reframing the indulgence as socially acceptable or justifiable.

Importantly, the current research also demonstrates how GPs serve as a useful testbed for understanding the psychology of ambivalence and mixed emotions, especially in everyday contexts. Much of the mixed emotions literature focuses on general feelings of and changes in positive and negative affect (Larsen et al., 2017; Schneider & Schwarz, 2017). However, the current work provides a more comprehensive approach to studying mixed emotions by using discrete emotion theory to identify profiles of positive and negative emotions implicated by these ambivalent circumstances. These profiles can support future explorations of how specific emotions interact dynamically to shape behavior and thinking. For example, because amusement and humor support coping with negative affect (e.g., Samson et al., 2014; Strick et al., 2010), it seems reasonable that felt amusement could reduce dissonance (guilt) that then facilitates enthusiasm and contentment (i.e., people look forward to savoring the GP). Relatedly, our internal meta-analysis findings reveal how ambivalence shapes social behaviors in that embarrassment is a consistent negative predictor of GP-disclosure whereas contentment is a consistent positive predictor of GP-disclosure. This pattern of dueling emotions illustrates how

people manage mixed emotions to guide social decision making, and the current work explores how people navigate the intricacies of ambivalence (e.g., interactions of discrete positive and negative emotions, temporal nature of ambivalence) in everyday situations (Rozin, 2001).

Finally, the current work can spur novel investigations into topics such as belonging and self-esteem. Of all human motivations, the need to belong is arguably most critical (Baumeister & Leary, 1995). To maintain self-esteem and social connection, people engage in behavior that draws others toward them and avoid actions that repel others (Leary, 2005; Leary et al., 1995). Perhaps it is unsurprising that we found people reporting a greater likelihood of indulging in GPs with closer others, presumably because such audiences would be less likely to render internal attributions for embarrassing behavior (MacDaniel & Davies, 1983). Further, finding that enthusiasm predicts indulging in GPs with close friends suggests that sharing one's potentially embarrassing passions with close others may foster affinity and belonging (e.g., Feinberg et al., 2012) and deepen social connections (Aron et al., 1992). These possibilities suggest that ambiguous behaviors such as GPs have context-specific social utility that in some situations provides barriers to belonging (e.g., sharing GPs with strangers) and in other settings fosters closeness (e.g., sharing GPs with friends or family).

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Footnote

[1] Post-hoc power analyses were conducted for all studies using G*Power (Faul et al., 2007) to determine the extent to which studies were powered for the repeated-measures analyses conducted. These analyses were based on the smallest effect size observed for significant differences between measures (f = .35 to .46). The results revealed Study 1 power at 77.83%, Study 2 power at 99.96%, and Study 3 power at 95.93%.