

The Bright Side of Secrecy: The Energizing Effect of Positive Secrets

Michael L. Slepian¹, Katharine H. Greenaway², Nicholas P. Camp³, and Adam D. Galinsky¹

¹ Management Division, Columbia Business School, Columbia University

² Melbourne School of Psychological Sciences, University of Melbourne

³ Department of Organizational Studies, University of Michigan

Existing wisdom holds that secrecy is burdensome and fatiguing. However, past research has conflated secrecy with the kinds of adverse events that are often kept secret. As a result, it is unclear whether secrecy is inherently depleting, or whether these consequences vary based on the underlying meaning of the secret. We resolve this confound by examining the consequences of positive secrets. In contrast to the prior research, five experiments ($N = 2,800$) find that positive secrets increase feelings of energy, relative to (a) content-matched positive non-secrets, (b) other pieces of unknown positive information, and (c) other kinds of secrets. Importantly, these energizing effects of positive secrets were independent of positive affect. We further found that positive secrets are energizing because, compared to other kinds of secrets, people keep them for more intrinsically than extrinsically motivated reasons. That is, these secrets are more freely chosen, more consistent with personal values, and more motivated by internal desires (than by external pressures). Using both measures and manipulations of these motivations, we found that a motivational mechanism helps explain the energizing effect of positive secrets. The present results offer new insights into secrecy, how people respond to positive life events, and the subjective experiences of vitality and energy.

Keywords: secrecy, vitality, energy, intrinsic motivation, extrinsic motivation

Supplemental materials: <https://doi.org/10.1037/pspa0000352.supp>

What is the first thing you would do upon learning good news? We asked 500 people this question, and 76% of them said that the first thing they would do is share the good news with someone (Appendix). This instinct to reach out to others about good news is common: People share stories of their positive experiences 80% of the time, according to one estimate (Gable et al., 2004). Sharing good news with others is done with good reason as discussing positive events with others is associated with a range of benefits. Beyond any interpersonal benefits, sharing positive events and news with others allows people to savor life's upswings, increasing attention to and appreciation of positive experiences (Gable & Reis, 2010; Gable et al., 2004).

In the current research, we examine a phenomenon that runs counter to the impulse to share: the decision to keep positive information secret. We define positive secrecy as the intention to keep positive information unknown to one or more others (and the hidden positive information is the positive secret). By positive information, we mean information that an individual globally

evaluates as positively valenced. In contrast to the research that shows secrecy is burdensome and that people are better off sharing good news (Critcher & Ferguson, 2014; Gable & Reis, 2010; Gable et al., 2004; Larson et al., 2015; Quinn & Chaudoir, 2009; Slepian et al., 2017), the current research reveals that keeping positive information secret can be beneficial by fostering feelings of energy for the positive secret holder.

The Meaning of Secrecy

Classic accounts of secrecy conceptualize it as a costly process of inhibition, which depletes people's cognitive resources as they strive to keep information from others (Lane & Wegner, 1995). According to this view, concealment of any information—regardless of its valence—is fatiguing, because it involves continual monitoring of one's speech and behavior to ensure that others do not become aware of the secret information (cf. Critcher & Ferguson, 2014; Smart & Wegner, 1999).

Recent research, however, shows that concealment is only one aspect of secrecy. Indeed, one has a secret as soon as one forms an intention to keep information from others, a process that often occurs well before any need to conceal arises (Slepian, 2022). Defining secrecy as concealment neglects the most common and consequential aspects of secrecy, which arise from the intention to keep information hidden, not the act of concealment itself. In fact, most of the experience of secrecy extends beyond the brief moments in which information is actively concealed: People mind-wander to their secrets outside of concealment settings about twice as often as they actively conceal them in social settings (Slepian et al., 2017).

Recent research reveals that the deleterious effects of negative secrets stem from how people think about and consider their secrets during these mind-wandering episodes, not how frequently they

Michael L. Slepian  <https://orcid.org/0000-0002-4728-2178>

Michael L. Slepian played a lead role in conceptualization, formal analysis, and writing—original draft. Katharine H. Greenaway played a supporting role in conceptualization and writing—review and editing. Nicholas P. Camp played a supporting role in conceptualization and writing—review and editing. Adam D. Galinsky played a supporting role in conceptualization and writing—review and editing.

Correspondence concerning this article should be addressed to Michael L. Slepian, Management Division, Columbia Business School, Columbia University, 665 W 130th Street, New York, NY 10027, United States. Email: michael.slepian@columbia.edu

conceal the secret during conversations with others (Slepian & Koch, 2021; Slepian et al., 2017; see also Maas et al., 2011; Quinn & Chaudoir, 2009). When actively concealing a secret, people do not have the time nor the bandwidth to think about all the negative implications of a secret; their attention is primarily devoted toward not revealing the information related to the secret (i.e., monitoring for any potential slippages), rather than reflecting on the larger meaning of the secret (Critcher & Ferguson, 2014; Slepian, 2022). Outside of concealment episodes, however, people's minds are free to roam, and when it comes to negative secrets, the mind is often drawn to negative and harmful places filled with isolation and uncertainty (Slepian & Koch, 2021).

Recognizing that the effects of secrets stem more from how we reflect on the hidden information during moments of private pondering—rather than from interpersonal concealment—generates a novel prediction: Secrecy may not be inherently depleting and burdensome to the secret keeper. Instead, the meaning that people attach to the secret may guide its psychological effects (Slepian et al., 2019). The current work explores the idea that the meaning of some secrets—positive secrets—may carry psychological benefits rather than cause psychological harms.

Positive Secrets

Prior research on secrecy has focused on the effects of *negative* secrets; secrets that involve information that people consider unpleasant, objectionable, or embarrassing (Major & Gramzow, 1999). Yet, many secrets are *positive* in nature, from marriage proposals to gifts to surprises to unexpected good news. Although negative secrets have been found to be fatiguing (Slepian et al., 2019), we propose that positive secrets can be energizing. In the current work, we define feelings of energy as positive activation that is experienced as feeling alive, alert, active, and invigorated (see Harmon-Jones et al., 2009; Ryan & Deci, 2008; Ryan & Frederick, 1997; Saunders & Inzlicht, 2016).

One reason why positive secrets may be energizing rather than fatiguing is because they make people feel good. Research has shown that savoring positive experiences heightens positive feelings (Kurtz et al., 2007; Quoidbach et al., 2010; Speer et al., 2014). Thus, positive secrets may energize because they lead people to spend more time savoring the information, reflecting on its meaning or considering possible joyful reactions to sharing the secret. The positive affect that this savoring generates may be energizing. Indeed, prior work has shown that positive affect predicts subjective feelings of energy (Ryan & Frederick, 1997; Sheldon et al., 1996).

We propose another reason for why positive secrets may be energizing, one that sheds light on the motivational processes underlying secrecy. Motivation scholars focus on the quality of one's motivation to perform an activity, which may be high or low, and whether motivation is oriented in intrinsic or extrinsic ways (Ryan & Deci, 2000). As we have outlined, a simple view of positive secrets would suggest that their positive content (and the positive affect it engenders) is energizing because people like to dwell on information that is satisfying or rewarding. Moving beyond this view, aside from the content of the secret, we examine the motivation behind the positive secret.

To have a secret is to be motivated (i.e., to be moved to do something; Ryan & Deci, 2000). In the case of both a positive and a negative secret, people are motivated to keep information from

others. What differs between these types of secrets, we propose, is the *orientation* of the motivation, with positive secrets operating through relatively intrinsic, compared to extrinsic, channels. A classic example of intrinsic motivation is engaging in a behavior for its own enjoyment (an internal reason; Greene & Lepper, 1974; Ryan, 1982). And related motivational states include engaging in behaviors that represent authentic interests and values (Sheldon & Elliot, 1998). In contrast, extrinsic motivation involves performing a task for some reward (e.g., payment; an external reason, Greene & Lepper, 1974), or to avoid some punishment (another external reason; Deci, 1972). In three of the present studies, we assess intrinsic motivation as freely choosing to keep information hidden, as opposed to choices based in external pressures or constraints (see Deci & Ryan, 1985; Nix et al., 1999; Ryan, 1995). In our final study, we assess intrinsic motivation as freely choosing to keep information hidden because it is enjoyable or personally important (i.e., a motivation free from external pressure; see Sheldon & Elliot, 1998, 1999).

In contrast to positive secrets, we propose that *other* kinds of secrets are more extrinsically motivated, driven by external demands and pressures (e.g., seeking to influence others' impressions of oneself, seeking to not hurt others' feelings). Prior work corroborates the idea that prototypically negative secrets are more motivated by external pressures. For instance, people often keep secrets to protect one's reputation in the eyes of others or to protect a relationship (McDonald et al., 2020). While people might reveal positive information for external reasons (e.g., to receive praise from others), we suggest that people often keep positive information secret for internal reasons that are relatively more self-determined.

Building off prior work, we conceptualize motivation as existing on a continuum ranging from extrinsic motivation to intrinsic motivation (Deci & Ryan, 1985). This continuum varies on the extent to which the motivation for a behavior comes from outside versus inside the self, termed an external to internal perceived locus of causality (Ryan & Deci, 2000). We propose that having a positive secret places one higher on this continuum than other types of secrets because the choice to keep positive information secret is usually one that is autonomously chosen and allows people to experience competence as they successfully implement their choice (i.e., showing mastery), and these represent two of the necessary conditions for intrinsic motivation to emerge (Deci & Ryan, 1985).

This motivational perspective emphasizes the agency of the secret keeper, such that people keep positive information secret often for internal reasons, rather than because the situation requires it. Consider someone who has bought a gift for themselves and decides to keep this information secret in order to privately savor the reward. This personal enjoyment constitutes an intrinsic motivation behind keeping the secret. However, if a person were embarrassed about the nature of the gift, and kept it secret to avoid influencing others' impressions (i.e., an external reason), this would instead be a secret that is more extrinsically motivated. This example also serves to illustrate that a positive secret is not necessarily devoid of negativity. People can be embarrassed about their positive secrets (e.g., having paid an exorbitant price for strongly desired concert tickets) and they can keep secret their joys over others' misfortunes (e.g., seeing a rival fail). We therefore do not propose that all positive secrets are purely intrinsically motivated. Indeed, our studies reported here find that about 26% of positive secrets are extrinsically motivated (e.g., not being allowed to reveal, or kept due to other external pressures), and our findings show that these secrets

are less energizing than intrinsically motivated secrets. Thus, our core proposition is that positive secrets are relatively more intrinsically than extrinsically motivated; a state referred to as self-concordance (Sheldon & Elliot, 1999).

Theorists define goals as self-concordant when they are pursued because of personal interest (intrinsic motivation) or in line with personal convictions (identified motivation; Sheldon & Elliot, 1998). In such cases, these goals are considered integrated with the self (i.e., have an internal perceived locus of causality). Self-concordant goals contrast with other goals that are pursued for outside reasons (external motivation) or because one would feel bad for not engaging in the goal behavior (introjected motivation). Self-concordance is operationalized as a difference score between these two broad forms of motivation, which serves as a statistical representation of our proposition that positive secrets are relatively more intrinsically than extrinsically motivated. The more self-concordant a goal is perceived to be, the more attainment of that goal is related to increased well-being (Sheldon & Elliot, 1999). Hence, even when keeping a positive secret deprives one of others' reactions to the positive content of the secret, the secret may still bring its bearer benefits when keeping the secret aligns with personal values or is personally enjoyable.

Taking this motivational perspective allows for an interpretation of positive secrecy that applies to many different types of positive secrets (e.g., surprises, good news, ambitions) and many different goals behind keeping the information secret (e.g., because it is personally important, to heighten anticipation, for autonomy). For instance, if someone values humility, they may choose to keep secret a recent achievement or award. Or take another example. If someone values personal freedom, they may choose to keep secret an ambition to preserve their independence. Or, returning to our personal gift example, one may choose to keep this secret simply for the joy of savoring the experience in private. Despite having different content and being kept for different reasons, we argue that what unites these examples is the fact that positive secrets are more intrinsically than extrinsically motivated.

The Energizing Effects of Intrinsic Motivation

Autonomous motivation—an important ingredient of intrinsic motivation—is a known predictor of feelings of energy and vitality. For example, Ryan and Frederick (1997) examined individuals who were participating in a weight-loss program. They measured the extent to which the individuals were participating in the program for external reasons (e.g., advice from doctors, pressure from significant others) and internal reasons (e.g., personal choice, a desire to change). The authors found that internal (vs. external) reasons for weight loss were related to higher feelings of vitality on a subjective vitality scale that they established and validated. Similarly, Kasser and Ryan (1999) found that elderly residents who felt greater autonomy in their lives also felt more energized, as measured by the subjective vitality scale. Likewise, Sheldon et al. (1996) found in a 2-week longitudinal study that college students who felt greater autonomy also experienced greater subjective vitality. Reis et al. (2000) found that daily changes in feelings of autonomy predicted daily changes in vitality, including when controlling for a variety of individual differences. And among athletes, measured intrinsic motivation predicted feelings of vitality both before practice and after (Gagne et al., 2003).

The causal effect of intrinsic versus extrinsic motivation on feelings of energy has also been established. In one experiment by Nix et al.

(1999), participants either freely engaged in a card sorting task or were forced to sort cards in a manner determined by another person. They found that the personally chosen condition was more energizing than the external demand condition. In another one of their experiments, participants performed a perceptual puzzle task with the framing of “do you have what it takes?” to be an Air Force pilot (i.e., meeting an external demand), or performed the puzzle task for their own enjoyment, and again the personally chosen condition was more energizing than the external demand condition. And in a third experiment, participants imagined taking a college course for their own enjoyment or because they felt pressured to do well, and again the personally chosen condition was more energizing than the external pressures condition.

In sum, naturally occurring intrinsic motivation predicts feelings of energy, and experiments that frame actions and behaviors as intrinsically motivated produce greater feelings of energy, compared to when the same actions and behaviors are framed as extrinsically motivated. We hypothesize that positive secrets are more intrinsically than extrinsically motivated, compared to other kinds of secrets. We also argue that as a result, positive secrets will energize the individual keeping them, relative to other types of secrets and relative to positive secrets that are extrinsically motivated.

Experimental Overview

In contrast to prior research and theorizing that secrets are depleting, our core proposition is that positive secrets can be energizing. To test this proposition, our first study compared secret to non-secret good news. We developed a comprehensive list of common pieces of good news from a large pilot study. We then randomly assigned participants to think about real secret good news or real non-secret good news and report their feelings of energy.

We further propose that the energizing effect of positive secrets occur because positive secrets are more intrinsically than extrinsically motivated. Providing an experimental test of this proposition, Study 2 asked participants to select a piece of good news that would make them happy, could plausibly happen to them, and would not be known by others until shared. After selecting the good news, participants were randomly assigned to one of three conditions: an intrinsic motivation condition, an extrinsic motivation condition, or a baseline motivation condition, and then reported their resulting feelings of energy.

To establish that these motivational effects are properties of real positive secrets, the remaining studies examined real positive secrets compared to other kinds of real secrets. Study 3 compared positive secrets to negative secrets and measured positive affect and the motivation behind the secret. Study 4 then compared positive secrets with a conservative comparison condition (secrets of unspecified valence) and measured the motivation for the secret (i.e., whether one chose to keep the secret freely or in response to external pressures), as well as feelings of energy.

Finally, Study 5 measured intrinsic and extrinsic motivation separately, allowing us to examine both forms of motivation as well as self-concordance (i.e., the difference between them). The study randomly assigned participants to imagine personal information that was likely to be relevant to an upcoming conversation, which they intended to keep secret or not and was positive or not. This approach allowed us to test whether—as we propose—compared to other kinds of secrets, positive secrets are relatively more intrinsically than extrinsically motivated, and whether this motivational state of

self-concordance predicts greater feelings of energy. This approach also allowed us to compare the pattern of results for secrets to that of non-secrets (matched not on content as per Study 1, but matched in prospect; i.e., that the information would soon be relevant to upcoming conversations).

In each of our studies, we sought to have at least 200 observations per study cell (with 80% power and $\alpha = .05$, this sample size can detect an effect size of Cohens' $d = .28$; see Fritz et al., 2012; Giner-Sorolla et al., 2019). We used established measures for our focal outcome variables: the subjective vitality scale (Bostic et al., 2000) and the feelings of energy scale (Slepian et al., 2019). And we used an established measure of our control variable, positive affect (using the PANAS-X joy scale; Watson & Clark, 1999). This research was approved by the local institutional review board. The studies were not preregistered, but every measure and manipulation is reported, and all code and data are available at https://osf.io/j4u3p/?view_only=ce64784e5e804c168fb3af1db09e0288.

Our samples are drawn from CloudResearch's Turk Prime and Prolific, and our conclusions are limited to Western individuals who have internet literacy. Our samples have diverse age ranges (18–78 years old) and come from diverse locations throughout the United States. We also examined a large range of real-life positive secrets. By studying positive secrets—which depart from prior studies of secrecy—we provide a more nuanced picture of the effects of secrecy, a common social phenomenon that researchers know relatively little about.

Study 1: Secret Versus Non-Secret Good News

Study 1 examined good news. Good news represents an ideal domain to sample because good news can be about a range of events, experiences, and activities, and can be something people plan to discuss and share with others (or not), and can be something people intend to keep secret (or not).

We randomly assigned participants to think about pieces of good news they currently keep secret, or pieces of good news they currently have but are not secret. Specifically, we implemented a design that holds constant what participants recall, and experimentally varies whether people reflect on their secret good news or their non-secret good news. We then measured feelings of energy. Given the possibility that secret good news may differ from non-secret good news in terms of the positivity of the news, we also measured positive affect. This design allowed us to compare the energizing effects of positive secrets to non-secrets about the same kinds of good news. We also measured whether participants intended to share their positive information (whether secret or not) so that we could also examine the independent effect of intending to share positive information.

Method

Participants and Design

We randomly assigned participants ($N = 200$, $M_{\text{age}} = 39.23$, $SD = 13.44$, range = 19–70; 104 men, 95, women, one other) to one of two conditions, between-subjects. Participants first were exposed to a list of common pieces of good news and were asked to indicate which pieces of good news they currently held secret and which pieces of good news were non-secret. Subsequently, participants were

randomly assigned to reflect on each piece of secret good news, or non-secret good news.

At the end of the study, six participants admitted to fabricating their answers (when asked) and were thus excluded. Our final sample consisted of 194 participants.

Stimuli

To identify a set of stimuli that could have these features, we first posted a study on CloudResearch's TurkPrime for 1,000 people who currently had secret good news ($M_{\text{age}} = 33.79$, $SD = 11.24$, range = 18–78), and simply asked participants to describe the good news. Adopting a method from prior work (Slepian et al., 2017), we coded responses to arrive at a set of the 38 most common categories of good news for subsequent studies:

Completed a task, accepted into a school/program, starting school/program, new job, a promotion or bonus, recognized for something (other than the preceding), business doing well/starting a business, a new project, an accomplishment/achievement, a financial windfall, winning a game/award, winning a gamble, reducing one's debt, saving up money, upcoming social event, upcoming trip, upcoming activity (other than preceding), giving a gift, surprising someone (other than with a gift), receiving a gift, a small self-gift, moving/approved for housing, approved for something (other than housing, e.g., license, loan), new possession/pet, family news, health news (e.g., improvement), marriage proposal, pregnancy, found something, new opportunity, new idea/belief, self-development, life change, personal news (other than preceding), uncertain but positive event (other than preceding).

Procedure

Adopting a methodology developed to collect data on multiple secrets per each participant (Slepian et al., 2017), Study 1 examined a range of good news, both secret and not. Participants were first exposed to an elaborated list of these 38 common categories of good news, which we term the Good News Questionnaire (see the Appendix). Per each item on the list, participants indicated whether they had that good news or not, and whether it was secret or not (see Figure 1 for a visualization of participants' recent good news, secret and not).

Secret Versus Non-Secret Condition. In the *secret* condition, we presented to participants the set of good news they identified as current secrets, and per each, we asked them to report their feelings of energy (when thinking about the good news), positive affect, and intent to share the good news with others.

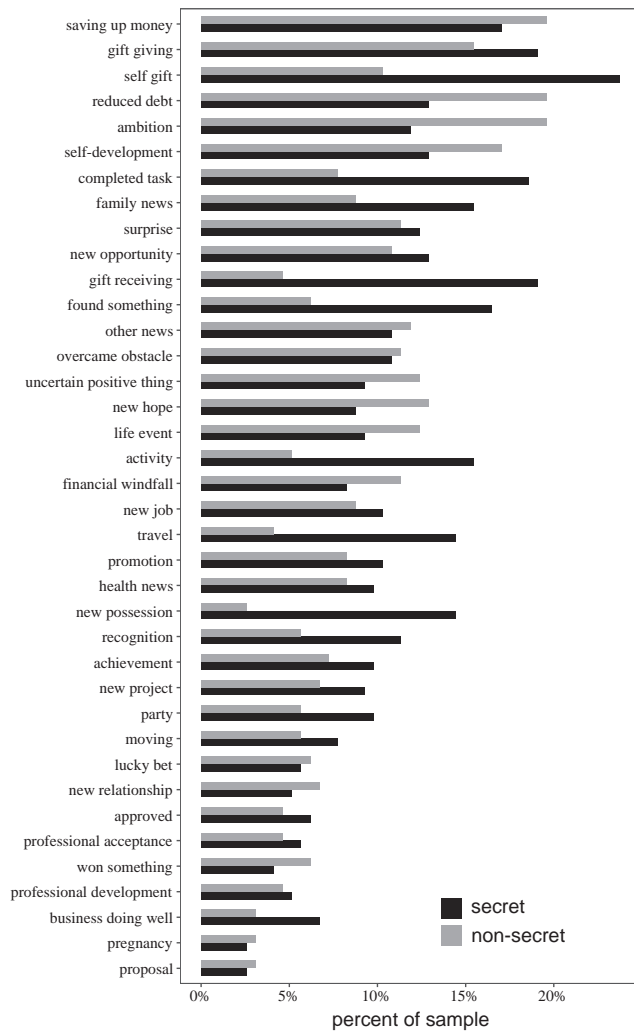
In the *non-secret* condition, participants were instead assigned to think of their non-secret items of current good news and complete the same measures for each piece of non-secret good news.

Feelings of Energy. For each piece of good news, we measured resulting feelings of energy with the six-item subjective vitality scale (Bostic et al., 2000; from 1, *not at all* to 7, *very*; $\alpha = .96$; e.g., items included: “feeling awake and alert,” “feeling energized,” “feeling alive”).

Positive Affect. As a control variable, we measured positive affect with two items asking about the good news: “How good does it make you feel?” and “How happy does it make you?” from 1, *not at all* to 7, *very*; $r = .83$.

Intent to Share. We measured intent to share with a single item: “I intend to tell people/someone about this” from 1, *not at all* to 7, *very much*.

Figure 1
Percent of Study 1 Sample Currently With Each Piece of Good News (Secret and Non-Secret)



Note. Y-axis is sorted by the total frequency (secret + non-secret), such that more common *current* good news is at the top of the graph, and less common *current* good news is at the bottom.

Results

Of the 38 common categories of good news, people currently held on average 14 to 15 such experiences ($M = 14.54$, $SD = 8.52$, 95% CI [13.34, 15.75]), with an average of 5–6 pieces of good news that were currently secret ($M = 5.66$, $SD = 6.67$, 95% CI [4.71, 6.60]), and 9 pieces of good news that were non-secret ($M = 8.88$, $SD = 5.72$, 95% CI [8.07, 9.69]). Thus, having good news represents a common experience for our participants.

While participants commonly had both secret good news and non-secret good news, across the 38 categories, by random assignment, participants reported only on their non-secrets ($n = 807$) or only on their secrets ($n = 647$). This design allowed us to ask, across the same categories of good news, whether secret good news is more energizing than non-secret good news. By also

entering intent to share as a simultaneous predictor, our analyses examine whether the energizing effect of keeping a piece of good news *secret* is independent of any energizing effect of intending to share the good news with others.

We implemented a cross-classified multilevel model, predicting feelings of energy from the manipulated between-subjects condition (1 = *secret*, 0 = *non-secret*) and measured intent to share, including random intercepts for participant and category of good news (as is typical, cross-classified models failed to converge with random slopes).¹ All multilevel models in the current work (Studies 1 and 2) were estimated using the lme4 R-package (Bates et al., 2015), and p -values were estimated with Satterthwaite approximation tests using the lmerTest R-package (this procedure scales model estimates to approximate the F -distribution in estimating degrees of freedom, resulting in nonwhole numbers; Kuznetsova et al., 2015). By modeling category of good news as a random factor—composed of a comprehensive list of common kinds of good news—we seek to provide estimates that generalize to other unsampled kinds of good news.

As seen in Table 1, our manipulation of randomly assigning participants to reflect on their secret good news (compared to their non-secret good news) had an independent effect on increased feelings of energy. Participants felt more energized when they were assigned to think of their *secret* good news ($M = 3.75$; $SE = .15$) than when they were assigned to the *non-secret* good news condition ($M = 3.33$; $SE = .14$; estimated means that account for participant and category of secret).

In addition, the intent to share also had an independent effect on energy (similar to the positive effects of actually sharing good news with others; Gable & Reis, 2010). Importantly, participants felt more energized in the *secret* good news condition relative to the *non-secret* good news condition independent of whether they intended to share their good news. These effects remained when controlling for positive affect, which explained a large amount of variance in feelings of energy.

Discussion

Study 1 examined the effects of reflecting on secret good news versus non-secret good news (across the same content categories) on feelings of energy. Our design leveraged the fact that most people have multiple current pieces of good news, which allowed us to simply vary whether participants thought about their current pieces of good news that were secret versus non-secret.

Participants who were randomly assigned to think about secret good news felt more energized than those who thought about non-secret good news. Importantly, this effect was independent of positive affect and people's intentions to share the good news. Additionally, the intent to share good news (irrespective of secrecy) was itself energizing, which is sensible given that sharing positive information with others is a way in which people can connect with others and amplify their well-being (Langston, 1994; Rimé et al., 1991). Importantly, thinking about secret good news was still energizing over and above this effect of the intent to share.

¹ Unlike a classic multilevel model (e.g., students nested within a school), secrets are not nested within participants because the same secret can be had by multiple participants, and participants will not have every secret. Hence, secrets and participants are cross-classified.

Table 1
Predicting Feelings of Energy, Study 1

Independent variable	Model 1						Model 2 (positive affect entered)					
	<i>b</i>	95% CI	<i>SE</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>b</i>	95% CI	<i>SE</i>	<i>df</i>	<i>t</i>	<i>p</i>
Secrecy condition	.42	[.09, .75]	.17	157.36	2.48	.014	.24	[.01, .47]	.12	150.17	2.03	.044
Share intent	.26	[.23, .30]	.02	1430.33	15.75	<.001	.09	[.06, .12]	.01	1425.91	6.44	<.001
Positive affect	—	—	—	—	—	—	.60	[.56, .64]	.02	1437.09	31.74	<.001

Note. CI = confidence interval; *SE* = standard error.

Additionally, finding that the intent to share positive information was also energizing extends the capitalization literature that has focused on related but distinct outcomes (i.e., positive affect and well-being; Gable & Reis, 2010; Gable et al., 2004).

Even though positive affect explained a large portion of variance in feelings of energy, reflecting on positive secrets, relative to positive non-secrets, was still energizing when controlling for positive affect. Though often linked (Ryan & Frederick, 1997; Sheldon et al., 1996), feelings of energy are distinct from positive affective states like happiness, joy, and contentment. Feelings of energy are associated with feelings of aliveness, vigor, and a readiness to take on whatever lies ahead (Nix et al., 1999; Ryan & Deci, 2008; Ryan & Frederick, 1997).

Study 2: Positive Secrets Versus Positive Information Unknown for Other Reasons

In Study 2, we compared positive secrets to positive information unknown for other reasons. Good news again presents an ideal context for this study, because good news is often unknown by others until it is shared with them. The design of Study 2 allowed us to examine common pieces of good news, this time within a context that manipulated the underlying reason behind the positive information being unknown. We asked people to imagine having a piece of good news that their romantic partner did not yet know (i.e., we hold constant the person who is not aware of the good news). Subsequently, we experimentally manipulated the reason—*intrinsic* or *extrinsic*—for having the information unknown.

Recall that Study 1 examined a broad and diverse set of good news that people typically have, as determined by a separate group of 1,000 participants. Study 2 again utilized this list of common pieces of good news, but this time we asked participants to pick an experience from the list that (a) could plausibly happen to them soon, (b) would make them happy, and (c) would not be known by others until shared. The advantage of this method is that it holds constant that each participant is thinking about the same types of good news, but it lets each participant select the content that best matches these criteria. As in Study 1, this method allows us to model the content of the good news as a random factor and allows us to generalize across the categories of good news.

In all conditions, participants imagined a piece of good news that was not yet known by others. In our *intrinsic* motivation condition, the news was not known because the participant freely chose to keep it secret. This condition emphasizes autonomy in the decision to keep the secret, an ingredient of *intrinsic* motivation (Deci & Ryan, 1985). We compared this condition to an *extrinsic* condition (i.e., unknown by others because of external forces) and a *baseline* condition (i.e., neither *intrinsic* nor *extrinsic*).

Method

Participants and Design

Using CloudResearch's TurkPrime we recruited 600 participants (356 women, 240 men, four other; $M_{\text{age}} = 39.23$, $SD = 13.44$, range = 19–76), seeking 200 participants per study cell. We chose this sample size to be able to detect an effect size of $d = .28$ (with 80% and $\alpha = .05$). Participants were randomly assigned to one of three conditions: an internal reason for the positive secret, an external reason for the positive secret, and, as a baseline condition, no specified reason for the positive secret.

Procedure

To accommodate our design that held constant the target to whom the positive information was unknown, we recruited participants in committed relationships. Upon entry, participants indicated how long they had been with their romantic partner.

Participants were then exposed to the same list of common pieces of good news from Study 1 and were asked to select a piece of good news that could plausibly happen to them, would make them happy, and would not be known by their partner until shared. This choice was then piped into one of three vignettes. Participants were randomly assigned to imagine their good news was not currently known to their partner, as something they had chosen to keep secret (*intrinsic* condition), as something that could not currently be shared due to external forces (*extrinsic* condition), or with no reason specified (*baseline* condition). We then measured resulting feelings of energy.

Stimuli

Participants were shown the 38 common categories of good news from Study 1 and were asked to select a piece of good news that met each of the three criteria: (a) "This would make me happy," (b) "This is *PLAUSIBLE* (i.e., could actually happen to me)," and (c) "My partner would *NOT* know about this until I told them." After selecting the good news that best fit, participants had to check a box to confirm each of the three criteria applied to their selection.

Prompt

In all conditions, we piped to participants the good news they selected as something personally plausible, positive, and would not be known to their partner until shared. To avoid participants inferring different sharing intentions across conditions, in each condition, it was implied that the good news would eventually be shared.

Intrinsic Condition. Participants read “Imagine you have the good news above, BUT you’re going to keep this good news secret, and you are going to surprise your partner, when you get home after work. How would this make you feel?”

Extrinsic Condition. Participants read “Imagine you have the good news above, BUT you can’t tell you partner right now, because they are in meetings until the end of the workday, so you have to wait to tell them, when you get home after work. How would this make you feel?”

Baseline Condition. Participants read “Imagine you have the good news above, BUT you haven’t told your partner yet. How would this make you feel?”

Feelings of Energy

Next participants completed an expanded feelings of energy scale, which asked how tired, depleted, weak, passive, active, invigorated, strong, energized, awake and alert, and alive they felt (from 1, *not at all* to 7, *very much*; from Slepian et al., 2019). The first four listed items were reverse-coded, and an average was taken so that higher scores on this index indicate feeling more energized ($\alpha = .88$). The order of items was randomized.

Results

We implemented a multilevel model that included random intercepts for the category of good news selected (there was no random effects for participants as there was only one data point per each participant; and as in Study 1, random slope models failed to converge). By entering two dummy variables (1 = intrinsic vs. 0 = not, and 1 = extrinsic vs. 0 = not) simultaneously, each coefficient represents the effect of that condition relative to the baseline condition (an approach that is equivalent to an analysis of variance [ANOVA] within the context of regression modeling), here implemented within a multilevel modeling framework.

In all conditions, participants considered a piece of good news that they reported could plausibly happen to them, make them happy, and was not yet known by their partner. Relative to the baseline condition, the extrinsic condition was fatiguing, $b = -0.21$, 95% CI $[-0.40, -0.02]$, $SE = 0.10$, $t(589.56) = -2.19$, $p = .029$, whereas relative to the baseline condition, the intrinsic condition was energizing, $b = 0.25$, 95% CI $[0.06, 0.44]$, $SE = 0.10$, $t(590.75) = 2.56$, $p = .011$. And the intrinsic condition was more energizing than the extrinsic condition, $b = 0.46$, 95% CI $[0.27, 0.65]$, $SE = 0.10$, $t(594.32) = 4.73$, $p < .0001$.

Discussion

Study 1 demonstrated, across the same content categories of good news, reflecting on good news that was secret was more energizing than good news that was not secret. As outlined in the introduction, we proposed that positive secrets are typically kept for relatively intrinsic reasons. Study 2 experimentally suggested that a positive secret held for an intrinsic reason is more energizing than one held for an extrinsic reason or for no specified reason.

An advantage of the Study 2 design is that we were able to treat the category of good news piped into the experimental vignettes as a random factor to generalize across, and participants specifically

chose a piece of good news that would make them happy and could plausibly happen to them. Because the good news was selected before the manipulation, we had no reason to expect the good news to vary in systematic ways across conditions. Thus, in all conditions, we assigned to participants a piece of good news to imagine; all that differed by condition was the reason why the good news was not known.

Imagining that a piece of good news was unknown due to intrinsic reasons was energizing relative to baseline. In contrast, imagining that a piece of good news was unknown due to external constraints was fatiguing relative to baseline. Thus, the intrinsic condition was energizing while the extrinsic condition was fatiguing. These findings align with a large body of evidence that shows when a behavior feels autonomous, self-driven, or self-determined, people report higher feelings of vitality and energy, whereas when people feel pressured by external forces, that same behavior can feel draining and fatiguing (Muraven et al., 2008; Nix et al., 1999; Ryan & Deci, 2008; Ryan & Frederick, 1997).

Study 2 (and two additional studies reported in the Supplemental Material) provided experimental evidence for the role of intrinsic motivation, but relied on participants imagining hypothetical secrets. This method cannot approach the significance of personally held secrets, and the details of the vignettes may have introduced demand characteristics. Accordingly, Studies 3–5 returned to real secrets.

Study 3: Positive Secrets Versus Other Kinds of Secrets

Our next set of studies compared positive secrets to other kinds of secrets. In so doing, we consider whether positive secrets carry divergent effects not only from content-matched positive information that is *not* kept secret (Study 1) and positive information that is unknown due to other reasons (Study 2), but also from other kinds of secrets as well (Studies 3–5). Building off Study 2, we hypothesize that positive secrets will be more energizing than other secrets because positive secrets are more intrinsically than extrinsically motivated (Nix et al., 1999; Ryan & Deci, 2008; Ryan & Frederick, 1997). Thus, instead of manipulating intrinsic or extrinsic reasons for keeping the positive secret, in Study 3, we varied the type of secret recalled and measured whether the secret was kept because of personal choice or because of external pressures.

Method

Participants and Design

Using CloudResearch’s TurkPrime, we recruited 700 participants (398 women, 292 men, 10 other; $M_{age} = 41.47$, $SD = 12.60$, range = 20–78), seeking at least 200 participants per study cell after exclusions. We excluded 92 participants who said they did not have a secret to recall (37 in the unspecified secret condition, 26 in the negative secret condition, 29 in the positive secret condition), and an additional six participants who wrote about a secret, but later indicated (at the end of the study) the response was fabricated (two in the unspecified secret condition, one in the negative secret condition, three in the positive secret condition).

Participants were randomly assigned to one of three conditions: unspecified secret condition, negative secret condition, and positive secret condition.

Procedure

In all conditions, we asked participants to recall a current secret. In the *unspecified secret condition*, participants were simply asked to think about a current secret. In the *negative secret condition*, participants were asked to think about a current negative secret, and in the *positive secret condition*, participants were asked to think about a current positive secret. Subsequently, we measured whether the secret was intrinsically versus extrinsically motivated as well as positive affect.

Unspecified Secret Condition. In the unspecified secret condition, we did not specify a valence for the recalled secret. Participants read, “We ask you to think about a SECRET that you are keeping.” The next line read, “This secret should be about YOU (not someone else).”

Negative Secret Condition. Participants read, “We ask you to think about a NEGATIVE SECRET that you are keeping.” The next line read, “Make sure the SECRET is about something NEGATIVE/ something you feel BAD about,” and then “This secret should be about YOU (not someone else).”

Positive Secret Condition. Participants read, “We ask you to think about a POSITIVE SECRET that you are keeping.” The next line read, “Make sure the SECRET is about something POSITIVE/ something you feel GOOD about,” and then “This secret should be about YOU (not someone else).”

In all conditions participants last read,

Without revealing specific details about your secret, we are curious what it pertains to. Please write about the secret in the provided box, revealing as much or as little details as you’d like. Please do your best to think of something that fits this prompt. If you can’t think of something that fits, only then, should you say you currently have no secret.

Intrinsic Versus Extrinsic Motivation Measure. Participants were then asked, “Which of these best describes YOUR motivation for keeping the secret.” And participants then selected one of the two below options (presented in the following format):

- I am *intrinsically* motivated.
 - That is, I am doing this for myself.
 - My own internal desires lead me to keep the secret.
- I am *extrinsically* motivated.
 - That is, I am doing this because of other people or other pressures.
 - An external factor (someone or something else) leads me to keep the secret.

This measure asks participants which best describes their secret: whether it was chosen freely and autonomously or whether it was chosen due to external pressures. Accordingly, the aspect of motivation that we measure here is autonomous motivation.

Positive Affect Measure. On a subsequent page, participants were then asked, “When thinking about your secret, how much do you feel” and then completed the PANAS-X joy scale (Watson & Clark, 1999): happy, joyful, delighted, and cheerful (from 1, *not at all* to 5, *extremely*; $\alpha = .99$).

Honesty Check. After reporting demographics, participants were asked if they recalled a real secret earlier in the study, and we promised if the answer was no, they would still be compensated, no questions asked.

Results

Positive Affect

We first conducted independent samples *t* tests on the positive affect measure, which showed that participants reported greater positive affect in the positive secret condition ($M = 3.93$, $SD = 0.95$, 95% CI [3.80, 4.07]) than in the unspecified secret condition ($M = 1.97$, $SD = 1.38$, 95% CI [1.78, 2.16]), $t(366.68) = 16.63$, $p < .0001$, $d = 1.66$, 95% CI [1.43, 1.89].² And participants in the unspecified secret condition reported greater positive affect than participants in the negative secret condition ($M = 1.29$, $SD = 0.76$, 95% CI [1.19, 1.40]), $t(320.36) = 6.21$, $p < .0001$, $d = 0.61$, 95% CI [0.41, 0.81].³

Intrinsic Versus Extrinsic Motivation

Given the binary nature of this measure, we used logistic regression, coding the motivation variable as intrinsic = 1 and extrinsic = 0, and calculated two dummy predictor variables (1 = positive vs. 0 = not, and 1 = negative vs. 0 = not). When entering both dummy variables simultaneously, each coefficient represents the effect of that condition relative to the unspecified secret condition.

Both dummy variables were entered in a logistic regression predicting the motivation variable, which revealed that participants reported greater intrinsic motivation in the positive secret condition ($M = 0.78$, $SD = 0.42$, 95% CI [0.72, 0.84]) than in the unspecified secret condition ($M = 0.55$, $SD = 0.50$, 95% CI [0.48, 0.62]), $b = 1.08$, $SE = .22$, $z = 4.85$, $p < .0001$. There was no difference between the unspecified secret condition and the negative secret condition ($M = 0.61$, $SD = 0.49$, 95% CI [0.55, 0.68]), $b = .26$, $SE = .20$, $z = 1.29$, $p = .196$. And these effects did not change when controlling for positive affect (Table 2).

Discussion

Study 3 examined the motivations behind positive secrets compared to negative secrets and secrets of unspecified valence. As predicted, positive secrets were more motivated by intrinsic reasons than other secrets, as operationalized by autonomous choice versus choice based in external pressures. Although people feel good about their positive secrets, they also independently reported that positive secrets are more motivated by intrinsic reasons compared to other types of secrets. We propose it is this link to intrinsic motivation that makes positive secrets more energizing than other secrets, a hypothesis we tested in Study 4.

² Levene’s Test showed unequal variances, $F = 5.46$, $p = .020$, and so a correction factor was used that did not alter statistical significance.

³ Levene’s Test showed unequal variances, $F = 38.53$, $p < .001$, and so a correction factor was used that did not alter statistical significance.

Table 2
Predicting Intrinsic (vs. Extrinsic) Motivation, Study 3

Independent variable	<i>b</i>	<i>SE</i>	<i>z</i>	<i>p</i>
Positive secret versus unspecified secret	.85	.27	3.10	.002
Negative secret versus unspecified secret	.34	.21	1.64	.101
Positive affect	.12	.08	1.49	.136

Note. *df* = 604. Each variable entered simultaneously (when entering both dummy variables simultaneously both effects are relative to the unspecified secret condition). *SE* = standard error.

Study 4: Positive Secrets Versus Secrets of Unspecified Valence

Study 3 demonstrated that positive secrets are more intrinsically motivated than other types of secrets. Study 2 suggested that good news kept secret for intrinsic reasons was more energizing than good news kept secret due to external constraints. In our next study, we tested whether intrinsic motivation would mediate the energizing effects of positive secrets.

Study 4 made two modifications to the Study 3 design. First, we compared positive secrets to secrets of unspecified valence. Study 3 found that negative secrets and secrets of unspecified valence did not differ in terms of intrinsic motivation, which is a predictable outcome given that the prototypical secret is a negative secret (Slepian et al., 2017, 2020). Given that Study 3 found negative secrets led to less positive affect than secrets of unspecified valence, testing against unspecified secrets allows for a conservative test of our hypotheses. This design is also in line with prior work that has simply asked participants to recall a current secret, without specifying that the secret should be negative (e.g., Slepian et al., 2017, 2019).

We also examined whether intrinsic motivation would predict and mediate feelings of energy when controlling for positive affect. We hypothesized that recalling positive secrets, relative to secrets of unspecified valence, would be energizing as a function of intrinsic motivation, including independent of positive affect.

Method

Participants and Design

Using CloudResearch's TurkPrime, we recruited 500 participants (241 women, 255 men, four other; $M_{\text{age}} = 39.84$, $SD = 11.90$, range = 18–76), seeking at least 200 participants per study cell after exclusions. We excluded 57 participants who said they did not have a secret to recall (26 in the unspecified secret condition, 31 in the positive secret condition), and an additional seven participants who wrote about a secret, but later indicated the response was fabricated (two in the unspecified secret condition, five in the positive secret condition).

Participants were randomly assigned to one of two conditions: an unspecified valence secret condition and a positive secret condition.

Experimental Manipulation

The procedure was similar to Study 3. In the unspecified valence secret condition, participants were simply asked to think about a

current secret, and in the positive secret condition, participants were asked to think about a current positive secret (using the same prompts from Study 3).

Measures

We next measured whether the secret was intrinsically versus extrinsically motivated (using the Study 3 measure), and then measured feelings of energy (using the Study 2 measure), and positive affect (also using the Study 2 measure, the PANAS-X joy scale, Watson, & Clark, 1999). For feelings of energy, participants completed the feelings of energy scale, which asked how tired, depleted, weak, passive, active, invigorated, strong, energized, awake and alert, and alive they felt (from 1, *not at all* to 7, *very much*; from Slepian et al., 2019). The first four listed items were reverse-coded, and an average was taken so that higher scores on this index indicate feeling more energized ($\alpha = .90$). The order of items was randomized.

Results

Positive Affect

Participants reported greater positive affect in the positive secret condition ($M = 4.12$, $SD = 0.86$, 95% CI [4.01, 4.24]) than in the unspecified secret condition ($M = 2.03$, $SD = 1.31$, 95% CI [1.86, 2.21]), $t(384.07) = 19.76$, $p < .0001$, $d = 1.87$, 95% CI [1.65, 2.10].⁴

Intrinsic Versus Extrinsic Motivation

Participants reported greater intrinsic motivation in the positive secret condition ($M = 0.69$, $SD = 0.46$, 95% CI [0.63, 0.75]) than in the unspecified secret condition ($M = 0.52$, $SD = 0.50$, 95% CI [0.45, 0.58]), $b = .73$, $SE = .20$, $z = 3.68$, $p = .0002$, including when controlling for positive affect, $b = .69$, $SE = .27$, $z = 2.57$, $p = .010$.

Feelings of Energy

Participants reported greater feelings of energy in the positive secret condition ($M = 5.56$, $SD = 0.89$, 95% CI [5.44, 5.68]) than in the unspecified secret condition ($M = 4.12$, $SD = 1.30$, 95% CI [3.95, 4.29]), $t(392.26) = 13.58$, $p < .0001$, $d = 1.29$, 95% CI [1.08, 1.49].⁵

We next entered condition (positive secret vs. unspecified valence secret), intrinsic motivation, and positive affect as simultaneous predictors of feelings of energy, and intrinsic motivation independently predicted greater feelings of energy (Table 3).

Indirect Effect

Using the R-package mediation with 5,000 bootstraps, we found an indirect effect (IE) of recalling positive secrets (vs. secrets of unspecified valence) on feelings of energy, independent of positive affect, as a function of greater intrinsic motivation, $IE = .04$, 95% CI [.01, .08], $p = .011$.

⁴ Levene's Test showed unequal variances, $F = 14.42$, $p < .001$, and so a correction factor was used that did not alter statistical significance.

⁵ Levene's Test showed unequal variances, $F = 34.17$, $p < .001$, and so a correction factor was used that did not alter statistical significance.

Table 3
Predicting Feelings of Energy, Study 4

Independent variable	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>
Intrinsic (vs. extrinsic) motivation	.21	[.04, .37]	.08	2.48	.013
Positive secret versus unspecified secret	.05	[-.17, .27]	.11	0.42	.677
Positive affect	.65	[.58, .73]	.04	18.04	<.0001

Note. *df* = 436. CI = confidence interval; *SE* = standard error.

Discussion

Replicating Study 3, Study 4 found that, compared to other secrets, positive secrets were more intrinsically motivated—operationalized as freely chosen rather than chosen due to external pressures. Study 4 additionally showed that positive secrets were more energizing than other types of secrets. Furthermore, this intrinsic motivation explained the energizing effect of positive secrets. This link provides evidence for our theory that it is the intrinsic (vs. extrinsic) motivation behind positive secrets that explains their energizing effects.

Critically, Study 4 demonstrates an energizing effect of positive secrets from intrinsic motivation that is independent of positive affect. These results suggest that in addition to positive affect, another critical ingredient of the energizing effects of positive secrets is that they are more self-determined than other types of secrets.

Study 5: Examining Additional Potential Mechanisms of the Energizing Effect of Positive Secrets

Our final study sought to integrate the strengths of our previous studies that examined real personal secrets, while further probing the mechanism(s) behind increased feelings of energy. We manipulated whether the information people recalled was positive (vs. not) and secret (vs. not). We asked participants in all conditions to think about information that they anticipated soon would be relevant to an upcoming conversation with their partner. This prospective design matches our definition of secrecy, which is the intention to keep information from one or more others (Slepian, 2022; Slepian et al., 2017). This design did not match secrets and non-secrets by content (as in Study 1), but the design did allow us to match secret information to non-secret information in prospective orientation (i.e., all participants thought about real personal information that was soon to be relevant to a conversation with their partner).

In addition, we tested our proposed mechanism with a greater degree of precision. As outlined in the introduction, our main argument is that positive secrets are relatively more intrinsically motivated than extrinsically motivated. This argument presents motivation on a continuum (Deci & Ryan, 1985). In contrast, Studies 3 and 4 provided evidence for our theory using a binary measure. Furthermore, these studies operationalized intrinsic motivation in terms of behavior that was autonomously chosen. Autonomy is not the only determinant of intrinsic motivation—indeed, it is possible for choices to be made for autonomous, yet externally determined, reasons (e.g., choosing which of two shirts wear, both picked out by one's spouse; Ryan & Connell, 1989). A stronger test of intrinsic motivation would measure it alongside extrinsic motivation and then compare the relative strength of each reason for keeping a secret (positive or otherwise).

Theorizing from the self-concordance model (Sheldon & Elliot, 1998) offered us a method for assessing the interplay between

intrinsic and extrinsic motivation. This model suggests that goals are particularly beneficial when they are not only autonomously chosen (as we have shown in our previous studies), but also *self-integrated*. That is, goals are more likely to be vigorously pursued to the extent that they reflect the authentic interests and values of the self (Sheldon & Elliot, 1999), which should also make positive secrets energizing. That is, we propose that people choose to freely keep positive secrets for reasons that reflect personal values and convictions, rather than for reasons imposed by others or current circumstances. This form of self-concordance is assessed as the difference between intrinsic and extrinsic motivation, which we used to examine the motivational quality of positive secrets in Study 5.

In addition to this more precise mechanism, we assessed the role of additional variables to examine alternative explanations for the energizing effects of positive secrecy. For example, it may be that positive secrets are energizing since people often intend to reveal them, a possibility we controlled for in Study 1. Another possibility is that, compared to other secrets and even non-secrets, people may intend to share positive secrets especially soon, and it is this intention that predicts feelings of energy. Study 5 therefore tested whether these alternative mechanisms accounted for the energizing effects of positive secrets.

Method

Participants and Design

Using Prolific, we recruited 800 participants (414 women, 351 men, 21 other; $M_{\text{age}} = 35.15$, $SD = 11.92$, range = 18–79), seeking at least 200 participants per study cell, and 786 completed the study. We excluded 23 participants who indicated that they fabricated their responses at the conclusion of the study (nine in the positive secret condition, eight in the positive non-secret condition, three in the unspecified valence secret condition, and three in the unspecified valence non-secret condition), and an additional 59 participants who said they did not have an example to recall (25 in the positive secret condition, three in the positive non-secret condition, 28 in the unspecified valence secret condition, and three in the unspecified valence non-secret condition).

Participants were randomly assigned to one of four conditions: positive secret condition, positive non-secret condition, unspecified valence secret condition, and unspecified valence non-secret condition.

Experimental Manipulation

The procedure was similar to Study 4, except that it was emphasized that all participants should recall information that would soon be relevant to a conversation occurring the in the next few days.

To further match the secret and non-secret information, we held constant the target of the information: the participant's partner (as per Slepian et al., 2017). The secret conditions prompt read, "Think about something in your life that you are NOT currently willing to speak with your partner about" and the non-secret conditions prompt read, "Think about something positive in your life that you are willing to speak with your partner about." In the positive conditions, it was further specified they should think about "something POSITIVE/something you feel GOOD about."

All participants were asked to think about "something that could come up in conversation/be relevant to a conversation in the next few days." In the secret conditions, it was further specified that participants were to think about "something that you would hold back and keep secret if it was relevant to a conversation," while in the non-secret conditions, participants were instructed to think about "something that you would be willing to speak about if it was relevant to a conversation."

Accordingly, while we varied the positivity of the information and whether one intended to reveal it, the information was matched on two dimensions (target of the information, and soon relevant to an upcoming conversation). That said, unlike in Study 1, the content of secrets versus non-secrets was not matched. Thus, it is likely that the content will vary widely across the secret and non-secret conditions. To parallel the earlier analyses, when decomposing any significant interactions between positivity and secrecy, simple effects compare positive secrets to secrets of unspecified valence, and for comparison, positive non-secrets to non-secrets of unspecified valence.

Measures

After recalling the information that was soon going to be relevant to an upcoming conversation with one's partner (positive or not, and secret or not), we next measured, with regard to one's intention for the information, intrinsic and extrinsic motivation using the self-concordance scale, which includes two external locus items (reflecting external and introjected motivation; $M = 3.88$, $SD = 2.05$) and two internal locus items (reflecting intrinsic and identified motivation; $M = 5.44$, $SD = 2.28$), using 9-point scales of agreement (see Appendix for items). Self-concordance is defined as the difference between the sums of the external and internal scales (Sheldon & Elliot, 1999).

Subsequently, we asked "How much do you intend to eventually discuss this with your partner?" (from 1—I do NOT intend at all to discuss this with my partner to 7—I very much intend to discuss this with my partner; $M = 5.61$, $SD = 1.82$) and "To your best estimate, when would you reveal this to your partner?" (1-never, 2-in several years, 3-in a few years, 4-in a year, 5-in the next few months, 6-in the next few weeks, 7-in the next few days; $M = 5.58$, $SD = 1.87$). On the next page, participants completed the same feelings of energy scale from Study 4 ($M = 4.76$, $SD = 1.42$) and the PANAS-X joy scale, as also used in Study 4 (Watson, & Clark, 1999).

Results and Discussion

We first examined whether secrecy interacted with positivity to predict each of the focal variables, and indeed there was an interaction on feelings of energy ($b = 0.42$, $SE = 0.18$, 95% CI [0.07,

0.78], $t(700) = 2.33$, $p = .020$), self-concordance ($b = 1.67$, $SE = 0.74$, 95% CI [0.21, 3.13], $t(700) = 2.24$, $p = .025$), intention to reveal ($b = 1.46$, $SE = 0.23$, 95% CI [1.01, 1.91], $t(700) = 6.40$, $p < .0001$), and how soon to reveal ($b = 0.43$, $SE = 0.08$, 95% CI [0.28, 0.59], $t(700) = 5.53$, $p < .0001$). We then decomposed each interaction by examining the simple effects.

Positive secrets were more energizing than unspecified valence secrets ($b = 1.51$, $SE = 0.14$, 95% CI [1.24, 1.77], $t(700) = 11.15$, $p < .0001$), and this difference was larger than the one between positive non-secret information and unspecified valence non-secret information ($b = 1.08$, $SE = 0.12$, 95% CI [0.85, 1.32], $t(700) = 8.95$, $p < .0001$).

Positive secrets were more self-concordant than unspecified valence secrets ($b = 5.46$, $SE = 0.55$, 95% CI [4.37, 6.54], $t(700) = 9.86$, $p < .0001$), and this difference was larger than the one between positive non-secret information and unspecified valence non-secret information ($b = 3.79$, $SE = 0.50$, 95% CI [2.81, 4.77], $t(700) = 7.63$, $p = .0001$).

Positive non-secret information was not intended to be revealed any more than unspecified valence non-secret information ($b = 0.08$, $SE = 0.15$, 95% CI [-0.22, 0.38], $t(700) = 0.51$, $p = .609$), but positive secrets were intended to be revealed more than unspecified valence secrets ($b = 1.54$, $SE = 0.17$, 95% CI [1.21, 1.87], $t(700) = 9.05$, $p < .0001$).

Positive non-secret information was intended to be revealed sooner than unspecified valence non-secret information ($b = 0.39$, $SE = 0.07$, 95% CI [0.25, 0.53], $t(700) = 5.46$, $p < .0001$), but positive secrets were intended to be revealed even sooner than unspecified valence secrets ($b = 0.82$, $SE = 0.03$, 95% CI [0.76, 0.88], $t(700) = 25.98$, $p < .0001$).

Mechanisms for the Energizing Effects of Positive Secrets

Positive secrets were more self-concordant than secrets of unspecified valence. However, they are also more likely to be revealed, and sooner, than secrets of unspecified valence. We therefore tested which of these potential mechanisms best accounted for the energizing effects of positive secrets.

We entered self-concordance, intentions to reveal, and how soon to reveal as simultaneous predictors of feelings of energy, both with and without positive affect as a control (Table 4). Consistent with our theoretical account, of these three potential mediators (first three rows), only self-concordance explained significant unique variance in feelings of energy.

Indirect Effect

Using the *mediation* R-package with 5,000 bootstraps, we conducted three indirect effect tests, which examined each potential mediator of the three while simultaneously controlling for the other two potential mediators. This revealed an indirect effect of recalling positive secrets (vs. secrets of unspecified valence) on feelings of energy, independent of positive affect, as a function of greater self-concordance, $IE = .42$, 95% CI [.33, .53], $p < .0001$, but not intent to reveal, $IE = .04$, 95% CI [-0.01, 0.10], $p = .15$, or how soon to reveal, $IE = -.01$, 95% CI [-0.07, 0.05], $p = .80$.

Table 4
Predicting Feelings of Energy, Study 5

Independent variable	Model 1					Model 2 (positive affect entered)				
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>
Self-concordance	.09	[.08, .11]	.01	10.80	<.0001	.05	[.04, .07]	.01	6.35	<.0001
Intend to reveal	.06	[-.02, .13]	.04	1.50	.135	-.01	[-.08, .05]	.03	-0.37	.712
How soon to reveal	-.01	[-.09, .07]	.04	-0.22	.824	-.01	[-.08, .06]	.04	-0.15	.877
Condition (positive vs. not)	.82	[.63, 1.00]	.09	8.73	<.0001	.47	[.30, .64]	.09	5.41	<.0001
Condition (secret vs. not)	-.15	[-.38, .08]	.12	-1.27	.203	-.16	[-.36, .05]	.10	-1.49	.136
Positive affect	—	—	—	—	—	.48	[.41, .55]	.04	13.50	<.0001

Note. CI = confidence interval; SE = standard error.

Relative Contributions of Intrinsic and Extrinsic Motivation

Finally, our motivation measures allowed us to examine the separate roles of intrinsic and extrinsic motivation, beyond the difference score measure of self-concordance. Controlling for extrinsic motivation, there was no positivity by secrecy interaction on intrinsic motivation, *b* = 0.23, *SE* = 0.28, 95% CI [-0.32, 0.78], *t*(699) = 0.82, *p* = .412. In contrast, controlling for intrinsic motivation, there was a positivity by secrecy interaction on extrinsic motivation, *b* = -0.72, *SE* = 0.29, 95% CI [-1.28, -0.16], *t*(699) = -2.54, *p* = .011. Decomposing this interaction revealed that positive secrets were less extrinsically motivated than unspecified valence secrets, *b* = -1.92, *SE* = 0.22, 95% CI [-2.35, -1.50], *t*(699) = -8.94, *p* < .0001, and this difference was larger than the one between positive non-secret information and unspecified valence non-secret information, *b* = -1.20, *SE* = 0.19, 95% CI [-1.58, -0.82], *t*(699) = -6.23, *p* < .0001. Accordingly, one reason why positive secrets were more self-concordant than unspecified valence secrets is that the former were significantly less extrinsically motivated than the latter.

Finally, we entered all the preceding variables as simultaneous predictors of feelings of energy, which revealed that both intrinsic and extrinsic motivation independently predicted feelings of energy, positively and negatively, respectively (Table 5). But given the interaction noted above, the results suggest that greater feelings of energy from positive secrets (compared to unspecified valence secrets) were driven more by lower extrinsic motivation than higher intrinsic motivation. Accordingly, using the *mediation* R-package with 5,000 bootstraps, we found an indirect effect of recalling positive secrets (vs. secrets of unspecified valence) on feelings of energy, independent of positive affect, as a function of lower

extrinsic motivation (independent of intrinsic motivation), *IE* = .20, 95% CI [.12, .27], *p* < .0001, suggesting the indirect effect through self-concordance was driven primarily by lower extrinsic motivation.

General Discussion

When good things happen, we often share the good news with others around us. In this article, we investigated a less studied reaction to positive information: keeping it secret. In Study 1, across the same content categories, we found that positive information is more energizing when it is secret, compared to when it is not secret. This effect persisted over and above two additional predictors of energy—positive affect and intending to share the information with others.

In contrast to prototypically negative secrets, which are often created and governed by external pressures or concerns (McDonald et al., 2020), we proposed that positive secrets are more likely to be freely chosen (for personally important reasons) than caused by external pressures. Our subsequent studies probed whether this mechanism could explain the benefits of positive secrecy, as a large body of work has linked intrinsic motivation to subjective feelings of vitality and energy (Kasser & Ryan, 1999; Nix et al., 1999; Ryan & Frederick, 1997; Sheldon et al., 1996). Operationalizing intrinsic motivation in terms of autonomy, Study 2 compared positive information that was unknown due to personally chosen secrecy against positive information that was unknown due to external constraints. Specifically, Study 2 manipulated whether people imagined keeping positive information unknown for an intrinsic reason, an extrinsic reason, or no specified reason. This experiment

Table 5
Predicting Feelings of Energy (From Intrinsic and Extrinsic Motivation), Study 5

Independent variable	Model 1					Model 2 (positive affect entered)				
	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>	<i>b</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>
Intrinsic motivation	.25	[.20, .29]	.02	10.92	<.0001	.14	[.10, .18]	.02	6.36	<.0001
Extrinsic motivation	-.13	[-.17, -.08]	.02	-5.73	<.0001	-.08	[-.12, -.04]	.02	-3.73	<.0001
Intend to reveal	.04	[-.03, .12]	.04	1.19	.235	-.02	[-.08, .05]	.03	-0.50	.619
How soon to reveal	.02	[-.06, .10]	.04	0.44	.660	.01	[-.06, .08]	.04	0.24	.813
Condition (positive vs. not)	.83	[.65, 1.01]	.09	8.99	<.0001	.49	[.32, .66]	.09	5.62	<.0001
Condition (secret vs. not)	.01	[-.23, .25]	.12	0.10	.917	-.07	[-.29, .15]	.11	-0.63	.529
Positive affect	—	—	—	—	—	.47	[.40, .54]	.04	12.97	<.0001

Note. CI = confidence interval; SE = standard error.

suggested that positive secrets are energizing when they are freely chosen, and fatiguing when they are externally imposed.

Studies 3 and 4 then compared positive secrets to other kinds of secrets. Study 3 found that positive secrets were more autonomously chosen than externally imposed, relative to negative secrets and secrets of unspecified valence. Because asking participants to recall negative secrets led to an especially negative set of secrets, Studies 4 and 5 used the more conservative comparison, secrets of unspecified valence. Study 4 showed that positive secrets were more energizing than secrets of unspecified valence, as a function of being more freely chosen than externally imposed.

Finally, in Study 5, participants considered information they anticipated to be relevant to an upcoming conversation with their partner in the next few days, and by random assignment, the information was positive (vs. not) as well as secret (vs. not). Consistent with our core proposition, we found an interaction on feelings of energy; that is, positive secrets were more energizing than unspecified valence secrets and this effect was larger than that of non-secret information. In addition, Study 5 allowed for a more precise test of our proposed mechanism by assessing both intrinsic and extrinsic motivation, as well as self-concordance (i.e., the difference between the two). As expected, we found positive secrets were more self-concordant than secrets of unspecified valence, and this mediated the effect of positive secrets on feelings of energy.

In Studies 3 and 4, we predicted that positive secrets would be more intrinsically than extrinsically motivated, and indeed our binary measure of motivation (as intrinsic or extrinsic) showed this predicted effect. Subsequently, by measuring both intrinsic and extrinsic motivation separately, in Study 5, we were able to gain insight into the nature of this difference. The results of Study 5 suggest that compared to other secrets, positive secrets are characterized by less extrinsic motivation. This finding suggests that positive secrets are distinct because they are *less controlled* than other types of secrets. Rather than being entirely free from outside influence and always aligned with one's personal values, positive secrets are less likely driven by external constraints. This insight reveals something fundamental about the motivational underpinnings of secrecy. Given that having a secret always involves another person from whom the information is kept (Bedrov et al., 2021), it may always necessitate some consideration of extrinsic constraints. Overall, having a positive secret moves people further up the motivational continuum toward more beneficial forms of motivation, even when they do not always achieve pure intrinsic motivation.

When faced with a binary choice, in Study 3, 78.4% of participants' positive secrets were reported to be autonomously rather than externally motivated, and in Study 4, the percentage was similarly high at 69.1%. Yet, not all positive secrets were freely chosen, as 26% of positive secrets were extrinsically motivated. Also, when examining only the positive secrets from Study 5, the means for intrinsic motivation ($M = 4.51$, $SD = 2.28$) were higher than extrinsic motivation ($M = 3.33$, $SD = 2.08$), $t(306) = 4.76$, $p < .0001$, $d = 0.54$, 95% CI [0.31, 0.77]. Study 2 suggested that an extrinsic constraint on expression was fatiguing relative to baseline, and extrinsic motivation predicted lower energy in Study 5. Thus, extrinsic motivation does appear to be an enemy to energy, and positive secrets usually circumvent this harm by tending to be less externally controlled.

Secrecy, Reconsidered

Prior secrecy work has made the case that people are burdened by their secrets. Our findings suggest that this picture of individuals at the mercy of their secrets is at least in part a product of the type of secrets that have been studied to date. That is, prototypically negative secrets may be, by default, burdensome and fatiguing. In contrast, our research shows that positive secrets can make people feel energized and alive. In another contribution, the additional finding that intending to share positive information is energizing, irrespective of whether it was secret or not, reveals a new psychological benefit of capitalization that goes beyond well-being and positive affect (e.g., Gable & Reis, 2010), as feelings of energy are distinct from both (see Nix et al., 1999).

The current work is the first to examine positive secrets in a broad manner, such as by developing the empirically derived categories used in Studies 1 and 2, as well as the secrets recalled in Studies 3–5. We also integrated experimental control with the empirically derived categories by experimentally creating secret versus non-secret conditions in Study 1 across the same content categories of real good news and by manipulating the imagined reason behind hypothetical positive information being unknown in Study 2 (again, across the same content categories of good news).

It is important to clarify, however, that we are not the first to suggest that there may be benefits of secrecy (Kelly & McKillop, 1996). Indeed, secrets are kept because the keeper perceives there to be some harm in disclosing that information (e.g., Venetis et al., 2018). Also, when it comes to *other people's* secrets, being confided in—while associated with a burden similar to personal secrets—does come with positive feelings too (e.g., feeling trusted, and feeling closer to the person; Schweitzer et al., 2022; Slepian & Greenaway, 2018). Closer to the current work, Wegner et al. (1994) conducted a clever (but small) study where participants were led to play a card game, and one group had a secret signaling system to facilitate the game, which involved maintaining foot contact between participants. This secret “footsie” (in mixed-sex dyads) led participants to feel an attraction to the other participant—although it should be noted that before the manipulation, all participants were first primed to think about how attracted they were to their partner. This work gave rise to the idea that secret romantic relationships might be more exciting than non-secret ones. More recent work, however, suggests that keeping a relationship secret has the opposite effect; it is associated with burden rather than benefits (see Foster et al., 2010).

Advancing existing work, we distinguished between secrecy—the intention to keep information unknown from one or more persons—and whether a secret is motivated by internal or external forces. Even though secrecy is very much socially motivated and makes reference to other people, prior work finds that the harm of negative secrets comes not from active concealment in social interactions, but rather from being mentally preoccupied with one's secret (Slepian et al., 2015, 2016, 2017; see also Maas et al., 2011; Quinn & Chaudoir, 2009). This is likely due to the motivational conflict inherent to most secrets, which are kept due to external pressures (e.g., to protect one's reputation; McDonald et al., 2020), but which conflict with the goal to connect with others (Slepian et al., 2019). Thus, when prototypically negative secrets come to mind, this motivational conflict diminishes feelings of energy

(Slepian et al., 2019). In contrast, we found that positive secrets are less motivationally conflictual, being held for reasons that tend to be more aligned with personal values than external pressures.

To Share or Not to Share

When good things happen, people often turn to others to share their positive news—a process known as *capitalization* (Gable & Reis, 2010). Indeed, with the proliferation of social media, opportunities to share this kind of information are greater than ever before (e.g., Barasch, 2020; Goh et al., 2019; Vermeulen et al., 2018). This tendency to share positive information is so foundational that it has been labeled as one of the most important rules for friendship for promoting relationship quality and satisfaction (Argyle & Henderson, 1984; Gable et al., 2006). Importantly, our results suggest that the benefits of positive secrets are not an artifact of the fact that people intend to share positive secrets. Critically, we found that positive secrets were energizing independent of any intent to share (Studies 1 and 5). Our results suggest that—while there are certainly benefits to sharing positive information with others—there are advantages to keeping it secret as well.

Generally speaking, sharing of both positive and negative information appears to be personally beneficial (Brans et al., 2013; Lepore et al., 2000), although the evidence appears to be more consistently beneficial in the case of positive information (Barasch, 2020). Of course, the benefits of sharing information with others depends in part on the reaction of one's interaction partner (Afifi & Afifi, 2020; Slepian & Moulton-Tetlock, 2019). For example, enthusiasm can be dampened if someone responds to the good news in a disinterested manner, or points out potential downsides to the good news (see Gable & Reis, 2010). Future work would benefit from this interpersonal lens, and in such cases, people may keep positive secrets for extrinsic reasons, and thus experience less of the typical benefits of positive secrets.

Subjective Feelings of Energy

Our results also add to recent theoretical refinement on the determinants of subjective feelings of energy. An emerging perspective suggests that subjective feelings of energy are determined by the attributions one makes for a given task. This perspective holds that psychologically demanding tasks are fatiguing not because they deplete biological reserves of energy; rather, when effort is spent on a task that one would rather not perform, the desire to disengage is experienced as fatigue (Kurzban et al., 2013; Saunders & Inzlicht, 2016).

This recent perspective aligns with classic work on intrinsic versus extrinsic motivation. For instance, Nix et al. (1999) showed that when an action was framed as meeting external demands, engaging in the action was more fatiguing, relative to when the same action was framed as autonomous and intrinsically motivated. In other words, what might otherwise be a fatiguing task could be made energizing when participants engaged in the task with an intrinsic motivation. Indeed, Study 2 showed something similar. Participants were asked to select from a list of common good news something that would make them happy, could plausibly happen to them, and would not be known by others until shared. When we then asked participants to imagine this good news was unknown by others due to external pressures, the manipulated extrinsic reason was fatiguing relative to a baseline condition, where participants simply imagined

the information was not known by others. In contrast, when we asked participants to imagine their good news was unknown by others due to internal reasons, this was energizing relative to a baseline condition and the extrinsic condition. These results converge on the notion that how one construes task engagement can determine feelings of energy (Job et al., 2010). While prior work has shown that there are restorative effects of positive affect (Egan et al., 2015; Job et al., 2010; Tice et al., 2007), the current work shows the effects of positive secrets occur over and above the positive affect these secrets engender.

More generally, the current work suggests the power of one's mindset when it comes to secrecy. Secrecy is typically considered burdensome, and indeed, even within the context of positive information, having positive information unknown to others due to external reasons was fatiguing relative to baseline. At same time, when chosen autonomously, having positive information unknown to others was energizing relative to baseline. Perhaps, then, changing one's mindset around more prototypically negative secrets might also yield benefits to the secret keeper. Future research should explore how such mindsets interact with the presence of stressors to influence feelings of energy and vitality, both in the domain of secrecy, and beyond (see Luke et al., 2012; Nix et al., 1999; Ryan & Bernstein, 2004; Ryan & Deci, 2008; Ryan & Frederick, 1997; Saunders & Inzlicht, 2016). And finally, our work still leaves open the question of what happens during the moment of concealing positive secrets within a social interaction. While the current work shows that thinking about positive secrets is energizing, it is possible that people feel taxed and burdened during a concealment episode, even when the information is positive.

Importantly, the current work is not without limitations. In particular, our participant samples consist entirely of online-recruited U.S. participants who have internet literacy. Critically, prior work finds that participants from U.S. online samples keep similar secrets to participants recruited in-person and from around the world (e.g., 29 different countries; Slepian et al., 2017). The present effects occurred across a very large range of real-life positive secrets, and moreover, these effects were observed in a sample of participants from across the United States and with diverse age ranges (18–78 years old). Given the large range of contexts we examine, and that prior work has suggested similar secrets and experiences of secrets when comparing U.S. participants to those around the world, we have reasons to believe that the present results should be broadly generalizable. That said, to the extent that there are cultural differences in how people experience positive life events, it is possible that the present results may look different in other cultures and contexts, and this would be a valuable direction for future research.

Conclusion

Prior work has suggested that secrecy is harmful, and that secrets are kept for the purpose of avoiding social sanctions. Yet, people keep marriage proposals, job promotions, achievements, ambitions, accomplishments, and awards secret. Accounting for this diversity in the information that people keep secret, the present studies offer an important reconceptualization of secrecy. Secrets can be positive and intended to be shared. But even independent of intentions to share, keeping positive information secret is a path to greater feelings of energy and vitality. This energizing effect occurs

because, relative to other kinds of secrets, positive secrets are less likely to be kept for reasons that are external to the self. When it comes to the good things in life, not only does sharing them with others bring benefits, but so can keeping them secret.

References

- Affifi, W. A., & Affifi, T. D. (2020). The relative impacts of disclosure and secrecy: The role of (perceived) target response. *Current Opinion in Psychology, 31*, 94–98. <https://doi.org/10.1016/j.copsyc.2019.08.015>
- Argyle, M., & Henderson, M. (1984). The rules of friendship. *Journal of Social and Personal Relationships, 1*(2), 211–237. <https://doi.org/10.1177/0265407584012005>
- Barasch, A. (2020). The consequences of sharing. *Current Opinion in Psychology, 31*, 61–66. <https://doi.org/10.1016/j.copsyc.2019.06.027>
- Bates, D., Maechler, M., Bolker, B., Walker, S., Christensen, R. H. B., & Singmann, H. (2015). *lme4: Linear mixed-effects models using Eigen and S4*. <https://cran.r-project.org/web/packages/lme4/>
- Bedrov, A., Gable, S., & Liberman, Z. (2021). It takes two (or more): The social nature of secrets. *Wiley Interdisciplinary Reviews: Cognitive Science, 12*(6), Article e1576. <https://doi.org/10.1002/wes.1576>
- Bostic, T. J., Rubio, D. M., & Hood, M. (2000). A validation of the subjective vitality scale using structural equation modeling. *Social Indicators Research, 52*(3), 313–324. <https://doi.org/10.1023/A:1007136110218>
- Brans, K., Van Mechelen, I., Rimé, B., & Verduyn, P. (2013). The relation between social sharing and the duration of emotional experience. *Cognition and Emotion, 27*(6), 1023–1041. <https://doi.org/10.1080/02699931.2012.762758>
- Critcher, C. R., & Ferguson, M. J. (2014). The cost of keeping it hidden: Decomposing concealment reveals what makes it depleting. *Journal of Experimental Psychology: General, 143*(2), 721–735. <https://doi.org/10.1037/a0033468>
- Deci, E. L. (1972). The effects of contingent and noncontingent rewards and controls on intrinsic motivation. *Organizational Behavior and Human Performance, 8*(2), 217–229. [https://doi.org/10.1016/0030-5073\(72\)90047-5](https://doi.org/10.1016/0030-5073(72)90047-5)
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality, 19*(2), 109–134. [https://doi.org/10.1016/0092-6566\(85\)90023-6](https://doi.org/10.1016/0092-6566(85)90023-6)
- Egan, P. M., Clarkson, J. J., & Hirt, E. R. (2015). Revisiting the restorative effects of positive mood: An expectancy-based approach to self-control restoration. *Journal of Experimental Social Psychology, 57*, 87–99. <https://doi.org/10.1016/j.jesp.2014.11.006>
- Foster, C. A., Foster, J. D., & Campbell, W. K. (2010). Are secret relationships hot, then not? Romantic secrecy as a function of relationship duration. *The Journal of Social Psychology, 150*(6), 668–688. <https://doi.org/10.1080/00224540903365547>
- Fritz, C. O., Morris, P. E., & Richler, J. J. (2012). Effect size estimates: Current use, calculations, and interpretation. *Journal of Experimental Psychology: General, 141*(1), 2–18. <https://doi.org/10.1037/a0024338>
- Gable, S. L., Gonzaga, G. C., & Strachman, A. (2006). Will you be there for me when things go right? Supportive responses to positive event disclosures. *Journal of Personality and Social Psychology, 91*(5), 904–917. <https://doi.org/10.1037/0022-3514.91.5.904>
- Gable, S. L., & Reis, H. T. (2010). Good news! Capitalizing on positive events in an interpersonal context. *Advances in Experimental Social Psychology, 42*, 195–257. [https://doi.org/10.1016/S0065-2601\(10\)42004-3](https://doi.org/10.1016/S0065-2601(10)42004-3)
- Gable, S. L., Reis, H. T., Impett, E. A., & Asher, E. R. (2004). What do you do when things go right? The intrapersonal and interpersonal benefits of sharing positive events. *Journal of Personality and Social Psychology, 87*(2), 228–245. <https://doi.org/10.1037/0022-3514.87.2.228>
- Gagne, M., Ryan, R. M., & Bargmann, K. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology, 15*(4), 372–390. <https://doi.org/10.1080/1714044203>
- Giner-Sorolla, R., Aberson, C. L., Bostyn, D. H., Carpenter, T., Conrique, B. G., Lewis, N. A., & Soderberg, C. (2019). *Power to detect what? Considerations for planning and evaluating sample size*. <https://osf.io/d3v8t>
- Goh, D., Ling, R., Huang, L., & Liew, D. (2019). News sharing as reciprocal exchanges in social cohesion maintenance. *Information, Communication & Society, 22*(8), 1128–1144. <https://doi.org/10.1080/1369118X.2017.1406973>
- Greene, D., & Lepper, M. R. (1974). Effects of extrinsic rewards on children's subsequent intrinsic interest. *Child Development, 45*(4), 1141–1145. <https://doi.org/10.2307/1128110>
- Harmon-Jones, E., Harmon-Jones, C., Abramson, L., & Peterson, C. K. (2009). PANAS positive activation is associated with anger. *Emotion, 9*(2), 183–196. <https://doi.org/10.1037/a0014959>
- Job, V., Dweck, C. S., & Walton, G. M. (2010). Ego depletion—Is it all in your head? Implicit theories about willpower affect self-regulation. *Psychological Science, 21*(11), 1686–1693. <https://doi.org/10.1177/0956797610384745>
- Kasser, V. G., & Ryan, R. M. (1999). The relation of psychological needs for autonomy and relatedness to vitality, well-being, and mortality in a nursing home. *Journal of Applied Social Psychology, 29*(5), 935–954. <https://doi.org/10.1111/j.1559-1816.1999.tb00133.x>
- Kelly, A. E., & McKillop, K. J. (1996). Consequences of revealing personal secrets. *Psychological Bulletin, 120*(3), 450–465. <https://doi.org/10.1037/0033-2909.120.3.450>
- Kurtz, J. L., Wilson, T. D., & Gilbert, D. T. (2007). Quantity versus uncertainty: When winning one prize is better than winning two. *Journal of Experimental Social Psychology, 43*(6), 979–985. <https://doi.org/10.1016/j.jesp.2006.10.020>
- Kurzban, R., Duckworth, A., Kable, J. W., & Myers, J. (2013). An opportunity cost model of subjective effort and task performance. *Behavioral and Brain Sciences, 36*(6), 661–679. <https://doi.org/10.1017/S0140525X12003196>
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2015). *Package 'lmerTest'* (R package version).
- Lane, J. D., & Wegner, D. M. (1995). The cognitive consequences of secrecy. *Journal of Personality and Social Psychology, 69*(2), 237–253. <https://doi.org/10.1037/0022-3514.69.2.237>
- Langston, C. A. (1994). Capitalizing on and coping with daily-life events: Expressive responses to positive events. *Journal of Personality and Social Psychology, 67*(6), 1112–1125. <https://doi.org/10.1037/0022-3514.67.6.1112>
- Larson, D. G., Chastain, R. L., Hoyt, W. T., & Ayzenberg, R. (2015). Self-concealment: Integrative review and working model. *Journal of Social and Clinical Psychology, 34*(8), 705–774. <https://doi.org/10.1521/jscp.2015.34.8.705>
- Lepore, S. J., Ragan, J. D., & Jones, S. (2000). Talking facilitates cognitive-emotional processes of adaptation to an acute stressor. *Journal of Personality and Social Psychology, 78*(3), 499–508. <https://doi.org/10.1037/0022-3514.78.3.499>
- Luke, M. A., Sedikides, C., & Camelley, K. (2012). Your love lifts me higher! The energizing quality of secure relationships. *Personality and Social Psychology Bulletin, 38*(6), 721–733. <https://doi.org/10.1177/0146167211436117>
- Maas, J., Wismeijer, A. A. J., van Assen, M. A. L. M., & Aquarius, A. E. A. M. (2011). Is it bad to have secrets? Cognitive preoccupation as a toxic element of secrecy. *International Journal of Clinical and Health Psychology, 12*, 23–37.
- Major, B., & Gramzow, R. H. (1999). Abortion as stigma: Cognitive and emotional implications of concealment. *Journal of Personality and Social Psychology, 77*(4), 735–743. <https://doi.org/10.1037/0022-3514.77.4.735>
- McDonald, R. I., Salerno, J. M., Greenaway, K. H., & Slepian, M. L. (2020). Motivated secrecy: Politics, relationships, and regrets. *Motivation Science, 6*(1), 61–78. <https://doi.org/10.1037/mot0000139>
- Muraven, M., Gagné, M., & Rosman, H. (2008). Helpful self-control: Autonomy support, vitality, and depletion. *Journal of Experimental Social Psychology, 44*(3), 573–585. <https://doi.org/10.1016/j.jesp.2007.10.008>

- Nix, G. A., Ryan, R. M., Manly, J. B., & Deci, E. L. (1999). Revitalization through self-regulation: The effects of autonomous and controlled motivation on happiness and vitality. *Journal of Experimental Social Psychology, 35*(3), 266–284. <https://doi.org/10.1006/jesp.1999.1382>
- Quinn, D. M., & Chaudoir, S. R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. *Journal of Personality and Social Psychology, 97*(4), 634–651. <https://doi.org/10.1037/a0015815>
- Quoidbach, J., Berry, E. V., Hansenne, M., & Mikolajczak, M. (2010). Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Personality and Individual Differences, 49*(5), 368–373. <https://doi.org/10.1016/j.paid.2010.03.048>
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin, 26*(4), 419–435. <https://doi.org/10.1177/01461672002666002>
- Rimé, B., Mesquita, B., Boca, S., & Philippot, P. (1991). Beyond the emotional event: Six studies on the social sharing of emotion. *Cognition and Emotion, 5*(5–6), 435–465. <https://doi.org/10.1080/02699939108411052>
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology, 43*(3), 450–461. <https://doi.org/10.1037/0022-3514.43.3.450>
- Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality, 63*(3), 397–427. <https://doi.org/10.1111/j.1467-6494.1995.tb00501.x>
- Ryan, R. M., & Bernstein, J. (2004). Vitality [zest, enthusiasm, vigor, energy]. In C. Peterson & M. E. P. Seligman (Eds.), *Character strengths and virtues: A handbook and classification* (pp. 273–289). Oxford University Press.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology, 57*(5), 749–761. <https://doi.org/10.1037/0022-3514.57.5.749>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- Ryan, R. M., & Deci, E. L. (2008). From ego depletion to vitality: Theory and findings concerning the facilitation of energy available to the self. *Social and Personality Psychology Compass, 2*(2), 702–717. <https://doi.org/10.1111/j.1751-9004.2008.00098.x>
- Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality, 65*(3), 529–565. <https://doi.org/10.1111/j.1467-6494.1997.tb00326.x>
- Saunders, B., & Inzlicht, M. (2016). Vigour and fatigue: How variation in affect underlies effective self-control. In T. Braver (Ed.), *Motivation and cognitive control* (pp. 211–234). Taylor & Francis/Routledge.
- Schweitzer, S., Ruttan, R. L., & Waytz, A. (2022). The relationship between power and secrecy. *Journal of Experimental Social Psychology, 100*, Article 104300. <https://doi.org/10.1016/j.jesp.2022.104300>
- Sheldon, K. M., & Elliot, A. J. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. *Personality and Social Psychology Bulletin, 24*(5), 546–557. <https://doi.org/10.1177/0146167298245010>
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: the self-concordance model. *Journal of Personality and Social Psychology, 76*(3), 482–497. <https://doi.org/10.1037/0022-3514.76.3.482>
- Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin, 22*(12), 1270–1279. <https://doi.org/10.1177/01461672962212007>
- Slepian, M. L. (2022). A process model of having and keeping secrets. *Psychological Review, 129*(3), 542–563. <https://doi.org/10.1037/rev0000282>
- Slepian, M. L., Camp, N. P., & Masicampo, E. J. (2015). Exploring the secrecy burden: Secrets, preoccupation, and perceptual judgments. *Journal of Experimental Psychology: General, 144*(2), e31–e42. <https://doi.org/10.1037/xge0000052>
- Slepian, M. L., Chun, J. S., & Mason, M. F. (2017). The experience of secrecy. *Journal of Personality and Social Psychology, 113*(1), 1–33. <https://doi.org/10.1037/pspa0000085>
- Slepian, M. L., & Greenaway, K. H. (2018). The benefits and burdens of keeping others' secrets. *Journal of Experimental Social Psychology, 78*, 220–232. <https://doi.org/10.1016/j.jesp.2018.02.005>
- Slepian, M. L., Halevy, N., & Galinsky, A. D. (2019). The solitude of secrecy. *Personality and Social Psychology Bulletin, 45*(7), 1129–1151. <https://doi.org/10.1177/0146167218810770>
- Slepian, M. L., Kirby, J. N., & Kalokerinos, E. K. (2020). Shame, guilt, and secrets on the mind. *Emotion, 20*(2), 323–328. <https://doi.org/10.1037/emo0000542>
- Slepian, M. L., & Koch, A. (2021). Identifying the dimensions of secrets to reduce their harms. *Journal of Personality and Social Psychology, 120*(6), 1431–1456. <https://doi.org/10.1037/pspa0000202>
- Slepian, M. L., Masicampo, E. J., & Galinsky, A. D. (2016). The hidden effects of recalling secrets: Assimilation, contrast, and the burdens of secrecy. *Journal of Experimental Psychology: General, 145*(8), e27–e48. <https://doi.org/10.1037/xge0000194>
- Slepian, M. L., & Moulton-Tetlock, E. (2019). Confiding secrets and well-being. *Social Psychological & Personality Science, 10*(4), 472–484. <https://doi.org/10.1177/1948550618765069>
- Smart, L., & Wegner, D. M. (1999). Covering up what can't be seen: Concealable stigma and mental control. *Journal of Personality and Social Psychology, 77*(3), 474–486. <https://doi.org/10.1037/0022-3514.77.3.474>
- Speer, M. E., Bhanji, J. P., & Delgado, M. R. (2014). Savoring the past: Positive memories evoke value representations in the striatum. *Neuron, 84*(4), 847–856. <https://doi.org/10.1016/j.neuron.2014.09.028>
- Tice, D. M., Baumeister, R. F., Shmueli, D., & Muraven, M. (2007). Restoring the self: Positive affect helps improve self-regulation following ego depletion. *Journal of Experimental Social Psychology, 43*(3), 379–384. <https://doi.org/10.1016/j.jesp.2006.05.007>
- Venetis, M. K., Chernichky-Karcher, S., & Gettings, P. E. (2018). Disclosing mental illness information to a friend: Exploring how the disclosure decision-making model informs strategy selection. *Health Communication, 33*(6), 653–663. <https://doi.org/10.1080/10410236.2017.1294231>
- Vermeulen, A., Vandebosch, H., & Heirman, W. (2018). #Smiling, #venting, or both? Adolescents' social sharing of emotions on social media. *Computers in Human Behavior, 84*, 211–219. <https://doi.org/10.1016/j.chb.2018.02.022>
- Watson, D., & Clark, L. A. (1999). *The PANAS-X: Manual for the positive and negative affect schedule-expanded form* [Unpublished manuscript]. University of Iowa.
- Wegner, D. M., Lane, J. D., & Dimitri, S. (1994). The allure of secret relationships. *Journal of Personality and Social Psychology, 66*(2), 287–300. <https://doi.org/10.1037/0022-3514.66.2.287>

(Appendix follows)

Appendix

Additional Study Information

Introduction Study

For the 500 participants mentioned in the introduction (289 women, 210 men, one other; $M_{\text{age}} = 41$ years, $SD = 13$), we asked what they would do upon learning amazing news: 76% said tell someone, 6% said be excited (get excited, cheer, dance, fist pump, dropping jaw, yelling “yes”), 4% said smile, 4% said reflect and enjoy the moment (process it, let it sink in, taking a few moments, thinking about it), 4% said verify (it was true, they understood correctly), 3% said express gratitude (being thankful, grateful, thanking God), and 1% said celebrate, with the remaining 2% responding with something other (e.g., plan what comes next, continue with daily routine, continue with life).

Good News Questionnaire

We are interested in the good things in life, and which you tell people about, and which you do not tell people about (and instead keep secret and to yourself).

These are the kinds of GOOD NEWS people say they have.

Do you have any of these as RECENT GOOD NEWS? Are you telling people about it?

- Completed task, project, application, creation of something, etc.
- Professional/school acceptance (e.g., got into a school, program, internship, training, etc.)
- Going to school/professional development (e.g., starting school, taking new program, graduation, etc.)
- New job, job offer, interview, newly looking for a job/career change
- Got a promotion, bonus, or raise
- Being recognized, or celebrated for something (other than above)
- Started a business, or business is doing well
- New project, deal, contract, sale, etc.
- Accomplishment or achievement (other than something noted above)
- Financial windfall, money coming in, investment paid off, or new source of income
- Won a contest, game, prize, award, etc. (other than above)
- Won a gamble (e.g., lottery, scratch-off, casino, a bet, etc.)
- Working on debt (reducing debt, paying off loans, paying off credit cards, etc.)
- Saving up money, putting money away
- Upcoming party, or social event
- Upcoming trip, travel, vacation, or visit
- Upcoming experience or activity (e.g., concert, sports event, play, unique experience, etc.)
- Giving a gift to someone
- Surprise for someone (other than above)
- Received a gift from someone (other than financial windfalls)
- Got something small for myself
- Moving to a new place, or in with someone/bought a house, renting a new apartment, approved for housing
- Approved for something (other than housing; e.g., license, certification, loan, etc.)
- Other new possession, purchase, or pet
- Family news
- Health news (e.g., improvement, weight loss, good test results, etc.)
- New relationship, love, dating, or romance
- Marriage proposal
- Pregnancy, or wanting to/trying to get pregnant
- Found something I was looking for
- A new opportunity has presented itself
- I overcame/am overcoming an obstacle
- New idea, new belief, new hope
- New plans, goals, ambitions (i.e., about specific things to do, or accomplish)
- Self-development (i.e., about the self, and thinking about who you are, e.g., self-change, self-acceptance, self-clarity, etc.)
- Big decision, life change, or major event (not listed above)
- Personal news, or new personal fact (not indicated above)
- Uncertain but positive thing that could happen (other than something above)

Self-Concordance Scale

Why do you intend to keep this secret?

There is an external demand to keep this secret (external)

If it came up in conversation, I would feel ashamed, guilty, or anxious to discuss it (introjected)

This secret is important to me (identified)

(Appendix continues)

Currently, it is fun and enjoyable to hold this back (intrinsic)

Why are you willing to speak to this if it were to come up?

There would be an external demand to speak to this (external)

If it came up in conversation, I would feel ashamed, guilty, or anxious to not speak to this (introjected)

If it came up in conversation, it would be important to speak to this (identified)

If it came up in conversation, it would be fun and enjoyable to speak to this (intrinsic)

Items adapted from Sheldon and Elliot (1999).

Received February 22, 2023

Revision received June 6, 2023

Accepted June 28, 2023 ■