



Every Forest Has Its Shadow: The Demographics of Concealment in the United States

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Abstract: This article examines what people conceal, who conceals from whom, and whether there are demographic differences in *how much* and *what* people conceal. We map concealment using a two-wave probability survey and behavioral experiment of U.S. adults ($N = 1,281$). Our survey measures self-reports of 37 different concealable attitudes, behaviors, and characteristics over a 12-month period, whereas the experiment provides a concrete behavioral measure of concealment. These data yield four principal findings. First, misinformation is commonplace in the United States, but it varies depending on what is being concealed. Second, certain demographic characteristics, such as age, predict rates of concealment, the proportion of things concealed, and lying in a behavioral experiment. Third, most demographic groups are similar in how much they conceal, but all demographic groups differ in what they conceal. Fourth, although some types of strong ties are more likely to be targets of concealment than weak ties, there is greater heterogeneity in concealment across different kinds of strong ties than between strong ties and weak ties, with spouses and partners being concealed from the least, on average. We conclude by discussing implications for theory and research on concealment.

Keywords: concealment; demographics; nationally representative probability sample; online survey; behavioral experiment

Replication Package: Data, code, the self-report concealment survey, and instructions for the sender-receiver game have been deposited in the Open Science Framework (<https://osf.io/293aw/>).

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CONCEALMENT and its related forms, including lying, secrecy, and selective disclosure, are fundamental features of all groups, organizations, and societies (DeGloma 2023; Gibson 2014; Goffman 1959, 1963; Simmel 1906; Small 2017; Westin 1967; Zerubavel 2006). There is rarely a moment in our daily lives when we are not actively withholding information from others (Gerlach, Teodorescu, and Hertwig 2019; Serota, Levine, and Boster 2010; Slepian, Chun, and Mason 2017). We lie to employers about our skills and abilities. We misrepresent the quality of used cars to potential buyers. We obfuscate infidelities from spouses. We hide our political beliefs from others to avoid conflict. We conceal our sexual preferences from those who would use such information against us. And we lie to friends about our negative evaluations of their personalities to spare their feelings.

Because of its prevalence and prominence in everyday micro-level interactions, concealment has important consequences for society as a whole. Concealment, and the motivations behind it, determine how we present ourselves, the groups to which we belong, the institutions we create, and our perceptions of reality (Goffman 1959, 1963; Simmel 1906, 1950). Lying, secrecy, and selective disclosure also foster

misperceptions and misinformation in the aggregate, affecting market performance (Akerlof 1970), principal-agent relations (Grigoryeva 2023; Shapiro 2005), regime change (Kuran 1991), democratic norms (Mares 2015), collective action and the provision of public goods (Opp 2022), civil society and the public sphere (Adut 2012; Bok 1978), and the political power of states (Bail 2015; Lukes 1974; Shils 1974).

Concealment is so common that it is difficult to imagine a society without it. In fact, many norms and institutions exist to either support or undermine concealment. Privacy laws and norms specify acceptable forms of concealment by determining the extent and type of access that one actor can have to another (Nippert-Eng 2010; Westin 1967). For example, voting institutions in modern democracies, with their absentee ballots and voting booths, enable voter autonomy by keeping one's vote hidden from the eyes of other voters (Adut 2012; Mares 2015). Other institutions and organizations, such as authoritarian regimes, invest heavily in technologies that limit concealment through monitoring and surveillance (Marx 2016). In short, concealment draws boundaries between the self and society: it buttresses self-determination and renders individuals free from the control of others, while simultaneously creating misinformation that dictates how institutions, markets, and organizations function.

Despite its ubiquity, most attempts to understand concealment in the social sciences focus on a narrow set of topics and explanations: individuals concealing stigmatized acts, like abortion, as a way to avoid shame; people withholding information about their health because it is considered private; or people hiding the true nature of an exchange, such as a bribe, because it is disreputable (e.g., Cook, Salter, and Stadler 2017; Cowan 2014; Cowan and Baldassarri 2018; Doan and Mize 2020; Kitts 2003; Nippert-Eng 2010; Robbins and Kiser 2020; Schilke and Rossman 2018; Westin 1967; Zerubavel 2006). In this project, we take a different approach, and seek to focus scholarly attention on the demographics of concealment: *who* conceals, *what* people conceal, and *from whom* people conceal.

Our first goal is to create a comprehensive and representative portrait of concealment in the United States (Slepian et al. 2017), which will allow us to identify hard-to-observe patterns of secrecy, lying, and selective disclosure among U.S. adults. Key theoretical approaches to concealment suggest that individuals withhold and obscure many aspects of their lives from others, creating a hidden or latent world (e.g., Goffman 1959, 1963; Simmel 1906). This article examines whether these propositions hold for all individuals and whether certain attitudes, behaviors, or characteristics are more likely to be hidden than others.

Our second goal is to better understand not only who is concealing and what is being concealed, but also who people are concealing from. One strand of research suggests that people are more likely to confide in acquaintances and strangers than in friends and family (Serota et al. 2010; Simmel 1950; Small 2017). When people need a confidant, they rarely turn to the "strong ties" found in their core discussion network. Instead, they seek out acquaintances and strangers, or "weak ties," who empathize with them. Other theoretical work posits that a person's loved ones and immediate family—"strong ties"—are more likely to observe their private lives (Westin 1967) and witness the "backstage" (Goffman 1959) than acquaintances and strangers. Research shows that for some topics, such as abortion (Cowan 2014),

political attitudes (Cowan and Baldassarri 2018), and sexual orientation (Doan and Mize 2020), immediate family members are much more knowledgeable about these things than other people, including friends and coworkers. By examining a wide range of concealable attitudes, behaviors, and characteristics (cf. Slepian et al. 2017), we contextualize these different strands of research and gain a more nuanced understanding of the connection between the strength of ties and concealment: Do people conceal everything from their strong ties, some things, or just a few things? And do patterns of concealment vary by what is being concealed? In short, this article is both confirmatory *and* exploratory, bringing together multiple types of evidence (surveys and experiments) to paint a rich picture of secrets and lies.

We examine what people in the United States generally conceal, who conceals from whom, and whether there are demographic differences in *how much* and *what* people conceal. To map the demographics of concealment, we use a two-wave general population probability survey and behavioral experiment of U.S. adults ($N = 1,281$). The survey measures self-reports of 37 different concealable attitudes, behaviors, and characteristics. The experiment provides a concrete behavioral measure of concealment that grants us insight into the reasons for concealment, as well as a tool to triangulate and converge on consistent demographic predictors of concealment.

We draw four main conclusions from these data. First, misinformation is commonplace in the United States, but it varies greatly depending on what is being concealed (e.g., infidelity vs. purchases) and the reasons for concealment (e.g., to benefit the self vs. others). Second, not all individuals conceal, or conceal at similar rates, with certain biographical characteristics, such as age and political ideology, predicting rates of concealment, the proportion of things concealed, and/or lying in a behavioral experiment. Third, most demographic groups are similar in how much they conceal, but all demographic groups differ in what they conceal. Fourth, although some types of strong ties (e.g., family members) are more likely to be targets of concealment than weak ties (e.g., strangers), there is greater heterogeneity in the degree of concealment across different kinds of strong ties than between strong ties and weak ties, with spouses and partners being concealed from the least, on average.

Our findings reconcile several theoretical treatments of concealment and provide numerous insights into its dynamics, including the frequency of concealment, what people conceal, who conceals, and who people conceal from. Our results tell us which attitudes, behaviors, and characteristics are most likely to be misperceived, and which targets of concealment are more likely to be caught up in flows of false information. Overall, we paint a comprehensive and representative portrait of concealment in the United States.

Literature Review

Concealment and Its Theoretical Foundations

Concealment is the deliberate withholding of information from one or more people (Buller and Burgoon 1996; Gibson 2014; Simmel 1906). The term encompasses a

range of intentions and behaviors, such as lying and secrecy (Gibson 2014:286). Although scholars often distinguish between lying (an act of commission that communicates false or inaccurate information) and secrecy (an act of omission that intentionally keeps information hidden from others), we view both as different strategies that people can use to withhold information along with obfuscation and selective disclosure, all of which vary in their degree of social acceptability and the amount of cognitive energy and skill required to be successful (Rote and Smetana 2015). For example, lying is more difficult to maintain than secrecy or selective disclosure, and is also the least acceptable form of concealment, whereas disclosing only when asked is the least cognitively burdensome and also the most socially acceptable (Rote and Smetana 2015). Thus, our analytical focus is on examining concealment broadly defined: the deliberate withholding of information, regardless of the strategy, and the knowledge gaps that arise between the sender and receiver(s) as a result of withholding information (Gibson 2014; Simmel 1906).

The earliest theoretical treatment of concealment in sociology can be found in the writings of Georg Simmel and Erving Goffman. Simmel (1906) begins with a simple premise: although we may learn a great deal about other people, we remain largely ignorant of their innermost thoughts and feelings, as well as their past experiences and behaviors. Instead, we know only “fragments” of other people’s lives (Simmel 1906:442). Although we need to know something about other people in order to interact with them, the things that we do know are often inaccurate because of how people select, arrange, and reveal these fragments to us (Bok 1982; Carson 2010). The fragmentation of information through concealment or disclosure, in turn, allows individuals to pursue goals and interests in ways that avoid the control of others (Hazelrigg 1969). Simmel thus arrives at one of his most enduring statements about concealment: “secrecy secures, so to speak, the possibility of a second world alongside the obvious world” (Simmel 1906:462).¹

Simmel’s ideas of “fragments” and two separate worlds—one hidden and one manifest—laid the groundwork for Erving Goffman’s writings on the presentation of self (1959) and stigma (1963). For Goffman, people are interested in maintaining a specific self-image and influencing how others perceive social situations. To do this, people perform for social audiences, presenting a certain sense of self that conforms to the audience’s expectations. This idea of controlling audience members through impression management is at the heart of Goffman’s dramaturgical framework for understanding concealment. In Goffman’s framework, social life is viewed as a series of performances characterized by individuals presenting repackaged, idealized versions of their unknown real selves (found in the *backstage*) to audience members who observe these performances in the *frontstage*. People manage impressions and hide things, such as alcoholism, in their frontstage performances not only to maintain a given definition of the situation (Goffman 1959), but also to avoid stigma and shame (Goffman 1963). The problem for most actors, especially those with discreditable stigmas, is the ongoing management of information across multiple frontstages so that a stigma remains unknown.

The tension between the frontstage and backstage (or the public and private) undergirds two major literatures in the social sciences: one on privacy and the other on misperceptions and information flows. The literature on the sociology of privacy

is largely motivated by questions about the boundaries between individuals and groups. Although definitions of privacy vary (see Margulis 1977), they typically involve the denial of access to any aspect of a person that can be considered personal property (Anthony, Campos-Castillo, and Horne 2017; Nippert-Eng 2010; Westin 1967). In this literature, concealment is a means by which individuals “manage privacy” (Anthony et al. 2017:252) and regulate access to the self (Nippert-Eng 2010; Westin 1967). When information can be conceptualized as belonging to an individual rather than to the public, privacy creates barriers to accessing information about personal matters. From this perspective, personal information can be thought of as a commodity (Nippert-Eng 2010), like the contents of a wallet or a purse, where access to both depends on privacy laws and privacy norms (Nissenbaum 2010). Privacy laws “define the contents, levels, and types of access that are legal and illegal,” whereas privacy norms “identify the characteristics of access that are deemed appropriate within a context” (Anthony et al. 2017:251). A key contribution of this literature is in detailing the consequences of privacy, privacy norms, and privacy management for relational cohesion, economic inequality, and social order more broadly.

When individuals conceal to pursue their interests (Simmel 1906), to define the situation (Goffman 1959), to avoid stigma (Goffman 1963) and conflict (Gibson 2014), or to regulate access to the self (Nippert-Eng 2010), it limits and redirects the flow of information. At the meso and macro levels, this can lead to widespread misperceptions: systematic differences between a group’s actual attitudes, beliefs, and intentions and how individual group members experience them. Differences, or gaps, between perception and reality lead to biases and errors in social inference. Although psychologists tend to argue that misperceptions result from intrinsic, egocentric biases, such as false uniqueness, sociologists contend that inferential errors “reflect flows of information rather than flaws in our mental machinery” (Kitts 2003:222).

Such flows of false information produce an “*absolute* error for the entire group” (Kitts 2003:223), or a socially shared misestimation of group members’ opinions. The type of absolute error that has received the most sociological attention is “pluralistic ignorance” (Centola, Willer, and Macy 2005; Kitts 2003; Miller and McFarland 1987; Willer, Kuwabara, and Macy 2009; Zerubavel 2006), which is a belief, shared by a sufficiently large subset of group members, that one’s private attitudes and preferences differ from those of other members. Groups fall prey to pluralistic ignorance when individuals deliberately withhold their private opinions from others. This can lead group members to overestimate public support for a norm and feel pressured to publicly support a norm with which they privately disagree, thereby reinforcing pluralistic ignorance and perpetuating the unpopular norm (Kitts 2003; Prentice and Miller 1993; Willer et al. 2009).

What Do People Conceal?

Much of the empirical literature in sociology on what people conceal is informed by, or builds directly on, the ideas of Simmel and Goffman. Couples considering divorce—or the process of “uncoupling”—increasingly reveal only fragments of

themselves to their partners as they pursue interests outside of their intimate relationship (Vaughan 1986). Women in the United States are more likely to keep secrets about abortion than about miscarriage, because abortion is much more stigmatized than miscarriage (Cowan 2014). And individuals embedded in exchanges considered disreputable, such as bribes and transactional sex (Schilke and Rossman 2018), can avoid stigma by obfuscating their exchange (Rossman 2014; Wherry, Seefeldt, and Alvarez 2019). Other examples of concealment for purposes of self-preservation include the withholding of information about HIV status (Shelley et al. 1995), sexual orientation (Doan and Mize 2020), food preferences (Kitts 2003), debt (Keene, Cowan, and Baker 2015), political attitudes (Cowan and Baldassarri 2018), mental health (Thoits 2011), health records (Campos-Castillo and Anthony 2014), chronic illness (Cook et al. 2017), sex work (Sanders 2005), natural resources (Fine and Holyfield 1996), personal space and possessions (Nippert-Eng 2010), social media use (Marwick and boyd 2014), teen sexual activity (Grigoryeva 2023; Schalet 2011), darknet identities (Przepiorka, Norbutas, and Corten 2017), and criminal toughness (Gambetta 2009).

The empirical literature on misperceptions and flows of false information tends to examine the attitudes, behaviors, and characteristics that people conceal at the micro level, and how these small-scale deceptions, in the aggregate, reproduce unpopular norms and practices that most people follow at the meso and macro levels, such as racial segregation (O’Gorman 1975), intra-caste marriage (Kuran 1995), deviance (Young and Weerman 2013), drug use (Prentice and Miller 1993), honor killings (Vandello and Cohen 2003), and female infibulation (Mackie 1996). A key takeaway from this literature is that concealment can lead to a “stasis in public opinion” (Cowan 2014:1) or a misperception of “greater division in the larger society” (Cowan and Baldassarri 2018:1).

Taken together, the sociological literature on concealment has produced important and detailed knowledge about the specific things that people conceal or keep private in particular contexts, and the implications of concealment for information gaps and group misperceptions about these matters. However, the findings described above can only be generalized to the population of individuals who have concealed a particular attitude, behavior, or characteristic (e.g., disability, miscarriage). Because extant research has not simultaneously examined the frequency, form, and distribution of multiple types of concealment in a given population, important theoretical propositions remain untested. Crucially, we still do not know whether and to what extent people conceal from others. That is, are people honest and forthcoming about everything, or does everyone have a backstage to some degree? Do individuals conceal similarly across subject matters, or do frontstage performances vary by topic? And do we withhold information without regard to who we are withholding it from, or do the frontstage selves that we present depend on who is in the audience?

Research examining more general patterns of concealment has largely been the domain of communication studies, economics, and psychology. In terms of frequency, several studies in different fields show that the prevalence of concealment varies widely and that concealment is often done by a few prolific concealers. Using a convenience sample of 1,000 U.S. adults, Serota et al. (2010) examine the frequency

and distribution of self-reported lying over a 24-hour period. The authors find that 60 percent of U.S. adults report telling no lies, 40 percent report telling at least one lie, and nearly half of all lies are told by only 5 percent of the sample. Economists find similar, though slightly different, patterns of concealment. Contrary to the theoretical expectation that rational actors will conceal whenever concealment pays off, a substantial fraction of individuals in behavioral economic experiments (about 50 percent, depending on the experimental paradigm) behave honestly (Abeler, Nosenzo, and Raymond 2019; Gerlach et al. 2019). In fact, Erat and Gneezy (2012) show that a sizable fraction of respondents (35 percent) are reluctant to tell a lie that benefits others *and* the liar, demonstrating some aversion to lying in student samples, a finding that is supported by meta-analyses (Abeler et al. 2019; Gerlach et al. 2019).

Although this research is informative, it cannot speak to the many things that people may or may not conceal, what those things are, and how often people conceal certain things relative to others. Psychologist Michael Slepian has made progress in understanding these patterns of concealment. In a pilot study, Slepian et al. (2017) surveyed 2,000 people and asked them about a current secret they were keeping. From this data, the authors inductively “formulated an initial list of categories of secrets from these responses, with the goal of creating categories that were not too overly narrow, not too broad, allowing us to capture important differences between categories” (Slepian et al. 2017:5). Through this process, Slepian et al. (2017) arrived at a final set of 38 categories that comprise the Common Secrets Questionnaire (CSQ), which was administered to hundreds of participants from general population convenience samples across 10 studies.

The CSQ asks the following:

“We are interested in the psychology of secrets. These are the kinds of things people tend to keep secret. We would like to know whether AT ANY TIME if YOU have ever kept any of the following things secret.”

For each category, such as “drug use,” the CSQ asks respondents about past experience with the category and whether people have kept the category a secret from everyone or from some people or whether it was a secret in the past (that is no longer a secret). The authors report fairly consistent results across five of their studies that administered the CSQ (five of their other studies examined the psychological underpinnings of secrecy). About 96 percent of their respondents currently kept at least one secret, whereas about two percent of respondents reported never having kept any of the categories of secrets. On average, respondents experienced 20 of the 38 categories in their lifetime, 13 of which (or 65 percent) were currently secrets, four of which (or 20 percent) were never secrets, and three of which (or 15 percent) were once a secret but no longer secrets. Across categories, Slepian et al. (2017) found that “extra-relational thoughts, a particular sexual behavior, and emotional infidelity are the secrets people most often keep to themselves, whereas drug use, work discontent, and surprises for other people are rarely kept entirely to oneself” (P. 7).

We expand upon Slepian et al.’s foundational work on secrecy to advance the empirical and theoretical understanding of concealment in two ways. First, the

research in this area has relied on student samples or non-probability samples of adults, producing data that are not representative of the general population. In other words, it is unclear whether the patterns observed in previous research, such as the prevalence of lying aversion in student samples, are representative of concealment practices in the greater population. To answer this question, we examine patterns of concealment in a representative probability sample of U.S. adults.

Second, previous research has either examined self-reports of concealment on a specific topic (e.g., Cowan's 2014 article on abortion secrets), self-reports of concealment across a range of topics (Slepian et al. 2017), or behavioral observations of concealment under artificial laboratory conditions (Gneezy 2005). To bridge the gap between these different approaches to understanding concealment, we use data from a two-wave online survey *and* a behavioral economic experiment. The survey is a modified version of the CSQ (Slepian et al. 2017), and the behavioral economic experiment is a version of the sender-receiver game (Erat and Gneezy 2012). These two data sources allow us to triangulate and converge on what people conceal, how often people conceal, and why people conceal.

Who Conceals, and from Whom Do People Conceal?

The performance of communities, markets, and hierarchies, as well as the broader social order (Akerlof 1970; Gibson 2014; Goffman 1959, 1963; Kuran 1995; Simmel 1906; Zerubavel 2006), depends not only on what people conceal, but also on the relational context in which people transmit information: who conceals, and from whom people conceal (Goffman 1959; Simmel 1950; Small 2017; Westin 1967). It is important to empirically identify which individuals and groups are likely to conceal, and from whom they are likely to conceal, for several reasons.

First, concealing a particular matter may have different consequences (or be more or less consequential) depending on the characteristics of both the senders and receivers of misinformation, as well as the nature of their relationship. For example, concealing one's salary from one's parents may be less important for closing the gender gap in pay than concealing one's salary from one's coworkers (in this example, characteristics of the concealer and the targets of concealment, such as gender, are also important). Second, pinpointing the relational links between senders and receivers of false information can provide important insights into misperceptions that simply knowing what people conceal cannot provide. In other words, ignorance and misinformation are relational, and some groups may be more ignorant than others, which requires a better understanding of who is most likely to conceal and be concealed from. Third, empirically observing from whom people are more or less likely to conceal across a range of topics will help adjudicate between classical and contemporary theoretical accounts of concealment that emphasize different targets of disclosure, such as spouses and partners (Goffman 1959; Westin 1967) versus acquaintances and strangers (Simmel 1950; Small 2017). Overall, then, our goal is to understand *who* conceals *what* and from *whom*.

Who conceals? The literature shows that personal factors, situational factors, and person \times situation factors largely determine who conceals. Personal factors include biographical characteristics, such as age and gender, as well as attitudes,

preferences, and personality traits. The latter consists of things like preferences for being perceived as honest (Abeler et al. 2019), personal autonomy (Westin 1967), and low self-control (Gottfredson and Hirschi 1990; Grigoryeva 2018). Situational factors include normative cues (Mazar, Amir, and Ariely 2008), externalities (Erat and Gneezy 2012), incentives to behave (dis)honestly (Gneezy 2005), and positions of brokerage (Burt 1992).

The literature in sociology largely focuses on the interaction of person and situation in concealment (e.g., Cowan 2014; Cowan and Baldassarri 2018; Doan and Mize 2020; Grigoryeva 2023). Person \times situation factors examine how personal factors interact with features of the situation to motivate concealment. Examples include sexual minorities hiding their sexual orientation at work (Doan and Mize 2020) or teens keeping secrets about their sexual history from their parents (Schalet 2011). In these situations, sexual minorities conceal to avoid discrimination at work, whereas teens conceal to avoid conflict and sanctions at home. Although this body of research is informative, it cannot tell us whether certain demographic groups are more or less likely to conceal over a range of concealable matters. For example, women may be more likely than men to keep secrets about an abortion, but men may be more likely than women to conceal most other things. Understanding differences in concealment across demographic groups would also shed light on the channels through which concealment occurs. If demographic differences are absent or small, this would suggest that other personal factors, such as preferences, attitudes, and personality traits, coupled with situational factors, drive concealment and, by extension, information flows.

In behavioral economics, the two biographical characteristics that consistently predict concealment are age and gender. Across most experimental paradigms, on average, 42 percent of men and 38 percent of women lie in laboratory experiments measuring dishonesty, with younger individuals behaving more dishonestly than older individuals (Gerlach et al. 2019; see also Capraro 2018). A longstanding problem in this literature, however, has been the use of non-probability samples of college students. The lack of probability samples of the general population casts doubt on the true extent of biographical differences in concealment. As Gerlach et al. (2019) write: “more representative participant pools seem highly desirable for future research on [concealment]” (P. 19). The present study addresses this issue by using a representative probability sample of U.S. adults. We examine demographic, religious, and political correlates of concealment, both broadly and for specific concealable topics.

From whom do people conceal? Simmel (1906) was one of the first social scientists to suggest that individuals selectively disclose (i.e., reveal only “fragments” of themselves to others) depending on the characteristics of the receiver. For Simmel (1950), a person’s “objectivity” is central to determining whether they receive extensive disclosure from someone, with strangers exhibiting the greatest degree of objectivity and therefore being disclosed to the most: “With the objectivity of the stranger... he often receives the most surprising openness—confidences which sometimes have the character of a confessional and which would be carefully withheld from a more closely related person” (Simmel 1950:404). For this reason,

Simmel expected individuals to keep secrets from close friends and family, but to disclose to strangers.

This line of thinking, along with concepts and findings from the social network literature (e.g., Burt 1992; Granovetter 1973), form the basis of Mario Small's (2017) book, *Someone to Talk To*, which examines who people confide in and selectively disclose sensitive information to. Using a mixed-methods approach, Small (2017) conducts longitudinal interviews with graduate students and collects data from two convenience samples that measure core discussion networks (Marsden 1987; McPherson, Smith-Lovin, and Brashears 2006) to investigate whether people confide in weak ties (e.g., strangers) more often than strong ties (e.g., family members). Small (2017) finds that people are more likely to disclose sensitive information to acquaintances and strangers than to friends and family (see also Serota et al. 2010). When people need a confidant, they rarely turn to their core discussion network, but instead seek out weak ties. Small's findings suggest that the best confidants are not always parents or even close friends, but people with the right combination of social distance and shared experiences who can empathize with the concealer (see also Vaughan 1986).

The work of Simmel and Small has important implications for misperceptions and the flow of false information: the self-portraits we present to loved ones and colleagues are not the same and depend on the attitude, behavior, or characteristic under consideration. That is, whether information is concealed or revealed in a social exchange (or whether information is allowed to flow from one actor to another) depends not only on who conceals, but also on who people are concealing from, and the nature of the relationship between the sender and receiver of information.

Other strands of theory and research in sociology reach different conclusions about the targets of concealment. Theoretically, dramaturgical and privacy explanations of information management maintain that formal, instrumental, and weak ties promote concealment because it is easier and more desirable for individuals to keep acquaintances, coworkers, and strangers—but not family members—in the dark about many aspects of their lives (Goffman 1959, 1963; Westin 1967). For Westin (1967), the privacy afforded to the domestic sphere, or the home, erects legitimate barriers to those who are not cohabitating family members. Similarly, for Goffman (1959), the home represents a backstage setting where “the performer can relax: he can drop his front, forgo speaking his lines, and step out of character” (P. 112), and the (nuclear) family is often portrayed as a performative team sharing a backstage and working together to withhold information from others (Goffman 1959:78–79, 127). However, Goffman complicates this view of close ties by suggesting that salient sociological characteristics, such as gender, promote division and information management among team members (Goffman 1959:130–131). In particular, Goffman (1959) expects that even though spouses are privy to many aspects of each other's backstage, they will conceal and manage information in accordance with the performance of marital roles. The home, in other words, serves “at one time and in one sense as a front region and at another time and in another sense as a back region” (Goffman 1959:126), especially if spouses and partners are going through a process of “uncoupling” (Vaughan 1986).

Empirically, research shows that for some topics, such as abortion (Cowan 2014), political attitudes (Cowan and Baldassarri 2018), and sexual orientation (Doan and Mize 2020), immediate family members are much more knowledgeable about these things than other people, including friends and coworkers, especially among family members who are accepting of (Cowan 2014), have positive attitudes toward (Cowan 2014), or hold comparable opinions about a concealable characteristic (Cowan and Baldassarri 2018).² One shortcoming of these studies is that they do not explicitly ask about acquaintances and strangers. For example, in their study of political discussion networks, Cowan and Baldassarri (2018) find that Americans are more likely to share their political opinions with friends and family than with coworkers. But because Cowan and Baldassarri (2018) do not measure other types of weak ties, such as acquaintances and strangers, they cannot directly test or speak to the expectations of Simmel (1950) and Small (2017).

Our analyses contribute to this debate in several ways. First, we examine a wide range of concealable attitudes, behaviors, and characteristics, which we use to better understand the universality of these findings: Do people conceal everything from their strong ties, some things, or just a few things? And do these patterns of concealment vary by what is being concealed? Second, for each attitude, behavior, and characteristic that people conceal, we measure a spectrum of different targets of concealment, including family, friends, spouses, partners, coworkers, clients, and strangers. This allows us to test key ideas from Simmel (1950), Small (2017), Goffman (1959), and Westin (1967). It also allows us to paint a general picture of who people conceal from (i.e., who hears less, who hears more), and how this misinformation varies by targets and across topics. Third, our use of a representative probability sample of U.S. adults allows our findings to be generalized to the population of U.S. adults, which has not been done previously.

Research Questions

The goals of this study are both confirmatory *and* exploratory, bringing together multiple types of evidence (survey and experiment) to paint a rich picture of secrets and lies. We do so by mapping the demographics of concealment in the United States and by showing *who* conceals *what*, and from *whom*. Given the goals specified earlier, we use the following research questions (RQ) to orient our study:

RQ1. How often do people conceal?

Over a 12-month period, we expect (1) the majority of people to conceal at least one attitude, behavior, or characteristic (Slepian et al. 2017); (2) people to conceal a non-negligible fraction of concealable attitudes, behaviors, and characteristics (Slepian et al. 2017); (3) a small fraction of people to conceal a large proportion of concealable things (Serota et al. 2010); and (4) about half of people to lie in a sender-receiver game (Gerlach et al. 2019).

RQ2. What and why do people conceal?

We expect people to largely conceal private or stigmatized attitudes, behaviors, and characteristics, such as self-harm, infidelity, and abortion

(Goffman 1963; Slepian et al. 2017; Westin 1967). We also expect that a sizable fraction of people will be averse to lying in the sender-receiver game (Erat and Gneezy 2012), and that people will lie as a function of the benefits to others *and* to the liar for lying.

RQ3. Who do people conceal from?

We expect people to conceal more from family members and friends than from strangers (Serota et al. 2010; Simmel 1950; Small 2017). We also expect people to conceal the least from spouses and partners (Goffman 1959; Westin 1967), but this may not be the case for some attitudes and behaviors, such as extrarelational thoughts and infidelity (Goffman 1959; Vaughan 1986).

RQ4. Who is more or less likely to conceal?

Given the behavioral economics literature (Gerlach et al. 2019), we expect younger people and men to conceal more than older people and women, respectively.

Data and Methods

Sample

An online survey and a behavioral economic experiment were coded and administered by the University of Chicago's National Opinion Research Center (NORC). A general population probability sample of U.S. adults aged 18 years and older was selected for this study from NORC's AmeriSpeak Panel. The sample was selected using sampling strata based on age, race/Hispanic ethnicity, education, and gender (48 sampling strata in total). A total of 1,281 panelists completed the survey between July 25 and August 4, 2022, yielding a survey completion rate of 26.1 percent and a weighted cumulative response rate of 4.6 percent. Panelists who completed the online survey were compensated with 3,000 AmeriPoints (or the cash equivalent of \$3 USD). The median time to complete the online survey was 17 minutes.

Approximately one month after the survey field period, all panelists who completed the online survey were invited to participate in an online sender-receiver game (Erat and Gneezy 2012; Gneezy 2005). A total of 966 panelists completed the sender-receiver game between the dates of August 30 and September 26, 2022, yielding a survey completion rate of 75.4 percent and a weighted cumulative response rate of 13.2 percent. Panelists who completed the online sender-receiver game were compensated 10,000 AmeriPoints. The median time to complete the game was three minutes.

Participants

Although slight differences exist, benchmark comparisons with the July to August 2022 Current Population Surveys revealed that the sample characteristics were representative of the U.S. population from which the AmeriSpeak panelists were randomly drawn (see Table S1 in the online supplement). In terms of relative

majorities (weighted), 51.4 percent of the participants who completed the online survey were female, 29.4 percent had high school diploma or equivalent, 62 percent were non-Hispanic White, and 28.7 percent were between the ages of 18 and 34 ($M = 47.72$, $SD = 17.63$, $\text{min} = 19$, $\text{max} = 91$). Relative majorities were roughly the same for respondents who participated in the online sender-receiver game.

Online Survey

The AmeriSpeak survey consisted of eight blocks. Two blocks were anchored at the beginning of the survey (a confidentiality-statement block and a demographic-variables block), whereas the remaining six blocks were presented in random order from respondent to respondent. Each block contained a thematic set of questions, such as measures of personality traits and self-reports of concealment. Basic demographic characteristics, like age, were collected by NORC prior to participation in the online survey, and were provided as preloads to the data set.

Concealment variables. In the current project, we focus on a block of survey items that measure 37 different concealable attitudes, behaviors, and characteristics, ranging from mental health issues and drug addiction, to hurting someone physically and emotionally, to sexual orientation and infidelity, to pregnancy and miscarriage (Slepian et al. 2017).³ Although not exhaustive, these 37 topics encompass most things that individuals might want to conceal. Many of the topics are drawn from the CSQ (Slepian et al. 2017). To obtain the most comprehensive set of topics, categories in the CSQ were originally developed inductively, by asking 2,000 individuals open-ended questions about the secrets they keep and then coding those responses into broad categories. This measurement strategy allows us to cover a range of attitudes, behaviors, and characteristics, while minimizing recall bias (that comes with open-ended responses) and respondent fatigue (that comes with answering too many survey questions) (Groves et al. 2009).

Although our survey of concealment builds on—and is informed by—the CSQ, our instrument differs from the CSQ in several ways. First, we begin by asking respondents about their experience with (or selection into) attitudes and behaviors in the last 12 months, followed by a separate screen that asks respondents whether or not they have concealed a particular attitude or behavior that they had selected into. Whereas Slepian et al. (2017) ask about selection and concealment simultaneously, we can better disentangle selection from concealment by separating the two questions. Second, our survey items measure concealment broadly defined, whereas the CSQ explicitly measures secrecy and secret keeping. As a result, our survey can paint a broader picture of concealment in the United States than the CSQ. Third, to aid recall and reduce response bias, we limit our reference period to 12 months. The CSQ, by contrast, asks respondents if they have ever kept a secret about a given topic. Fourth, we combined (e.g., no sex and sexual behavior), altered (e.g., belief/ideology), and dropped (e.g., lie, ambition) some categories in the CSQ to make room for other attitudes, behaviors, and characteristics that were timely (e.g., questions about COVID-19) or of interest to sociologists, such as abortion and miscarriage, sexual orientation, gender identity, and political beliefs (Cowan 2014; Cowan and Baldassarri 2018; Doan and Mize 2020).⁴ Fifth and finally,

unlike Slepian et al. (2017), we measure from whom people conceal a given attitude, behavior, or characteristic.

Given these changes, we ask about concealment in the following way: for attitudes and behaviors such as romantic desires and self-harm, respondents indicate whether they have engaged in behaviors or held attitudes in the last 12 months. If they answer yes, respondents report whether they have concealed particular behaviors or attitudes during that time. If concealment has occurred, respondents report from whom they have concealed a given attitude or behavior, including friends, family, partner or spouse, coworkers or clients, strangers, or people other than listed above. For example, the self-harm question asks:

“In order to understand the full range of human behavior, we need to know the answers to a few questions about your experiences with self-harm. During the last 12 months, that is, since [INSERT CURRENT MONTH] 2021, have you harmed yourself in a way that was deliberate but not intended as a means to take your life, such as self-cutting, self-scratching, self-hitting, or ingesting medication in excess of the prescribed amount?”

- Yes
- No
- Don’t know
- Prefer not to say

Respondents who answered “Yes” were asked:

“Have you concealed self-harm from other people during the last 12 months, that is, since [INSERT CURRENT MONTH] 2021?”

- Yes, I have concealed self-harm from everyone in the past year
- Yes, I have concealed self-harm from some people in the past year
- No, I have not concealed self-harm from anyone in the past year
- Don’t know
- Prefer not to say

Note that for each question about concealment, NORC programmed hover text on the word “concealed,” which provided respondents with a definition of concealment.⁵

Respondents who concealed self-harm from “some people” in the past year were then asked:

“Who have you concealed from? Please select all that apply:”

- Friends
- Family
- Partner or spouse
- Coworkers or clients

- Strangers
- People other than listed above

For characteristics such as sexual orientation and political beliefs, we assume that all respondents have certain characteristics that vary between individuals and ask respondents to report whether they have concealed these characteristics in the last 12 months. If concealment has occurred, respondents report from whom they have concealed a particular characteristic. For example, the sexual orientation question asks:

“Previously, you stated that you are [INSERT SELF-REPORTED SEXUAL ORIENTATION]. Have you concealed your sexual orientation from other people during the last 12 months, that is, since [INSERT CURRENT MONTH] 2021?”

Some attitudinal and behavioral questions, such as dissatisfaction with a romantic partner or poor job performance, are restricted to subsamples of individuals who meet particular selection criteria (e.g., married or dating). Table 1 provides information about each of the 37 topics, what each topic measured, the number of respondents who saw each topic, and the selection criteria.

Measuring concealment poses a number of methodological challenges, namely observing a concealable attitude, behavior, or characteristic *and* its concealment. This is particularly challenging because the goal of our study is to provide a comprehensive and representative portrait of concealment in the United States. Although a number of research designs are available, many existing methods can only observe a narrow range of concealment (e.g., lab experiments), have difficulty directly observing certain types of concealment like secrets and lies (e.g., in-depth interviews), and/or limit population-based inferences (e.g., ethnographies). For these reasons and because of our research questions, we chose to measure concealment via self-reports in an online survey.

Self-reports are vulnerable to elevated response bias and socially desirable reporting of concealment, especially for sensitive topics. Social desirability, however, varies widely depending on the population under study and the research design. Our online survey of U.S. adults minimizes social desirability bias in three respects. First, research shows that adults in the general population are willing to answer surveys in socially unpopular and politically incorrect ways, more so than university student populations (Henry 2023). Second, online surveys that guarantee confidentiality create social distance between the researcher and the respondent, which reduces interviewer effects and mitigates social desirability bias (Dillman 2009). Third, simple techniques that make survey questions less threatening, such as the “everybody does it” approach, increase the accuracy of self-reports (Bradburn, Sudman, and Wansink 2004), which are strategies we use to measure the concealment of sensitive topics (e.g., non-prescription drug use).

Although we run the risk of producing conservative, lower-bound estimates of concealment, we believe that our estimates will reflect what people conceal, an expectation that is supported by research that externally validates self-reports of sensitive behaviors. Criminologists, for instance, consistently find convergence of

Table 1: Attitudes, behaviors, and characteristics included in the concealment survey.

Topic	Content	Subsample	N(n)
Non-prescription drug use	Used non-prescription drugs, e.g., cocaine, ecstasy, benzos	Behavior	1,281 (240)
Addiction to drugs/alcohol	Unable to stop using drugs or alcohol	Alcohol/drug use + behavior	1,281 (77)
Addiction to other things	Unable to stop doing something, e.g., playing video games, eating food	Behavior	1,281 (290)
Theft/property damage	Theft or property damage	Behavior	1,281 (36)
Assault with weapon	Attacked another person with a weapon, e.g., gun, knife, club	Behavior	1,281 (6)
Sold non-prescription drugs	Sold non-prescription drugs, e.g., cocaine, ecstasy, benzos	Behavior	1,281 (25)
Hurt someone emotionally	Hurt someone emotionally, e.g., insult, degrade, embarrass	Behavior	1,281 (257)
Hurt someone physically	Hurt someone physically, e.g., punching, pushing, kicking	Behavior	1,281 (24)
Self-harm	Hurt self without intention to take own life, e.g., self-cutting, self-hitting	Behavior	1,281 (53)
Mental health issue	Diagnosed with a mental health issue, e.g., depression, bipolar disorder	Behavior	1,281 (243)
Broken trust	Broken the trust of a friend, family member, or coworker	Behavior	1,281 (114)
Romantic desires	Desire to be with someone else romantically	Married/dating + behavior	884 (195)
Dissatisfied with spouse/partner	Dissatisfied, frustrated, or unhappy with spouse or partner	Married/dating + attitude	884 (449)
Infidelity	Sexual intercourse with someone other than spouse or partner	Married/dating + behavior	884 (46)
Relationship history	Relationship history, e.g., prior dates, quality of prior relationships	Full sample	1,281 (1,281)
Dissatisfied with a friend	Dissatisfied, frustrated, or unhappy with a friend	Attitude	1,281 (576)
Dissatisfied with self	Dissatisfied, frustrated, or unhappy with personal life	Attitude	1,281 (658)
Broken school rules	Broken school rules or academic ethics, e.g., plagiarism, bullying	Student + behavior	26 (6)
Broken workplace rules	Broken workplace rules or standards, e.g., fudging time clock	Working + behavior	712 (81)
Dissatisfied with work/school	Dissatisfied, frustrated, or unhappy with work or school	Working/student + attitude	738 (375)
Poor work performance	Work performance poor or unsatisfactory, e.g., making mistakes	Working + behavior	712 (117)
Earnings	Earned income, e.g., wages, salary, welfare benefits	Behavior	1,281 (926)
Debt	Debt, e.g., mortgages, student loans, credit cards	Behavior	1,281 (876)
Purchases	Purchases, e.g., clothes, technology, sports, music	Behavior	1,281 (1,281)
Gender identity	Gender identity, e.g., female, transgender female, non-conforming	Full sample	1,281 (1,281)
Sexual orientation	Sexual orientation, e.g., gay, lesbian, bisexual	Full sample	1,281 (1,281)
Sexual preferences	Sexual preferences, e.g., frequency of sex, sexual acts	Full sample	1,281 (1,281)
Pregnancy	Been pregnant or gotten someone pregnant	Full sample	1,281 (1,281)
Miscarriage	Pregnancy (self or impregnated) ending in miscarriage or stillbirth	Behavior	1,281 (58)
Abortion	Pregnancy (self or impregnated) ending in an abortion	Pregnancy + behavior	58 (17)
Political beliefs	Political beliefs, e.g., liberal, moderate, conservative	Pregnancy + behavior	58 (9)
Family history and details	Family history, e.g., adopted cousin, sibling in prison	Full sample	1,281 (1,281)
Positive for COVID	Tested positive for, or believe had, COVID-19	Full sample	1,281 (281)
COVID vaccine	COVID-19 vaccination status	Behavior	1,281 (406)
Surprise for someone	Planned a surprise for someone, e.g., party, get-together	Full sample	1,281 (1,281)
Marriage proposal	Planned to propose marriage	Behavior	1,281 (266)
Hobby	Pursued a hobby or passion	Behavior	1,281 (39)
		Behavior	1,281 (660)

N = number of respondents who were asked about a given topic; n = number of respondents who were asked about concealment for a given topic. The Subsample column provides information on who was asked about concealment for a given topic. "Full sample" means that all respondents were asked about a given topic; "Alcohol/drug use," "Married/dating," "Student," "Working," "Working/student," and "Pregnancy" mean that respondents who are, for example, married or currently dating were asked about a given topic; "Behavior" and "Attitude" mean that respondents who exhibit a given behavior or attitude were asked about a given topic.

self-reports of crime with administrative records and victimization data (Junger-Tas and Marshall 1999; Piquero, Schubert, and Brame 2014), and research on one dimension of concealment—lying—indicates similar statistical agreement of measures (Halevy, Shalvi, and Verschuere 2014). For these reasons, we believe that the ability of self-reports in online surveys to broadly measure and assess concealment in the general population far outweighs the minimal response bias that the method may introduce to statistical estimates. Finally, using experiments to examine the extent of concealment in our probability sample allows us to corroborate survey findings with behavioral data.

Demographic variables. The current study investigates a number of demographic predictors of concealment (see Table 2). Although NORC provides measures of gender, marital status, and employment status as part of its preloads, we nevertheless asked these questions in our survey—in addition to sexual orientation—for two reasons. First, we wanted up-to-date information on these demographics, which were related to some of our questions about concealment (e.g., concealing sexual orientation), and second, we wanted additional information that was not part of NORC's preloads (e.g., gender identity categories beyond male, female, and other). We also use demographic variables provided by NORC, including age, race-ethnicity, education, income, and U.S. region, as well as variables purchased by the authors, including religious denomination (What is your present religion, if any?), religious attendance (How often do you attend religious services?), and a liberal-conservative scale (seven-point measure of political ideology). Finally, all statistical models control for metropolitan area, internet access at home, home ownership (e.g., own, rent), home type (e.g., apartment, single-family detached house), household telephone service (e.g., landline, cellphone), survey duration, and survey device (e.g., tablet, smartphone).

Online Sender-Receiver Game

Respondents played one round of the sender-receiver game with deception, a classic approach to studying concealment behavior (Erat and Gneezy 2012; Gneezy 2005). Traditionally, respondents are randomly assigned to one of two roles: the sender or the receiver. For our experiment, all respondents played the role of the sender, but were told that they would be interacting with another player, the receiver. Participants were debriefed of this deception at the end of the study.⁶ As we note in the Results section, this deception did not appear to affect the results of our study compared to the original Erat and Gneezy (2012) study, in which all respondents were given correct information.

At the start of the experiment, a random number generator selects a number between 1 and 6, and tells the sender the result (the sender is told that the sender, not the receiver, will see this result). The sender is then asked to send a message to the receiver from a pool of six possible messages. The six possible messages are “the outcome of the randomly generated number is i ,” where $i \in [1, 2, 3, 4, 5, 6]$. The sender is told that the payoff in the experiment depends on the receiver's choice. The sender is also told that the only information the receiver has about the actual outcome of the randomly generated number is the sender's message. There

Table 2: Descriptive statistics of demographic variables.

	Survey			Sender-receiver game		
	<i>N</i>	Proportion/ mean	SD	<i>N</i>	Proportion/ mean	SD
Age	1,281	48.728	17.625	962	47.729	17.556
Gender identity	1,281			962		
Female		0.514			0.508	
Male		0.473			0.478	
Other gender		0.010			0.011	
Gender DKPNS		0.003			0.003	
Sexual orientation	1,281			962		
Gay		0.036			0.034	
Straight		0.910			0.912	
Bisexual		0.036			0.036	
Other sexual orientation		0.007			0.005	
Sexual orientation DKPNS		0.011			0.010	
Marital status	1,281			962		
Married		0.525			0.509	
Dating(cohabiting)		0.088			0.094	
Dating(living apart)		0.077			0.089	
Formerly married		0.134			0.134	
Never married		0.0161			0.163	
Marital status DKPNS		0.015			0.011	
Race-ethnicity	1,281			962		
Non-Hispanic White		0.620			0.621	
Black		0.121			0.121	
Hispanic		0.172			0.172	
Asian		0.064			0.061	
2+ races		0.015			0.019	
Other race		0.008			0.006	
Religious affiliation	1,281			962		
Christian		0.670			0.665	
Non-Christian		0.052			0.049	
Unaffiliated		0.271			0.278	
Other religion		0.007			0.008	
U.S. region	1,281			962		
Northeast		0.175			0.176	
Midwest		0.207			0.206	
South		0.381			0.380	
West		0.237			0.237	
Education	1,281			962		
Less than high school diploma		0.091			0.092	
High school diploma or equivalent		0.294			0.295	
Some college or associate degree		0.263			0.262	
Bachelor’s degree or greater		0.352			0.351	
Employment status	1,281			962		
Working		0.575			0.570	
Not working		0.417			0.422	
Employment status DKPNS		0.008			0.008	
ln(per capita HH income)	1,281	9.978	1.025	962	9.967	1.043
Religious attendance	1,279	18.946	37.114	962	18.387	36.701
Liberal-conservative scale	1,264	2.072	1.120	962	2.009	1.120

Estimates adjusted with post-stratification survey weights.

Table 3: Sender-receiver game payoffs (in AmeriPoints) across treatment conditions.

Type of lie	Treatment	<i>N</i>	Option A	Option B	Fraction of lies
Altruistic lies	T[-500, 5000]	195	(10000, 10000)	(9500, 15000)	74/195 (37%)
Pareto lies (low benefit)	T[500, 5000]	194	(10000, 10000)	(10500, 15000)	120/194 (61%)
Pareto lies (high benefit)	T[5000, 5000]	186	(10000, 10000)	(15000, 15000)	132/186 (73%)
Selfish harmful lies	T[500, -2500]	185	(10000, 10000)	(10500, 7500)	65/185 (39%)
Selfish neutral lies	T[5000, 0]	202	(10000, 10000)	(15000, 10000)	109/202 (57%)

N is the total number of respondents (i.e., senders). Fraction of lies is survey weight adjusted.

are two payment options, A and B. The sender knows the payoffs to both players associated with A and B, and the sender is told that the receiver does not know these payoffs (but the receiver does know that there are two different payoffs). Finally, the sender is told that if the receiver chooses the true outcome of the randomly generated number, payment option A will be implemented, with the sender and receiver both receiving 10,000 AmeriPoints. Otherwise, both will be paid according to option B (see Table 3). As Table 3 shows, the experiment consists of five different conditions, or what Erat and Gneezy (2012) call the “taxonomy of lies.” Each condition manipulates the change in payoffs resulting from lying to the receiver. The intuition is that the sender may deceive the receiver by giving false information regarding the outcome of the randomly selected number, and that such deception will vary based on the payoffs associated with each experimental condition. After the sender chooses which message to send to the receiver, the sender is thanked for their participation, debriefed of the deception, and compensated with 10,000 AmeriPoints (regardless of their choice).

Analytic Strategy

Given the exploratory and confirmatory goals of our study, we first explore the presence and prominence of concealment descriptively using post-stratification survey weights.⁷ We then estimate linear regression models (LRM) to identify the demographic predictors of concealment. Although our outcome variables are constrained to lie between zero and one, or are counts of concealment, we chose to model our data within a linear framework for three reasons. First, the interpretation of estimates from LRMs is more intuitive than negative binomial or logistic regression models. Second, logit models can produce downwardly biased estimates for rare events (King and Zeng 2001; Timoneda 2021). Third, we found little to no difference in estimates of main effects from LRM and limited dependent variable models (see the online supplement). Finally, we estimate LRMs using maximum likelihood for missing data with robust standard errors and post-stratification survey weights. Because of the longstanding debate over how to treat non-response error and adjustment error (Allison 2001; Gelman 2007; Groves et al. 2009), we provide alternative model specifications with different combinations of survey weights and missing data procedures (i.e., maximum likelihood and listwise deletion) in the online supplement.

Results

We divide our analysis into four parts: frequency of concealment, what people conceal, from whom people conceal, and who conceals.

Frequency of Concealment

The survey shows that respondents conceal an average of 3.52 topics over a 12-month period. We find that, on average, respondents conceal one-quarter (or 24.54 percent) of their *concealable* attitudes, behaviors, and characteristics (that is, concealing conditional on having attitudes, behaviors, and characteristics); that just over one-fifth (or 21.41 percent) of respondents conceal nothing at all; and that about three-quarters (or 78.59 percent) of respondents conceal at least one thing. The survey also reveals that about one-tenth (or 12 percent) of respondents conceal more than 50 percent of their *concealable* attitudes, behaviors, and characteristics (conditional on having attitudes, behaviors, and characteristics).

The experiment shows that 53.31 percent of respondents lie (or send a false message) in the sender-receiver game, pooled across conditions. Finally, a small minority of respondents (9.28 percent) neither conceal at all (as self-reported in the concealment survey) nor lie in the sender-receiver game.

What People Conceal

Our results suggest that misinformation is common in the United States, but it varies depending on what is being concealed. Figure 1 illustrates the percentage of respondents who report having each of the 29 attitudes and behaviors (we consider eight topics, such as sexual orientation and political beliefs, to be characteristics that everyone has, and illustrate these in Figure 2).⁸ For each topic, we plotted the results by the frequency of concealment (i.e., never experienced, experienced but never concealed, concealed from some people, and concealed from everyone) and sorted the topics by the percentage of respondents who never experienced the attitude or behavior. Figure 1 shows that many of the 29 attitudes and behaviors, such as “Assault with weapon” and “Abortion,” were not experienced by the majority of respondents in the past 12 months. Other attitudes and behaviors, such as “Debt,” “Earnings,” and being “Dissatisfied with self,” were more widely experienced. In terms of frequency, most respondents had debt and earnings in the past 12 months but did not withhold information about either of these from anyone. In contrast, most respondents concealed their personal dissatisfaction from some or all people.⁹

Figure 2 allows for a more direct comparison of all potentially *concealable* matters by examining the percentage of respondents who conceal something from others, conditional on actually having experienced an attitude, behavior, or characteristic. The figure shows that extra-relational thoughts (Romantic desires), harming oneself (Self-harm), abortion (Abortion), and infidelities (Infidelity) are the topics people most commonly conceal in the past 12 months, whereas one’s hobbies (Hobby), purchases (Purchases), and COVID-19 vaccination status (COVID vaccine) are rarely kept from others.

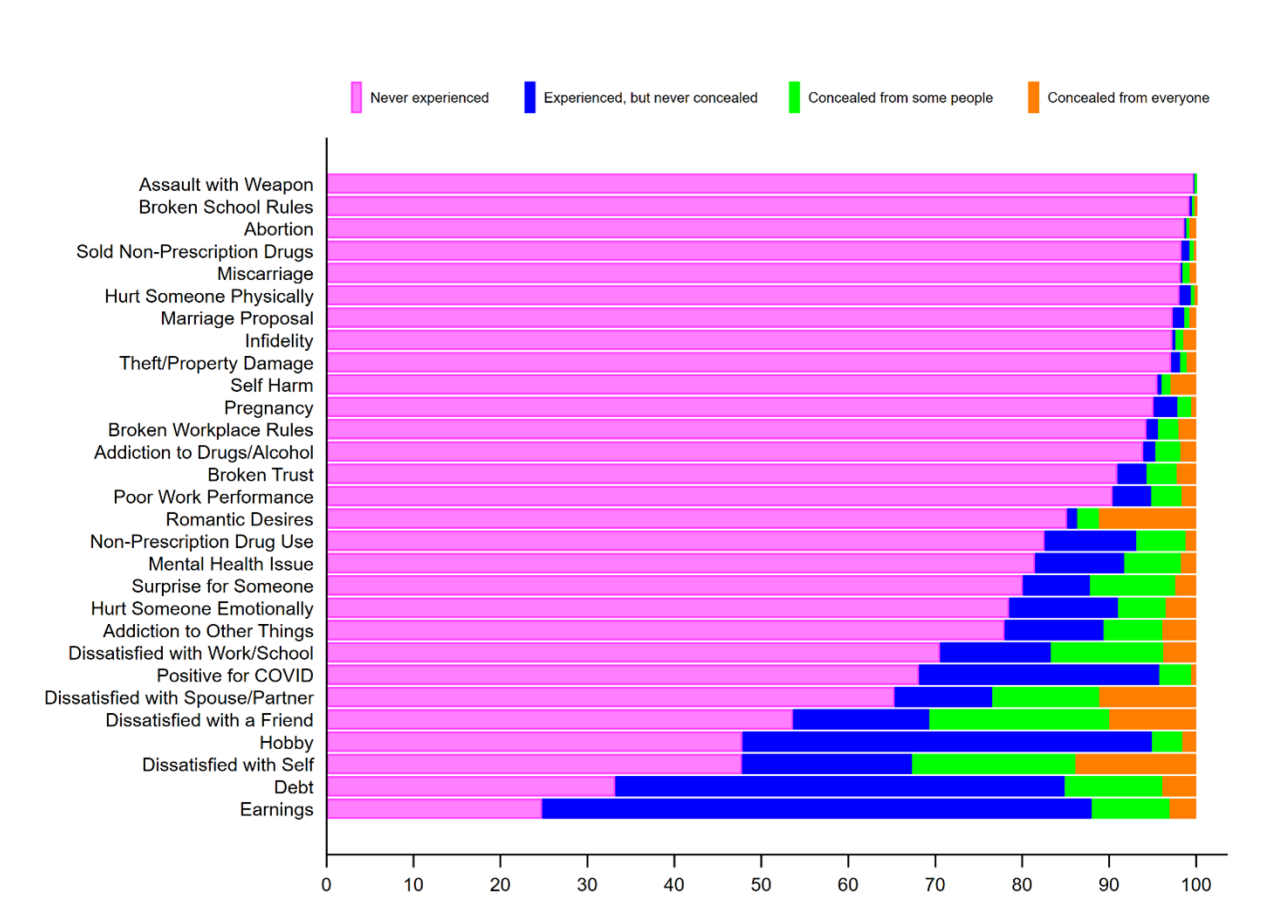


Figure 1: Percentage of respondents who conceal attitudes and behaviors. Estimates adjusted with post-stratification survey weights. “Never experienced” means that the respondent did not experience the attitude or behavior in the past 12 months. This figure includes all 29 attitudes and behaviors that respondents could have experienced or held in the past 12 months, and excludes the 8 characteristics that we assume each respondent has, namely “Relationship history,” “Purchases,” “Gender identity,” “Sexual orientation,” “Sexual preferences,” “Political beliefs,” “Family history and details,” and “COVID vaccine.”

Our analysis of the sender-receiver experiment provides further insight into what people are more or less likely to conceal. Table 3 shows that a sizable fraction of respondents (27 to 39 percent) are unwilling to tell a lie that benefits others *and* the liar (Pareto lies), demonstrating some degree of aversion to lying in the U.S. population. In contrast, a significant proportion of respondents (37 percent) are willing to tell a lie that harms them a little but helps others a lot (Altruistic lies). Finally, a substantial fraction of respondents are willing to tell a lie that benefits the liar but harms others (39 percent; Selfish harmful lies) or has no effect on others (57 percent; Selfish neutral lies). A linear probability model shows that a joint test of the equality of coefficients rejects the null hypothesis that the treatments are equal: $F(4, 957) = 13.83, p < 0.001$.

Many of the experimental findings are consistent with the survey results. For example, about 21 percent of survey respondents do not conceal their attitudes,

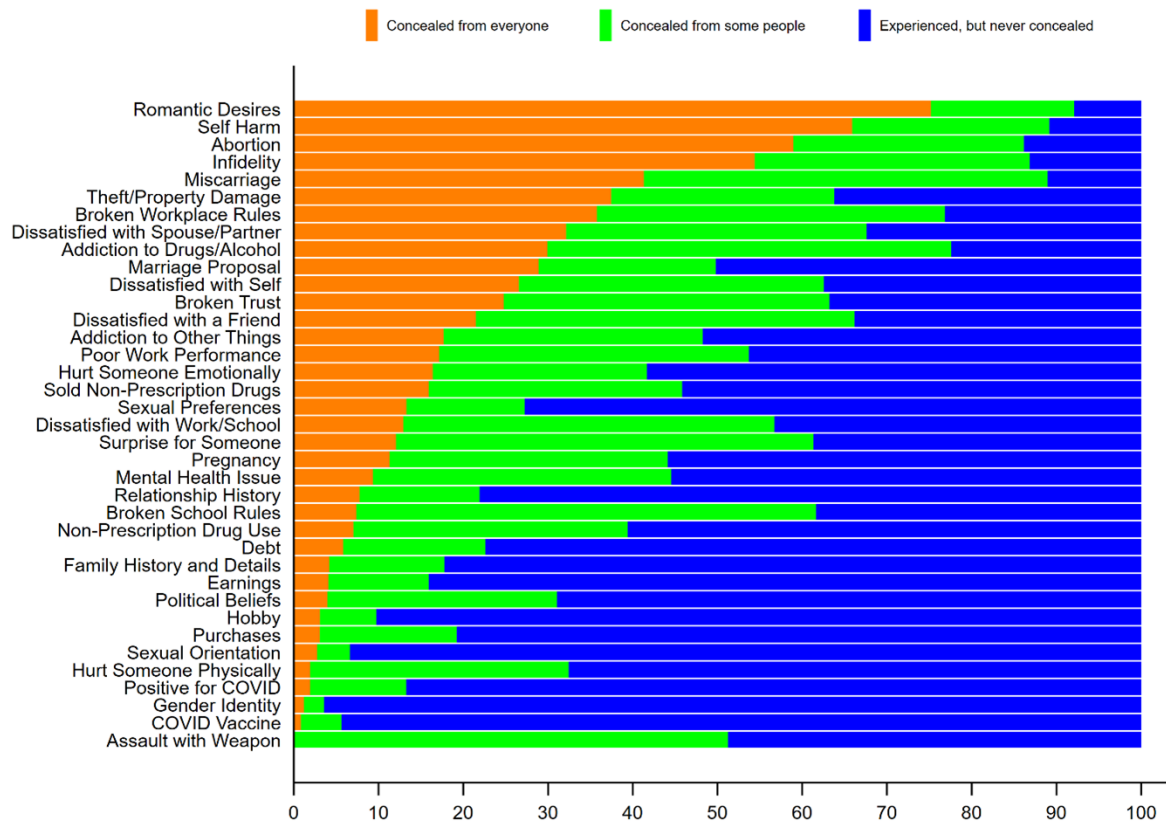


Figure 2: Percentage of respondents who conceal an attitude, behavior, or characteristic, conditional on actually having the attitude, behavior, or characteristic. Estimates adjusted with post-stratification survey weights. This figure includes all 37 attitudes, behaviors, and characteristics from the self-report concealment survey.

behaviors, and/or characteristics from others, which is roughly the same proportion of respondents who do not lie in the “Pareto lies” treatments. In addition, 39 to 57 percent of respondents in the “Selfish harmful/neutral lies” conditions do not tell the truth, which is consistent with the frequency of concealment observed for things like “Poor work performance,” “Hurting someone emotionally,” and “Dissatisfied with a friend.”

From Whom People Conceal

The results so far provide the first comprehensive and representative look at the frequency, form, and distribution of concealment in the United States. Addressing both is possible because of the novel measurement approach and probability survey used here. An additional goal of our study is to measure from whom respondents conceal and whether there is variation in who people withhold information from across the 37 attitudes, behaviors, and characteristics. Figure 3 illustrates the targets

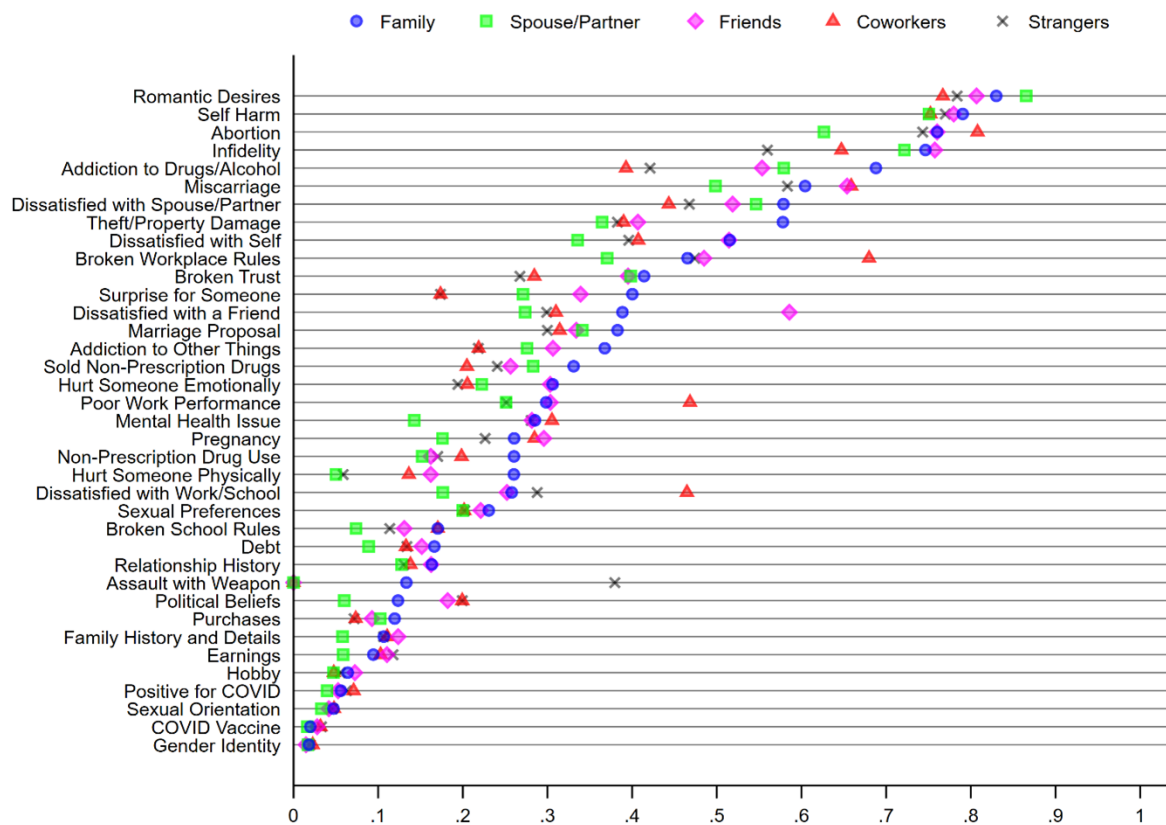


Figure 3: Proportion of respondents who conceal a topic from family (blue), spouse or partner (green), friends (magenta), coworkers or clients (red), and strangers (black), among those who have an attitude, behavior, or characteristic. Estimates adjusted with post-stratification survey weights. This figure includes all 37 attitudes, behaviors, and characteristics from the self-report concealment survey.

of respondents who reported withholding information from others, where we decompose targets into (1) family, (2) spouse or partner, (3) friends, (4) coworkers or clients, and (5) strangers.¹⁰ Conditional on actually having an attitude, behavior, or characteristic, we find that there is no universal tendency to conceal the 37 attitudes, behaviors, and characteristics from strong ties (i.e., family, spouse/partner, and friends) more than from weak ties.¹¹ However, among respondents who reported concealing a topic, we find that they are least likely to conceal 25 of the 37 topics (or 67 percent of topics) from spouses or partners, including such topics as “Self-harm,” “Broken workplace rules,” “Mental health issue,” and “Political beliefs” (respondents are most likely to conceal “Romantic desires” from spouses or partners).¹²

Although we do not observe a general tendency for respondents to conceal from strong ties more often than weak ties, family members—quintessential strong ties—are the most common targets of concealment. Respondents who reported

concealing a topic are most likely to conceal 18 of the 37 topics (or 49 percent of topics) from family members, including “Addiction to drugs/alcohol,” “Dissatisfied with self,” “Broken trust,” and “Purchases.” And respondents are more likely to conceal 29 of the 37 topics (or 78 percent of topics) from family members than from strangers (e.g., Infidelity, Abortion, Hurt someone emotionally, and Debt). Topics that respondents are more likely to conceal from strangers than from family members include “Political beliefs” and “Earnings.” Overall, the findings support the theoretical claims and expectations of Goffman (1959), Simmel (1950), Small (2017), and Westin (1967) as well as other research findings in this area (e.g., Cowan and Baldassarri 2018; Serota et al. 2010).¹³

Who Conceals

We next examine demographic predictors of concealment. We use three different outcome variables: total (or sum of) concealment, proportion of topics concealed, and lying in the sender-receiver game. The first measure, *total conceal*, is a row-sum count of the 37 topics concealed in the past 12 months ($M = 3.52$, $SD = 3.52$, $\min = 0$, $\max = 20$, $N = 1,274$). The second measure, *proportion conceal*, is a proportion of topics concealed in the past 12 months, conditional on having an attitude, behavior, or characteristic ($M = 0.24$, $SD = 0.21$, $\min = 0$, $\max = 0.944$, $N = 1,274$).¹⁴ Note that *total conceal* measures the number of topics that respondents conceal over a 12-month period; it does not measure the degree to which respondents conceal their concealable attitudes, behaviors, and characteristics. As a result, *total conceal* runs the risk of conflating concealment with the occurrence of an attitude or behavior. In contrast, by conditioning on having experienced a particular topic, *proportion conceal* disentangles concealment from occurrence and ensures that we are predicting concealment rather than the likelihood of an attitude, behavior, or characteristic. The third measure, *lying*, is a binary measure of lying in the sender-receiver game ($M = 0.53$, $\min = 0$, $\max = 1$, $N = 962$).

Figure 4 shows three sets of LRMs using maximum likelihood for missing data with robust standard errors and post-stratification survey weights. For each LRM, we regress a key dependent variable on a set of demographic variables, including age, gender identity, and sexual orientation among others. We provide standardized coefficients and 95 percent confidence intervals for model 1 (Total Conceal) and model 2 (Prop. Conceal), and unstandardized coefficients and 95 percent confidence intervals for model 3 (Lying). Figure 4 shows that some demographic variables predict total concealment and the proportion of topics concealed. These variables include age (-), cohabitation (+), Asian (-), all three education dummies (+), and liberal-conservative scale (-). Race-ethnicity and education yielded statistically significant familywise tests, whereas marital status did not. These results suggest that older people, Asians, and conservatives conceal less than younger people, non-Hispanic Whites, and liberals, respectively. Likewise, college-educated people conceal more than people without a high school diploma. Turning to the sender-receiver game, we see that age is negatively associated with lying at the $p < 0.05$ level, whereas identifying as Hispanic is positively associated with lying. Overall, age is the only variable that consistently predicts concealment across the three

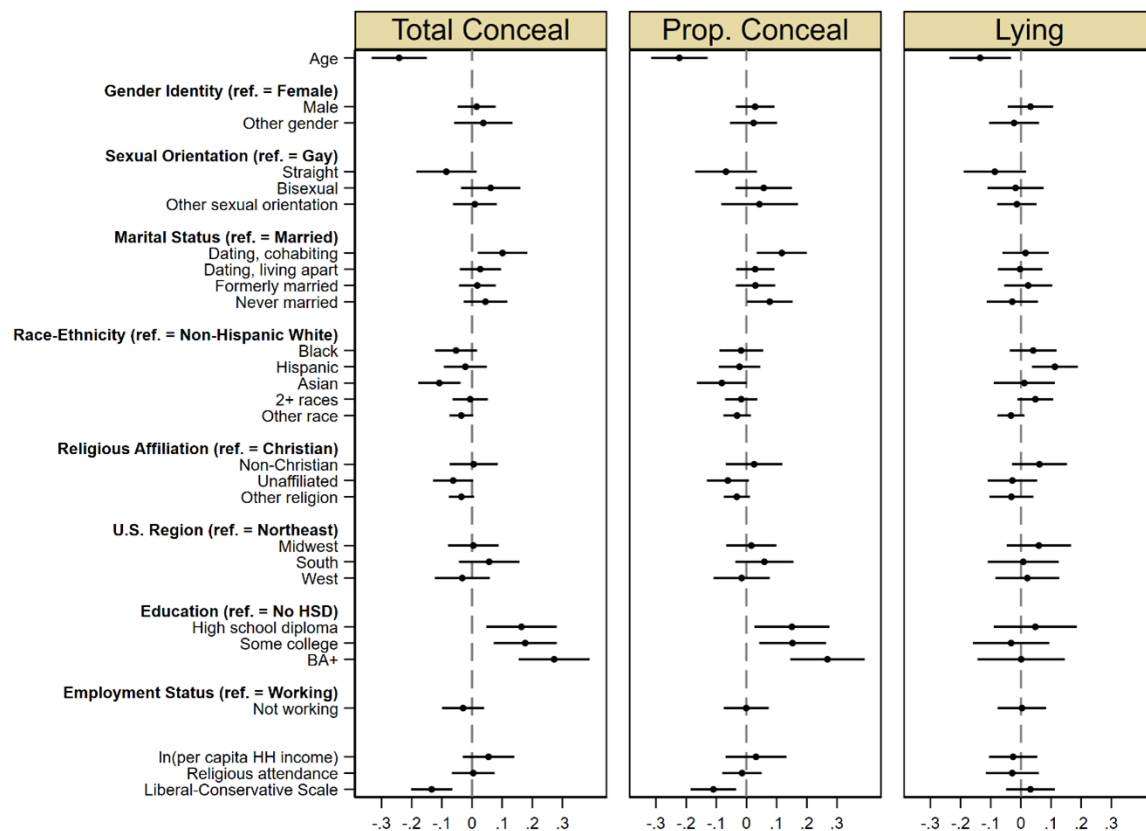


Figure 4: Linear regression models regressing Total Conceal, Proportion (Prop.) Conceal, and Lying on demographic variables. Standardized coefficients and 95 percent confidence intervals are reported for model 1 (Total Conceal) and model 2 (Prop. Conceal); unstandardized coefficients and 95 percent confidence intervals are reported for model 3 (Lying). Total Conceal is a count of topics concealed in the past 12 months; Prop. Conceal is a proportion of topics concealed in the past 12 months, conditional on having an attitude, behavior, or characteristic; and Lying is a binary measure of lying in the sender-receiver game. Total Conceal and Prop. Conceal are constructed using all 37 attitudes, behaviors, and characteristics from the self-report concealment survey. All models estimated with maximum likelihood for missing data, robust standard errors, and post-stratification survey weights (model 1 and model 2: N = 1,281; model 3: N = 966). All models control for metropolitan area, internet access at home, home ownership, home type, household telephone service, ln(survey duration), and survey device. Model 3 (Lying) also controls for the experimental treatments (see Table 3).

measures. Notably, gender is not a significant predictor of concealment for any of the three measures of concealment.

The results so far tell us how much and to what extent people conceal, from whom people conceal, and whether there are demographic differences in the frequency of concealment. To gain traction on demographic differences in what people conceal, we next analyze concealment for each of the 37 topics separately, conditional on having an attitude, behavior, or characteristic. The results of these models

are presented in Table S2 in the online supplement, which shows that many LRMs predicting the concealment of rare behaviors, such as theft and assault, did not statistically converge. Most of the other models did converge, revealing two important findings.

First, most of the demographic variables that were statistically significant in Figure 4 show consistent directions of effect for a particular subset of topics. For instance, age is negatively associated with concealment across many, but not all, topics such as “Debt,” “Purchases,” and “Sexual orientation.” Education is positively related to concealment for topics about work and family, whereas straight people are less likely to conceal topics related to “Sexual orientation” and “Sexual preferences” than gay people. All of this suggests that demographic differences in how much and to what extent people conceal are driven by a particular set of attitudes, behaviors, and characteristics that vary across demographic groups.

Second, most of the demographic variables that were statistically non-significant in Figure 4 are either not statistically related to most topics or have countervailing effects across several topics (see Table S2). For example, attendance at religious services is positively related to concealment of “Broken workplace rules,” but negatively related to concealment of “Non-prescription drug use” and “Political beliefs.”

Note that 29 of these topics present the possibility of selection bias caused by non-random selection of respondents into a particular attitude or behavior. For example, men may be more likely than women to use non-prescription drugs, but some women—who are systematically different from other women—may select into non-prescription drug use. As a result, the distribution of unobserved variables correlated with men’s and women’s selection into non-prescription drug use may differ between the two groups. The implication is that the error terms in the selection equation (i.e., occurrence of the attitude or behavior) and the outcome equation (i.e., concealment) may be correlated because of unobserved variables, thereby misestimating the effect of gender identity on concealment. To address the possibility of selection bias, we created inverse probability weights (IPWs) for each of the 29 topics into which respondents could select. The results of the models estimated with IPWs parallel those found in Table S2 (see the online supplement).¹⁵

Discussion and Conclusion

Despite theoretical and empirical knowledge about the intended and unintended consequences of concealment, social scientists still do not know *who* conceals *what* and from *whom*. Without this knowledge, it is difficult to adjudicate between different theoretical accounts of information management and to determine the degree of misinformation that exists for various attitudes, behaviors, and characteristics, and the implications of such misinformation for the performance of communities, markets, and hierarchies. The present study addresses these knowledge gaps by mapping the demographics of concealment in the United States. Using a two-wave general population probability survey and behavioral experiment of U.S. adults ($N = 1,281$), we produce four main findings.

First, misinformation is common in the United States, but it varies greatly depending on what is being concealed *and* the reasons for concealment. Our survey and experiment together show that a small minority of people (~ 9 percent) are completely honest on all measures: they did not conceal any of the 37 possible attitudes, behaviors, and characteristics over a 12-month period, nor did they lie in the sender-receiver game. Despite this small minority of honest and forthcoming individuals, our survey shows that the majority of people conceal at least one thing over a 12-month period, and that a smaller fraction of people (~ 12 percent) conceal most of their concealable attitudes, behaviors, and characteristics. In other words, most people conceal a little, some conceal nothing, and a few conceal a lot. Our behavioral experiment corroborates these findings and reveals that, on average, just over 50 percent of the population is willing to lie in the sender-receiver game, but that a sizable proportion of the population is averse to lying. The experiment also shows that people are most likely to lie (1) when it benefits the concealer without harming the target of concealment, or (2) when it benefits both the concealer *and* the target of concealment.

In terms of the specific things that people conceal, our study reveals heterogeneity in concealment across topics. The survey shows that things like debt and earnings are relatively common, but respondents rarely conceal their finances from other people. In contrast, things like infidelities are relatively rare, but when they do happen, respondents tend to conceal their love affairs from most people. And some things, such as being dissatisfied, frustrated, or unhappy with one's personal life, are both relatively common experiences and are typically concealed from other people. Overall, however, the things that respondents most commonly conceal (> 80 percent of respondents conceal) are stigmatized attitudes and behaviors that rarely occur in the general population (e.g., abortion, infidelity, self-harm).

Second, some demographic characteristics predict rates of concealment, the proportion of things concealed, and/or lying in a behavioral experiment. Specifically, we find that age, race-ethnicity (Asian), education, and political ideology account for both the degree of concealment and the frequency of concealment, conditional on actually having an attitude, behavior, or characteristic. The strongest effect of any demographic variable is age: older people are much less likely to conceal than younger people. Moreover, age is the only demographic variable that predicts behavioral *and* self-report measures of concealment. Other variables, such as gender identity, sexual orientation, marital status, religious affiliation, U.S. region, employment status, religious attendance, and income are statistically unrelated to aggregate and behavioral measures of concealment.

Third, most demographic groups are similar in how much they conceal, but all demographic groups differ in what they conceal. For example, men and women conceal at similar rates across all topics, but men are more likely than women to conceal their sexual preferences. In addition, examining demographic differences in concealment across topics helps explain observed differences in overall propensities to conceal. The general finding that people with less than a high school diploma are, on average, less likely to conceal than all other education categories is explained by the fact that respondents with a high school diploma or greater are more likely to conceal topics related to work, school, and family. For most other concealable topics,

including behavioral measures of lying in the sender-receiver game, education plays no part in predicting concealment. By examining the interplay between propensities to conceal and the substantive topics that are concealed, we paint a more complete picture of demographic patterns in concealment.

Fourth, although some types of strong ties (e.g., family members) are more likely to be targets of concealment than weak ties (e.g., strangers), there is greater heterogeneity in the degree of concealment across different kinds of strong ties than between strong ties and weak ties. In particular, respondents are more likely to conceal from family members than from strangers: for 78 percent of topics, including love affairs, abortions, and debt, respondents are more dishonest with family members than with strangers. However, when considering multiple types of strong ties and weak ties, our data suggest that there is no general tendency for respondents to conceal from strong ties more often than from weak ties. Spouses and partners, for instance, appear to be the most informed group of people. And respondents are more likely to conceal a non-negligible proportion of topics (~ 22 percent), including political beliefs and earnings, from strangers than from family members. Overall, family members are the most common targets of concealment (and thus the least informed), whereas spouses and partners are the least common targets (and thus the most informed), with strangers and coworkers generally occupying spaces in between, depending on the attitude, behavior, or characteristic being concealed.

Implications and Directions for Future Research

Our findings both confirm previous research and make novel contributions to the literature on concealment. Importantly, we show that the intuitions of Simmel (1906, 1950) and Goffman (1959, 1963) are correct in many respects. People do reveal “fragments” of themselves to others, creating separate worlds (Simmel 1906) or “stages” (Goffman 1959) in which people are unaware of each other’s innermost thoughts and feelings, as well as past experiences and prior behaviors. Yet, the fragments we choose to conceal, and the degree to which our hidden world or backstage is revealed to others, vary greatly depending on *who* is concealing *what* from *whom*.

Supporting previous work (Abeler et al. 2019; Gerlach et al. 2019; Serota et al. 2010; Slepian et al. 2017), the survey and experiment together show that a small subpopulation of people are honest and forthcoming about most things and rarely, if ever, intentionally withhold information from others. We show that these individuals, who are anomalous cases in Simmel’s and Goffman’s frameworks, actually make up about 9 percent of the population. Their hidden and manifest worlds are concentric and appear unified, with few things to hide and even fewer impressions to manage in the frontstage. Most people, however, do present distorted versions of themselves for public consumption (Goffman 1959; Simmel 1906), with a small minority of truly Goffmanian actors whose social lives are characterized by a striking split between two worlds in which there is a backstage and a frontstage for most things. An important contribution of our study is to identify what accounts for this heterogeneity in concealment, namely features of the person *and* the situation.

We find that people tend to conceal attitudes, behaviors, and characteristics that are stigmatized (Cowan 2014; Doan and Mize 2020; Goffman 1963) or considered private (Anthony et al. 2017; Nippert-Eng 2010; Westin 1967), such as abortion, infidelity, self-harm, and sexual orientation (for gay and bisexual people). Likewise, individuals conceal to a lesser extent when matters are less stigmatized or not explicitly controlled by privacy laws and norms, such as one's sexual orientation (for heterosexuals) and hobbies. Although the dynamics of concealment appear to be situation dependent (Goffman 1959), biographical characteristics also play a role. Although race-ethnicity, education, and political ideology are correlated with self-reports of concealment, in our models age is the only demographic variable that consistently predicts behavioral *and* self-report measures of concealment. This suggests that older people are more honest and forthcoming than younger people, presenting less fragmented versions of themselves and their past experiences to others. The reasons for this effect, however, remain unclear. It may be that people become more risk averse as they age (Josef et al. 2016). Or, like the age-crime curve (Telesca et al. 2012), most people may outgrow concealment over the life course. Finally, it could be that older individuals are less deterred by stigma and shame (Mackenzie et al. 2019). Given the consistent effect of age on concealment across measures, more theory and evidence are needed to better understand the relationship between age and concealment. Overall, the fact that most biographical characteristics are correlated with only a few of the 37 concealable topics, sometimes with countervailing effects, lends further support to the situational nature of concealment espoused by Simmel and Goffman.

Our study provides new evidence on whether individuals conceal more from some people than from others, and whether the choice of confidants varies across different types of concealable matters. In Goffmanian terms, we show how individuals manage multiple performances before different audiences. Simmel (1950) first addressed this question in his analysis of the "objectivity of the stranger," whereas Small (2017) and others (Cowan 2014; Cowan and Baldassarri 2018; Doan and Mize 2020; Serota et al. 2010) have recently built on Simmel's classic observation (cf. Vaughan 1986). In perhaps the most comprehensive analysis to date, Small (2017) finds that people are more likely to confide in acquaintances and strangers than in friends and family. When people need a confidant, they rarely turn to their core discussion network. Instead, they turn to acquaintances and strangers. Small's work raises important questions about how to think about the link between communication and the quality of social ties.

We find support for Small's (2017) intuitions when it comes to family members, but show that there is an important distinction within core discussion networks. Consistent with Goffman's (1959) and Westin's (1967) expectations that spouses and partners generally have more access to our private or backstage selves, we find that romantic partners are much more informed than family members, and generally more informed than friends, coworkers, and strangers. However, in support of Goffman's (1959) assertion that even our closest confidants will hide aspects of themselves in ways consistent with social roles, we find that the few things that spouses and partners conceal from each other are related to the presentation of self as romantic partners (i.e., extra-relational thoughts, infidelity, and dissatisfaction

with one's partner). Finally, consistent with prior literature, family members are more informed than strangers about some concealable topics, such as political beliefs and earnings, possibly because family members have positive attitudes toward (Cowan 2014) or hold comparable opinions about these concealable topics (Cowan and Baldassarri 2018).

Overall, we show that there are not just two worlds or a single frontstage that is presented to a generalized audience. Instead, people occupy and manage multiple frontstages, with access to the backstage self granted to a select few, sometimes strangers, but more often partners and spouses. Returning to Goffman, spouses and partners see more of the backstage, whereas family members tend to witness frontstage performances, which means that family members are more likely to experience misperceptions and be caught up in flows of false information than any other target of concealment. This is likely due to differences in perceived empathy between romantic partners and family members (Small 2017). Empathy, trust, and support are desirable qualities that people commonly select for in potential romantic partners (Morelli et al. 2017; Wilcox and Nock 2006), whereas selection mechanisms play a minor role in determining the empathic qualities of one's family members, which vary widely in the general population (Grühn et al. 2008).

Given our findings that concealment varies across matters and topics, we expect a "stasis in public opinion" (Cowan 2014:1) and a misperception of "greater division in the larger society" (Cowan and Baldassarri 2018:1) for many, but not all, of the attitudes, behaviors, and characteristics we studied. Our findings imply that if we were to randomly select someone from the population, the things that they are likely to have concealed (regardless of whether one knows if they have done or experienced the attitude, behavior, or characteristic) are dissatisfaction with themselves, their spouse/partner, their friends, and their work/school, as well as romantic desires, sexual preferences, and political beliefs. And if we were to randomly select someone from each of the subpopulations of people who have engaged in or experienced an attitude, behavior, or characteristic under study, then the randomly selected people will most likely have concealed romantic desires, self-harm, abortion, and infidelity.

These findings tell us that there is a hidden world in which people have a wide range of romantic desires and sexual preferences, are dissatisfied with themselves and others, have more abortions, inflict harm on themselves, and are politically at odds with those around them. We also find that the extent to which these worlds are hidden depends on the relationship between the senders and receivers of information. On average, misperceptions and flows of false information are greatest among the family members of young adults, who are more likely than older adults to conceal their debts, hobbies, purchases, political beliefs, sexual orientation, and sexual preferences. The major misperceptions in our society, then, revolve around political opinions, sexual preferences and behaviors (including reproduction), and discontent (broadly defined), all of which are more pronounced among young adults and family members. This, in other words, is where we would expect to find the greatest stasis in public opinion and the greatest gaps between public knowledge and private information (e.g., Cowan 2014; Cowan and Baldassarri 2018; Doan and Mize 2020).

Our research is not without limitations. First, future research should expand the number of categories and topics examined in the concealment survey, if doing so does not unduly affect the validity and reliability of the measures. We measured concealment in the survey component of our study using 37 different concealable attitudes, behaviors, and characteristics to be consistent with recommendations from inductive research on the category construction of secrecy (Slepian et al. 2017), as well as recall bias and fatigue effects (Groves et al. 2009). But our concealment survey would yield additional insights if we were to include other topics and categories, such as food preferences, religious beliefs, victimization (e.g., domestic violence), invisible disabilities, and physical health. Determining whether this is the case will require more methodological work on the construction of concealment surveys.

Second, we envision two lines of future research that will improve upon the current study by integrating elements of our concealment survey with design elements used in previous research. For the first line of research, it would be worthwhile to explore the extent of lying, secrecy, and selective disclosure—and from whom information is withheld—over a narrower reference period. This could combine elements of the current design with Serota et al. (2010), who examined the frequency of lying over a 24-hour period (but did not record what people lied about). This would facilitate recall and allow respondents to report on a wide variety of concealable attitudes, behaviors, and characteristics involving many situations and targets of concealment.

The second line of research might combine our concealment survey with name-generator questions, which have been used to great effect in previous work on abortion (Cowan 2014) and political attitudes (Cowan and Baldassarri 2018). A number of interesting questions could be addressed with this research: Are certain biographical characteristics of alters more likely than others to be targets of concealment, such as age and gender? Do egos that match alters on socially salient characteristics, such as race or gender, disclose more? Do different network structures or different network locations of alters promote concealment? Name-generator questions could also be used to measure an alter's perceived level of objectivity (Simmel 1906), acceptance (Cowan 2014), empathy (Small 2017), support (Slepian and Kirby 2018; Slepian and Moulton-Tetlock 2019), and agreement (Cowan and Baldassarri 2018) for all 37 concealable attitudes, behaviors, and characteristics found in the concealment survey. This would allow researchers to better understand the mechanism(s) that lead individuals to confide in or conceal from others.

In conclusion, this research contributes to a growing body of literature investigating patterns of concealment in a given population. A key advantage of our study is its design, which allows for population-based inferences and comparisons across different types of concealable attitudes, behaviors, and characteristics, including self-reports and observed behaviors. Consequently, our findings provide numerous insights into the dynamics of concealment, from the frequency of concealment to what people conceal to who conceals, and paint a comprehensive and representative portrait of concealment in the United States.

Notes

- 1 Although our study focuses on concealment at the individual and relational levels, Simmel (1906) did theorize about secrets shared by all members of a group, or what Simmel called a *secret society*. An analysis of secret societies or concealment at the organizational level, however, is beyond the scope of our article (cf. Chang et al. 2023; Erickson 1981; Gambetta and Przepiorka 2019; Gibson 2014; Goldstein and Eaton 2021; Hazelrigg 1969; Rilinger 2019).
- 2 Research in psychology shows that people confide or disclose information to those from whom they expect social support and help (Slepian and Kirby 2018; Slepian and Moulton-Tetlock 2019). However, this research does not distinguish between or measure different types of strong and weak ties.
- 3 The survey also included a 38th item, or “Other” category, which asked if there was anything else that respondents had concealed in the past 12 months. Although 38 respondents (or 2.9 percent of the sample) answered “yes,” many of the open-ended answers were reflections of the other 37 topics (e.g., providing details about a disappointing spouse), and no discernible patterns emerged from the other responses (e.g., consistently citing religious beliefs or disabilities). For these reasons, we omit the “Other” category from the analysis.
- 4 Our survey instrument cannot cover all possible things that a person might conceal. As a result, we had to exclude some topics in favor of others, such as being a victim of domestic violence, religious beliefs, invisible disabilities, food preferences, and the like. Although these topics are of interest to sociologists, Slepian et al. (2017) found that many of them are topics that people either rarely experience or rarely conceal.
- 5 When we ask about concealing information, we mean **not** telling a person about something on purpose, for example, keeping secrets, fibbing, lying, or avoiding a conversation topic. Because it is done on purpose, concealment does not mean forgetting to tell a person about something.
- 6 During the debriefing process, respondents were given the right to withdraw their data. Of the 1,099 respondents who participated in the sender-receiver game, 133 respondents (or 12.1 percent of the sample) did not give permission for the data collected from or about them to be included in the study. Auxiliary analyses showed that these individuals were evenly distributed across the treatment conditions, $\chi^2(4, N = 1,099) = 3.28, p > 0.10$, and that response propensity weights adjusting for postexperiment unit non-response did not alter the results presented here (see the online supplement for these results). Finally, four respondents did not send a message to the receiver in the sender-receiver game, resulting in an analytic sample size of 962.
- 7 NORC provided two sets of survey weights, one for the survey and one for the experiment. This was done to adjust for different rates of survey non-response between the two studies. For all descriptive and inferential statistics, we use study-specific survey weights.
- 8 Figure 1 reveals the following: out of a sample of 100 respondents, if 10 have done *A*, and only five of those 10 respondents have concealed *A*, we would say that there is a five percent chance of randomly selecting someone from the sample who had concealed *A*. This is different than the level of concealment that exists about *A*, which would be 50 percent, implying that if we were to randomly select someone from the subset of respondents who have done *A*, there would be a 50 percent chance of selecting someone who had concealed *A*. Both interpretations are meaningful, but have different implications for understanding concealment: the former estimates the prevalence of

concealment across a sample (i.e., Figure 1), whereas the latter estimates the prevalence of concealment across a subsample of respondents who have done *A* (i.e., Figure 2).

- 9 The estimates we present in Figure 1 include all respondents regardless of their employment status, marital status, pregnancy status, or drug and alcohol use. We do this for reasons of interpretation: Figure 1 indicates the percent chance of randomly selecting someone from the sample who has concealed *A*. In the online supplement, we include a figure that examines attitudes and behaviors only for respondents who have selected into these areas (e.g., restrict the percentage of respondents who conceal romantic desires and infidelity to the subsample of respondents who are married or dating). We do this for the following attitudes and behaviors: "Addiction to drugs/alcohol," "Romantic desires," "Dissatisfied with spouse/partner," "Infidelity," "Broken school rules," "Broken workplace rules," "Dissatisfied with work/school," "Poor work performance," "Miscarriage," and "Abortion."
- 10 The estimates we present in Figure 3 include all respondents regardless of their marital or dating status. This may downwardly bias the proportion of respondents who conceal from spouses and partners. In the online supplement, we include a figure that illustrates the proportion of respondents withholding information from others only for respondents who are married or dating. The patterns observed in this supplemental figure are largely consistent with those in Figure 3.
- 11 Conditional logit models with post-stratification survey weights (CLSW) in which concealment is regressed on dummy variables for targets of concealment (i.e., from whom) show that 29 of 37 tests of overall model significance rejected the null hypothesis that the regression coefficients for targets of concealment are equal. Three models failed to converge due to insufficient observations (e.g., Self-harm), whereas five models yielded statistically non-significant results due to descriptively similar rates of concealment across targets (e.g., COVID vaccine). Results available upon request.
- 12 CLSWs show that 19 out of 25 models statistically support this descriptive summary. Six models, such as "Abortion" and "Positive for COVID," yielded statistically non-significant results.
- 13 For concealing most from family members, CLSWs show that 15 out of 18 models statistically support this descriptive summary; those models that do not include "Sold non-prescription drugs" and "Self-harm." For concealing more from family members than from strangers, CLSWs show that 18 out of 29 models yielded statistically significant differences in rates of concealment between family members and strangers.
- 14 *Total conceal* and *proportion conceal* operationalize concealment as having concealed a topic from "everyone" or "some people" in the past 12 months.
- 15 Comparisons should be made between the unweighted (Table S3) and IPW (Table S4) models given that the results presented in Table S2 use the post-stratification survey weights provided by NORC.

References

- Abeler, Johannes, Daniele Nosenzo, and Collin Raymond. 2019. "Preferences for Truth-Telling." *Econometrica* 87(4):1115–53. <https://doi.org/10.3982/ECTA14673>
- Adut, Ari. 2012. "A Theory of the Public Sphere." *Sociological Theory* 30(4):236–60. <https://doi.org/10.1177/0735275112467012>

- Akerlof, George A. 1970. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* 84(3):488-500. <https://doi.org/10.2307/1879431>
- Allison, Paul D. 2001. *Missing Data*. Thousand Oaks, CA: Sage Publications.
- Anthony, Denise, Celeste Campos-Castillo, and Christine Horne. 2017. "Toward a Sociology of Privacy." *Annual Review of Sociology* 43:249-69. <https://doi.org/10.1146/annurev-soc-060116-053643>
- Bail, Christopher A. 2015. "The Public Life of Secrets: Deception, Disclosure, and Discursive Framing in the Policy Process." *Sociological Theory* 33(2):97-124. <https://doi.org/10.1177/0735275115587388>
- Bok, Sissela. 1978. *Lying: Moral Choice in Public and Private Life*. New York, NY: Pantheon Books. <https://doi.org/10.2307/1288137>
- Bok, Sissela. 1982. *Secrets: On the Ethics of Concealment and Revelation*. New York, NY: Pantheon Books.
- Bradburn, Norman, Seymour Sudman, and Brian Wansink. 2004. *Asking Questions: The Definitive Guide to Questionnaire Design*. New York, NY: Wiley.
- Buller, David B., and Judee K. Burgoon. 1996. "Interpersonal Deception Theory." *Communication Theory* 6(3):203-42. <https://doi.org/10.1111/j.1468-2885.1996.tb00127.x>
- Burt, Ronald S. 1992. *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.
- Campos-Castillo, Celeste, and Denise L. Anthony. 2015. "The Double-Edged Sword of Electronic Health Records: Implications for Patient Disclosure." *Journal of the American Medical Informatics Association* 22(1):130-40. <https://doi.org/10.1136/amiajnl-2014-002804>
- Capraro, Valerio. 2018. "Gender Differences in Lying in Sender-Receiver Games: A Meta-Analysis." *Judgment and Decision Making* 13(4):345-55. <https://doi.org/10.1017/S1930297500009220>
- Carson, Thomas L. 2010. *Lying and Deception: Theory and Practice*. Oxford, UK: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199577415.001.0001>
- Centola, Damon, Robb Willer, and Michael W. Macy. 2005. "The Emperor's Dilemma: A Computational Model of Self-Enforcing Norms." *American Journal of Sociology* 110 (4):1009-40. <https://doi.org/10.1086/427321>
- Chang, Ho-Chun, Brooke Harrington, Feng Fu, and Daniel N. Rockmore. 2023. "Complex Systems of Secrecy: The Offshore Networks of Oligarchs." *PNAS Nexus* 2(3):1-12. <https://doi.org/10.1093/pnasnexus/pgad051>
- Cook, Jonathan, Amber Salter, and Gertraud Stadler. 2017. "Identity Concealment and Chronic Illness: A Strategic Choice." *Journal of Social Issues* 73(2):359-78. <https://doi.org/10.1111/josi.12221>
- Cowan, Sarah K. 2014. "Secrets and Misperceptions: The Creation of Self-Fulfilling Illusions." *Sociological Science* 1:466-92. <https://doi.org/10.15195/v1.a26>
- Cowan, Sarah K., and Delia Baldassarri. 2018. "'It Could Turn Ugly': Selective Disclosure of Attitudes in Political Discussion Networks." *Social Networks* 52:1-17. <https://doi.org/10.1016/j.socnet.2017.04.002>
- DeGloma, Thomas. 2023. *Anonymous: The Performance of Hidden Identities*. Chicago, IL: The University of Chicago Press. <https://doi.org/10.7208/chicago/9780226828800.001.0001>
- Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. New York, NY: Wiley.

- Doan, Long, and Trenton D. Mize. 2020. "Sexual Identity Disclosure among Lesbian, Gay, and Bisexual Individuals." *Sociological Science* 7:504-22. <https://doi.org/10.15195/v7.a21>
- Erat, Sanjiv, and Uri Gneezy. 2012. "White Lies." *Management Science* 58(4):723-33. <https://doi.org/10.1287/mnsc.1110.1449>
- Erickson, Bonnie H. 1981. "Secret Societies and Social Structure." *Social Forces* 60(1):188-210. <https://doi.org/10.2307/2577940>
- Fine, Gary Alan, and Lori Holyfield. 1996. "Secrecy, Trust, and Dangerous Leisure: Generating Group Cohesion in Voluntary Organizations." *Social Psychology Quarterly* 59(1):22-38. <https://doi.org/10.2307/2787117>
- Gambetta, Diego. 2009. *Codes of the Underworld: How Criminals Communicate*. Princeton, NJ: Princeton University Press. <https://doi.org/10.1515/9781400833610>
- Gambetta, Diego, and Wojtek Przepiorka. 2019. "Sharing Compromising Information as a Cooperative Strategy." *Sociological Science* 6:352-79. <https://doi.org/10.15195/v6.a14>
- Gelman, Andrew. 2007. "Struggles with Survey Weighting and Regression Modeling." *Statistical Science* 22(2):153-64. <https://doi.org/10.1214/088342306000000691>
- Gerlach, Philipp, Kinneret Teodorescu, and Ralph Hertwig. 2019. "The Truth About Lies: A Meta-Analysis on Dishonest Behavior." *Psychological Bulletin* 145(1):1-44. <https://doi.org/10.1037/bul0000174>
- Gibson, David R. 2014. "Enduring Illusions: The Social Organization of Secrecy and Deception." *Sociological Theory* 32(4):283-306. <https://doi.org/10.1177/0735275114558631>
- Gneezy, Uri. 2005. "Deception: The Role of Consequences." *American Economic Review* 95(1):384-94. <https://doi.org/10.1257/0002828053828662>
- Goffman, Erving. 1959. *The Presentation of Self in Everyday Life*. London, UK: Harmondsworth.
- Goffman, Erving. 1963. *Stigma: Notes on the Management of Spoiled Identity*. New York, NY: Simon and Schuster.
- Goldstein, Adam, and Charlie Eaton. 2021. "Asymmetry by Design? Identity Obfuscation, Reputational Pressure, and Consumer Predation in U.S. For-Profit Higher Education." *American Sociological Review* 86(5):896-933. <https://doi.org/10.1177/00031224211043223>
- Gottfredson, Michael R., and Travis Hirschi. 1990. *A General Theory of Crime*. Redwood City, CA: Stanford University Press. <https://doi.org/10.1515/9781503621794>
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78(6):1360-80. <https://doi.org/10.1086/225469>
- Grigoryeva, Maria S. 2018. "Strategic Action or Self-Control? Adolescent Information Management and Delinquency." *Social Science Research* 72:225-39. <https://doi.org/10.1016/j.ssresearch.2018.02.006>
- Grigoryeva, Maria S. 2023. "A Sociological Model of Agency and Parent-Child Negotiations of Sex." *Socius* 9:1-24. <https://doi.org/10.1177/23780231231204853>
- Groves, Robert M., Floyd J. Fowler Jr., Mick P. Couper, James M. Lepkowski, Eleanor Singer, and Roger Tourangeau. 2009. *Survey Methodology*. 2nd ed. New York, NY: Wiley.
- Grühn, Daniel, Kristine Rebusal, Manfred Diehl, Mark Lumley, and Gisela Labouvie-Vief. 2008. "Empathy across the Adult Lifespan: Longitudinal and Experience-Sampling Findings." *Emotion* 8(6):753-65. <https://doi.org/10.1037/a0014123>
- Halevy, Rony, Shaul Shalvi, and Bruno Verschuere. 2014. "Being Honest about Dishonesty: Correlating Self-Reports and Actual Lying." *Human Communication Research* 40(1):54-72. <https://doi.org/10.1111/hcre.12019>

- Hazelrigg, Lawrence E. 1969. "A Reexamination of Simmel's 'The Secret and the Secret Society': Nine Propositions." *Social Forces* 47(3):323-30. <https://doi.org/10.2307/2575031>
- Henry, P.J. 2023. "A Survey Researcher's Response to the Implicit Revolution: Listen to What People Say." Pp. 1-39 in *The Cambridge Handbook of Implicit Bias and Racism*, edited by Jon A. Krosnick, Tobias H. Stark, and Amanda L. Scott. Cambridge, UK: Cambridge University Press.
- Josef, Anika K., David Richter, Gregory R. Samanez-Larkin, Gert G. Wagner, Ralph Hertwig, and Rui Mata. 2016. "Stability and Change in Risk-Taking Propensity across the Adult Life Span." *Journal of Personality and Social Psychology* 111(3):430-50. <https://doi.org/10.1037/pspp0000090>
- Junger-Tas, Josine, and Ineke Haen Marshall. 1999. "The Self-Report Methodology in Crime Research." Pp. 291-367 in *Crime and Justice: An Annual Review of Research*, vol. 25, edited by Michael Tonry. Chicago, IL: University of Chicago Press. <https://doi.org/10.1086/449291>
- Keene, Danya E., Sarah K. Cowan, and Amy Castro Baker. 2015. "When You're in a Crisis Like That, You Don't Want People to Know': Mortgage Strain, Stigma, and Mental Health." *American Journal of Public Health* 105(5):1008-12. <https://doi.org/10.2105/AJPH.2014.302400>
- King, Gary, and Langche Zeng. 2001. "Logistic Regression in Rare Events Data." *Political Analysis* 9(2):137-63. <https://doi.org/10.1093/oxfordjournals.pan.a004868>
- Kitts, James A. 2003. "Egocentric Bias or Information Management? Selective Disclosure and the Social Roots of Norm Misperception." *Social Psychology Quarterly* 66(3):222-37. <https://doi.org/10.2307/1519823>
- Kuran, Timur. 1991. "Now out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44(1):7-48. <https://doi.org/10.2307/2010422>
- Kuran, Timur. 1995. *Private Truths, Public Lies: The Social Consequences of Preference Falsification*. Cambridge, MA: Harvard University Press.
- Lukes, Steven. 1974. *Power: A Radical View*. New York, NY: MacMillan. <https://doi.org/10.1007/978-1-349-02248-9>
- Mackenzie, Corey S., Patrick J. Heath, David L. Vogel, and Richelle Chekay. 2019. "Age Differences in Public Stigma, Self-Stigma, and Attitudes toward Seeking Help: A Moderated Mediation Model." *Journal of Clinical Psychology* 75(12):2259-72. <https://doi.org/10.1002/jclp.22845>
- Mackie, Gerry. 1996. "Ending Footbinding and Infibulation: A Convention Account." *American Sociological Review* 61(6):999-1017. <https://doi.org/10.2307/2096305>
- Mares, Isabela. 2015. *From Open Secrets to Secret Voting: Democratic Electoral Reforms and Voter Autonomy*. Cambridge, UK: Cambridge University Press. <https://doi.org/10.1017/CB09781316178539>
- Margulis, Stephen T. 1977. "Conceptions of Privacy: Current Status and Next Steps." *Journal of Social Issues* 33(3):5-21. <https://doi.org/10.1111/j.1540-4560.1977.tb01879.x>
- Marsden, Peter V. 1987. "Core Discussion Networks of Americans." *American Sociological Review* 52(1): 122-131. <https://doi.org/10.2307/2095397>
- Marwick, Alice E., and danah boyd. 2014. "Networked Privacy: How Teenagers Negotiate Context in Social Media." *New Media & Society* 16(7):1051-67. <https://doi.org/10.1177/1461444814543995>
- Marx, Gary. 2016. *Windows into the Soul: Surveillance and Society in an Age of High Technology*. Chicago, IL: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226286075.001.0001>

- Mazar, Nina, On Amir, and Dan Ariely. 2008. "The Dishonesty of Honest People: A Theory of Self-Concept Maintenance." *Journal of Marketing Research* 45(6):633-44. <https://doi.org/10.1509/jmkr.45.6.633>
- McPherson, Miller, Lynn Smith-Lovin, and Matthew Brashears. 2006. "Social Isolation in America: Changes in Core Discussion Networks over Two Decades." *American Sociological Review* 71(3):353-75. <https://doi.org/10.1177/000312240607100301>
- Miller, Dale T., and Cathy McFarland. 1987. "Pluralistic Ignorance: When Similarity Is Interpreted as Dissimilarity." *Journal of Personality and Social Psychology* 53(2):298-305. <https://doi.org/10.1037/0022-3514.53.2.298>
- Morelli, Sylvia A., Desmond C. Ong, Rucha Makati, Matthew O. Jackson, and Jamil Zaki. 2017. "Empathy and Well-Being Correlate with Centrality in Different Social Networks." *Proceedings of the National Academy of Sciences* 114(37):9843-47. <https://doi.org/10.1073/pnas.1702155114>
- Nippert-Eng, Christena E. 2010. *Islands of Privacy*. Chicago, IL: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226584546.001.0001>
- Nissenbaum, Helen. 2010. *Privacy in Context: Technology, Policy, and the Integrity of Social Life*. Redwood City, CA: Stanford University Press. <https://doi.org/10.1515/9780804772891>
- O'Gorman, Hubert J. 1975. "Pluralistic Ignorance and White Estimates of White Support for Racial Segregation." *Public Opinion Quarterly* 39(3):313-30. <https://doi.org/10.1086/268231>
- Opp, Karl-Dieter. 2022. *Social Movements and Political Protests*. Cheltenham, UK: Elgar.
- Piquero Alex R., Carol A. Schubert, and Robert Brame. 2014. "Comparing Official and Self-Report Records of Offending across Gender and Race/Ethnicity in a Longitudinal Study of Serious Youthful Offenders." *Journal of Research in Crime and Delinquency* 51(4):526-56. <https://doi.org/10.1177/0022427813520445>
- Prentice, Deborah A., and Dale T. Miller. 1993. "Pluralistic Ignorance and Alcohol Use on Campus: Some Consequences of Misperceiving the Social Norm." *Journal of Personality and Social Psychology* 64(2):243-56. <https://doi.org/10.1037/0022-3514.64.2.243>
- Przepiorka, Wojtek, Lukas Norbutas, and Rense Corten. 2017. "Order without Law: Reputation Promotes Cooperation in a Cryptomarket for Illegal Drugs." *European Sociological Review* 33(6):752-64. <https://doi.org/10.1093/esr/jcx072>
- Rilinger, Georg. 2019. "Corporate Conspiracies and Complex Secrets: Structure and Perception of the Insull Scheme in 1930s Chicago." *American Journal of Sociology* 124(4):1043-89. <https://doi.org/10.1086/702730>
- Robbins, Blaine, and Edgar Kiser. 2020. "State Coercion, Moral Attitudes, and Tax Compliance: Evidence from a National Factorial Survey Experiment of Income Tax Evasion." *Social Science Research* 91:102448. <https://doi.org/10.1016/j.ssresearch.2020.102448>
- Rossman, Gabriel. 2014. "Obfuscatory Relational Work and Disreputable Exchange." *Sociological Theory* 32(1):43-63. <https://doi.org/10.1177/0735275114523418>
- Rote, Wendy M., and Judith G. Smetana. 2015. "Acceptability of Information Management Strategies: Adolescents' and Parents' Judgments and Links with Adjustment and Relationships." *Journal of Research on Adolescence* 25:490-505. <https://doi.org/10.1111/jora.12143>
- Sanders, Teela. 2005. *Sex Work: A Risky Business*. London, UK: Willan Publishing.
- Schalet, Amy T. 2011. *Not Under My Roof: Parents, Teens, and the Culture of Sex*. Chicago, IL: University of Chicago Press. <https://doi.org/10.7208/chicago/9780226736204.001.0001>

- Schilke, Oliver, and Gabriel Rossman. 2018. "It's Only Wrong if It's Transactional: Moral Perceptions of Obfuscated Exchange." *American Sociological Review* 83(6):1079-107. <https://doi.org/10.1177/0003122418806284>
- Serota, Kim B., Timothy R. Levine, and Franklin J. Boster. 2010. "The Prevalence of Lying in America: Three Studies of Self-Reported Lies." *Human Communication Research* 36:2-25. <https://doi.org/10.1111/j.1468-2958.2009.01366.x>
- Shapiro, Susan P. 2005. "Agency Theory." *Annual Review of Sociology* 31:263-84. <https://doi.org/10.1146/annurev.soc.31.041304.122159>
- Shelley, Gene A., H. Russell Bernard, Peter Killworth, Eugene Johnsen, and Christopher McCarty. 1995. "Who Knows Your HIV Status? What HIV + Patients and Their Network Members Know about Each Other." *Social Networks* 17(3-4):189-217. [https://doi.org/10.1016/0378-8733\(95\)00262-M](https://doi.org/10.1016/0378-8733(95)00262-M)
- Shils, Edward. 1974. *The Torment of Secrecy: The Background and Consequences of American Security Policies*. Carbondale, IL: Southern Illinois University Press.
- Simmel, Georg. 1906. "The Sociology of Secrecy and of Secret Societies." *American Journal of Sociology* 11(4):441-98. <https://doi.org/10.1086/211418>
- Simmel, Georg. 1950. *The Sociology of Georg Simmel*. New York, NY: Simon and Schuster.
- Slepian, Michael L., and James N. Kirby. 2018. "To Whom Do We Confide Our Secrets?" *Personality and Social Psychology Bulletin* 44(7):1008-23. <https://doi.org/10.1177/0146167218756032>
- Slepian, Michael J., and Edythe Moulton-Tetlock. 2019. "Confiding Secrets and Well-Being." *Social Psychological and Personality Science* 10(4):472-84. <https://doi.org/10.1177/1948550618765069>
- Slepian, Michael L., Jinseok S. Chun, and Malia F. Mason. 2017. "The Experience of Secrecy." *Journal of Personality and Social Psychology* 113(1):1-33. <https://doi.org/10.1037/pspa0000085>
- Small, Mario Luis. 2017. *Someone to Talk to*. Oxford, UK: Oxford University Press. <https://doi.org/10.1093/oso/9780190661427.001.0001>
- Telesca, Donatello, Elena A. Erosheva, Derek A. Kreager, and Ross L. Matsueda. 2012. "Modeling Criminal Careers as Departures from a Unimodal Population Age-Crime Curve: The Case of Marijuana Use." *Journal of the American Statistical Association* 107(500):1427-40. <https://doi.org/10.1080/01621459.2012.716328>
- Thoits, Peggy A. 2011. "Resisting the Stigma of Mental Illness." *Social Psychology Quarterly* 74(1):6-28. <https://doi.org/10.1177/0190272511398019>
- Timoneda, Joan C. 2021. "Estimating Group Fixed Effects in Panel Data with a Binary Dependent Variable: How the LPM Outperforms Logistic Regression in Rare Events Data." *Social Science Research* 93:102486. <https://doi.org/10.1016/j.ssresearch.2020.102486>
- Vandello, Joseph A., and Dov Cohen. 2003. "Male Honor and Female Fidelity: Implicit Cultural Scripts that Perpetuate Domestic Violence." *Journal of Personality and Social Psychology* 84(5):997-1010. <https://doi.org/10.1037/0022-3514.84.5.997>
- Vaughan, Diane. 1986. *Uncoupling: Turning Points in Intimate Relationships*. Oxford, UK: Oxford University Press.
- Westin, Alan F. 1967. *Privacy and Freedom*. New York, NY: Atheneum.
- Wherry, Frederick F., Kristin S. Seefeldt, and Anthony S. Alvarez. 2019. "To Lend or Not to Lend to Friends and Kin: Awkwardness, Obfuscation, and Negative Reciprocity." *Social Forces* 98(2):753-93. <https://doi.org/10.1093/sf/soy127>

- Wilcox, W. Bradford, and Steven L. Nock. 2006. "What's Love Got to Do with It? Equality, Equity, Commitment and Women's Marital Quality." *Social Forces* 84(3):1321-45. <https://doi.org/10.1353/sof.2006.0076>
- Willer, Robb, Ko Kuwabara, and Michael W. Macy. 2009. "The False Enforcement of Unpopular Norms." *American Journal of Sociology* 115(2):451-90. <https://doi.org/10.1086/599250>
- Young, Jacob T.N., and Frank M. Weerman. 2013. "Delinquency as a Consequence of Misperception: Overestimation of Friends' Delinquent Behavior and Mechanisms of Social Influence." *Social Problems* 60(3): 334-56. <https://doi.org/10.1525/sp.2013.60.3.334>
- Zerubavel, Eviatar. 2006. *The Elephant in the Room: Silence and Denial in Everyday Life*. Oxford, UK: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195187175.001.0001>

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