It's Only Wrong If It's Transactional: Moral Perceptions of Obfuscated Exchange

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ABSTRACT

A wide class of economic exchanges, such as bribery and compensated adoption, are considered morally disreputable precisely because they are seen as economic exchanges. However, parties to these exchanges can structurally obfuscate them by arranging the transfers so as to obscure that a disreputable exchange is occurring at all. In this paper, we propose that four obfuscation structures—bundling, brokerage, gift exchange, and pawning—will decrease the moral opprobrium of external audiences by (1) masking intentionality, (2) reducing the explicitness of the reciprocal nature, and (3) making the exchange appear to be a type of common practice. We report the results from four experiments assessing participants' moral reactions to scenarios that describe either an appropriate exchange, a quid pro quo disreputable exchange, or various forms of obfuscated exchange. In support of our hypotheses, results show that structural obfuscation effectively mitigates audiences' moral offense at disreputable exchanges and that the effects are substantially mediated by perceived attributional opacity, transactionalism, and collective validity.

It's Only Wrong If It's Transactional: Moral Perceptions of Obfuscated Exchange

In the early twentieth century, the social custom of "treating" developed as an alternative to older notions of both courtship and prostitution. Women who participated in treating were called "charity girls," because they both received entertainment or goods as a gift and gave sex as a gift but never sold sex as a commodity. The anti-vice society that investigated this custom begrudgingly placed charity girls in the intermediate category of "near whores" (Clement 2006:1). This label refers to the fact that these women had not taken money from men, and this made the offense of their behavior less shameful than prostitution. Similar practices have been reinvigorated in this century through websites such as "SeekingArrangements.com," which connect "sugar babies" to "sugar daddies." Just as a century ago, transactional sex remains a liminal category that can pass as legitimate sociability but remains discreditable because it violates proscriptions on exchange. In other words, it can be perceived as either basically dating or basically commercial sex work. For example, one "sugar baby" seemed surprised that a jealous friend told her parents that she was a "prostitute" (Sales 2016). The case of transactional sex is just one example of obfuscated exchange. Similar practices can be used to obfuscate political bribery, commercial bribery, and human tissue markets. In all of these cases, observers may have a less unfavorable moral reaction to the exchange to the extent that they understand it as structurally different from a quid pro quo.

This article argues that when an economic exchange such as bribery would offend audiences if it were an open quid pro quo, the exchange can be less offensive when it takes on a different structure. In particular, actors can mitigate audience disapproval of disreputable

exchange by practicing *structural obfuscation*—defined as arranging a set of transfers so as to obscure the fact that a disreputable exchange is occurring. Expanding upon Rossman (2014), we articulate and experimentally test the effects of four such obfuscatory exchange structures. First, *bundling* occurs when two seemingly unrelated exchanges or relationships cross-subsidize one another. Second, *brokerage* occurs when ego pays a broker, who in turn pays alter, who then gives a favor to ego. Third, *gift exchange* involves asynchronous transfers that, in principle, are voluntary and not strictly reciprocal. Finally, *pawning* involves using favors to redeem a debt.¹ Although these four structures involve different relational work, we propose that all of them can render an illicit commensuration less explicit. In so doing, they can sublimate transactionalism across a wide range of substantive contexts.

This article draws upon and contributes to several research streams, most notably work in sociology, anthropology, economics, law, and philosophy on exchange and contested commodities (Bourdieu 2000; Fiske 1992; Krawiec 2009; Molm 2003; Roth 2007; Sandel 2000; Walzer 1983; Zelizer 2005). This cross-disciplinary literature has focused on questions of the boundaries and distinctions between market exchange and other types of exchange. Boundaries exist in terms of both what goods are usually understood to be legitimate market goods (versus items excluded from trade) and how to distinguish when a set of transfers qualifies as market exchange (versus other forms of exchange, such as gifts). However, recent investigations have challenged the categorical approach to markets and morals. These studies have emphasized that the line between market transfers and non-market transfers is often blurry, and this ambiguity can be the object of obfuscation by participants and moral evaluation by audiences (Åkerström 2014; Fridman and Luscombe 2017; Hoang 2018; Lainer-Vos 2013; Mears 2015; Rossman 2014). The growing literature on obfuscated exchange shows that moral perceptions lie not only

in disputing which goods can legitimately be exchanged, but also in what transfers are presented and understood as being exchanges at all. This implies that participants who seek to retain their honor will reshape sets of transfers to make them look less like exchanges. Consistent with this literature, our investigation is concerned with obfuscated disreputable exchange; however, our work differs significantly from prior investigations in its scope and methods. The extant literature has focused on identifying actual instances of obfuscation or accusations of obfuscation. However, because it relies on qualitative real-world cases, this literature cannot systematically measure the moral evaluations of audiences nor establish the causal effect of obfuscation on these evaluations. Indeed, because obfuscation is only observable when it is partially or wholly unsuccessful, research based on real-world cases necessarily sample on the dependent variable. Through randomized experiments in which we vary the structure of exchange but keep the basic topic, we are able to complement extant qualitative findings: In addition to showing that obfuscation does occur, we also show how and why it is effective through mediation analysis. The mechanisms highlighted in this analysis are key to understanding how obfuscation works to limit the moral fallout from exchanges that are substantively equivalent to quid pro quos.

Furthermore, this article contributes to research on the social psychology of morality. Sociological social psychologists have traditionally emphasized economic or belongingness needs, and moral concerns have only recently taken center stage in their research (cf. Hegtvedt and Scheuerman 2010:331; Lawler and Hipp 2010:272; Stets and Carter 2011:192). In contrast, within psychology, the study of morality has blossomed, uncovering individual dispositions and cognitive processes in moral evaluations (Haidt and Kesebir 2010)—but ignoring social structural considerations. Research on the role of exchange structure, which is central to

sociological social psychology (Molm, Collett, and Schaefer 2007; Willer, Flynn, and Zak 2012), has yet to find its due place in the morality literature. In this study, departing from earlier research on the social psychology of exchange structures, we follow the lead of moral psychology (Haidt and Kesebir 2010) in adopting the viewpoint of the external observer of the exchange (rather than of a participant) in order to shed light on audiences' moral perceptions. This perspective reflects that an individual's actions are not only shaped by his or her own feelings and preferences but also by the moral approval or disapproval of audiences. In this paper, we seek to answer the question of whether distinct exchange structures will cause differences in the extent to which audiences find an otherwise illicit exchange morally acceptable. Specifically, we investigate four types of exchange structures and show that these structures appreciably shape observers' moral responses to otherwise comparable disreputable transactions. Adding process evidence, we also identify three causal mechanisms that help to explain the pathways through which exchange structures influence morality judgments. These mechanisms are perceived attributional opacity, transactionalism, and collective validity (as we will discuss below). Specifically, we propose that structural obfuscation affects differences in moral evaluations through these three theoretical mechanisms, which also distinguish between structurally obfuscated and directly negotiated (i.e., quid-pro-quo) forms of disreputable exchange. By elucidating these mechanisms, we aim to contribute to integrating the streams of sociological research on cultural phenomena and social psychological processes (Collett and Lizardo 2014).

Finally, our paper also speaks to institutional theory, which is fundamentally concerned with legitimacy (Meyer and Rowan 1977; Suchman 1995). Recently, institutional scholars have advocated applying this concept to the context of market exchanges and studying its moral

components (Anteby 2010; Quinn 2008). Largely unexamined so far, however, are the microfoundations or drivers of legitimacy (also see Bitektine and Haack 2015; Haack et al. 2016; Lucas and Lovaglia 2006). Our findings help to fill this gap. We show not only that the type of actor or traded resource matters but also that perceptions of legitimacy are a function of the structure through which the resource is traded. We provide evidence for the notion that *how* an exchange is achieved can shape evaluation above and beyond *who* is involved and *what* is being exchanged. Thus, we shift the focus from the actor and the resource to the exchange structure and, in so doing, uncover a neglected way in which actors can achieve and maintain legitimacy.

The rest of this paper is structured as follows. We first derive hypotheses from a review of the nature of exchange taboos and obfuscation through transfer structure. Specifically, we propose both direct effects and mediated pathways for how structural obfuscation practiced by actors shapes the moral evaluations of audiences. In our theorizing, we treat the four exchange structures as a set, emphasizing their common consequence of mitigating moral offense. We then test our hypotheses through a series of experimental studies. These studies address reputable transfers, open disreputable exchange, and obfuscated exchange in the contexts of political bribery, commercial bribery, and compensated adoption. We close with a discussion of our empirical findings and their contributions to different literatures.

MORALLY DISREPUTABLE EXCHANGE

The fundamental starting point for this paper is that people sometimes object morally to economic transactions precisely because they are seen as putting prices on things belonging in non-market contexts (Krawiec 2009; Sandel 2000; Walzer 1983).² We define disreputable exchange as provision of goods or services that is culturally prohibited where the moral objection

is contingent on an understanding of this provision as economic. Notably, this definition excludes cultural prohibitions in which morality focuses on action regardless of compensation (Krawiec 2009). For instance, murder is wrong, and not just if it is a paid hit, but even if it is provided for free. In contrast, most contemporary Americans tolerate political advocacy and casual sex but not bribery and prostitution, even though the only difference between the former and the latter is whether money changes hands. In these cases, moral revulsion occurs primarily because someone is perceived as taking an action out of venal motives rather than because of the action itself. In reference to the above examples, a hit job for free is still murder, whereas bribery for free is an oxymoron. Paying for political favors or sex is disreputable specifically because it breaches the moral limits to fungibility of market and non-market goods (Espeland and Stevens 1998; Sandel 2000; Walzer 1983).

This class of disreputable economic transactions qua economic transactions includes political bribery, commercial bribery, human tissue markets, compensated adoption, and prostitution. Taking a comparative-historical perspective, the category also encompasses exchange taboos less salient to contemporary American culture such as riba (usury) in Islam, Simony (bribing clergy) in medieval Europe, and the involvement of senators in commerce in ancient Rome. As suggested by the diverse list of disreputable exchanges across cultures, explaining what counts as disreputable exchange is an inquiry in its own right (Nelson 1969; Sandel 2000; Satz 2010). Disreputable exchange encompasses a wide variety of phenomena, going well beyond the obvious examples of vice and corruption, and in some contexts, it can be pervasive, though the exact magnitude is difficult to calculate.³ In this paper, we draw from a variety of substantive contexts to both illustrate and test our arguments, with the aim of developing a general understanding of the role of structural obfuscation in moral perceptions.

STRUCTURAL OBFUSCATION

If exchange taboos rely on the extent to which an interaction can be interpreted as transactional, this leads us to ask the question: Can people effectively mitigate moral disapproval by structurally obfuscating such exchanges? To address this question, we investigate the degree to which specific types of structural obfuscation can alleviate the offense of exchange taboos. Based on Rossman (2014), Rossman et al. (2016), and an extensive reading of relevant historical, ethnographic, and journalistic accounts, we identify a set of four different structures through which transactions can be obfuscated: bundling, brokerage, gift exchange, and pawning. These structures effectively allow one party to pay the other and to receive non-market goods in return, but in ways that make it less conspicuous that an economic transaction has occurred. By extension, we expect that obfuscation can mitigate the moral offense of what would otherwise be considered disreputable exchange. The subtlety and ambiguity of obfuscated exchanges allows them to be characterized by a "two-fold truth": they are meaningfully characterized by whatever social practice they appear to be on the surface, and they are also ultimately morally disreputable commensurations (Bourdieu 2000).⁴

FIGURE 1 ABOUT HERE

In Figure 1, we graphically depict different forms of transfers (adapted from Rossman 2014). In each part of the figure, one actor (ego) gives a market good (A) to another actor (alter), who in turn gives a non-market good (B) to ego. In quid pro quo exchange, the two goods are explicitly exchanged for one another. The subsequent panels all describe forms of obfuscation. We depict generic obfuscation as ego receiving a non-market good and alter receiving a market good, but in such a way that the linkage between the two goods, or even their source, is no longer readily apparent. All of the specific obfuscation structures introduce some form of buffer that

obscures reciprocity, though the specific form of buffer varies. Specifically, with gifts and pawning, time buffers reciprocity; with brokerage, a third party serves this role; and with bundling, a second set of transfers occurring in parallel obscures reciprocity of market for non-market goods.

In the next section, we first outline each of the four obfuscation structures. We then hypothesize about how all of them affect moral disapproval—defined as the extent to which audiences to an interaction characterize the actors and/or the interaction as a whole as offensive, demonstrating bad behavior, and/or deserving punishment. For each structure, we provide illustrative examples from real-world cases. Note that this creates something of a paradox. Obfuscation is only observable when it doesn't work; therefore, all examples we give are only partially or temporarily efficacious. We revisit this issue of temporarily or partially effective obfuscation in the conclusion.

Forms of Structural Obfuscation

Bundling. From 1994 to 2011, flamboyant media magnate Silvio Berlusconi served intermittently as prime minister of Italy. Berlusconi retained ownership of his Mediaset corporation throughout his time in office. A pronounced pattern of companies in highly regulated industries especially buying advertising time when Berlusconi was in office strongly suggests that these companies were seeking to buy political influence (DellaVigna et al. 2016). Similarly, decades earlier in the United States, "everybody knew that a good way to get Lyndon [Johnson] to help you with government contracts was to advertise over his radio station" (Caro 1990:103). Indeed, some commercial interests even purchased ads despite not having business in KTBC's market of Austin.⁵ Likewise, since the 2016 US Presidential election, a major line of criticism of President Trump (usually referred to as "emoluments," in reference to a clause of the Constitution) has been that parties seeking to influence him could purchase services from or otherwise favor his business interests. Examples of this can be seen when diplomats stay at Trump's DC hotel or when Trump's development deals overseas gain (difficult and somewhat discretionary) regulatory approval (Paddock et al. 2016).

Bundling occurs when two exchanges that are in of themselves morally reputable crosssubsidize one another to synthesize the equivalent of a morally disreputable exchange. In Figure 1, ego and alter trade a valuable market good (A) for a low-value market good (a) and a lowvalue non-market good (b) for a valuable non-market good (B). This combination makes it seem that market goods are traded for market goods and that non-market goods are traded for nonmarket goods. Therefore, bundling obfuscates the fact that, in some meaningful sense, a market good (A) is being traded for a non-market good (B). For instance, it is licit for a company to purchase advertising time from a broadcaster, and it is licit for a company to petition a policymaker for favorable regulation. However, when the broadcaster is owned by the policymaker, it is possible that the company could be paying above market rates for these services and thus implicitly buying influence with the policymaker. Likewise, intimacy between professionals and clients can be interpreted as bundling, or "differentiated ties" in Zelizer's terminology, such as when a lawyer who has had sex with his client accepts payment for legal services discounted by \$200 (Zelizer 2005:95).

Brokerage. In the 1980s, record labels relied on outside consultants called "indies" to get their songs played on the radio (Dannen 1990; Rossman 2012). In theory, radio promotion consists of sending albums and press kits to radio stations as well as visiting the stations to promote a single and explain the label's plan for the artist. In reality, during this period, radio

promotion was characterized by "payola" (commercial bribery). Indies would pay radio station staff in cash or cocaine, and the record labels would in turn pay indies for ensuring that their songs received airplay. Record labels would seldom pay radio stations directly; rather, the payments went through the indies, and the labels were deliberately oblivious to the details (Dannen 1990).

Brokerage occurs when an exchange between two parties is mediated by a third party. In our usage, we specifically understand brokerage as structurally resembling a chain- or networkgeneralized exchange (the most famous example of which is a "kula ring"). In such an exchange, ego gives to broker, broker gives to alter, and alter gives to ego, so that reciprocity is cyclical rather than direct (Yamagishi and Cook 1993). Critically, our use of the term brokerage encompasses the idea that some of the directed ties involve the transfer of market goods and others of non-market goods. As shown in Figure 1, market good (A) flows from ego to broker to alter, but then alter sends a non-market good (B) to ego. This structure allows the commensuration of market and non-market goods without direct reciprocity, since at no point does anyone trade A for B directly. Rather, value goes in a cycle, and over the course of that cycle the nature of the circulating value changes from market to non-market. Whereas prior research has emphasized the fact that brokerage can facilitate negotiations between low-volume traders (Stovel and Shaw 2012), we are more interested in the ways in which brokerage serves observers' moral concerns (Stovel, Golub, and Milgrom 2011). Although brokerage is often associated with the network centrality measure of "betweenness" (Marsden 1982), our approach brackets any issues of whole network structure and highlights how a focal interaction is structured. In our usage, we emphasize instances in which the broker serves to obfuscate the fact that a disreputable transaction is occurring.

Gift exchange. The Roman Catholic Church does not recognize divorce. However, it does allow for annulment, which is a ruling that the original marriage was never valid due to violating one or another aspect of canon law. Many Catholic churches charge a fee of a few hundred dollars for annulment applications, which is understood to cover the expenses of processing the request. However, this fee can create the perception that annulments can be "bought." For the explicit purpose of avoiding such a perception, in August of 2014 Bishop Gerald Barnes declared that his diocese of San Bernardino, California, would no longer accept fees for annulments, since "annulments—like God's mercy—are without price" (Barnes 2014). Rather, he instructed priests to encourage (but not require) that petitioners tithe to their parishes, not only while the annulment was being processed, but indefinitely, as a sign of acknowledging the "mutual rights and duties" of the church community. In other words, wishing to avoid the perception of annulments as a commodity, Bishop Barnes treats them as a gift. However, this gift implies a relationship that carries its own reciprocal obligations.

Gift exchange occurs when two parties give one another gifts within the context of a relationship (Bourdieu 1990; Bourdieu 2000; Fiske 1992; Lawler and Hipp 2010; Mauss [1923] 1967; Molm and Cook 1995). One party gives the other a gift, and then, usually with a time delay, the second party gives a gift to the first. In Figure 1, ego and alter are engaged in gifts as obfuscation. Ego gives alter a market good (A), and later on alter gives ego a non-market good (B). The gifts are framed as expressions of the relationship, and therefore the fact that a market good was traded for a non-market good is sublimated. For instance, party promoters who arrange for models to spend arduously long evenings at nightclubs build relationships with them and woo them with gifts rather than pay them wages (Mears 2015). In Fiske's (1992) relational models theory, disreputable exchange is defined as using an inappropriate relational model for a

particular good, for instance charging money for a good that ought to be given as a gift (Fiske and Tetlock 1997). Similarly, social psychologists refer to gift exchange as a reciprocal exchange, in contrast to direct negotiated exchange (i.e., quid quo pro) (Emerson 1981; Molm, Collett, and Schaefer 2007).

Pawning. When the gangster Henry Hill was arrested, he became a cooperating witness for the FBI and recounted to the journalist Nick Pileggi (1985) how the Lucchese crime family controlled JFK airport. The key to accessing the airport's cargo was recruiting inside men among the teamsters, baggage handlers, and security guards. As a general rule, airport workers did not sell tips on cargo to the mob in aspiration for profit; rather, they offered them in desperation to clear their debts. Many workers at JFK airport were gambling addicts who were deep in debt to the mob, and "a tip on good cargo loads could make up for a lot of paychecks and buy back a lot of IOUs" (Pileggi 1985:88). Indeed, gangsters owned bars and bookies near the airport and would deliberately carry gambling debts in order to recruit collaborators.

Pawning is an obfuscation structure in which people take on and then repay debts using goods or services they would be reluctant to sell directly. As seen in Figure 1, in pawning, ego loans alter a market good (A) and alter explicitly acknowledges a market debt (IOU). When alter is unable to repay the IOU with market goods, alter instead provides a non-market good (B) to explicitly cancel the debt. The practice resembles gift exchange in that it is asynchronous, but it differs in that the debt is explicit and usually denominated in money, rather than an informal obligation with a fuzzy value as in gift exchange. Likewise, reciprocity explicitly cancels the debt and may be explicitly demanded, whereas in gift exchange reciprocity is more sublimated. That is, gift exchange is relational and involves favors, whereas pawning is contractual and involves debts. In Fiske's (1992) terminology, pawning is an aspect of market pricing, whereas

gift exchange is equality matching or authority ranking. The felt need to repay debts can override other moral concerns, and under the pressure of debt we see people commit such misdeeds as enslaving populations, sacking cities, and stripping churches of relics (Graeber 2011).

Summary. The above section has outlined four forms through which disreputable exchanges can be and are obfuscated. Although these forms may differ in structure, the following hypothesis emphasizes how they serve similar purposes of mitigating the moral disapproval of observers:

Hypothesis 1: Structural obfuscation of disreputable exchange (vs. taboo quid pro quo) decreases moral disapproval.

Mechanisms Underlying Structural Obfuscation

A theory of obfuscated exchange should not only show that obfuscation affects moral perceptions, but also how and why. To identify relevant mechanisms, we investigate possible mediators of the relationship between structural obfuscation and audiences' moral reactions. We theorize a mediated model (shown in Figure 2), in which we anticipate that obfuscation will operate to a significant extent through three intervening processes: perceived attributional opacity, transactionalism, and collective validity. We suggest that these three causal mechanisms help explain how structural obfuscation reduces moral disapproval. In our model, we consider both audiences' *own* view of the interaction (i.e., their perception of attributional opacity and transactionalism) and their judgment of how *others* will view it (i.e., their perception of collective validity). This is consistent with the sequential decision-making model outlined by Tolbert and Zucker (1996), whereby individuals will assess both their own subjective

interpretation of the situation and likely interpretations by external sources before forming their overall evaluation. We start by discussing each mediator separately, and then we present a hypothesis regarding their causal ordering.

FIGURE 2 ABOUT HERE

First, we propose that structural obfuscation may increase *perceived attributional* opacity-defined as a lack of clarity about the actors' intentions, especially pertaining to their exchange motivation. We propose that, compared to quid pro quo, audiences will find it more difficult to clearly determine the actors' exchange motivation. Whereas quid-pro-quo exchanges typically suggest the parties' explicit understanding of the purpose of the exchange, the more complicated obfuscatory exchange structures make it more difficult to determine the parties' motives, as these structures afford "the denial (Verneinung) of interest" (Bourdieu 2000:192). Just as taboo suggestions framed in indirect speech can allow for plausible deniability (Pinker, Nowak, and Lee 2008), structurally obfuscated exchanges can make it hard to attribute the actors' intentions. Attributional opacity, in turn, can help mitigate moral disapproval. While opacity is often viewed as a source of inefficiency in economic exchange, it can also help to facilitate the moral acceptability of otherwise problematic transactions (Lainer-Vos 2013). Audiences frequently rely on their inferences about intentions to make moral judgments (Kelley 1971). As a result, violations that are clearly intentional will be judged more harshly than comparable behaviors that appear to occur more incidentally (Malle and Knobe 1997). Conversely, obscuring ulterior motives can produce more favorable audience reactions (Hahl, Zuckerman, and Kim 2017). Taken together, these arguments indicate that attributional opacity will mediate the effect of structural obfuscation on moral disapproval.

Second, we argue that structural obfuscation may reduce moral disapproval because it can lessen perceived transactionalism-defined as the perception of a direct causal relationship between the goods exchanged between parties. Overt quid pro quos make the contingency involved in the exchange explicit (I give you x if, and only if, you give me y). In contrast, obfuscation allows individual transfers (e.g., the transfer of money and the transfer of a favor) to be seen as existing in separation rather than being made in direct exchange for each other (Emerson 1976). Obfuscation creates temporal or spatial, and thus ultimately cognitive, distance between individual transfers and thus weakens the audience's perception that they are directly causally linked. In this way, obfuscation structures reduce the explicitness with which one thing is exchanged for another, and the transfers are no longer viewed as necessarily reciprocal. Sublimated transactionalism, in turn, is often more palatable because it helps to stay clear of moral limits to fungibility (Espeland and Stevens 1998; Sandel 2000; Walzer 1983). An exchange that explicitly commensurates the incommensurable attaches a concrete market value to a non-market good. Pricing the priceless will therefore provoke both moral outrage and cries for punishment (Fiske and Tetlock 1997). However, as perceived transactionalism decreases, the commensuration of incommensurables is masked. As such, the exchange feels less culturally inappropriate and thus will summon comparatively less moral disapproval.

Third, we consider that moral judgments of obfuscated exchange can benefit from *perceived collective validity*—broadly defined as the extent to which an action is thought to be "right and proper" by most people (Dornbusch and Scott 1975; Granovetter 2007; Weber [1922] 1978). This notion refers to the observer's perception that *others in society* will view an action as appropriate for its social context (Bitektine and Haack 2015; Suchman 1995). Objects high in collective validity have a strong taken-for-granted character, to an extent that alternatives are

"literally unthinkable" (Zucker 1983:5). Two dimensions of validity are endorsement (i.e., peer support) and authorization (i.e., support from a superordinate entity) (Johnson, Dowd, and Ridgeway 2006). Endorsement occurs when comparable actions are prevalent, making the validity of a given action seem taken for granted. In other words, the more commonly observed an action is in everyday life, the more collectively valid it is perceived to be (i.e., "everybody does it"). Meanwhile, authorization entails that an action is tolerated by key institutions of society, most notably the judicial system. Both of these validity clues-commonness and legality—apply to many types of exchanges organized through obfuscation structures. Indeed, many types of obfuscated taboo exchange are quite common even among respectable people. Political campaign contributions are typically not provided in a quid-pro-quo exchange for policy favors, but a smart lobbyist will recommend that a legislative supplicant support campaigns. Moreover, structural obfuscation is frequently not explicitly prohibited by the law. Many types of obfuscation are not blatant enough to be considered illegal beyond a reasonable doubt (Noonan 1984; Pinker, Nowak, and Lee 2008). Through their perceived collective validity, obfuscation structures gain a taken-for-granted status in the eyes of the observer. As Walker and colleagues argue, people rely on their understanding of consensual viewpoints when forming their own assessment of what is right and wrong (Walker, Rogers, and Zelditch 1988; Zelditch and Walker 1985). If "everybody does it," it cannot be improper (Noonan 1984). As such, when obfuscation structures help to enhance collective validity beliefs, this perceived validity will decrease the audience's moral disapproval.

In sum, we propose three key mechanisms that help to explain how structural obfuscation is perceived and ultimately judged by third parties. We predict that structural obfuscation reduces

moral disapproval indirectly by affecting perceived attributional opacity, transactionalism, and collective validity. Thus, we hypothesize as follows:⁶

Hypothesis 2A: Perceived attributional opacity mediates the negative effect of structural obfuscation (vs. taboo quid pro quo) on moral disapproval, such that structural obfuscation increases attributional opacity, and attributional opacity in turn decreases moral disapproval.

Hypothesis 2B: Perceived transactionalism mediates the negative effect of structural obfuscation (vs. taboo quid pro quo) on moral disapproval, such that structural obfuscation decreases transactionalism, and transactionalism in turn increases moral disapproval.

Hypothesis 2C: Perceived collective validity mediates the negative effect of structural obfuscation on moral disapproval, such that structural obfuscation (vs. taboo quid pro quo) increases collective validity, and collective validity in turn decreases moral disapproval.

Finally, in considering how the three mediators work in concert, we expect an underlying pattern of serial mediation, whereby individual mediators function in a sequential causal chain. Specifically, we expect attributional opacity to have the most proximal effect, with audiences immediately scrutinizing actors' intentions, given that attributions are generally believed to occur quickly (Harvey et al. 2014). These attributions, in turn, are likely to affect perceived transactionalism, such that exchanges in which parties appearing to act with intent are viewed as transactional (Weiner 1986). Next, perceptions of transactionalism will inform validity beliefs,

with highly transactional exchange being viewed as lacking collective approval. Finally, collective validity functions as a direct driver of individuals' ultimate judgment (Walker, Rogers, and Zelditch 1988; Zelditch and Walker 1985). These arguments suggest a serial model, as outlined in Figure 2 and summarized in Hypothesis 2D:

Hypothesis 2D: The negative effect of structural obfuscation (vs. taboo quid pro quo) on moral disapproval is mediated by perceived (1) attributional opacity, followed by (2) transactionalism, followed by (3) collective validity.

METHODS

Study Overview

To test our hypotheses, we conducted four vignette experiments in which study participants were randomly assigned to read about either an explicit disreputable quid pro quo, an obfuscated transaction, or an otherwise similar but reputable transfer (between-subjects design). The experimental method allows us to tightly control the study design to reflect our theoretical interests. The vignettes we used closely reflect every obfuscation structure as well as quid-proquo and culturally appropriate conditions. Notwithstanding their limitations, vignette experiments have the ability to establish causal inference and isolate underlying mechanisms while using realistic contexts that alleviate potential concerns about external validity (Aguinis and Bradley 2014; Finch 1987; Schilke 2018; Sniderman and Grob 1996). Particularly in our context of studying audience perceptions, the mundane realism of vignette experiments is comparatively high (Mutz 2011), since the experimental setting of reading about an exchange resembles many relevant real-world experiences (e.g., reading the news).

We crafted vignettes about bribery and baby-selling in order to cover moral objections to exchanges associated with concerns about both fairness and disgust (Munger 2011; Sandel 2000). Our Study 1 presents a political bribery vignette in which a defense contractor requests a favor from a congressman. Study 2's vignette describes a commercial bribery scenario in which a car dealer requests that corporate ship more high-demand cars to his dealership. Study 3's vignette describes a couple seeking to adopt a baby from a new mother. Finally, Study 4 returns to the congressman scenario from Study 1 and introduces three mediators underlying the effect of structural obfuscation. Table 1 summarizes the manipulations in all four studies, which differ only in terms of what the supplicant (the defense contractor, the Honda dealer, and the adopting parents) offers to the person from whom they are seeking a favor (the Congressman, the Honda executive, and the birth mother). All four experiments were embedded in online surveys, with subjects recruited from Amazon Mechanical Turk (total n = 1,517). The experiments were run between April 2015 and June 2017. Please see our data archive for both the original data and data processing scripts (https://osf.io/yxafu/).

TABLE 1 ABOUT HERE

Study 1: Political Bribery

This study is the first of four in which we employed a completely randomized singlefactor design with six conditions. Participants read a vignette involving either a taboo quid pro quo, a culturally appropriate situation, or one of the four types of obfuscated exchange. In Study 1, we used a vignette about political bribery between a defense contractor and a congressman.

Participants. As in the studies that follow, Study 1's participants were recruited via an advertisement posted on Amazon's Mechanical Turk (AMT) and offered US\$1 in compensation.

AMT is an online crowdsourcing service that offers large volumes of small web-based tasks to online workers for monetary compensation. AMT allows experiments to be run comparatively inexpensively, provides access to a broad cross-section of the population, and has repeatedly been shown to have the capacity to produce highly reliable data (Buhrmester, Kwang, and Gosling 2011; Weinberg, Freese, and McElhattan 2014). Research using AMT has thus become increasingly common, not only in sociology but also in psychology, economics, and political science. Although AMT respondents are not perfectly representative of the U.S. population (e.g., they are more politically liberal on average), they nonetheless feature substantial demographic diversity and are thus often preferable to college student samples, especially for research concerning political issues (Willer, Feinberg, and Wetts 2016).⁷ Recently, researchers have flagged the possibility of fraud in AMT responses (Dennis, Goodson, and Pearson 2018; Ryan 2018), which become most apparent by repeated geotags which have low-quality responses and seem to reflect overseas workers using U.S.-based VPNs. We checked all four of our studies and found far fewer repeated geotags than in these reports, with almost all repeated geotags only being used twice. Excluding all respondents with repeated geotags yielded no changes to the results. We suspect our data do not suffer from these problems because we completed our data collection by June 2017 and restricted our recruiting to US-based users with excellent reputations (i.e., at least 100 completed tasks and at least a 98% approval rating). While we are thus confident of the appropriateness of our AMT sample, we encourage future research to validate our results using other types of samples, such as online panels recruited through probabilitybased sampling (Freese and Visser 2010). Moreover, while online panels have made experimental data collection affordable, fast, and efficient, they come with a certain loss of

experimental control (Bitektine, Lucas, and Schilke 2018), which is why future research conducted in a laboratory setting would be helpful.

Study 1 had a total of 306 participants (137 women, 169 men), 252 (82.4%) of whom identified as white (including multiracial people who are part white). Participants were U.S. residents who ranged in age from 19 to 79 (M = 35.33 years, SD = 12.04). The median respondent had an annual household income between \$50,000 and \$59,999, and 57.5% of respondents had at least an undergraduate college degree.

Study 1, like our other three studies, included two attention screeners. One item hidden within a number of other items reads, "If you read this, please select strongly agree" (adapted from Berinsky, Margolis, and Sances 2014). Another item asked what issue the scenario was mainly about (with four answer choices provided). Between 92.7% and 96.7% of respondents in each study answered both questions correctly. We experimented with dropping inattentive participants and found that doing so did not materially affect the results of the experiments. In the paper, we follow the recommendations of Berinsky, Margolis, and Sances (2014) and report results without excluding participants based on attention screeners. The alternative results are available on request; in addition, they can be replicated by changing line 7 of the replication file posted on OSF.

Procedure and Materials. In all of our experiments, participants were recruited to an academic research study that involved reading a brief scenario and responding to several survey questions. In Study 1, participants were randomly assigned to read one version of a story about an interaction between a defense contractor and a congressman (Appendix A). While we changed the protagonists' names, our vignette is loosely based on the prosecution of Representative William Jefferson, a congressman best known for being caught by the FBI in 2005 with \$90,000

in cash hidden in his freezer (McCann and Redlawsk 2006; Peoples 2013). In all six versions of our vignette, the defense contractor asks for the congressman's help in endorsing his company's equipment for testing by the Army, and the congressman ultimately grants this request. The specific versions of the vignette differed as follows. In the quid-pro-quo condition, the congressman asks for a \$10,000 campaign contribution, which the contractor provides. In the culturally appropriate condition, the congressman asks to borrow a pen, which he returns after using.⁸ In each of the other four conditions, the contractor provides \$10,000 to support the congressman's campaign but does so in a fashion following one of the four obfuscation structures outlined above: bundling, brokerage, gift exchange, or pawning. After reading the vignette, participants were given a short survey about their perceptions of the contractor and the congressman. To capture our dependent variable of moral disapproval, this survey included measures for badness and punishability that we adopted from Huebner, Lee, and Hauser (2010), anchored on 7-point answer scales (ranging from "very bad" to "very good" and "should be severely punished" to "should not be punished at all", respectively). Here and in all subsequent studies, participants then provided basic sociodemographic information. Finally, they were asked if they had any comments about the study. They were then given a code word to be entered in AMT in order to receive US\$1 in compensation.

Results. For the purpose of hypotheses testing, we created a composite measure for moral disapproval, calculated as the simple average of the two protagonists' badness and punishability items (Cronbach α 's for this measure ranged from 0.79 to 0.88 across Studies 1 to 4).⁹ Figure 3 summarizes the condition means. Results of a *t* test revealed that disapproval was significantly lower in the culturally appropriate condition ($M_{appropriate} = 2.48$) than in the quid-pro-quo condition ($M_{quid pro quo} = 4.94$). This substantial gap validates the fact that we based the vignette

on a culturally inappropriate exchange, which is also true in the subsequent studies. Moreover, the four obfuscation conditions were significantly lower in disapproval compared to the quidpro-quo condition (all p's < 0.05), $M_{\text{bundling}} = 4.31$, $M_{\text{brokerage}} = 4.37$, $M_{\text{pawning}} = 4.06$, and M_{gift} exchange = 3.37. Moral disapproval of all obfuscation structures fell in between that of the appropriate exchange and quid-pro-quo conditions (in most cases, it was closer to quid pro quo than to appropriate).¹⁰ These empirical results provided support for Hypothesis 1.¹¹

FIGURE 3 ABOUT HERE

Discussion. Study 1 offered initial experimental support for our account that structural obfuscation effectively mitigates audience disapproval. Political bribery is a prime example of a disreputable exchange qua economic transaction, but it is certainly not the only one (Noonan 1984). To provide convergent evidence for Study 1's finding (Lykken 1968) and to investigate whether it could be generalized to other types of exchange settings, we designed two follow-up vignettes, the first of which is about commercial bribery.

Study 2: Commercial Bribery

Participants. In this study, 304 U.S. residents (143 women, 161 men) participated and completed all measures used in the analyses. Of these respondents, 244 (80.3%) identified as white. Participants ranged in age from 19 to 68 (M = 34.68 years, SD = 11.62). The median respondent's household earned between \$30,000 and \$39,999, and 47.0% of participants had at least a college degree.

Materials. Participants were randomly assigned to read one of six versions of a vignette (Appendix B) that we adapted from an actual commercial bribery RICO case. In that case, the federal government found that Honda dealers routinely bribed executives at Honda USA

headquarters for access to popular models in the 1980s and early 1990s (Dunfee, Smith, and Ross 1999). These models sold at a premium to the manufacturer's sticker price, which is why dealers' demand for them exceeded the number of cars that corporate was able to supply.

In all versions of our vignette, a Honda dealer has a meeting with a regional manager from Honda corporate and requests that he be allowed to buy scarce car models, and the regional manager ultimately approves his request. As in the political bribery vignettes, we used one vignette involving the explicit transfer of \$10,000 (quid-pro-quo condition), one vignette in which one character briefly loans the other a pen but no money changes hands (culturally appropriate condition), and four vignettes involving an obfuscated transfer of \$10,000.

Results. Figure 4 displays the condition means. Consistent with Study 1, results show that disapproval was significantly lower in the culturally appropriate condition ($M_{appropriate} = 2.45$) than in the quid-pro-quo condition ($M_{quid pro quo} = 4.72$). Moreover, respondents showed significantly less disapproval in three of the four obfuscation conditions compared to the quid-pro-quo condition (all p's < 0.05), $M_{brokerage} = 4.16$, $M_{pawning} = 3.57$, and $M_{gift exchange} = 3.81$. Only bundling had a non-significant effect ($M_{bundling} = 4.45$), t(100) = -1.09, p > 0.10, Cohen's d = -0.22.

FIGURE 4 ABOUT HERE

Discussion. Study 2 offers further evidence that structural obfuscation can decrease disapproval of a disreputable exchange. Note that the effect of bundling was not significant in Study 2. It appears that in the context of this particular scenario, the above-fair value price the car dealer paid for the regional manager's private used car may have been too salient to hide its relationship to the favor the car dealer received in return. To broaden our investigation from

taboos on bribery, our next study relies on vignettes about a much more intimate issue: adoption with compensation for the birth mother.

Study 3: Baby-Selling

Participants. This study included 303 participants (138 women, 165 men), 250 (82.5%) of whom identified as white. Participants were U.S. residents who ranged in age from 19 to 74 (M = 34.60 years, SD = 10.88). The median annual household income was between \$40,000 and \$49,999, and 55.1% of the participants had at least a college degree.

Materials. The scenario that the participants read in Study 3 describes a couple asking a new mother for permission to adopt her baby. Although there is a considerable industry in adoption and assisted reproduction, in real life substantial aspects of it are obfuscated, in part because buying babies or human tissues is illegal in most jurisdictions (Spar 2006). However, while the laws are clear and the vast majority of people in modern societies strongly believe that parenthood should not be bought or sold (Ertman 2003), in practice there is often only a fine line between baby-selling and legitimate adoption (Kapstein 2003).

In all versions of the vignette (Appendix C), a couple has been trying unsuccessfully to have a baby when they learn that a co-worker is seeking to give her baby up for adoption, and they successfully convince the birth mother to let them adopt her baby. As in the two previous studies, there are six versions of this vignette: a \$10,000 quid-pro-quo condition, a culturally appropriate condition involving no transfers (aside from a light breakfast), and four conditions involving obfuscated transfers of \$10,000.¹²

Results. As shown in Figure 5, respondents assigned to the culturally appropriate

 $(M_{appropriate} = 2.60)$, pawning $(M_{pawning} = 3.27)$, and gift exchange $(M_{gift exchange} = 3.48)$ conditions reported significantly less disapproval than those assigned to the quid-pro-quo condition $(M_{quid pro quo} = 4.18)$, all *p*'s < 0.01. However, we did not find a significant effect for either bundling $(M_{bundling} = 3.81)$ or brokerage $(M_{brokerage} = 3.89)$, *p*'s > 0.10.

FIGURE 5 ABOUT HERE

To explore the specifics of these results further, we conducted separate analyses for the two parties involved, the birth mother and the adopting parents (Appendix C, Figure A1 and Table A1). Interestingly, results for the birth mother are largely consistent with those in the previous two studies: not only pawning and gift exchange but also bundling and brokerage have significant effects that are consistent with Hypothesis 1. However, when focusing on the adopting parents only, the results differ drastically, as none of the four obfuscation structures has a significant effect. This may be because even in the quid-pro-quo condition, subjects show only moderate disapproval of the adopting parents ($M_{quid pro quo}^{adopting parents} = 3.59$), and thus there is a floor effect for obfuscation to have a significant legitimating effect within this limited range. Indeed, when the data are treated as "long," with vignette characters nested within respondents, both the main effect and all interaction effects for vignette character are significant. As such, it appears that participants judged the birth mother more harshly and were more sensitive to obfuscation structure in evaluating her (Appendix C, Table A2). Studies 1 and 2 similarly had greater disapproval for the person receiving a bribe than the person giving a bribe, but the gap was only a third that seen in Study 3 and likewise the interaction effects were much smaller.

Discussion. Consistent with prior results, Study 3 showed that structural obfuscation diminishes disapproval of disreputable exchange—but only for pawning and gift exchange when

considering both parties to the exchange jointly. When we conducted separate analyses for the "seller" and "buyer" sides of the exchange, we saw greater effectiveness of structural obfuscation for the birth mother than for the adopting parents. It is noteworthy both that the birth mother is the object of greater disapproval and that obfuscation is more important for justifying her behavior than that of the adopting couple. This finding suggests that what is considered objectionable about an exchange may not always be the exchange as a whole but rather a particular role within the exchange. Specifically, the party who could be understood to have alienated her honor or intimate connections may be perceived as more objectionable than the party who induces her to do so. This interpretation is consistent with Noonan's (1984) observation that the sender of monetary funds in disreputable exchanges may sometimes experience comparatively less social disapproval than the receiver. Likewise, people seem to be reluctant to blame those who seek a morally desirable end. In this case, the end goal of raising a child seems to foster empathy for the adopting parents, to the extent that even an explicit quid pro quo is understood as essentially benign.

That one party sometimes bears most of the stigma and/or risk of sanction from a taboo exchange is consistent with the qualitative literature, which shows that, in many substantive areas, one party seeks obfuscation to avoid dishonor. For example, Clement (2006) found that charity girls drew a strong moral boundary between transactional sex and prostitution but the men who treated them understood treating to be a cheap form of prostitution, but with no real distinction of morality or honor. This is consistent with a general double standard in most cultures suggesting that women's sexual honor is more fragile than men's. Other examples of asymmetric honor and obfuscation transcend sex. For instance, record labels tended to be more obfuscatory about payola in the 1980s than radio stations were, although this is no longer the

case (Dannen 1990; Rossman 2012). Likewise, among the Tiv people in Nigeria, the person who trades subsistence goods gains honor from the person who trades prestige goods, and the parties are proportionately furtive or boastful about the transaction (Bohannan 1955). In sum, who gets blamed for an illicit transaction is not inherent in the nature of the good itself but rather in other contingencies that can be explored in future research of both experimental and historical nature.

Overall, however, the results of Study 3 are generally in line with those of the previous studies. Despite notable exceptions, the general pattern of results across Studies 1-3 largely supports Hypothesis 1. Thus, our findings are consistent with our claim that structurally obfuscated exchange will mitigate audience disapproval (as compared to quid-pro-quo exchange). One limitation in these studies is that they did not address the causal mechanisms underlying the effect of obfuscatory exchange. We therefore designed Study 4 to test our second hypothesis regarding mediating factors.

Study 4: Mediating Mechanisms

Participants. In our final study, 604 U.S. residents (302 women, 302 men) participated, 491 (81.3%) of whom identified as white. These participants ranged in age from 19 to 79 (M = 35.95 years, SD = 11.58). The median respondent had an annual household income between \$50,000-\$59,999, and 56.3% of the participants had at least a college degree.

Materials. Study 4 used the experimental procedures of Study 1 while adding measures for mediators between the presentation of the scenario and the disapproval items for the dependent variable. We measured perceived attributional opacity by asking participants to indicate their agreement with the statement "The motives of the characters in the scenario were unclear to me." Perceived transactionalism was measured with the item "Representative Baker receiving something of value shaped his decision to write a letter to the army's lab."¹³ Finally, we gauged perceived collective validity by including two items, one for Representative Baker and one for Mr. Campbell, asking participants to indicate their agreement with the statement "Most people in our society would find [Representative Baker's/Mr. Campbell's] behavior appropriate" ($\alpha = 0.88$). These mediators were anchored on a 5-point answer scale (ranging from "strongly disagree" to "strongly agree") and presented in counterbalanced order.

Results. Consistent with our prior studies' results, participants assigned to the culturally appropriate condition reported significantly less disapproval ($M_{appropriate} = 2.59$) than did those assigned to the quid-pro-quo condition ($M_{quid pro quo} = 4.83$). Moreover, as shown in Figure 6, disapproval was also significantly lower (all *p*'s < 0.05) in the four obfuscation conditions compared to the quid-pro-quo condition, $M_{bundling} = 3.95$, $M_{brokerage} = 4.43$, $M_{pawning} = 3.78$, and $M_{gift exchange} = 3.28$. These results largely replicate those of Study 1 and provide additional support for Hypothesis 1.

FIGURE 6 ABOUT HERE

We began testing H2A-C by running three simple mediation bootstrapping tests (Preacher and Hayes 2004; the mediation tests were run with 5,000 bootstrap samples using the PROCESS macro in SPSS; Hayes, 2017), in which each of the three potential mediators was analyzed independently (Hayes 2017: Model 4).¹⁴ Using bootstrap mediation analysis to calculate the indirect effect has the advantage of greater statistical power without assuming multivariate normality in the sampling distribution (Preacher and Hayes 2008). If the 95% biascorrected confidence interval (95% *CI*) for the parameter estimate did not contain zero, then the respective indirect effect was statistically significant, and mediation was established. As shown in Figure 7, the indirect effect of obfuscation (vs. quid pro quo) on disapproval through

perceived attributional opacity was significant in all four obfuscation conditions, such that obfuscation increased perceived attributional opacity and perceived attributional opacity decreased disapproval. Likewise, perceived transactionalism emerged as a significant mediator in all four obfuscation conditions, with obfuscation decreasing perceived transactionalism and perceived transactionalism increasing disapproval. The third mediator, perceived collective validity, was found to be significant in three out of four obfuscation conditions; the indirect effect of obfuscation on disapproval through perceived collective validity was significant for bundling, pawning, and gift exchange, but not for brokerage. These results lend empirical support to H2A and H2B and partial support to H2C.

FIGURE 7 ABOUT HERE

We then examined all three mediators simultaneously in a single serial-mediation model (see schematic in Figure 2) and using Hayes (2017: Model 6), as summarized in Tables 2-3 and discussed in greater detail in Appendix D. Several noteworthy findings emerge from these results. First, and most importantly, the specific indirect effect #4 (sequentially involving all three proposed mediators) is statistically significant, lending empirical support to the serial model structure proposed in Hypothesis 2D. That is, structural obfuscation is associated with perceived attributional opacity, which in turn is associated with perceived transactionalism, which then affects perceived collective validity, ultimately causing variation in moral disapproval. Moreover, the mediating effect of perceived attributional opacity on disapproval is not direct (i.e., the specific indirect effect #1 in Table 3 is not significant). Rather, the effect occurs indirectly through both perceived transactionalism and collective validity (indirect effects #2-4 in Table 3). Attributional opacity can thus be considered a proximal mediator in the model. Perceived transactionalism, the intermediate mediator, is significant for three of the obfuscation

structures; its indirect effects #5-6 (in Table 3) fall just short of statistical significance at the 5% level in the case of brokerage. Finally, collective validity can be considered a distal mediator, as it has a particularly strong effect on disapproval (column 5 in Table 2), consistent with earlier research (Walker, Rogers, and Zelditch 1988; Zelditch and Walker 1985). Moreover, collective validity is substantially involved in several of the indirect effects (indirect effects #3, 4, 6, and 7 in Table 3), playing a key role in explaining disapproval variations across conditions.

It is worth noting that the statistical significance of the focal indirect effect #4, covering the series of all proposed mediators, suggests that none of the three mediators alone can be considered "sufficient" in predicting moral disapproval. Rather, a combination of the three mediators appears to be required to comprehensively explain how it is that structural obfuscation influences moral evaluations. Notably, the majority of the effect of structural obfuscation on moral disapproval is indirect and runs through the proposed mediators. Depending on the condition, the ratio of total indirect effect (i.e., the sum of all specific indirect effects) to total effect ranges between 52.2% and 64.7%.

Overall, the mediation results support the model depicted in Figure 2 and predicted in Hypothesis 2D. They may also help to explain why brokerage represents the weakest of the obfuscation structures across all of the studies. When controlling for perceived attributional opacity, the effects of brokerage on perceived transactionalism and on collective validity were both non-significant (columns 3 and 4 in Table 2). This suggests that the (comparatively weak but significant) main effect of brokerage on disapproval can be largely explained only by perceived attributional opacity and its downstream effects (as well as, of course, factors that remained unobserved in this study).

TABLE 2 ABOUT HERE

TABLE 3 ABOUT HERE

Discussion. This experiment showed that three mediators—perceived attributional opacity, transactionalism, and collective validity—explain a significant share of the effects of the manipulated obfuscation structures. Further analyses revealed a serial mediation pattern, whereby the effects of obfuscation unfold in a sequence beginning with perceived attributional opacity, continuing with transactionalism, and finally affecting collective validity before informing moral disapproval ratings. Our mediation analyses are strongly supportive of the proposed causal order. Nonetheless, as discussed in Appendix D, future research would be helpful to corroborate the mediation results reported here.

CONCLUSION

This paper has shown that respondents evince moral disapproval of disreputable exchange, that moral disapproval declines when a disreputable exchange is obfuscated, and that this effect is mediated by three cognitive processes: perceptions of attributional opacity, transactionalism, and collective validity. Supporting Hypothesis 1, in each of the experiments, obfuscation structures tended to be more morally palatable than quid pro quos. Our theory identified four distinct forms of obfuscation, which—despite their differences in terms of structure—we show reduce audiences' moral disapproval of disreputable exchanges. Notably, our hypothesis held across several substantive areas: political bribery, commercial bribery, and compensated adoption. As such, our four experiments provide strong convergent evidence in support of the proposed main effect, which is largely robust across different obfuscation structures, operationalizations, and exchange contexts.

Another noteworthy aspect of this research pertains to the causal process model. In this model, three intervening causal mechanisms were proposed to produce the abovementioned effect: perceived attributional opacity, transactionalism, and collective validity. Structural obfuscation makes it more difficult for audiences to clearly ascribe actors' motivations and intentionality in the exchange; it calls into question the causal link between the *quid* and the *quo*; and it also creates a sense that the observed behavior is more common, and likely more legal, than a comparable quid-pro-quo exchange. Overall, our paper thus significantly expands the literature on obfuscation by providing empirical insight into the effects on moral evaluations, as well as by adding knowledge of causal mechanisms—a fundamental component for theory building and enrichment (Merton 1949; Stinchcombe 1991).

Revisiting our empirical findings in greater detail, it is noteworthy that Hypothesis 1 was more strongly supported for some obfuscation structures than for others. In particular, gift exchange and pawning were always the most effective obfuscation structures in mitigating moral disapproval. Meanwhile, bundling and brokerage were relatively less effective, being significant in some cases and falling below significance in others. However, regardless of whether or not their effects were statistically distinguishable from quid pro quo, they were always weaker than the effects of gift exchange and pawning. This was unexpected, as an inductive reading of the qualitative data shows that all obfuscation structures are common, not that one or two are systematically more effective than the others (Rossman 2014).

Given these notable differences, we face the puzzle of why all four obfuscation structures are ubiquitous in qualitative cases, despite the fact that our experimental work found some of them to be relatively ineffective at mitigating moral disapproval. In other words, has this paper identified the practical upshot that people who use bundling or brokerage are committing

economic transgressions ineffectively? Or, alternatively, did our experiments artifactually render bundling and brokerage less effective than they are in nature?

One possibility is that bundling and brokerage are simply easier to achieve. Obfuscation not only conceals the intent to accomplish a transaction through a set of transfers but also transforms the set of transfers, especially in the case of gift exchange and pawning. This is something we learned about obfuscation just by writing the vignettes used in our studies, even before showing them to the study participants. We hit several dead ends in drafting scenarios, as not all empirical contexts are compatible with all four obfuscation structures. In particular, writing vignettes involving gift exchange and pawning required us to give the characters a preexisting relationship. In contrast, there is nothing in the nature of bundling and brokerage to prevent them from operating well in a spot market. The fact that gift exchange and pawning involve delay requires not only managing relationships and forgoing instant gratification but also carrying a formal or informal debt, along with whatever implicit financing costs and risk this may involve (Bourdieu 1990). Carrying an implicit or explicit debt requires liquidity until reciprocity is achieved and comes with the risk that this may never occur. In this sense, while bundling and brokerage are less effective than gift exchange and pawning, they are also cheaper, in terms of being easier to accomplish or carrying lower risk or tacit interest. If this is the case, then someone might be willing to obfuscate through bundling or brokerage even with the knowledge that the more costly options of gifts and pawning would be more effective. Notably, Hoang (2018) found that in Vietnam, foreign real estate investors lack the patience or tact to bribe public officials with gifts and instead rely on bundling and brokerage, which puts them at a disadvantage versus gift-giving local developers. However, Hoang (2018) also found that brokerage (and to a lesser extent, bundling) was extremely effective in maintaining the
reputations of foreign real estate investors, who were seen as more ethical and less cynical than local gift-based investors.

As suggested by Hoang's (2018) study, it may be the case that bundling and brokerage are comparably effective to gift exchange and pawning in real-world situations. If so, something about our use of relatively terse vignette experiments may have suppressed this fact. Most notably, obfuscation can work in the real world by rendering the interaction difficult to observe. Our mediation analyses of Study 4 testing Hypotheses 2A-2C were able to shed some light on the differential effects of the four obfuscation structures and how they are shaped by observation. Specifically, these analyses revealed that only two of the three cognitive-process mediators were significant for brokerage. Brokerage affected moral disapproval through attributional opacity (i.e., difficulty in clearly deciphering the transactants' exchange motivation) and transactionalism (i.e., the perception of a direct causal relation between the quid and the quo). However, its indirect effect through collective validity was not statistically significant. Similar results were found for bundling: although all three indirect effects were significant, the mediating roles of perceived transactionalism and collective validity were relatively weak. These findings provide initial insight into the distinct consequences of different modes of obfuscation. Some obfuscation structures (i.e., pawning and gift exchange) substantially activate all three cognitive processes, whereas others (i.e., bundling and brokerage) work by increasing perceived attributional opacity while not appreciably invoking perceived transactionalism or collective validity.

These results imply a possible reason why bundling and brokerage are common in qualitative data, even though they appeared to be relatively ineffective at mitigating moral disapproval in our experiments. Specifically, the reason for this discrepancy may be that bundling and brokerage have obfuscatory power simply because they make the complete circuit

of exchange harder to observe. However, they may be relatively ineffective at making the set of transfers appear less transactional or collectively valid once they are observed. In study 4, bundling and brokerage reduced attributional opacity even though all of the facts were clearly laid out in the course of a few hundred words. This effect through perceived attributional opacity should be much more efficacious in real life, where facts are commonly not presented in a terse fashion as they are in vignettes and may not even be publicly available at all. For this reason, our vignette methodology implies a conservative bias for the efficacy of obfuscation. For instance, in the bundling condition of our Studies 1 and 4, one reads that the lobbyist not only had leased office space to the Congressman but also had given him a bargain rent. In real life, the perceived attributional opacity-and by extension, obfuscation-in this case would be almost total, since these facts would not naturally occur in the same brief document. Rather, an accuser would have to somehow notice in the sea of paper produced by a congressional office that the office rent listed in campaign finance filings is below market and that the landlord is part of the same firm recommended in a letter to the Army. Among the most merciful things in the world is the inability of audiences to our actions to correlate their contents. Our actions might be scandalous if they were understood in context, but the lack of joint salience often prevents this comprehension, and by extension, disapproval.

This is consistent with a common pattern in qualitative data: bundling and brokerage are extremely effective at obfuscation *until attention is drawn to them*, at which point they become scandalous (Faulkner 2011). For instance, Lyndon Johnson's obfuscation of taking bribes bundled with radio advertising was extremely effective until Caro accused him of having obfuscated corruption, at which point Johnson's historical memory took a substantial hit. This suggests a possible avenue for future work to further disentangle the scope conditions for

obfuscation. For example, obfuscation should be comparatively less effective given an accusation denouncing it as tantamount to quid pro quo. Conversely, decreasing the temporal coincidence of information about individual transfers may further mitigate disapproval by complicating the identification of how those transfers come together to create the overall obfuscated exchange structure.

Our empirical work in this paper was designed to test and extend a theory of exchange obfuscation and to contribute to the social psychology of morality as well as to institutional theory as it pertains to legitimacy judgments; however, its findings also speak to other literatures. For instance, although our paper focuses on the abstract patterns and commonalities across different areas of exchange, we expect it can provide conceptual tools and research questions to those interested specifically in substantive areas of morally contested exchange, especially accusation and contestation of gray areas. This paper provides a theoretical tool to apply to such areas as political bribery, commercial bribery, and reproductive markets (Åkerström 2014; Faulkner 2011; Fridman and Luscombe 2017; Hoang 2018; Rossman 2012; Spar 2006). Beyond the settings already covered in our vignettes, we expect that similar patterns can be found in contexts such as pharmaceutical detailing, transactional sex/flirtation, Islamic finance, and investor-citizenship (Hoang 2015; King and Bearman 2017; Kuran 2004; Mears 2015; Surak 2016; Swidler and Watkins 2007; Zelizer 2005). As the literature already suggests, there is not a clear line between reputable and disreputable exchange. Rather, audiences to ambiguous transfers must actively develop an understanding of whether to tolerate or to accuse. Our work offers a systematic and generalized typology to this largely qualitative literature. In turn, further qualitative work can reveal the real-world details and contingencies for actors to enact these structures and for audiences to evaluate them.

In the early 20th century, social science took the distinction between market and nonmarket exchange as a central research question (Mauss [1923] 1967; Weber [1922] 1978). However, this issue lay largely dormant in American sociology for several decades until reinvigorated with a new wave of interest-specifically, the fertile new paradigm of relational work (e.g., Bandelj 2012; Block 2012). This research program has drawn attention to contested valuation of goods (e.g., Almeling 2011; Healy 2006; Zelizer 1985; Zelizer 2012). For the most part, this literature has either highlighted the question of which commodities can (and cannot) be exchanged through markets or emphasized the details of negotiating commensuration. However, the central impulse of this literature has largely been a critique of reductionist accounts rather than a positive identification of relevant schemata. Settling for an end goal of showing how rich and complicated exchange can be, extant relational work sociology has stopped short of revealing systematic patterns (cf. Healy 2013). In this paper, we go beyond this limited ambition of critiquing reductionism and providing nuance to show specific ways that structuring disreputable exchange effectively mitigates its moral offense. Our experiments identify a set of systematic patterns to obfuscating exchange that help relieve the audience's discomfort, rendering what would be an offensive quid pro quo into merely an innocuous set of transfers.

ENDNOTES

¹ Rossman (2014) only describes "pawning" in a footnote as a variant of gift exchange, but in this article we treat it as a distinctive form. As discussed below, these two structures differ primarily in that pawning involves explicit debts, whereas gift exchange involves sublimated obligations.

² By definition, non-market goods cannot legitimately be exchanged for money. However, it may or may not be licit to commensurate non-markets goods with each other. For instance, it is culturally prohibited both to buy sex or political favors and to trade sex for political favors but sex can be exchanged for sex and political favors for political favors. See the discussion between Rossman and Tabarrok in Rossman et al. (2016). Further, in some cultures special monies are designated for transfers involving human life: slavery, betrothals, and wrongful death suits (Bohannan 1955; Graeber 2011).

³ Estimating the exact magnitude of these markets is unfeasible, both because they are furtive by nature and because the category of disreputable exchange is not yet the basis for aggregating systematic data. Most analyses of illicit or shadow economies do not distinguish between markets that are illegal because they are understood as markets (e.g., prostitution and bribery) versus markets in contraband (e.g., drugs and unlicensed firearms). Moreover, discrepancy models find it difficult to distinguish black markets from the informal economy (e.g., babysitting) (Dank et al. 2017). Nonetheless, we can get a vague sense of scale for some illicit markets that are only illicit by virtue of being understood as markets. A recent analysis estimated that in seven American cities, prostitution accounted for between 0.03% (Denver) and 0.11% (Atlanta) of local GDP, or slightly larger than the market for illegal drugs (Dank et al. 2017). It is

even more difficult to estimate the volume of public sector bribery, but a lower-bound estimate is suggested by the approximately 570 official corruption convictions per year throughout the United States in the last three decades (Cordis and Milyo 2016). Public sector corruption is an even more important issue in emerging markets like Vietnam, where it completely structures such industries as real estate development (Hoang 2018).

⁴ If estimating the volume of disreputable exchange is difficult, estimating the volume of obfuscated exchange is impossible as it is not only furtive but inherently contentious. Nonetheless, we can make some estimates. The total volume of payola around both 1980 (when it was obfuscated via brokerage) and 2004 (when it was obfuscated via brokerage and gifts) was about \$150-\$250 million per year (in 2018 real dollars) (Rossman 2012).

⁵ Caro's portrait of Johnson is a good illustration of how obfuscation is only available to the analyst if it fails. However, it is worth noting that Johnson's obfuscations were very successful for a very long time. Caro's accusation came 50 years after Johnson's underlying transgressions. This means that Johnson escaped scrutiny for his entire lifetime. Obfuscating bribes was insufficient to keep Johnson's historical memory free of the knowledge of corruption, but it was effective long enough to let Johnson advance to the Senate and the Presidency. Even today, corruption is not the major focus of the historical memory of Johnson. We can also consider cases where obfuscation is only partially effective, even contemporaneously. The fact that obfuscation is practiced may give plausible deniability to supporters, who can choose to ignore transgressions more readily than they could in the case of an open quid quo pro. Indeed, this fact pattern of contemporary public accusations that are rejected by supporters in the face of

ambiguity describes both how Johnson got away with stealing the 1948 Texas primary and how President Trump has largely sloughed off accusations of conflicts of interest.

⁶ Note that all of the mediated pathways involve a combination of a positive and a negative partial effect. Since the product of a positive figure and a negative figure is a negative figure, hypotheses 2A-2C all imply negative indirect effects of obfuscation on moral disapproval.

⁷ We experimented with supplementary analyses, including additive effects and interactions with exchange structure, for political party preference, gender, college education, and age. About the same number of these additional effects are statistically significant as one would expect to see by chance.

⁸ We had one character borrow a pen from the other in the culturally appropriate condition in order to have filler text where the other conditions describe \$10,000 transfers and thereby keep the vignettes of similar length.

⁹ In addition to our disapproval metric combining the "behave" and "punish" responses regarding the characters in the story, we also collected several questions reflecting moral outrage (Kennedy and Kray 2014). These questions asked to what extent the respondent felt the scenario was disgusting, objectionable, upsetting, offensive, shameful, contemptible, and morally acceptable (reverse-coded). The disapproval and moral outrage indices were strongly correlated (*r*'s ranged from 0.70 to 0.81 across the studies). Regression results using the two measures had highly similar model fit statistics, effect sizes, and coefficient significance levels. We emphasize reporting of the "behave" and "punish" disapproval metric, as it allows us to disaggregate reactions to the interacting parties specifically rather than to the interaction as a whole, which proves important in Study 3. Moreover, choosing the disapproval over the outrage metric as our

primary dependent variable is consistent with the cognitive (rather than emotional) emphasis of our theoretical argument. Nonetheless, we include both metrics in the data archive.

¹⁰ As will be seen below, in Studies 2-4 obfuscation also falls closer to quid pro quo than to appropriate transfers. In the conclusion, we discuss how this may reflect the conservative bias of our methodology.

¹¹ To test robustness, we collected an index for perceived realism (the average of "The scenario sounded phony" (reverse-coded), "The scenario sounded realistic," and "Things actually happen in the real world that are similar to the scenario"). Post hoc analyses using regressions showed that results in all four of our vignette studies are robust to including this index in the models. ¹² The pawning condition in Study 3 involves medical debt incurred in the delivery. To many audiences, this medical debt may feel more legitimately tied to custody of the baby than would debt the birth mother had incurred for other reasons. This suggests caution in interpreting the pawning effect in Study 3. We thank an anonymous reviewer for flagging this issue after our data collection was complete.

¹³ Studies 1-3 also collected perceived transactionalism, but not our other mediators. The effects of perceived transactionalism in Studies 1-3 are similar to those in Study 4. We do not present them here in order to maintain thematic focus on mediators in Study 4 and to avoid the impression that perceived transactionalism is more important than the other mediators.
¹⁴ Consistent with Hypotheses 2A-2D, the mediation analyses reported here focused on comparing the quid pro quo to the four obfuscation conditions, thus not incorporating data on the appropriate condition, which was not central to the causal logic of our theory. However, we have

also run all mediation analyses while including the appropriate condition, and the results pertaining to Hypotheses 2A-2D are robust.

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TABLES

 Table 1. Experimental Manipulations – What Does the Supplicant Provide to the Person from Whom They Seek a Favor?

Study	Condition						
	Appropriate	Quid pro quo	Bundling	Brokerage	Pawning	Gift exchange	
1 & 4: Political bribery	Loans a pen	Provides immediate campaign contribution	Discounts campaign office rent	Sponsors voter registration through NGO	Forgives unpaid campaign bills	Previously made campaign contributions	
2: Commercial bribery	Loans a pen	Provides cash bribe	Overpays for used car	Pays honorarium via dealers' association	Forgives damages to car	Previously gifted a used car	
3: Baby-selling	Bring coffee and muffins	Provide cash payment	Overpay for used car	Pay via a lawyer	Pay off medical bills	Previously gifted a used car	
	ι <u>γ</u>	Л		r			

Trivial value

Value of \$10,000

	1	2	3	4	5
	Disapproval	Attributional	Perceived	Collective	Disapproval
		Opacity	Trans-	Validity	
			actionalism	·	
Exchange Structure (Omitted: (Quid Pro Quo)				
Bundling	-0.883***	0.543***	-0.219†	0.397**	-0.320*
-	(0.193)	(0.156)	(0.113)	(0.144)	(0.146)
Brokerage	-0.404*	0.419**	-0.165	0.017	-0.193
-	(0.192)	(0.156)	(0.112)	(0.142)	(0.144)
Pawning	-1.056***	0.542***	-0.440***	0.401^{**}	-0.372*
-	(0.191)	(0.155)	(0.112)	(0.144)	(0.147)
Gift Exchange	-1.554***	0.698^{***}	-0.431***	0.768^{***}	-0.554***
-	(0.193)	(0.157)	(0.114)	(0.147)	(0.152)
Mediators					
Perceived Attributional			-0.330***	0.096^{*}	-0.017
Opacity			(0.032)	(0.045)	(0.045)
Perceived Transactionalism			. ,	-0.391***	0.231***
				(0.057)	(0.060)
Perceived Collective				. ,	-0.765***
Validity					(0.045)
Constant	4 022***	1 770***	c 1 c c ***	2 0 4 5 ***	<i>E ET</i> ^ ***
Constant	4.833	1.720	5.157	5.945	5.572
	(0.136)	(0.110)	(0.096)	(0.318)	(0.369)
R^2	0.135	0.044	0.235	0.236	0.527

Table 2. Serial-Mediation Regression Results – Study 4

Notes: Standard errors in parentheses. n = 501. [†]p < 0.10, ^{*}p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001.

	95% CI		Completely	Ratio of
Indirect Effect	Lower	Upper	Standardized	Indirect to
	Limit	Limit	Indirect Effect	Total Effect
1: Exchange Structure $\rightarrow M_1 \rightarrow Disapproval$				
Bundling	-0.068	0.038	-0.002	0.011
Brokerage	-0.053	0.031	-0.002	0.018
Pawning	-0.067	0.040	-0.002	0.009
Gift Exchange	-0.080	0.054	-0.003	0.008
2: Exchange				
Structure $\rightarrow M_1 \rightarrow M_2 \rightarrow Disapproval$				
Bundling	-0.087	-0.015	-0.009	0.047
Brokerage	-0.070	-0.009	-0.007	0.079
Pawning	-0.086	-0.015	-0.009	0.039
Gift Exchange	-0.109	-0.021	-0.012	0.034
3: Exchange				
Structure $\rightarrow M_1 \rightarrow M_3 \rightarrow Disapproval$				
Bundling	-0.099	-0.006	-0.009	0.045
Brokerage	-0.081	-0.003	-0.007	0.076
Pawning	-0.095	-0.007	-0.009	0.038
Gift Exchange	-0.118	-0.007	-0.011	0.033
4: Exchange				
Structure $\rightarrow M_1 \rightarrow M_2 \rightarrow M_3 \rightarrow Disapproval$				
Bundling	-0.097	-0.026	-0.012	0.061
Brokerage	-0.078	-0.014	-0.010	0.102
Pawning	-0.093	-0.026	-0.012	0.051
Gift Exchange	-0.120	-0.036	-0.015	0.044
5: Exchange Structure $\rightarrow M_2 \rightarrow Disapproval$				
Bundling	-0.116	-0.010	-0.012	0.057
Brokerage	-0.108	0.000	-0.009	0.094
Pawning	-0.205	-0.040	-0.023	0.096
Gift Exchange	-0.191	-0.040	-0.022	0.064
6: Exchange				
Structure $\rightarrow M_2 \rightarrow M_3 \rightarrow Disapproval$				
Bundling	-0.137	-0.012	-0.015	0.074
Brokerage	-0.111	0.004	-0.011	0.122
Pawning	-0.222	-0.068	-0.030	0.125
Gift Exchange	-0.216	-0.066	-0.028	0.083
7: Exchange Structure→M ₃ → Disapproval				
Bundling	-0.548	-0.066	-0.069	0.343
Brokerage	-0.215	0.191	-0.003	0.031
Pawning	-0.542	-0.085	-0.070	0.290
Gift Exchange	-0.831	-0.361	-0.128	0.378

Table 3. Serial-Mediation Indirect Effects of Obfuscation on Disapproval – Study 4

Notes: n = 501. M₁: Perceived Attributional Opacity, M₂: Perceived Transactionalism, M₃: Perceived Collective Validity.

FIGURES

Figure 1. Quid Pro Quo versus Obfuscated Exchange Structures



Each panel in the figure represents a set of transfers. Ego and Alter represent parties to a set of transfers. "A" represents money or a market good. "B" represents a non-market good, such as a political favor. Capital letters denote valuable goods whereas lowercase letters denote goods of relatively trivial value.

Figure 2. Serial Mediation Model



Note: The expectation underlying Hypothesis 2D is that the serial-mediation path (i.e., the indirect effect illustrated through consecutive solid arrows in Figure 2) will be significant. Dashed arrows indicate direct effects net of the main serial-mediation path shown as solid arrows. The model will estimate these effects, but our theoretical focus is on the serial-mediation path.



Figure 3. Mean Disapproval by Condition – Study 1

Notes: Cohen's *d* (relative to Quid Pro Quo): Culturally Appropriate (-2.02), Bundling (-0.45), Brokerage (-0.46), Pawning (-0.70), Gift (-1.15).

Cohen's *d*—the difference in two groups' means divided by their pooled standard deviation—is a common measure of effect size for mean comparisons. Cohen (1988) suggests that d = |0.2| can be interpreted as a 'small' effect size, |0.5| reflects a 'medium' effect size, and |0.8| indicates a 'large' effect size.



Figure 4. Mean Disapproval by Condition – Study 2

Notes: Cohen's *d* (relative to Quid Pro Quo): Appropriate (-1.70), Bundling (-0.22), Brokerage (-0.41), Pawning (-0.92), Gift (-0.65).



Figure 5. Mean Disapproval by Condition – Study 3

Notes: Cohen's *d* (relative to Quid Pro Quo): Appropriate (-1.30), Bundling (-0.32), Brokerage (-0.25), Pawning (-0.79), Gift (-0.54).



Figure 6. Mean Disapproval by Condition – Study 4

Notes: Cohen's *d* (relative to Quid Pro Quo): Appropriate (-1.79), Bundling (-0.61), Brokerage (-0.31), Pawning (-0.81), Gift (-1.17).

Figure 7. Simple Mediation Models – Study 4

A. Attributional Opacity



B. Perceived Transactionalism



C. Collective Validity



Notes: n = 501. Quid pro quo is the baseline condition. The statistics directly above the dashed arrow indicate the direct effect of structural obfuscation on disapproval, not accounting for the mediator. The statistics below the dashed arrow indicate the direct effect of structural obfuscation on disapproval, with the mediator included in the regression model. Asterisks denote significant coefficients ($^{\dagger}p < 0.10$, $^{*p} < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$).

APPENDICES

Appendix A: Political Bribery

Vignette Text

The US Army is planning to upgrade its broadband modems. As a first step, they are creating a shortlist of providers for comprehensive testing of their technology. Because the army is such a large customer, this opportunity is extremely valuable to electronics companies. It is however a specialized contract because the army operates overseas and in diverse weather conditions and so needs far more flexible and robust modems than ordinary companies or internet service providers.

Mr. Campbell, the CEO of a conglomerate consisting of various companies including an electronic equipment company, wants the army's labs to test his company's modems. Mr. Campbell contacts the staff of Representative Baker, a Congressman, and schedules a meeting to discuss getting the army to test the modems. The two of them then meet at Representative Baker's office at 9 in the morning.

... Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. Representative Baker mentions that his campaign needs more funds to succeed in the upcoming election. Mr. Campbell then arranges to contribute \$10,000 to Representative Baker's campaign. [condition 1: quid pro quo]

... Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. Representative Baker mentions his pen ran out of ink and Mr. Campbell loans him a pen to take some notes. Representative Baker hands the pen back when done. [condition 2: appropriate]

... Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. Representative Baker mentions that his campaign has budgeted \$10,000 to rent a field office, but it is difficult to find affordable office space. Mr. Campbell sublets office space at this price to Representative Baker's campaign. The normal market rate for this location would be \$20,000. [condition 3: bundling]

... Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. Representative Baker mentions that there is a nonprofit that works on his main policy issues. Mr. Campbell makes a donation of \$10,000 to the nonprofit. In the run-up to the election, the nonprofit spends \$10,000 on a voter registration drive in Baker's district. [condition 4: brokerage]

... Representative Baker's campaign from the last election still owes Mr. Campbell \$10,000 in unpaid bills for various goods and services. Representative Baker mentions to Mr. Campbell that his campaign can not afford to pay those bills and Mr. Campbell agrees to forgive

the debt. Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. [condition 5: pawning]

... Years earlier, Representative Baker met Mr. Campbell at a fundraiser and asked for his support. Mr. Campbell became a consistent supporter of Representative Baker and over the course of the last four elections, contributed a total of \$10,000 to his campaigns. Now, Mr. Campbell explains how his company's modems will make the army more effective and benefit Representative Baker's district. [condition 6: gift exchange]

At the end of their meeting, Representative Baker and Mr. Campbell shake hands and wish farewell. After leaving Baker's office, Mr. Campbell visits the Lincoln Memorial and the Smithsonian's aerospace museum before heading home. Representative Baker has a busy rest of the day meeting other constituents and attending a meeting of his subcommittee. On the next day, Representative Baker writes a letter on official US Congress letterhead to the army's lab requesting that they test Mr. Campbell's modems.

Vignette Text

Some car models, like the Honda Accord, sell extremely quickly whereas other car models, like the Honda Element, are much harder to sell. Because the Accord sells so quickly, it is the bread and butter of most Honda dealerships and dealers like to get their hands on as many as possible of this high turnover model. Consumers have become more sensitive to gas mileage and reliability, and Consumer Reports consistently ranks the Accord as among the best in its class on these dimensions.

Rick, a Honda car dealer, wants headquarters to send more Accords, but there is a shortage of Honda Accords. Rick contacts the personal assistant of Stanley, the regional manager from Honda USA, and schedules a meeting to discuss getting more Accords shipped to his dealership. The two of them then meet at Rick's office at 9 in the morning.

... Rick explains how valuable his dealership is to Honda's presence in the US market. Stanley mentions that he's recently had some personal financial troubles. Rick then arranges to pay Stanley \$10,000 cash personally. [condition 1: quid pro quo]

... Rick explains how valuable his dealership is to Honda's presence in the US market. Stanley mentions his pen ran out of ink and Rick loans him a pen to take some notes. Stanley hands the pen back when done. [condition 2: appropriate]

... Rick explains how valuable his dealership is to Honda's presence in the US market. Stanley mentions that he had been looking to sell his personal car for \$20,000, but it has been difficult to find a buyer. Rick buys Stanley's car at this price. The normal market rate for Stanley's car would be \$10,000. [condition 3: bundling]

... Rick explains how valuable his dealership is to Honda's presence in the US market. Stanley mentions that he has been trying to get into motivational speaking and is looking for speaking engagements. Rick donates \$10,000 to the Regional Motor Car Dealers Association. In preparation for the Association's annual meeting, Rick nominates Stanley to give the keynote address, which carries an honorarium of \$10,000. [condition 4: brokerage]

... Stanley's 16 year-old son recently stole a car from Rick's dealership and crashed it, causing \$10,000 in damage. Stanley mentions to Rick that he can not afford to pay for this damage and Rick agrees to forgive the debt. Rick explains how valuable his dealership is to Honda's presence in the US market. [condition 5: pawning]

... Rick and Stanley had known each other for many years. A few months before their current meeting, Stanley mentioned that his son was turning 16 years old and hence is now of driving age. Rick then gave Stanley a free used car worth \$10,000. Now, Rick explains how valuable his dealership is to Honda's presence in the US market. [condition 6: gift exchange]

At the end of their meeting, Stanley and Rick shake hands and wish farewell. After Stanley leaves, Rick meets with his sales staff and gives test drives to several customers. Stanley has a busy rest of the day visiting other dealers and attending a meeting at corporate. On the next
day, Stanley approves a sale of 30 Honda Accords to Rick's dealership for the official "invoice" price, which is what wholesale is called in the car industry.

Vignette Text

Matthew and Heather have been trying to have a baby but after several years find they are unable to conceive. After unsuccessful fertility treatment, the couple has been seriously looking into adoption. They live in the state of California, where it is legal to adopt a baby, but "it is a misdemeanor for any person or agency to pay, offer to pay, or to receive money or anything of value for the placement for adoption or for the consent to an adoption of a child" (California Penal Code - PEN § 273).

Matthew learns that his coworker Brittany has just had a baby and is actively looking to give her newborn up for adoption. They set up a meeting with Brittany at the maternity ward.

... They tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. Brittany says she is willing to let Matthew and Heather have her child, but only if they pay her \$10,000. Matthew and Heather then arrange to pay Brittany \$10,000. [condition 1: quid pro quo]

... Matthew and Heather come over and bring coffee and a basket of muffins to share. They tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. [condition 2: appropriate]

... They tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. Brittany mentions that she tried to sell her car but nobody had offered her the \$20,000 she had been hoping for and she wants to sell the car before she gives up her baby. Matthew and Heather buy Brittany's car at this price. The Kelley Blue Book value is \$10,000. [condition 3: bundling]

... They tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. Matthew and Heather give Brittany the contact information for a lawyer they have retained to handle the adoption. Brittany tells the attorney she is willing to let Matthew and Heather adopt her child, but only if she is paid \$10,000. The attorney then arranges to pay Brittany \$10,000. [condition 4: brokerage]

... They tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. Brittany complains to Matthew and Heather that her childbirth has left her with \$10,000 in unpaid medical bills. Brittany says she is willing to let them adopt her child, but only if they take over this debt. Matthew and Heather then arrange to pay the medical bills. [condition 5: pawning]

... A few months before their current meeting, Matthew had mentioned that his household no longer drives its second car and didn't need to keep it, at which Brittany hinted that she could use a car, and Matthew and Heather gave it to her for free, even though the Kelley Blue Book assesses the car's value at \$10,000. Now, they tell Brittany that they have been looking into adoption agencies and it is almost impossible to adopt a healthy infant without the mother particularly designating the adoptive parents. [condition 6: gift exchange]

The next day, Matthew and Heather take home the baby as their lawyer files court papers for a private adoption.



Figure A1. Mean Disapproval by Condition – Study 3, Disaggregated by Party

Notes: Cohen's *d* for adoptive parents (relative to Quid Pro Quo): Appropriate (-0.84), Bundling (0.01), Brokerage (0.03), Pawning (-0.29), Gift (-0.17). Cohen's *d* for birth mother (relative to Quid Pro Quo): Appropriate (-1.47), Bundling (-0.58), Brokerage (-0.46), Pawning (-1.11), Gift (-0.83).

	1	2
	Adoptive	Birth
	Parents	Mother
Exchange Structure (Omitted: Quid Pro Quo)		
Appropriate	-1.120***	-2.060***
	(0.266)	(0.259)
Bundling	0.010	-0.760**
	(0.266)	(0.259)
Brokerage	0.037	-0.623*
	(0.265)	(0.258)
Pawning	-0.390	-1.440^{***}
	(0.266)	(0.259)
Gift Exchange	-0.253	-1.155***
	(0.264)	(0.257)
Constant	3.590***	4.780***
	(0.188)	(0.183)
R^2	0.084	0.200

Table A1. Seemingly Unrelated Regressions of Disapproval on Exchange Structure in Study 3 – By Vignette Character

Notes: Standard errors in parentheses. n = 303. [†]p < 0.10, ^{*}p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001.

	Disapproval
Exchange Structure (Omitted: Quid Pro Quo)	
Appropriate	-1.120***
	(0.266)
Bundling	0.010
	(0.266)
Brokerage	0.037
	(0.264)
Pawning	-0.390
	(0.266)
Gift Exchange	-0.253
	(0.263)
Vignette Character (Omitted: Adoptive Parents)	
Birth Mother	1.190^{***}
	(0.161)
Interaction Terms	
Appropriate × Birth Mother	-0.940***
	(0.228)
Bundling × Birth Mother	-0.770***
	(0.228)
Brokerage × Birth Mother	-0.661**
	(0.227)
Appropriate × Birth Mother	-1.050***
	(0.228)
Gift Exchange × Birth Mother	-0.902***
	(0.226)
Constant	3.590***
	(0.188)
R^2	0.167
rho	0.630

Table A2. Linear Regression of Disapproval on Exchange Structure and Vignette Character in Study 3 – With Random Effects for Respondent

Notes: Standard errors in parentheses. n = 606 respondent-character dyads, based on 303 respondents. $p^* < 0.10, p^* < 0.05, p^* < 0.01, p^* < 0.001$.

Methodological Approach

Hypothesis 2D proposed a multi-step causal structure, whereby the effect of the independent variable X (structural obfuscation) on the dependent variable Y (moral disapproval) is sequentially mediated by three intervening variables: M₁ (perceived attributional opacity), followed by M₂ (perceived transactionalism), followed by M₃ (perceived collective validity). This structure is an instance of the serial multiple mediator model described by Hayes (2017: 167-180). Figure 2 illustrates this model in the form of a statistical diagram. Formally, the three-mediator serial multiple mediation model can be described by the following four regression equations:

$$M_1 = i_{M_1} + a_1 X + e_{M_1} \tag{1}$$

$$M_2 = i_{M_2} + a_2 X + d_{21} M_1 + e_{M_2} \tag{2}$$

$$M_3 = i_{M_3} + a_3 X + d_{31} M_1 + d_{32} M_2 + e_{M_3}$$
(3)

$$Y = i_Y + c'X + b_1M_1 + b_2M_2 + b_3M_3 + e_Y$$
(4)

Table 3 lists the seven indirect effects represented in the model. They are estimated as products of regression coefficients. For example, the specific indirect effect #4 through M_1 , M_2 , and M_3 is $a_1d_{21}d_{32}b_3$. Inferential tests of indirect effects are based on bootstrapping, with confidence intervals being calculated by repeatedly resampling from the data with replacement. A confidence interval for $a_1d_{21}d_{32}b_3$ that is below zero would provide support for Hypothesis 2D. To estimate the effect size of indirect effects, Table 3 includes the completely standardized effects, which are based on standardized regression coefficients, and the ratio of the indirect effect to the total effect (Hayes 2017: 132-139). The PROCESS macro for SPSS (Hayes 2017: Model 6) provides estimates for confidence intervals and effect sizes of all direct and indirect effects in the serial multiple mediation model. The SPSS output for the serial-mediation analyses can be found in the replication archive.

Alternative Approaches for Future Research

The Hayes approach follows a long tradition in process studies that adopt the regressionbased measurement-of-mediation design originally introduced by Baron and Kenny (1986). This design is by far the most widely used approach to testing mediation in the social sciences (Preacher and Hayes 2008). Nonetheless, future research may employ alternative designs to shed further light on the serial mediation model of structural obfuscation proposed here. In particular, such studies may employ (1) an experimental-causal-chain or (2) a moderation-of-process design (Spencer, Zanna, and Fong 2005).

First, in an experimental-causal-chain design, a serial mediation structure is split up into variable pairs that are tested in separate studies (Stone-Romero and Rosopa 2008), such that a first study focuses on the effect of the independent variable on the first (most proximal) mediator, a second study tests the effect of the first mediator on the second, and so on, up to the effect of the most distal mediator on the dependent variable. For the mediation structure proposed here, the experimental-causal-chain approach would require running a total of four separate studies. Second, in a moderation-of-process design, the mediator is manipulated and crossed with the manipulation of the independent variable (Sigall and Mills 1998). For example, perceived attributional opacity might be manipulated by introducing (vs. not introducing) a conversation revealing that it was in fact the characters' explicit intent to achieve taboo commensuration (thus preventing perceptions of attributional opacity). If the difference in disapproval between the quid pro quo and obfuscation conditions is eliminated when this conversation is introduced but occurs when this conversation is not present, this result would

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provide additional evidence that perceived attributional opacity mediates the influence of obfuscation on disapproval.

We agree with Spencer, Zanna, and Fong (2005: 847) that "(a)lthough using multiple methods to test a theoretical account would be ideal, we feel that in most situations requiring such multiple methods would be setting such a high standard that progress in the field might well be impeded." That is, we decided to focus on a measurement-of-mediation design in this paper rather than using other types of mediation designs, especially considering these other designs' substantial data collection requirements (either approach would require at least quadrupling the sample size of Study 4, which is already twice the size of the other studies) and the difficulty of effectively manipulating each specific mediator (while not affecting the other two) (Spencer, Zanna, and Fong 2005).