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Your Data are (Not) My Data: The Role of Social Value Orientation in Sharing Data About Others

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The personal data consumers share with companies on a daily basis often also involves other people. However, prior research has focused almost exclusively on how consumers make decisions about their own data. In this research, we explore how consumers’ social value orientation impacts their decisions regarding data about others. In contrast to the notion of proselfs as “selfish” decision-makers, across four studies we find that proselfs are less likely than prosocials to share data about others with third parties. We show that this effect arises because proselfs feel less ownership over data they hold about others than prosocials, which in turn reduces their willingness to share it. Overall, this work contributes to literature on social value orientation as well as privacy decision-making and helps marketers and policy makers in designing interdependent privacy choice contexts.

Keywords Interdependent privacy; Social value orientation; Psychological ownership; Self-construal

Consumers share personal data with companies every day. Often, this also involves information they hold about other people (Kamleitner, Mitchell, Stephen, & Kolah, 2018). For example, when tagging a friend in a Strava ride, giving mobile applications access to one’s Instagram connections, or forwarding someone’s email address in a referral program, consumers share information about other people’s activities, location, or contact details. Prior research has examined how consumers make decisions about their own personal data (for an overview, see Acquisti, Brandimarte, & Loewenstein, 2015), yet we know little about decisions concerning information they hold about others. Our research addresses this gap.

When consumers face decisions to share or withhold their personal information, they consider the pros and cons for themselves (Dienlin & Metzger, 2016; Dinev & Hart, 2006). Decisions involving data about others introduce social considerations; decision-makers trade off their own benefits of sharing against the other’s control over their personal data or “information privacy” (Kamleitner & Mitchell, 2019; Pu & Grossklags, 2016). How people consider their own outcomes and those of others in such social dilemmas is, in part, determined by their interpersonal or social value orientation—an individual’s relatively stable preference for particular distributions of outcomes for oneself and others in interdependent decision-making (McClelland, 1972; Van Lange, 1999). We therefore examine how social value orientation impacts privacy decisions concerning others’ information.

Previous research has examined how social value orientation determines people’s prioritization of own versus others’ outcomes. In resource allocation tasks, those with stronger proself orientations (proselfs) aim to maximize their own outcomes, whereas those with stronger prosocial orientations (prosocials) maximize others’ or joint outcomes (Messick & McClelland, 1968; Pletzer et al., 2018). Social value orientation predicts behavior in various settings; proselfs are less likely to collaborate (Balliet,
Parks, & Joireman, 2009), donate to charity (Van Lange, Bekkers, Schuyt, & Vugt, 2007), and act pro-environmentally (Van Vugt, Van Lange, & Meertens, 1996). Based on the notion of proselfs as selfish decision-makers (Kuss et al., 2015; Lowe, Nikolova, Miller, & Dommer, 2019), one might predict that they are more willing than prosocials to sacrifice others’ privacy to obtain a benefit for themselves. We offer a new perspective by focusing on the relation between social value orientation and the level of ownership consumers feel over information they hold about others. We predict that proselfs are less likely to share data about others than prosocials. We argue that this happens because proselfs, compared to prosocials, define themselves as relatively separate from others, which makes them feel less ownership over others’ information. See Figure 1.

Supporting the first step in this process, prior work shows that proselfs have a relatively independent self-construal, whereas prosocials construe themselves as more interdependent and fundamentally connected to others (Cornelissen, Dewitte, & Warlop, 2011; De Cremer & Van Vugt, 1999; Utz, 2004). How proselfs and prosocials define themselves in relation to others, in turn, impacts how each views information they hold about others—the second step in our model. Communication privacy management theory (Petronio, 2002) posits that interpersonal boundaries determine how much ownership people feel over private information and how likely they are to share it with others. Prior work supports the notion that people can feel psychological ownership over personal data, but primarily focuses on information about oneself (Kamleitner & Mitchell, 2018; Kehr, Kowatsch, Wentzel, & Fleisch, 2015; Spiekermann & Korunovska, 2017). We argue that proselfs, because they perceive higher interpersonal boundaries between themselves and others, differentiate more strongly between own and others’ personal data (“my data are mine, yours are yours”). In contrast, prosocials will hold a more integrated view of data about themselves and others (“your data are my data”). As a result, we expect proselfs to feel less ownership over information they hold about others than prosocials.

As a final step, we argue that feeling ownership over data about others increases willingness to share this data with third parties. Feelings of ownership are associated with a sense of entitlement to control the possession (Pierce, Kostova, & Dirks, 2003; Shu & Peck, 2011). When people feel ownership over information, they assume the right to control the flow of that information to others (Kamleitner & Mitchell, 2019; Petronio, 2002). Ownership can motivate people to hold on to (tangible) objects (Pierce & Peck, 2018; Shu & Peck, 2011). This does not always happen with personal information; however, consumers often readily exchange their own data for relatively small rewards (Acquisti et al., 2015; Athey, Catalini, & Tucker, 2017; Spiekermann & Korunovska, 2017). This may be due to boundless co-usage of personal data; sharing it with others does usually not result in losing one’s own access to it (Kamleitner & Mitchell, 2018). Instead, when consumers feel no ownership over information they hold about others, they may not feel entitled to share it with third parties. We therefore predict that, because proselfs feel less ownership over others’ data than prosocials, they are less willing to share it.

In sum, we expect that proselfs, due to their relatively independent self-construal, feel less ownership over others’ data, which reduces their willingness to share it. Prosocials, in contrast, feel more ownership over others’ data and consequently feel more entitled to share it. We test this in four studies (see overview table in Appendix S2). We also address several alternative explanations. For

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**Figure 1.** Proposed process.
example, consumers may use their own data sensitivity as a proxy for decisions concerning other people (Pu & Grossklags, 2016). We test whether proselfs are generally more sensitive to privacy considerations than prosocials (Kanagaretnam, Mestelman, Nairn, & Shehata, 2009). We also control for the possibility that prosocials are more inclined to share to help the data-requesting party, or that prosocials have less access to data about others (Declerck & Bogaert, 2008).

Study 1: How Social Value Orientation Influences Willingness to Share Data About Others

Study 1 tests our key hypothesis that proselfs are less willing to share data about others than prosocials.

Method

One hundred sixty-three ProUniv Academic participants (98 females, \(M_{age} = 33.48\)) read eight (pretested) scenarios about real-life data-request situations. Four scenarios focused on participants’ own personal data (e.g., sharing personal data for a loyalty card program) and four on sharing data about others (e.g., someone’s email address in a referral program). After each scenario, participants reported their likelihood of sharing personal data (about themselves or another person). Participants also answered the social value orientation slider measure (Murphy, Ackermann, & Handgraaf, 2011). For details on the stimuli, measures, and procedure, see Appendix S1 (pp. 1–10).

Results

We calculated participants’ social value orientation, with higher scores indicating a more prosocial inclination (Murphy et al., 2011). We conducted a repeated measures ANOVA with data target (about self vs. about other) and the eight scenarios as within-subject factors and social value orientation as the continuous covariate. Participants were more likely to share data in the scenarios where the requested data concerned themselves versus others (\(M_{self} = 4.59, SD = 2.12, M_{other} = 4.40, SD = 2.22, F(1, 1043) = 13.71, p < .001\)). More prosocial scores were associated with higher willingness to share (\(F(1, 149) = 7.32, p = .008\)). Importantly, these main effects were qualified by a significant interaction effect of social value orientation and data target (\(F(1, 1043) = 10.87, p = .001\)). Follow-up simple slopes analyses (repeated measures) revealed that for the four scenarios concerning data about others, more prosocial scores were associated with higher willingness to share (\(B = .16, SE = .04, p < .001\)). For the scenarios concerning data about oneself, social value orientation did not impact willingness to share (\(B = .02, SE = .05, p = .75\)).

In sum, prosocials were less likely to share data about others than prosocials. Importantly, social value orientation specifically impacted willingness to share data about others; it was not associated with willingness to share data about oneself.

Study 2: The Impact of Social Value Orientation in Data versus Classic Contexts

In Study 2, we test the impact of social value orientation on willingness to share information about others in an incentive-compatible experiment. We compare a data-sharing request with a ‘classic’ social value orientation task: allocating resources between themselves and others. Additionally, Study 2 addresses two alternative explanations. Firstly, prosocials may be more willing to share someone’s data because they want to help the other person. In this study, sharing someone’s data therefore inherently leads to a loss for the other person. Secondly, prosocials’ tendency to maximize own outcomes could be correlated with smaller social networks (Declerck & Bogaert, 2008), which would reduce access to data about others. We therefore make others’ data readily available.

Method

We used a 2 (data vs. points) × 2 (proself vs. prosocial, measured) between-subjects design. One hundred thirty-nine undergraduate business students (67 females, \(M_{age} = 20.29\)) played an online video game. Before the game, participants saw (fictional) profiles of three fellow students who would play the same game and were told that the student with the highest score would win a gift card. After the game, but before submitting their score, participants were given the opportunity to increase their score. In the points condition, participants could take away points from their fellow students and add these to their own score. This condition represents a traditional social value orientation context, where participants allocate resources between
themselves and others (Pletzer et al., 2018). In the data condition, participants could add the same number of points to their score by sharing personal information about their fellow students (names, demographic information, and contact details) with a commercial third party. Participants answered the triple-dominance scale, which provides a nominal categorization of social value orientation (Van Lange, De Bruin, Otten, & Joireman, 1997). They also reported perceived ownership over fellow students’ points or data (depending on experimental condition) on three items (Peck & Shu, 2009). Note that, additionally, this study also included a within-subjects factor with two levels (self vs. other; see Appendix S1 pp. 11–19).

Results

Fifty-three respondents were categorized as prosocial, 65 as proself; the remaining 21 respondents were excluded from the analysis. Responses on the dependent variable were missing for seven participants due to a technical glitch. A two-way ANOVA revealed a significant interaction effect of social value orientation and data versus points condition \(F(1, 107) = 9.65, p = .002\). Planned contrasts showed that in the points condition, results followed the ‘classic’ pattern: proselfs took more points from their fellow students than prosocials \(M_{proself, points} = 29.33, SD = 13.18, M_{prosocial, points} = 19.52, SD = 17.90; F(1, 107) = 5.22, p = .024\). See Figure 2. In the data condition, however, proselfs shared significantly less data about their fellow students than prosocials \(M_{proself, data} = 15.36, SD = 15.27, M_{prosocial, data} = 24.29, SD = 17.09; F(1, 107) = 4.44, p = .037\). Interpretation of the other contrasts demonstrated that for proselfs the difference between the data and points conditions was significant \(F(1, 107) = 11.25, p = .001\), but not for prosocials \(F(1, 107) = 1.19, p = .28\). Results replicated when we used participants’ triple-dominance scale answers to calculate a continuous social value orientation score (see Appendix S1 pp. 16–17). Exploratory results regarding the role of psychological ownership showed a directional, but not significant effect (see Appendix S1 pp. 18–19).

In sum, Study 2 replicates the finding that proselfs are less likely to share information about others than prosocials. The results show that the direction of our effect is specific to sharing data about others; proselfs were more likely to take away points from others.

Study 3 (Preregistered): Manipulated Social Value Orientation and the Roles of Self-Construal and Ownership

In Study 3, we manipulate social value orientation to test its impact on data-sharing. We also test whether proselfs are less willing to share data about others than prosocials because they feel less ownership over it.

Method

Four hundred four Prolific Academic panel members participated in this mixed 2 (between: proself vs. prosocial) x 2 (within: data about self vs. other) experiment (228 females, \(M_{age} = 35.70\)). Participants saw the profile of another participant with whom they would play an online strategy game. The goal for each player was to individually build a thriving civilization. To manipulate social value orientation, participants in the prosocial [prosocial] condition read a short article suggesting that using an “exterminate” [“collaborate”] strategy would lead to better outcomes in the game. Next, participants answered the social value orientation slider measure (Murphy et al., 2011). Before the game, to measure willingness to share, participants were offered a bonus payment to allow the research team to collect their personal data and/or that of the other player (names, demographic information, and contact details). Participants reported their self-construal in relation to the other player (Aron, Aron, & Smollan, 1992) and psychological ownership over the requested data (Peck & Shu, 2009). For details see Appendix S1 (pp. 20–26).

Results

An ANOVA with social value orientation as the dependent variable confirmed that our manipulation was successful \(M_{prosocial} = 30.69, SD = 13.20, M_{proself} = 19.30, SD = 18.60, F(1, 402) = 51.05, p < .001\).

A mixed-effects logit model showed that participants were more likely to share their own (75.0%) than the other player’s data (59.7%); \(\chi^2(1) = 2.96, p = .001\). There was a significant interaction effect of social value orientation and data about self versus other \(\chi^2(1) = 5.20, p < .001\). Follow-up tests revealed that participants in the prosocial condition were less likely to share the other player’s data (51.5%) than participants in the prosocial condition (67.4%; \(\chi^2(1) = 10.03, p = .002\). Sharing rates of one’s own data did not differ between the prosocial...
(75.3%) and prosocial conditions (74.8%; \( \chi^2(1) = 0.00, p = 1.00 \)) (see Figure 3). Other contrasts revealed that proselfs were more likely to share their own than the other player’s data (\( \chi^2(1) = 23.09, p < .001 \)). Within the prosocial condition, this difference was not significant (\( \chi^2(1) = 2.20, p = .14 \)).

A serial mediation analysis (PROCESS model 6, Hayes, 2013) showed a significant indirect effect of social value orientation on sharing the other player’s data via self-construal and perceived psychological ownership over the data (\( B = .12, SE = .07, CI_{95\%} = [0.00, 0.29] \), see Figure 4). Participants in the proself condition considered themselves more independent from the other player than participants in the prosocial condition (\( B = -.52, SE = .12, p < .001 \)). Higher perceived independency was associated with lower psychological ownership over the other player’s data (\( B = -.22, SE = .05, p < .001 \)). When perceived ownership was lower, participants were less likely to share the other player’s data (\( B = .31, SE = .10, p = .002 \)).

The results of Study 3 support our theorizing in a manipulated social value orientation context; proselfs define themselves more independently from others, causing them to feel less ownership over others’ data, resulting in lower willingness to share others’ data.

Study 4 (Preregistered): Process-By-Moderation Through Manipulated Ownership

Study 4 uses a process-by-moderation approach (Spencer, Zanna, & Fong, 2005); we directly manipulate psychological ownership over others’ data. To enhance external validity, we use an actual referral program and manipulate ownership using a real-world data privacy intervention.

Method

Three hundred four Prolific Academic members (161 females, \( M_{age} = 33.94 \)) participated in this 2 (ownership: control vs. intervention) \( \times \) social value orientation (continuous, measured) between-subjects design. We first measured social value orientation (Murphy et al., 2011). Participants then performed a filler task, for which they were ostensibly paired with another participant. Next, to measure willingness to share, participants were asked to refer a friend for future studies by providing this person’s name and email address, in exchange for a bonus payment. To manipulate psychological ownership, on the referral page, participants either saw an embedded “Safer Internet Day” statement—highlighting that they did not own others’ information—or were assigned to the control condition without
the statement. In both conditions, participants reported feelings of ownership over others’ data (Peck & Shu, 2009; Watkins, Denegri-Knott, & Molesworth, 2016). For details see Appendix S1 (pp. 27–37).

**Results**

Perceived ownership over others’ data was significantly lower in the intervention condition ($M_{\text{intervention}} = 2.44, SD = 1.25, M_{\text{control}} = 2.83, SD = 1.19, t(303) = 2.78, p = .006$), confirming that our intervention successfully manipulated ownership.

Overall, 42.0% of participants referred another person’s name and email address. A logit analysis revealed a significant interaction effect of the ownership manipulation and social value orientation on sharing probability ($B = .04, SE = .02, \chi^2(1) = 6.12, p = .013$). A simple slopes analysis showed that, in the control condition, more prosocial scores were associated with higher referral rates ($B = .03, SE = .01, \chi^2(1) = 6.66, p = .010$). In the intervention condition, the effect of social value orientation was no longer significant ($B = -.01, SE = .01, \chi^2(1) = .58, p = .45$). A Johnson-Neyman floodlight analysis revealed one region of significance; only for more prosocial scores (>24.89), the probability of referring someone was significantly lower in the intervention condition than in the control condition ($B_{\text{IN}} = -.49, p = .05$, see Figure 5). In the Appendix S1 (p. 36) we report a moderated mediation analysis, which confirmed that ownership feelings mediated the effect of social value orientation on sharing in the control condition, whereas differences in perceived ownership between proselves and prosocials were no longer present in the intervention condition.

These results provide further evidence that the impact of social value orientation on sharing other people’s data is driven by diverging feelings of ownership. Without ownership intervention, proselves felt less ownership and were consequently less willing to share data about others than prosocials. These differences between proselves and prosocials disappeared when participants were reminded of ownership boundaries.

**General Discussion**

We studied how consumers’ social value orientation impacts their willingness to share information they hold about others. Although interdependent privacy situations are common, research in this
domain remains scarce (Athey et al., 2017; Kamleitner & Mitchell, 2019; Pu & Grossklags, 2016). Related work, for example on referral programs, has not looked at interdependent data-sharing considerations. Our results make an important contribution to the nascent literature. In four studies, we show that proselks, compared to prosocials, are less likely to share data about others with third parties. This effect consistently arose in hypothetical scenarios (Study 1), incentive-compatible settings (Studies 2 and 3), and a referral program that required actual sharing (Study 4). It persisted when sharing others’ data led to a direct gain for the decision-maker (Studies 2–4) and a loss for the person whose data was being shared (Study 2).

These findings also contribute to social value orientation literature, suggesting a more nuanced understanding of proselks as selfish decision-makers. Prior work has shown that proselks prioritize their own outcomes over those of others (Van Lange, 1999). Even when proselks act “prosocially,” this is often attributed to “selfish” motives, such as reputation management (Feinberg, Willer, Stellar, & Keltner, 2012), or joint outcomes aligning with personal outcomes (De Cremer & Van Vugt, 1999). Our work suggests that proselks’ self-focused orientation also has a silver lining; it causes them to have more regard for others’ privacy. Future research might uncover other social contexts where a proselk orientation has a positive impact. For example, are prosocials less susceptible to negative peer pressure? Future research might also further investigate when and how proselks’ inclination to feel ownership over others’ possessions, ideas, or social relations impacts their behavior. In these endeavors, special attention should be paid to the role of self-construal. We find that proselk value orientations are associated with relatively independent self-construals, but do not establish a direct causal order. Further exploring self-construal could provide new insights, both in explaining people’s privacy decisions and in linking social value orientation to other behaviors.

Our findings also contribute to literature on psychological ownership of personal data (Kamleitner & Mitchell, 2018; Spiekermann & Korunovska, 2017). Our work is one of the first to look at ownership perceptions regarding information consumers hold about others. We demonstrate that social value orientation provides an explanation for why some people feel more ownership over this information than others (Kamleitner & Mitchell, 2019). Interestingly, we find that feelings of ownership are positively related to data sharing. This supports literature suggesting that data ownership is perceived differently from ownership over other (tangible) objects (Watkins et al., 2016), for which feelings of ownership often trigger loss-aversive responses (Peck & Shu, 2009). We speculate that this may, in part, be due to boundless co-usage of personal data (Kamleitner & Mitchell, 2018), but empirical testing is needed.

We rule out several alternative explanations. First, the impact of social value orientation on willingness to share data about others cannot be attributed to differences between proselks and prosocials regarding general privacy concerns (Kanagaretnam et al., 2009) or willingness to cooperate (Pletzer et al., 2018). These factors should have led to differences in willingness to share personal information about oneself, which we do not observe. Second, by making others’ data readily available in Studies 2 and 3, we rule out that proselks are less likely to share information about others because their access to it is restricted (Declerck & Bogaert, 2008). One important alternative explanation persists. Willingness to share information about others may be driven by expectations of how much ownership the other person feels over the information (Kamleitner & Mitchell, 2019). Prosocials’ interpersonal boundaries may increase awareness of others’ feelings of ownership over their data, which could make them feel less entitled to share it. To explore this, in Study 4, we asked participants how much ownership they expected other people to feel over their personal information. Prosocials, indeed, expected others to feel more ownership over their personal information \((r(305) = -.14, p = .016)\), and these expectations negatively impacted probability of sharing this information \(B = -.85, p < .001\). Expectations about others’ feelings of ownership negatively correlated with participants’ own feelings of ownership over the information \((r(305) = -.23, p < .001)\), suggesting substantial overlap between both accounts. The mediation analysis in Study 3 also showed a significant remaining direct effect of social value orientation on sharing the other player’s information. These findings highlight the need to further examine the triadic relationships between the one sharing the data, the one whose data are being shared and the recipient of the data. Communication privacy management theory (Petro-nio, 2002), gossip theory (Martin, Borah, & Palmatier, 2018), and social contract theory (Martin & Murphy, 2017) may provide interesting theoretical lenses. This could also help explore whether interdependent privacy situations constitute a unique social context, given that proselks’ interpersonal
boundaries did not prevent them from assuming control over other possessions (e.g., others’ points in Study 2).

Future research could investigate other data types (e.g., images of others) and contexts (e.g., mobile applications) or identify contexts where social value orientation impacts behavior in similar ways (e.g., respecting others’ personal space). As only Study 4 required participants to share personal information about their real-world social connections, more research in field settings is also needed. This will also mitigate other potential limitations related to our studies. For example, the social value orientation manipulation in Study 3 may have primed a competitive mindset or triggered possible demand effects. In both cases, this may have impacted willingness to share others’ data. More research is also needed to test theoretical assumptions underlying our process that were not empirically assessed. For example, do interpersonal boundaries constitute the link between self-construal and ownership perceptions over others’ data? Similarly, does psychological ownership affect sharing decisions through a sense of entitlement to share?

Marketers can use our findings to understand consumer heterogeneity in willingness to share others’ data (Kamleitner & Mitchell, 2019) and how to encourage sharing. Our results suggest that consumers may be more likely to share data about others in a prosocial context, when there are joint benefits, rather than only personal benefits. For policy makers, our findings illustrate the potential effectiveness of emphasizing interpersonal boundaries to protect interdependent privacy.

References

Supporting Information

Additional supporting information may be found in the online version of this article at the publisher’s website:

**Appendix S1** Methodological Details

**Appendix S2** Web Appendix: Study overview.