

Donate to Get Along:

Persuading Messages for Private Information Donation

By

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Abstract: Private information collected from individuals is an invaluable resource for public good. However, the literature lacks a nuanced understanding of how to persuade consumers to donate their private information for the betterment of others. This research investigated the impact of exposure to communal focus donation appeals on consumers' perceived persuasiveness and willingness to donate private information in order to further the public good, as well as the role of donation context to those causal relationships. This dissertation addressed these related problems through 4 studies. Study 1 demonstrated how the communal language was used more frequently with higher intensity in actual donation messages. Study 2 demonstrated the causal relationship of communal focus message on consumer's perceived persuasiveness and their willingness to donate their private information for public good. Study 3 was dedicated to testing the mediating effect of heuristic information of the relationship between a communal focus message and perceived persuasiveness and willingness to donate private information in two different contexts, which were energy efficiency (Study 3A) and healthcare (Study 3B). Study 4 built from the findings of the previous studies to specify the donation context that a communal focus message may have a significant effect on consumer's perceived persuasiveness and willingness to donate private information. In this study I demonstrated that the relationship between a communal focus message and the outcomes of interest was moderated by the contexts of private information donation and consumer's perceived information privacy. Again, cognitive information processing mediated the effects of a communal focus message on the perceived persuasiveness and willingness to donate private information. The outcomes of this research will have both theoretical implications such as enriching the literature on donation and social cognition, as well as managerial implications like providing recommendations to institutions that collect consumer's private information for public good.

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TABLE OF CONTENTS

Title Page	i
Abstract	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	v
List of Figures	vi
Chapter 1: Introduction	1
Chapter 2: Literature Review and Hypotheses Development	5
Chapter 3: Study 1	22
Chapter 4: Study 2	29
Chapter 5: Study 3A and 3B	36
Chapter 6: Study 4	60
Chapter 7: General Discussion and Contributions	69
Chapter 8: Conclusion	81
Reference List	83

LIST OF TABLES

Table 1: Examples of Agentic, Communal, and Agentic – Communal Balanced Messages in the Data Set	28
Table 2: Summary of Study 3B Mediation Analysis	57

LIST OF FIGURES

Figure 1: Categorization of private information donation websites	25
Figure 2: Means of Agentic and Communal Evaluation from the first coding method (1)	26
Figure 3: Means of Agentic and Communal Evaluation from the second coding method (1)	26
Figure 4: Consumer's Perceived Persuasiveness to Donate Private Information (2)	33
Figure 5: Consumer's Willingness to Donate Private Information (2)	34
Figure 6: Consumer's Perceived Persuasiveness to Donate Private Information (3A)	40
Figure 7: Consumer's Willingness to Donate Private Information (3A)	40
Figure 8: Consumer's Perceived Persuasiveness to Donate Private Information (3B)	48
Figure 9: Consumer's Willingness to Donate Private Information (3B)	49
Figure 10: Consumer's Perceived Persuasiveness to Donate Private Information (4)	64
Figure 11: Consumer's Willingness to Donate Private Information (4)	64
Figure 12: Overall Theoretical Model	75

CHAPTER I

INTRODUCTION

Databases are developing at breath-taking paces, and tied to that development is the emergence of new ways to process and interpret that information through powerful and innovative instruments and algorithms (Murdoch & Detsky, 2013; Mayer-Schönberger & Cukier, 2013; Raghupathi & Raghupathi, 2014). However, there is an urgent need for evidence-based information collected from individuals for analysis. While individual data collection and data mining processes have been made easier with the widespread rollout of electronic records (Nature Biotechnology, 2015), the crucial question is how to persuade individuals to sacrifice some of their privacy by making their private data available, opening the pathway to big data research and to advance social development progress.

After the COVID-19 pandemic emerged in Canada, the federal government agency responsible for disease control and prevention launched an app, COVID Alert, to help monitor the disease and analyze the effectiveness of different containment measures. People could voluntarily download the app to exchange random codes with nearby phones via Bluetooth for the purpose of reporting their positive COVID-19 testing and/or receiving daily reports on exposure to positive cases. With careful analysis, this information could let people know of possible exposures before any symptoms appear to prevent future infections (Government of Canada, 2020). However, misconceptions about the privacy of the app were impeding people's willingness to download and use it (Daigle, 2020; National Post, 2020).

Prosocial behaviour consists of a wide range of actions that are generally considered beneficial by an individual's social groups or influential segments of society. Existing research has explored a large range of social, motivational, cognitive, and biological process impacting prosocial behaviour (Dovidio & Penner, 2001; Caporael, 2001; Eisenberg, 2000). Psychology and marketing research shows that decision making is a complex process that

consumers undertake both consciously and unconsciously throughout their day (Nordgren, Bos, & Dijksterhuis, 2011).

Wispe (1972) broadly defined prosocial behavior as any behavior which is “expected to produce or maintain the physical and psychological well-being and the integrity of the other person(s) involved” (pg. 7). That is, “behavior which benefits another person.” (Bar-Tal, 1982, pg.102). Prosocial behaviors include, but are not limited to, such behaviors as helping, cooperating, exchanging or donating. However, they differ in the intended beneficiary for the act (i.e., self or others), and expectations for external rewards in return. Donating is an action motivated by altruism (Bar-Tal, 1982), which is different from other prosocial actions motivated by generalized reciprocity. In this research, I focus on individual’s decisions to donate their private information, which is a behavior elicited from intentions to benefit others rather than benefit the self without expectations for external rewards in return.

When designing a message to influence this process, it is important to acknowledge that messages are processed in different manners, depending on the form that they take, either informational or normative. In my research, I focus on normative influence messages, examining how a communal focus influences responses to prosocial normative influence messages. My doctoral dissertation focuses on persuasive messages to encourage consumers to donate their private information for public good. Accordingly, my research has the following objectives:

a) Understanding the effects of different persuasive messages using a communal focus on consumer’s intention to donate their private information for public good (e.g., scientific research, energy consumption efficiency, equal monetary exchange for charity, etc.).

b) Test the proposed mediating mechanism of information processing (heuristic vs. systematic).

I followed a mixed methods approach to examine my hypotheses. Study 1 used secondary data collection in the form of a content analysis that entailed collecting

information from websites that solicit personal information donation. These websites collect private data from voluntary consumers in a variety of domains such as energy consumption, sustainable energy usage, diabetes care, and suicide prevention. Content analysis was chosen to explore my propositions regarding how donation soliciting organizations are designing their appeals and aided in the design of experimental stimuli for the following experiments.

Experimental design was chosen for the later studies to ensure the inference of causal effect (Creswell & Creswell, 2018) and strong internal validity (Christensen, Johnson, & Turner, 2014). Study 2 investigated whether people report higher perceived persuasiveness of the donation appeal and willingness to donate after being primed with communal focus (vs. control group). Existing literature demonstrates a strong correlation of perceived persuasiveness and willingness to donate with consumer's actual donation behaviors (Peck & Wiggins, 2006; Van Steenburg, 2013; Baek, Yoon, Kim, & Kim, 2017). Participants read an article prior to being asked questions – either one designed to evoke communal focus or one designed to be neutral.

Study 3A and 3B examined the mechanism of heuristic information processing on people's perceived persuasiveness of a normative influencing appeal and the subsequent willingness to donate their private information, using a similar experimental design as Study 2. I also assessed participants' recall of the message content as well as evidence of heuristic information processing using the established Heuristic – Systematic Information Processing Measurements scale (Meyers-Levy & Maheswaran, 2004; Griffin, Neuwirth, Giese, & Dunwoody, 2002) to replicate the previous study and to determine whether heuristic information processing acted as a mediator in study 3A (energy efficiency context) and in study 3B (healthcare context).

Study 4 directly tested the moderating effects of donation context (healthcare vs. energy efficiency) and perceived privacy on consumer's perceived persuasiveness, their willingness

to donate as well as the mechanism of the main effects in the two examined donation contexts. The two contexts were chosen due to their familiarity to the participants. Furthermore, two contexts were chosen to test the effect of privacy level of information on the donation message perceived persuasiveness and willingness to donate. Whereas the health information is more sensitive in nature, the energy consumption information is considered less private and sensitive (Milne, Pettinico, Hajjat, & Markos, 2017)

CHAPTER II

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Persuasion

Persuasion is “human communication designed to influence the autonomous judgments and actions of others” (Simons, Morreale, & Gronbeck, 2001, pg.7). The primary effect of persuasion is to influence, to predispose, but not impose, individuals’ independent choice-making decisions. Persuasion affects their evaluations of ideas, proposals, events and people; their sense of true and false. Taken further, persuasion can influence an individual’s commitments, both private and public, to take action, and even alter their core ideologies and basic values, via communication.

When behaviour decisions are based on a person’s individual evaluation of available information that has been presented to them, informational influence occurs (Subramani & Rajagopalan, 2003, pg. 305). Informational influence is powered by a direct evaluation of both costs and benefits, and can be induced by informational messages. (Subramani & Rajagopalan, 2003). In order to influence individuals to adopt or engage in specific behaviours, informational messages designed to display the benefits of that behaviour can be provided to them. This information is actively considered and may be incorporated into existing mental schemes, influencing them to change attitude and take action (Petty & Cacioppo, 1986).

For example, research by Kim and Niederdeppe (2016) examined the different intervention approaches used to help college students with unrealistic and optimistic expectations about alcohol-related issues, utilizing self-affirmation (i.e., affirmed, non-affirmed) and persuasive message types (i.e., narrative, informational, no treatment control) to improve their accuracy in making risk judgements about alcohol-related issues. In the narrative condition, participants read a message based on autobiographical accounts from real

people with alcohol-related problems that had been posted in websites for support groups. The stories detailed the writer's experiences, the potentially dangerous habits and behaviours they engaged in, and the negative consequences occurred from their drinking. The narrators also discussed their own misconceptions about drinking, and how these misconceptions influenced their behaviour. The informational condition delivered equivalent content to the narrative condition but was changed to remove the characters, connected events, and narrative structures. Instead, the informational condition listed risky drinking habits in bullet-form, and summarized the negative consequences. Rather than a narrator's viewpoint, readers were addressed directly regarding their own normative misperceptions with explicit statements. The results indicated that self-affirmation and narratives reduced defensive reactions and allowed the students to protect their own self-concept. This in turn led to risk perceptions that were more closely aligned with their actual risk.

In contrast to this, normative influence takes place when the actions and beliefs of others are the focal criteria for one's own behaviour and decisions, as opposed an individual's own understanding and perceptions of the available information (Aronson, Wilson, & Akert, 2005). The basis of normative influence is the anticipation of a requirement to align with the behaviours of other individuals or social groups (Subramani & Rajagopalan, 2003). Empirical research suggests that the subjective beliefs of normative behaviour are a major factor in the decision to intentionally break a rule or policy (Herath & Rao, 2009; Ifinedo, 2012; Siponen, Mahmood, & Pahnla, 2014; Ifinedo, 2014), and is as impactful a factor as informational influence (Bulgurcu, Cavusoglu, & Benbasat, 2010). Previous research (Siponen, Mahmood, & Pahnla, 2014; Lowry & Moody, 2015; Chatterjee, Sarker, & Valacich, 2015) suggests that designing a message to invoke a normative influence prior to a decision being made would influence behaviour.

There have been recent studies of the effects of normative and informative influence messages on food waste decisions (Stöckli, Dorn, & Liechti, 2018), teenagers' perceived peer acceptance of alcohol (Godbold & Pfau, 2000), and environment protection (Goldstein, Cialdini, & Griskevicius, 2008). Stöckli et al., (2018) reveal that statements that only contained an informative message such as "Food waste happens in the restaurant too. A third of all foods are thrown away. 45% of waste occurs in households and restaurants. Please ask us to box your leftover pizza slices for takeaway to avert food waste." (pg. 3) is as effective as an informative and normative message like "Our guests expect a reduction of food waste. A third of all foods are thrown away. 45% of the waste occurs in households and restaurants. The majority of our guests expect that the wasting of food is reduced. Therefore, many people ask us to wrap their pizza leftovers. Please ask us to box your leftover pizza slices for take-away to avert food waste." (pg. 3) on diners' attempt to reduce the amount of food waste produced. Messages with both an informative and normative message were no more persuasive than purely informational messages. Godbold & Pfau (2000) demonstrate that immediately after viewing, the normative anti-drinking public service announcement produces lower evaluations of peer acceptance of alcohol than did either the informational or neutral public service announcement. In the domain of environmental protection, Goldstein and colleagues (2008) show that normative influence appeals (e.g., "JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. Almost 75% of guests who are asked to participate in our new resource savings program do help by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay.", pg. 473-474) proved more persuasive and effective than a standard appeal (e.g., "HELP SAVE THE ENVIRONMENT. You can show your respect for nature and help save the environment by reusing your towels during your stay.", pg. 473) which focused only on environmental protection, and was popularly used by hotels.

However, there remains a lack of research on the effects of normative and informative influence messages on attitudes and behavior on donation for public good purposes.

As discussed above, informational, or ‘true’ influence messages rely on evidence, justification, and a confidence in the source to accept new views and integrate them into one’s own views and are usually processed systematically. Normative influence messages however, have no need of evidence or arguments, but are instead a subjective experience based of pressure to comply and normalize within a group, driven by a need to be liked or accepted, and most importantly, are usually processed heuristically. Individuals who are presented with detailed information regarding alternatives can be persuaded when they deeply consider the new information (Dennis, 1996; Dennis, Hilmer, & Taylor, 1997; Aronson et al., 2005). Therefore, I predicted that providing normative information in a message which describes what peers do/have been doing in similar circumstances will influence individual’s decision to donate their private information for public good.

In my research, I focused on normative influence messages, examining how a communal focus influences responses to these persuasive messages. Normative messages were selected over informational ones based on Deutsch and Gerard’s Normative and Informational Influences in Conformity Theory (1955), which points out their advantages. In Deutsch and Gerard’s (1955) study, participants were informed that they were taking part in a perceptual experiment, in which they were tasked to accurately match the length of a given line with one of three lines. However, in reality each session had only one uninformed participant. The remaining participants, were in fact research confederates, who carrying out specific instructions. Each participant (the actual participant as well as the research confederates) had to indicate their decisions openly. On 12 of the 18 perceptual judgments, the research confederates announced wrong and unanimous decisions, which were significantly and obviously in error. Results of this study illustrated that incorrect group judgments always affect the focal individual’s judgments, regardless of whether

group judgments were shown before or after the correct informative stimuli, with group judgments creating stronger effects when being shown before the correct informative stimuli.

In my research I focused on two theories to explain the consumer's decision making regarding donating their private data for public good, namely Social Influences in Conformity (Deutsch & Gerard, 1955), and Dual Dimensions of Communion and Agency in Social Cognition (Abele & Wojciszke, 2013).

1. Dual Dimensions of Communion and Agency in Social Cognition.

Bakan (1966) and Abele & Wojciszke (2013) put forth the two basic dimensions of social cognition, judgement, and behaviour: agency and communion. Literature in motivation, personality, social, and cross-cultural psychology shows that the agency-communion framework is indeed overarching. These two dimensions have, for instance, been demonstrated as appearing in the autobiographical narratives of both adults (Diehl, Owen, & Youngblade, 2004; Uchronski, 2008) and children (Ely, Melzi, Hadge, & McCabe, 1998). The agentic dimension determines factors such as decisiveness or assertiveness, and similar characteristics involved in task functioning and goal-achievement. It also relates to: intellectual desirability, dominance, competence, instrumentality, initiating structure, and an independent self-construal. The communal dimension however focuses on social functioning and relationships including such factors as trustworthiness and morality, and relates to social desirability, consideration, morality, nurturance, expressiveness, and an interdependent self-construal.

The agentic and communal dimensions are prevalent in multiple fields of social psychology such as group perception, person perception, stereotypes, and self-description. These fundamental dimensions emerge in research on both values and motives. For example, in Hogan (1982)'s work reflects these dimensions in his two primary human motives "getting ahead" (agency) and "getting along" (communion). In a similar trend, McAdams (1988) distinguished two

primary motives of power and intimacy, power including influence, uniqueness, and agency, while intimacy included affiliation and communion. The dimensions appear even more distinctly in the work Horowitz et al (2006) where the terms “agentic motive” (individual influence, control, or mastery) and “communal motive” (connection, social participation) are used. Value can also be distinguished in these broad classes of content (Rokeach, 1973; Schwartz, 1992; Trapnell & Paulhus, 2012). In addition, the extent to which people value these motives of getting ahead (success, power, etc.) and getting along (relational obligations, self-sacrifice for others) has been shown to differ (Trapnell & Paulhus, 2012). Thus, these dimensions are broadly acknowledged.

The agentic-communal conceptualization can be further be mapped onto personality. Wiggins (1979, 1991)’s work on personality models showed that personality can be represented along two axes; dominance-submissiveness (agentic) and nurturance-coldheartedness (communal). This reasoning was further extended using the communal-agentic framework to differentiate between styles of self-presentation: communal style focusing on presenting oneself as a moral paragon, creating a “saint” impression, while agentic style focused on presenting a master of every challenge, forming a “super-hero” impression (Paulhus & John, 1998; Paulhus & Trapnell, 2008).

More importantly, in social psychology, the agency-communion conceptualization is prominent in person perception (Ybarra, Chan, & Park, 2001; Wojciszke, 2005; Abele & Wojciszke, 2007; Abele & Bruckmüller, 2011), group perception (Leach, Ellemers, & Barreto, 2007; Brambilla, Rusconi, Sacchi, & Cherubini, 2011; Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012), self-perception (Wojciszke, Baryla, Parzuchowski, Szymkow, & Abele, 2011; Gebauer, Wagner, Sedikides, & Neberich 2013), gender (Eagly, 1987), as well as differences in impression formation between actor–observers (Abele, Bruckmüller, & Wojciszke, 2014; Abele & Wojciszke, 2007). It is important in research on stereotypes (Fiske, Cuddy, Glick, & Xu, 2002) and even in applied settings like power (Cislak, 2013), brand perception, and organization perception marketing (Kervyn, Chan, Malone, Korpusik, & Ybarra, 2014; Andrei, Zait,

Vatamnescu, & Pinzaru, 2017). While this research has taken place mostly within North America and Western Europe, there does exist evidence suggesting cultural universality agency and communion (Abele et al., 2016; Abele, Ybarra et al., 2008; Uchronski, Suitner, & Wojciszke, 2008; Saucier et al., 2014; Wojciszke & Bialobrzaska, 2014).

Multiple studies have shown that the communal dimension has a greater impact in group person perception when compared to the agentic dimension. In lexical decision tasks communal traits are identified faster than agentic traits (Ybarra et al., 2001) and chronically relevant descriptors of others pertain to communion as opposed to agency (Wojciszke, Bazinska, & Jaworski, 1998). When forming global impressions of people, individuals will tend to focus on information gathering related to communion rather than agency, and these impressions of real people are more accurately predicted from communal than agentic trait ascriptions. Additionally, whether an evaluation impression is positive or negative is mainly based on communal traits and behaviours, whereas agentic information only acts as a modifier of that impression's strength (Wojciszke et al., 1998). Furthermore, communion has higher importance when considering positive evaluation of an in-group, and an individual's association with their in-group relies on a self-perception of shared communal traits (Leach et al., 2007). Finally, communal traits retain more consistent meaning when applied across different social groups and cultures, leading to a majority of social universals to fall into communal instead of agentic dimensions (Ybarra et al., 2008).

People strive towards healthy relationships and to effectively pursue their goals, both from an evolutionary and social perspective. Agency is the dimension of the self, primarily related to one's own interests (Abele and Wojciszke, 2007). Traits related to self-confidence, decision making, decisiveness, and being pro-active are effective and profitable from the perspective of the self as they contribute to attaining self-set goals. As was also noted by Bakan (1966), traits associated with agency also include efforts to differentiate as an individual, expand the self, as well as striving to efficiently attain goals. Communion can be

viewed conversely, the dimension that focuses not on the self, but on the interests of others. Referring again to Bakan (1966), the communal dimension involves traits involved in integrating into social groups, often via prioritizing the desires of others. Communion is invoked when actions and behaviours are chosen because of how others will view them, with the goal to be seen as trustworthy, friendly, and respectful of the viewer's wants and interests. A key distinction between the two dimensions is whether they are self-profitable (agentic), or other-profitable (communal). Previous research (Peeters, 1992, 2005; Peeters, Cornelissen, & Pandelaere, 2003) shows that the assessment and evaluation of traits is related to their value as adaptive mechanisms in general. This value is defined from two perspectives, that of the individual possessing the trait, or that of an observer. From the individual's perspective, traits can be viewed as self-profitable, and have a positive adaptive value when they directly benefit the self (as in the case of positive traits) or having a negative value, in the case of traits harmful to the trait holder. Depending on the trait and the trait holder, others may benefit from it as well, but this will be dependent on the trait holder's desires and intentions. On the other hand, when a trait is viewed from that of an observer of the trait holder, the adaptive value can be redefined. Valued traits from this perspective can be considered other-profitable, and in turn are directly beneficial to others for positive traits, and harmful to others for negative traits. Multiple findings on impression forming (Asch, 1946), gender stereotypes (Conway, Pizzamiglio, & Mount, 1996; Diekman & Eagly, 2000; Eagly & Karau, 2002), as well as the stereotype content model (Fiske et al., 2002), and also fit into this bi-dimensional framework. Asch (1946) explore the traits of being "warm" and "cold" as being critical in impression formation from the observer perspective. Fiske and colleagues (2002) further explored the observer's viewpoint of communal traits, showing that stereotyping of groups as warm or cold depended on the other-profitable traits as observed from the other's group. Whereas stereotyping groups by competence vs incompetence, agentic traits, depend heavily

on the social standing and position within the power-hierarchy, the results of how their displayed effectiveness in pursuing the self-interests of the group. Lastly, the stereotypes common to men tend towards agency, with roles and traits that highlight self-interest and self-profit, whereas stereotypes common to women were connected to other-interest and communal in nature (Conway et al., 1996; Diekmann & Eagly, 2000; Eagly & Karau, 2002).

The strength and degree of expression on agentic and communal motives hold an influential position when determining inclusive fitness. Agentic traits and desires motivate individuals to self-improvement: developing skillsets, gathering resources, in order to compete with rivals to secure important positions within the social hierarchy, find a mate, and improve their respect and treatment by others. Communal traits and desires in turn motivate towards nurturing goals such as protecting and raising children, or combining skills and resources to build successful, safe, and stable communities (Barclay, 2016). When the primacy of these selective pressures is considered, it comes as no surprise that humans possess a keen awareness and reaction to agentic and communal pressures, both between groups, as well as within their own groups. As a result, any threats towards communion such as ostracism and exclusion, or towards agency, such as disrespect or failure can cause significant psychological and physiological distress threatening mental and physical health both in the immediate and long term. (MacDonald & Leary, 2005; Anderson, Hildreth, & Howland, 2015; Smith & Jordan, 2015; Cundiff & Smith, 2017). However, successfully achieving agentic and communal desires and goals results in improved overall health, capability, and social functioning (Anderson et al., 2015; Crocker, Canevello, & Brown, 2017), an effect that has been observed across social or cultural boundaries (Church et al., 2013). Accordingly, humans are highly motivated to improve, or at minimum maintain, their social standing, often by improving, expressing, or signalling their competencies and accomplishments, while taking steps to avoid risk and situations that may result in

threatening their position. Likewise, there is motivation to develop or at least maintain social connections, by displaying other-profitable, in-group valued traits such as loyalty while avoiding behaviours that could result in expulsion.

Existing literature confirms that when people holding strong communal desires discover close parallels between themselves and other they feel stronger, more positive feelings (Locke, 2003), and are more likely to exhibit thoughts and behaviours that are culturally normative. In addition, they are likely to describe members of their social groups as having similar characteristics and motives to themselves (Gebauer et al., 2013; Locke, Zheng, & Smith, 2014).

Various implicit and self-report measures have been used to assess an individual's agentic and communal motives (Ojanen, Grönroos, & Salmivalli, 2005; Schultheiss & Brunstein, 2010; Locke, 2011; Trapnell & Paulhus, 2012; Trucco, Wright, & Colder, 2013). Stronger implicit communal motives were evidenced to predict the likelihood to prefer interactive activities (Weinberger, Cotler, & Fishman, 2010), to approach and engage with friendly faces (Schultheiss & Hale, 2007), or to agree to self-disclosures (McAdams, 1988). Similarly, individuals who reported having stronger communal motives were found to pronounce harsher judgement for crossing communal norms (Kammrath & Scholer, 2011), experience greater satisfaction from interacting with others (Locke & Sadler, 2007), and could even be accurately predicted towards volunteer work as crisis counselors (Rek & Dinger, 2016).

Communion and agency form a fundamental basis of social cognition (Rucker, Galinsky, & Magee, 2018) that are still under examined in marketing and especially in persuasion contexts. It is worthwhile to investigate the effects of communal and agentic focus on consumer's behaviors. In the current research, communal focus will be executed via the proxy of normative influence messages. A normative influence message with a communal focus in the context of private

information donation could lead to more heavily weighted towards the heuristic cognitive system of information processing and higher levels of perceived persuasiveness. Consumers will be motivated to resolve the cognitive incongruence via corresponding social behaviors (e.g., donating their private information for public good). Therefore, in my research, I explore this aspect for consumer's private information donating intention and behaviors. In my research, I intend to focus on the communal dimension of social cognition in this dissertation and propose that a communal focus in a persuasive message will invoke heuristic information processing (i.e., faster and less effortful cognition), which leads to a higher perception of persuasiveness, a strong indicator of consumer's actual donation behaviors (Peck & Wiggins, 2006; Van Steenburg, 2013; Baek, Yoon, Kim, & Kim, 2017). My research is expected to contribute to the existing literature by examining the use of consumer donation behaviors, specifically private data donation, as one way to regulate the activation of a communal focus.

2. Effects of Communion and Agency on Information Processing

The two dimensions of social cognition are linked to different cognitive systems (i.e., systematic and heuristic), which leads to their two distinct principles of operation (Strack & Deutch, 2004). Several early models and theories on cognitive information processing proposed separable modes of information processing. However, these early models and theories were limited in scope, and tended to focus on processes and effects only in relation to a specific domain of mental functioning. For example, the Heuristic/Systematic Model (Chaiken, 1987) focuses only on attitude formation, as does the Elaboration Likelihood Model (Petty & Cacioppo, 1986). Others such as the MODE model (Fazio, 1990) explored how already formed attitudes affect behaviour. Modern models however (Strack & Deutch, 2004; Gawronski & Bodenhausen, 2006) expand their scope to a much wider scale, and suggesting that regardless of the domain or construct, certain characteristics of cognitive processing remain the same.

Strack and Deutch (2004) put forth that the systematic cognition system actively retrieves information to generate perceptual knowledge that directly informs specific intentions, behaviours, and actions. The heuristic cognition system however acts as a simple associative network which provides additional information for the systematic cognition system, while only directly influencing behavior in situations systematic cognition system is otherwise engaged. These cognition systems do not work in isolation and are constantly interacting while processing in parallel. It is posited by the two-systems model that environmental information is primarily processed heuristically, and is not always processed systematically. Due to this, environmental cues (e.g., agentic and communal focus inducing information in a private information donation appeal) will be processed by the heuristic cognition system, but due to factors such as distractions, lack of attention, or cognitive capacity, may not be processed by the systematic cognition system.

Existing literature has evidenced that heuristic processing is dominant for a communal focus, while systematic processing is dominant with an agentic focus. The communal traits used to build and maintain relationships allow individuals to take part in social groups, which in turn can pool skills and resources to overcome threats and minimize risks, thus providing a selective advantage (Baumeister & Leary, 1995; Guisinger & Blatt, 1994; Ybarra et al., 2008). As these social relationships are essential for the health and survival of humans, communion must be a primary dimension from an evolutionary perspective. In turn, communion's primacy should be evidenced in areas such as information processing and communication, and conceptualization. Perception, including person perception, is a major driver of human behaviour and actions (Heider, 1958; Fiske, 1992; Zebrowitz & Collins, 1997; Dunning, 2004). When encountering or interacting with other people, the priority of perceivers is assessment of threat, and knowing whether someone is benevolent, or should be avoided. Judgements of communal traits such as trustworthiness, friendliness, and warmth provide important clues for potential interactions when attempting to infer someone's

intentions towards oneself or others. Accordingly, these traits are exceedingly relevant when the processing of approach vs. avoidance decisions is being done (Fiske, 1992; Peeters & Czapinski, 1990; Peeters, 2001; Wojciszke et al., 1998).

Since communal traits are often tied directly to the consequences of person-interaction, they are of course most relevant for person perception and in turn the formation of behavioural decision of approach vs. avoidance. Despite their primacy, communal traits are not the only factors considered, and of course agentic traits may also be relevant for approach vs. avoid decisions, with importance often dependant on the context (e.g., competence may be an influential factor when deciding who to approach for difficult dilemmas). However, as agency has a much weaker link to other-profitability compared to communion, it should in turn have a weaker link to approach vs. avoidance decisions. Thus, judgement of communal traits during person perception should remain as the more relevant factor with regard to approach vs. avoidance.

Thirdly, numerous studies since Asch's (1946) and Kelley's (1950) classic experiments have shown that a target's communal traits receive higher weight in forming an overall impression than his/her agentic traits, an effect often referred to as the "primacy" of communion. Early research in social psychology has explored the concept that communal traits are weighted higher when forming overall impressions compared to agentic traits (Asch 1946; Kelley 1950), and multiple studies since have confirmed this primacy of communion (Wojciszke et al., 1998; De Bruin & Van Lange, 1999, 2000; Fiske et al., 2007; Leach et al., 2007; Abele & Wojciszke, 2007; Wojciszke & Abele, 2008; Ybarra, et al., 2008). For example, previous studies show personality traits which are self-generated will be more related to the communal dimension than to the agentic dimension (Wojciszke et al., 1998; Wojciszke & Abele, 2008; Uchronski, 2008), and that an individual's communal traits will have greater influence on other's attitudes towards them than their agentic traits (De Bruin &

Van Lange, 1999, 2000; Abele & Wojciszke, 2007; Cislak & Wojciszke, 2008). Importantly, communal traits are perceived as having better predictive power of someone's future behaviour compared to agentic traits (De Bruin & Van Lange, 1999; Kenworthy & Tausch, 2008). Further, communal trait perception has a stronger impact than agentic trait perception on social group perception and stereotyping (Fiske et al., 2002; Leach et al., 2007; Cuddy, Fiske, & Glick, 2008). In Abele and Bruckmüller (2011)'s work some preliminary evidence is provided that communal information is in fact given preferential status in the early stages of information processing. When compared to agentic traits, it was observed that communal traits are recognized sooner, categorized faster, and inferences in regards to communal traits are drawn faster than inferences regarding agentic traits. Not only this, but communal focus information also comes to mind faster than agentic focus information when thinking about other people or when trying to characterize them.

Another study by Ybarra et al. (2001) further demonstrated that in lexical decision tasks agentic trait words were slower to be recognized than communal trait words. De Bruin and Van Lange (2000)'s study provides further evidence on the heavier weight of communal information in social cognition information processing. In their work, participants were able to select which kind of information they were to receive about another person whom with they would later interact. In 84% of cases participants chose to see the communal information first, with only 16% choosing to first see the agentic information. In addition, the participants spent more time reading the communal information than the agentic. Bazinska and Wojciszke (1996) presented participants with ambiguous behaviour descriptions and found that communal traits were inferred faster than agentic traits. Further, Ames and Bianchi (2008) found that when study participants were described various persons, agreeableness (a communal trait) was the trait most commonly inferred. Finally, the results of Wentura, Rothermund, and Bak (2000) point towards preferential processing of communal focus

information as well as a greater importance in approach vs. avoid decisions. In their study they showed that a trait information's ability to demand attention depends on its relevance for the self vs. for the other. In addition, other-relevant information caused greater delays than self-relevant information due to longer response latencies when examined in a Stroop task. Moreover, participants in a lexical decision task were significantly quicker to exhibit approach behaviour (pushing a button) than avoidance behaviour (withdrawing from a button) when responding to negative other-relevant information. However, this interaction was not exhibited when dealing with self-relevant information. The traits used in this work aligned very closely with the communal dimension for the other-relevant traits, using terms such as "cooperative" or "mean". For the self-relevant traits however, the terms did not always align as closely, while some were clearly agentic (e.g. "determined" or "lazy") others were mood states or attributes such as "cheerful", "depressed", or "bored", or even communally focused states such as "lonely". As such, Wentura and colleagues' (2000) work only partially aligns with the fundamental dimensions that are of consideration.

The present research goes one step further. If self and other's communal traits are of primary relevance in person perception, then a donation appeal inducing the communal dimension will be weighted more heavily in a potential donor's perceived social judgments when they are considering the donation of their private information for public good. Specifically, I propose that communal focus in private information donation appeals is not only weighted more heavily in a potential donor's perceived social judgments, but is also given preferential processing and processed heuristically in earlier stages of information processing, such as recognition, categorization, and inference. Due to this, communal focus should lead to a higher perception of persuasiveness and willingness to donate in the private information donation context.

Formal Hypotheses

Given the literature reviewed thus far, I expect that when an individual is primed with communal focus, their cognition will prioritize processing communal cues in the donation message and process the information heuristically. Messages using normative influence are likely to be processed in the heuristic mode of cognition and therefore, are less effortful for consumers to comprehend compared to messages using informational influence, which will be processed in the systematic mode of cognition (Chen, Duckworth, & Chaiken, 1999). I theorize that a marketer could create a message that causes the activation of heuristic information processing to resolve the communal focus resulting in consumer's higher perceived persuasiveness of the donation message and higher willingness to donate. Based on this theorizing, I have two hypotheses:

H1: Consumers primed with communal focus (vs. control) will perceive a normative appeal to donate private information more persuasive, resulting in a higher willingness to donate.

H2: Heuristic information processing will mediate the effect of communal focus on the perceived persuasiveness of a normative appeal to donate private information.

In the next chapters I report five studies. I demonstrate that communal focus appeals for private information donation are more widely used in private information donation soliciting practices (Study 1). In Study 2, I examined my hypotheses in a more controlled experimental setting to confirm the positive effect of communal focus private information donation appeals on consumer's perceived persuasiveness of the message and willingness to donate private information for public good. Study 3 examined the mechanism underlying the results and showed that heuristic information processing mediated these findings in a healthcare context (Study 3B) but not in an energy efficiency context (Study 3A). Study 4 demonstrated the moderating role of donation context and perceived privacy on consumer's perceived persuasiveness of the message, willingness to donate private information for public good, as well as the mediating mechanism of information processing.

CHAPTER 3

STUDY 1

To explore my propositions regarding the type of messages that organization's soliciting donations of data might have employed when designing the message, in Study 1 I collected the persuasive messages from websites requesting a donation of private data from consumers. These websites use consumer's consent to access the private electronic records or self-provided information for scientific research in domains such as energy consumption, sustainable energy usage, diabetes care, and suicidal prevention to name a few. The purpose of the study is to conceptualize the usage of agency and communion, the two key constructs of this dissertation research, in real life soliciting donation language for use in subsequent testing of H1 and H2 in the following studies.

Data and Methods

Sample. A data set of messages found on websites soliciting private data donation was created. A search was conducted via the Google Search Engine for all results containing the keywords: "data donation", "private information donation", "digital footprint donation". This resulted in 620 million, 450 million and 4.5 million results, respectively, for each of the mentioned keywords. The first five hundred search results for each keyword were scraped and recorded. Then, all the repeated results were combined to one data point. Then, I checked each search result to exclude data points that were not a data collection website (e.g., blogs, news articles, academic papers). After this step, the dataset contained of 129 websites. From these websites, three principal criteria were set to select appropriate websites: First, the websites needed to be collecting private information from individuals, not from corporations or other organizations. Second, the primary usage of the donated data should be for the public good. Third, the websites must contain a persuasive message geared toward potential individual donors. Following these criteria, this led to the identification of 48 websites (See Appendix A: List of websites). For websites providing

multiple persuasive messages in different locations of the web page, only the one message that was most prominently featured was included in the final data set.

Web content analysis was chosen for several reasons. First, as a media of communication, websites and web pages provide the most recent patterns on the topic that does not necessitate any researcher intervention (Weare & Lin, 2000; Kim & Kuljis, 2010). Second, web content provided the empirical evidence of communal and agentic concepts presenting in natural language for data donation soliciting. To date, the existing literature has identified communion and agency in natural language use, such as analyses of obituaries of female leaders that use more communal and less agentic language than obituaries of male leaders (Rodler, Kirchler, & Hölzl, 2001). In addition, female candidates for academic positions were described more communally and less agentially in letters of recommendation compared their male peers (Madera, Hebl, & Martin, 2009). Job listings for traditionally male occupations employed greater use of agentic phrases than listings for female-dominated fields (Gaucher, Friesen, & Kay, 2011).

Procedure

Forty-eight websites were contained in the final sample were accessed from September 7 to 20, 2020. For each website, I recorded the name of the organization, targeted donor, data recipients, type of donated data, industry category, launching year, announced purpose, website hyperlink, the actual donation persuasive message, and type of data access requested (i.e., limited, open, or closed). “Closed” is defined as the collected datasets of finished or discontinued projects. “Limited” is defined as the datasets of a continuing project and still accessible for people with permission from the data collecting organization. “Open” is defined as the collected datasets that are accessible to the general public without a requirement for permission from the data collecting organization. The average length of each donation persuasive message appeal was 61 words.

The list of messages was coded following the definition of agency and communion of Abele and Wojciszke (2013), and were asked to evaluate how agentic and how communal each donation persuasive message was, respectively, on 7-point Likert scales from *1 = Not at all* to *7 = Very much so*. One coder was used for this step (it was not the author). I employed Linguistic Inquiry and Word Count software (LIWC) as a second coding technique. Each private data donation appeal in the dataset was content-analyzed using LIWC (Pennebaker et al., 2007). I also used the 2015 LIWC dictionary, which has 93 word categories. LIWC simply counts up the number of words in a target transcript that match any of the words in a particular category and calculates a density score: $\text{density} = \frac{\# \text{matches}}{\# \text{words}}$. Past research demonstrated each category's reliability and validity (see Tausczik & Pennebaker, 2010). Amongst the 93 coded categories from the dataset, I applied The Big Two Dictionaries for LIWC (Pietraszkiewicz et al., 2019) to determine the compositions of agentic and communal content. Content related to agency contains five categories: Cause (e.g., create, make, affect), Achievement (e.g., earn, hero, win), Reward (e.g., approach, confident, earn), Insight (e.g., think, know, consider), Power (e.g., up, over, best), and Work (e.g., job, majors, team). The selected categories associated with communion were Family (e.g., daughter, husband, aunt), Friends (e.g., buddy, friend, neighbor), Social (e.g., hug, honey, pa), and Affiliation (e.g., share, relation, social). Final measurements of agency and communion from the LIWC are the sum of the agency and communion selected categories, respectively.

Results

Website categories. The 48 websites in the final sample belong to 10 different categories, ranging from Health, Business, to Agriculture and Transportation (See Figure 1). A large proportion of the websites list General or Health as primary purpose of the call for private data donation (General: 18 websites, 37.5%; Health (e.g., suicidal prevention, diabetes prevention, genetic diseases): 22 websites, 45.5%). In addition, there was also a rising trend of websites

collecting private information data for public good in the domains of Business, Agriculture, Transportation, and Energy since 2014 in addition to health-related information. These categories illustrate the depth and width of private information donation application in realistic contexts.

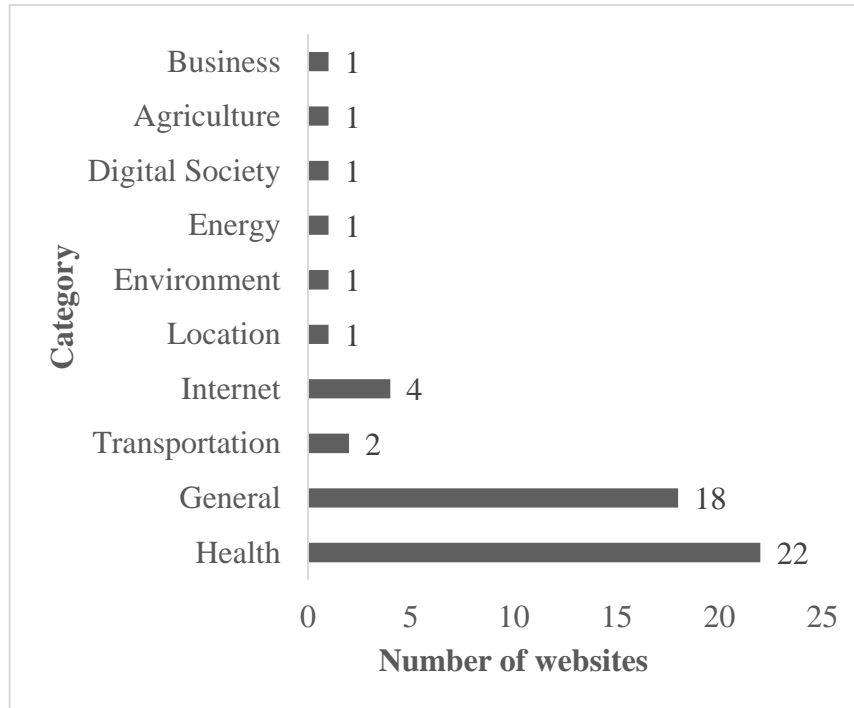


Figure 1. Categorization of private information donation websites

Agentic and Communal Content. In the analysis of the agentic and communal content of the messages, a clear pattern emerges whereby communal content is used more often. As Figure 2 shows, from the first method of coding, a paired samples t-Test shows the communal level is higher than the agentic level ($M_{Communal} = 4.85$; $SD_{Communal} = 2.07$; $M_{Agentic} = 3.3$; $SD_{Agentic} = 2.2$; $p = .01$).

A paired samples T-Test from the second method of coding replicated the prior result with the mean evaluation of donation persuasive message communal level being marginally higher than the mean evaluation of donation persuasive message agentic level ($M_{Communal} = 20.48$; $SD_{Communal} = 9.27$; $M_{Agentic} = 18.14$; $SD_{Agentic} = 6.82$; $p = .079$).

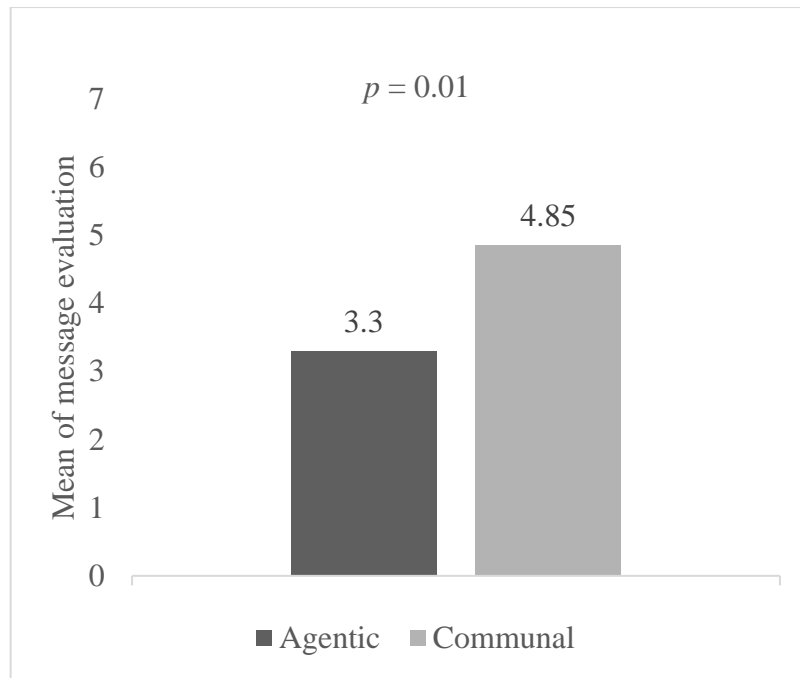


Figure 2. Means of Agentic and Communal Evaluation from the first coding method

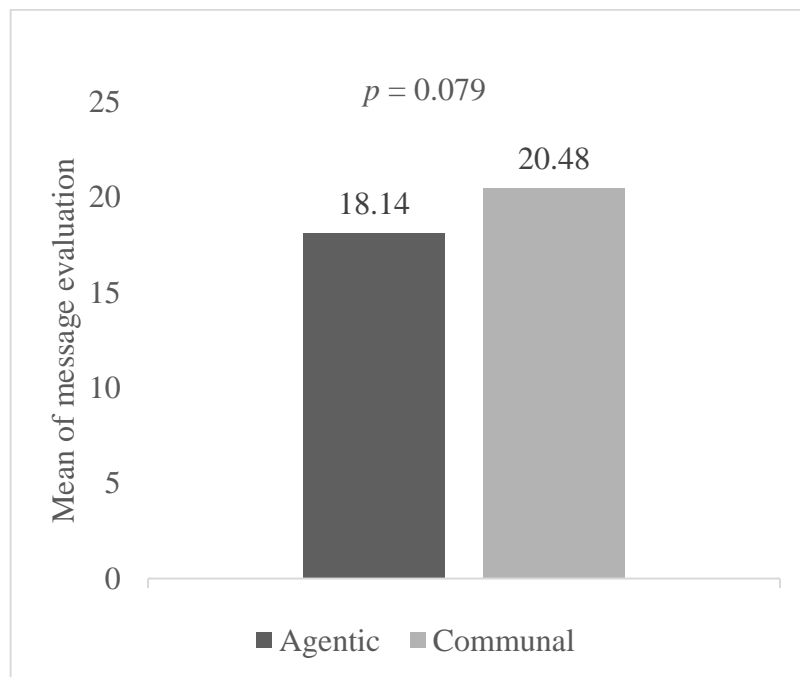


Figure 3. Means of Agentic and Communal Evaluation from the second coding method

The messages collected from this study provide realistic materials to use in the design or the messages in the following experiments. The below table illustrates some of the messages used on the websites as part of this study (See Table 1).

Sample Agentic Messages	Sample Communal Messages	Agentic – Communal Balanced Messages
<p>“So if you’re looking to profile or register people, digitize agric supply chains & social protection programs, conduct GIS mapping, or to track inventory or impact, or if you want to engage communities with critical information campaigns like healthcare, agronomic advisories, climate smart contents, weather, nutrition or market information, Esoko’s the way to go!”</p> <p>“Share as much, or as little, as you like and discover the value your life online can bring you in the real world. Share your data with companies and causes you believe in and help those who sell ideas and products to get</p>	<p>“Make an impact on diabetes research with the Tidepool Big Data Donation Project. When you opt in to donate your anonymized data, you’re helping researchers, device makers, and creators advance discovery and innovation.”</p> <p>"We are always looking for great maps, apps, and data. Many of your items probably already meet the minimum requirements for nomination. Contribute these items to the ArcGIS Living Atlas of the World and help us build the GIS of the world. Do you have data that can become part of our community-supported maps and layers? If so, contribute today and see how your data can help power</p>	<p>“PatientsLikeMe is committed to putting patients first. We do this by providing a better, more effective way for you to share your real-world health experiences in order to help yourself, others and advance research.”</p> <p>"We could all go for a lot less traffic in our lives.Join 130+ million helping each other get there."</p>

<p>it right. Or break some ground by taking part in medical research – you can shape the way that businesses, researchers and even campaign groups act in the future."</p>	<p>the world. From campuses to nations, let your data benefit others."</p>	
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Table 1. Examples of Agentic, Communal, and Agentic – Communal Balanced Messages in the Data Set

Discussion

The primary goal of Study 1 was to compare the relative popularity of agency and communion constructs in a real-world setting of private data donation soliciting appeals. Three conclusions can be derived from this study. First, the results of the study show preliminary indications that agency and communion constructs are indeed common in the natural language used in private data donation soliciting appeals. Moreover, communal content is used more often and with higher levels than agentic content. Second, both approaches of content analysis, coder (i.e., human intelligence) and text-analysis (i.e., artificial intelligence) are consistent in demonstrating that communal (agentic) messages are less (more) widely-used at eliciting private data donations for public goods. These insights speak to the real-world implications of the study findings.

CHAPTER 4

STUDY 2

In Study 1, I find empirical evidence from a content analysis of webpages for the usage of communal and agentic language in private information donation for public good appeals. I conducted Study 2 to demonstrate the direct positive effects of communal focus appeals on consumer's perceived persuasiveness and willingness to donate private information for the public good in a controlled laboratory setting. The stimuli for this study are based off the communal focus appeals reviewed in Study 1.

Pretest

Before conducting the main study, I designed a pretest to demonstrate that the communal focus donation message elicits consumer's concept of communion as desired. One hundred participants were recruited from MTurk for nominal compensation to evaluate the two donation messages of communion and control. Two participants did not pass the attention check and were excluded from the final sample. Participants were randomly assigned to read the communal focus message (*"Share as much, or as little, as you like and discover the value your life online can bring into other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future."*) or the control donation message (*Contribute to our campaign today - you can become part of the way our community develops in the future.*) (see Appendix C: Experimental Stimuli). I then gave them the definition of Communion and Agentic (Abele & Wojciszke, 2014): *"Agentic content refers to goal-achievement and task functioning (**competence, assertiveness, decisiveness**), whereas communal content refers to the maintenance of relationships and social functioning (**benevolence, trustworthiness, morality**)"*, and asked them to evaluate the degree of Communion and agency (*1 = Not at all to 7 = Very much*) in

the donation messages. Based on the independent samples t-Test, the communal message was perceived as significantly more communal than the control message ($M_{Communal} = 5.45$, $SD_{Communal} = 1.43$; $M_{Control} = 5.88$, $SD_{Control} = 1.17$; $t(1,98) = 1.13$, $p = .059$). There was no significant difference in term of agentic evaluation between the two messages ($M_{Communal} = 4.37$, $SD_{Communal} = 1.83$; $M_{Control} = 4.75$, $SD_{Control} = 1.51$; $t(1,98) = .68$, $p = .410$).

Main Study

To achieve the probability level = 0.05, the effect size $d = 0.35$ - the average effect size in social psychological research (Richard et al., 2003), and the desired statistical power level = 0.8, I planned to recruit a sample of two hundred and sixty participants at a minimum for this and all subsequence studies. Power analysis was conducted using an online calculator (Free Statistics Calculators, danielsoper.com). Although 13 participants failed the attention check, their responses do not change the study results and were added to the final sample. The final sample included 309 undergraduate students (54.5% male, mean age 20 years) who participated in the study for course credit. The sample sizes, hypothesis, dependent variable measurements, conditions, planned analysis, outliers, and exclusions of Study 2, Study 3A, Study 3B, and Study 4 were reported on AsPredicted.org. The platform is funded by the Wharton School of the University of Pennsylvania and is widely used by researchers in the field for replication purposes.

After signing the consent form, participants were asked to look at marketing materials regarding a private information donation program in their city which read “Donate for Better Winnipeg Healthcare.” The treatment group read a donation appeal highlighting communal focus (“*Share as much, or as little, as you like and discover the value your life online can bring into other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future.*”) while the control group read a

neutral donation appeal (*Contribute to our campaign today - you can become part of our of the way our community develops in the future.*)” (see Appendix C: Experimental Stimuli).

Measures

Manipulation check. To allow for an assessment of whether there were any differences in communal evaluation of the two donation messages, after responding to the two main dependent measurements, participants were again given the definition of communion and agency (Abele & Wojciszke, 2014): “*Agentic content refers to goal-achievement and task functioning (**competence, assertiveness, decisiveness**), whereas communal content refers to the maintenance of relationships and social functioning (**benevolence, trustworthiness, morality**)*”, and asked to evaluate the degrees of Communion and Agency (*1 = Not at all to 7 = Very much*) of the donation message they read at the beginning of the study.

The first dependent measurement was participants’ perceived persuasiveness of the donation appeal adapted from Rosaen, Dibble, and Hartmann, (2019), using a 7-point scale that features the following bipolar terms: not persuasive/persuasive, unconvincing/convincing, not effective/effective, and incoherent/coherent. This measure was presented after participants viewed the above messages, and higher scores indicate greater persuasiveness (see Appendix B: Survey questions). A composite measure of all items into a perceived persuasiveness index was reliable (McDonald’s $\omega = .90$).

The second dependent measurement was participants’ willingness to donate their private medical information (e.g., their blood type, biometric, DNA information, see Appendix B: Survey questions), using a 7-point scale with *1 = Not at all to 7 = Very much*. A higher score indicated a higher willingness to donate private information for public good.

These items were combined into a willingness to donate index (McDonald's $\omega = .88$). At the end of the study, participants reported their demographic information and were debriefed.

Results and Discussion

Manipulation check. The communal message was perceived as significantly more communal ($M_{Communal} = 4.71, SD_{Communal} = 1.17; M_{Control} = 4.31, SD_{Control} = 1.48; F(1,308)=6.876, p<.009$). There was no significant difference in term of agentic evaluation between the two messages ($M_{Communal} = 3.86, SD_{Communal} = 1.23; M_{Control} = 3.66, SD_{Control} = 1.44; F(1,307)=1.80, p=.180$).

Tests of Hypothesis. Two t-tests were performed to examine the hypotheses and the effects of the communal focus donation message on participants' perceived persuasiveness and willingness to donate their private information to the Better Winnipeg Healthcare campaign. Participants' perceived persuasiveness of the communal focus message was significantly higher than for the control message ($M_{Communal_Persuasiveness} = 4.59, SD_{Communal_Persuasiveness} = 1.10; M_{Control_Persuasiveness} = 4.00, SD_{Control_Persuasiveness} = 1.41; F(1,308)=16.76, p<.001$). Participants who read the communal focus message also showed a significantly higher willingness to donate their private information ($M_{Communal_Willingness} = 3.40, SD_{Communal_Willingness} = 1.46; M_{Control_Willingness} = 3.04, SD_{Control_Willingness} = 1.41; F(1,308)=4.80, p=.029$). Hypothesis 1 was therefore supported.

Mediation. To examine whether perceived persuasiveness mediated willingness to donate private information, I used PROCESS Model 4 (Hayes, 2017) with message type as control or communal (X), willingness to donate private information (Y), and perceived persuasiveness (M). Results showed a significant index of mediation ($\beta=.34, SE=.09, 95\% CI [.16, .53]$). A Pearson correlation coefficient was also computed to assess the linear

relationship between perceived persuasiveness and willingness to donate private information.

There was a positive correlation between the two variables, $r(309) = .52, p < .001$.

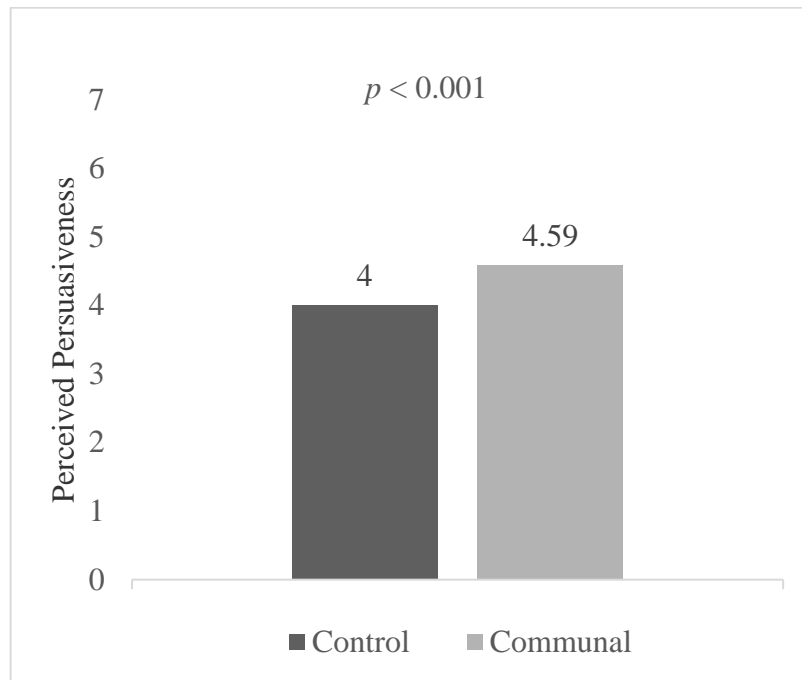


Figure 4. Consumer's Perceived Persuasiveness to Donate Private Information

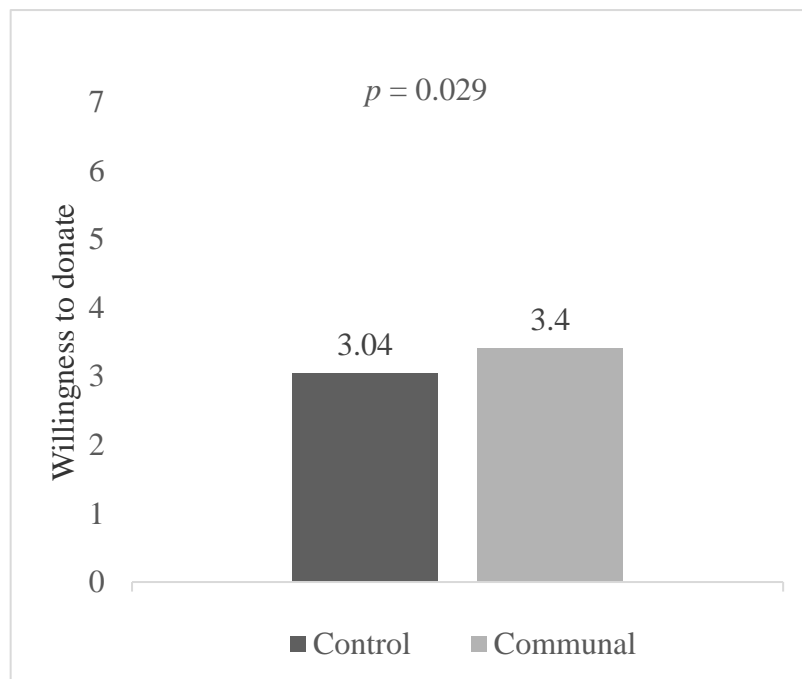


Figure 5. Consumer's Willingness to Donate Private Information

Gender. Two post-hoc two-way ANOVA's were conducted to examine the effects of participant's gender and its interaction with message type on perceived persuasiveness and willingness to donate private information. There was a marginally significant main effect of message type ($F_{Message}(1, 301) = 3.58, p = .059$) but no main effect of gender on perceived persuasiveness ($F_{Gender}(3, 301) = .11, p = .954$). There was no interaction effect of participant's gender and message type on perceived persuasiveness ($F_{Message*Gender}(2, 301) = 1.42, p = .245$).

There was no main effect of message type ($F_{Message}(1, 301) = .04, p = .850$) and no main effect of gender ($F_{Gender}(3, 301) = 1.04, p = .375$) on willingness to donate private information. There was also no interaction effect of participant's gender and message type on willingness to donate private information ($F_{Message*Gender}(2, 301) = 1.55, p = .214$). This demonstrates that the perceived persuasiveness and willingness to donate private information were not driven by participant's gender or an interaction with message type.

Discussion. Results from this study shows support for Hypothesis 1 whereby a consumer who read the communal focus donation message perceived it as more persuasive and were more willing to donate their private information for public good after reading the message. Further, perceived persuasiveness mediated willingness to donate private information. The next study examined the mediating effect of heuristic information cognition processing.

CHAPTER 5

STUDIES 3A and 3B

The goal of these studies is to confirm the main effect of communal focus message on consumers' perceived persuasiveness and willingness to donate private information for public good and to test information processing as an underlying hypothesized mechanism. In addition to the measurements applied in Study 2, participants completed a measure to assess heuristic and systematic information processing to assess the hypothesized process. Studies 3A and 3B followed the similar procedure used in Study 2 in term of sample size, probability level, effect size, and the desired statistical power level dependent variable measurements, conditions, planned analysis, outliers, and exclusions. Study 3A tested the hypothesis in an energy efficiency context, Study 3B tested the hypothesis in a medical context.

Study 3A

To achieve the probability level = 0.05, the effect size $d = 0.35$, and the desired statistical power level = 0.8, I planned to recruit a sample of two hundred and sixty participants at a minimum. Power analysis was conducted using an online calculator (Free Statistics Calculators, danielsoper.com). Three participants did not pass the attention check, however their responses do not change the study results and were added to the final sample. The final sample included 350 MTurk workers (54.5% male, mean age 36 years) who participated in the study for nominal compensation.

After signing the consent form, participants were asked to look at marketing materials regarding a private information donation program which read "Donate for Better Energy Efficiency." The energy efficiency context was examined to increase the generalizability of the research results. The treatment group read a donation appeal highlighting communal

focus (“*Share as much, or as little, as you like and discover the value your life online can bring into other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future.*”) while the control group read a control donation appeal (*Contribute to our campaign today - you can become part of our of the way our community develops in the future.*) (see Appendix C: Experimental Stimuli).

Measures

Manipulation check. To allow for assessment of whether there were any differences in communal evaluation of the two donation messages, after responding to the two main dependent measurements, participants were again given the definition of communion and agency (Abele & Wojciszke, 2014): “*Agentic content refers to goal-achievement and task functioning (**competence, assertiveness, decisiveness**), whereas communal content refers to the maintenance of relationships and social functioning (**benevolence, trustworthiness, morality**)*”, and were asked to evaluate the degrees of Communion and Agency (1 = *Not at all* to 7 = *Very much*) of the donation message.

The first dependent measure was participants’ perceived persuasiveness of the donation appeal adapted from Rosaen, Dibble, and Hartmann, (2019), using a 7-point scale that features the following bipolar terms: not persuasive/persuasive, unconvincing/convincing, not effective/effective, and incoherent/coherent. This was the same measure used in Study 2. This measure was presented after participants viewed the above messages, and higher scores indicate greater persuasiveness (see Appendix B: Survey questions). A composite measure of all items into a perceived persuasiveness index was reliable (McDonald’s $\omega = .90$).

The second dependent measurement was participants’ willingness to donate their house characteristics and energy usage information (e.g., home address, postal/zip code, house age,

HVAC usage data, utility account number, utility meter ID, utility meter data), using a 7-point scale with 1 = *Not at all* to 7 = *Very much*. A higher score indicated a higher willingness to donate private information for public good. These items were combined into a willingness to donate index (McDonald's $\omega = .92$).

I also measured participants' information processing as the mediator. The heuristic and systematic information processing was measured with an established scale from Griffin, Neuwirth, Giese and Dunwoody (2002). In this scale, four scale items measured heuristic processing of information. Participants will indicate via 7-point Likert-type scales their agreement or disagreement (with 1 = *Totally disagree* to 7 = *Totally agree*) with the following statements: "*When I encounter information about this topic, I focus on only a few key points;*" "*If I have to act on this matter, the advice of one expert is good enough for me;*" "*When I see or hear information about this topic, I rarely spend much time thinking about it;*" and "*There is far more information on this topic than I personally need.*" Greater agreement represented a general pattern of heuristic processing of the relevant information. These items were combined into a heuristic processing index (McDonald's $\omega = .77$). Five items were used to measure systematic processing. These were: "*After I encounter information about this topic, I am likely to stop and think about it;*" "*If I need to act on this matter, the more viewpoints I get the better;*" "*It is important for me to interpret information about this topic in a way that applies directly to my life;*" "*After thinking about this topic, I have a broader understanding;*" and "*When I encounter information about this topic, I read or listen to most of it, even though I may not agree with its perspective.*". Greater agreement on these items represented a general pattern of systematic processing of the relevant information. These items were combined into a systematic processing index (McDonald's $\omega = .74$). The measurement of heuristic and systematic information processing was conducted after the dependent measurements to separate the main effect with any possible direct effect of the

proposed mediating variable on the dependent variable. At the end of the study, participants reported their demographic information and were debriefed.

Results and Discussion

Manipulation check. There was no significant difference in terms of communal evaluation between the two messages ($M_{Communal} = 5.55$, $SD_{Communal} = 1.32$; $M_{Control} = 5.44$, $SD_{Control} = 1.33$; $F(1,345) = .54$, $p = .465$). There was also no significant difference in terms of agentic evaluation between the two messages ($M_{Communal} = 4.69$, $SD_{Communal} = 1.62$; $M_{Control} = 4.92$, $SD_{Control} = 1.50$; $F(1,346) = 1.97$, $p = .161$).

Tests of Hypotheses. Two ANOVAs were performed to examine the hypotheses and the effects of the communal focus donation message on participants' perceived persuasiveness and willingness to donate their private information to the Better Energy Efficiency campaign. There was no significant difference between communal focus message and control message in terms of participants' perceived persuasiveness ($M_{Communal_Persuasiveness} = 5.24$, $SD_{Communal_Persuasiveness} = 1.46$; $M_{Control_Persuasiveness} = 5.30$, $SD_{Control_Persuasiveness} = 1.26$; $F(1,347) = .18$, $p = .672$). There was also no significant difference between communal focus message and control message in term of participants' willingness to donate their private information ($M_{Communal_Willingness} = 4.44$, $SD_{Communal_Willingness} = 1.64$; $M_{Control_Willingness} = 4.64$, $SD_{Control_Willingness} = 1.56$; $F(1,347) = 1.44$, $p = .231$). Hypothesis 1 was not supported in this context.

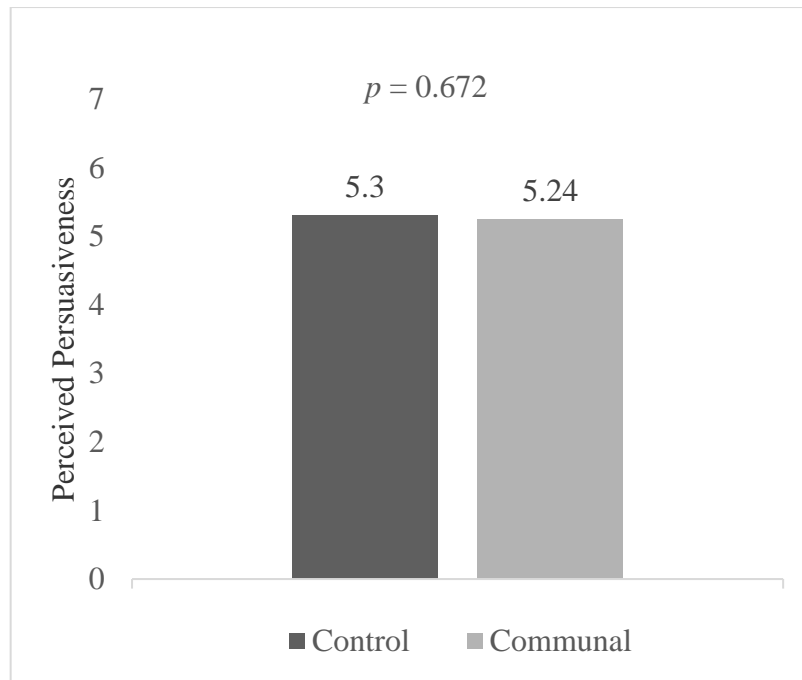


Figure 6. Consumer’s Perceived Persuasiveness to Donate Private Information

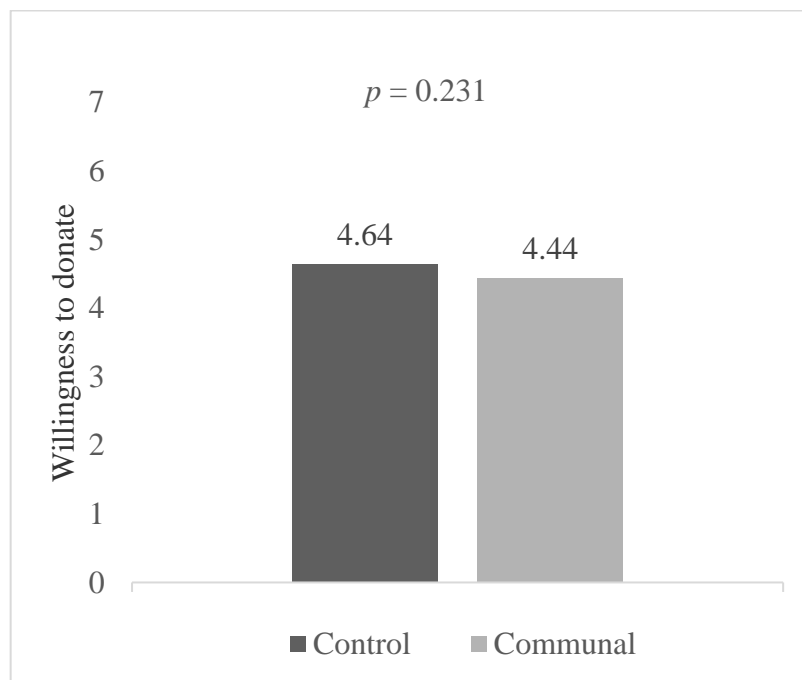


Figure 7. Consumer’s Willingness to Donate Private Information

I used PROCESS Model 4 (Hayes, 2017) to explore whether heuristic and systematic processing mediated perceived persuasiveness and willingness to donate private information.

In the first model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), perceived persuasiveness (Y), heuristic processing (M₁) and systematic processing (M₂) showed insignificant indexes of mediation ($\beta_{\text{Heuristic}} = -.07$, $SE_{\text{Heuristic}} = .0585$, 95% $CI_{\text{Heuristic}} [-.18, .05]$; $\beta_{\text{Systematic}} = -.02$, $SE_{\text{Systematic}} = .06$, 95% $CI_{\text{Systematic}} [-.14, .10]$). In the second model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M₁) and systematic processing (M₂) also showed insignificant indexes of mediation ($\beta_{\text{Heuristic}} = -.10$, $SE_{\text{Heuristic}} = .09$, 95% $CI_{\text{Heuristic}} [-.28, .08]$; $\beta_{\text{Systematic}} = -.02$, $SE_{\text{Systematic}} = .06$, 95% $CI_{\text{Systematic}} [-.14, .11]$). H2 therefore was not supported in this context. To examine whether perceived persuasiveness mediated the relationship between message type and willingness to donate private information as in the prior study, I used PROCESS Model 4 (Hayes, 2017) with message type as control or communal focus (X), willingness to donate private information (Y), and perceived persuasiveness (M). Results showed an insignificant index of mediation ($\beta_{\text{Perceived_persuasiveness}} = -.04$, $SE = .11$, 95% $CI [-.25, .19]$). A Pearson correlation coefficient was also computed to assess the linear relationship between perceived persuasiveness and willingness to donate private information. There was a positive correlation between the two variables, $r(345) = .66$, $p < .001$.

Next, I used PROCESS Model 4 (Hayes, 2017) to explore the mediating effects of perceived persuasiveness on the effect of each type of information processing on willingness to donate. In the first model, heuristic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .28$, $SE_{\text{Persuasiveness}} = .04$, 95% $CI_{\text{Persuasiveness}} [.20, .36]$) and a significant index of direct effect ($\beta_{\text{Heuristic} \rightarrow \text{Willingness}} = .53$, $SE_{\text{Persuasiveness}} = .05$, 95% $CI_{\text{Persuasiveness}} [.43, .64]$). Perceived persuasiveness partially mediated the effect of heuristic processing on willingness to donate private information for public good.

In the second model, systematic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .43$, $SE_{\text{Persuasiveness}} = .05$, 95% $CI_{\text{Persuasiveness}} [.33, .53]$) and a significant index of direct effect ($\beta_{\text{Systematic} \rightarrow \text{Willingness}} = .44$, $SE_{\text{Persuasiveness}} = .07$, 95% $CI_{\text{Persuasiveness}} [.30, .59]$). Perceived persuasiveness partially mediated the effect of systematic processing on willingness to donate private information for public good.

Gender. Two post-hoc two-way ANOVA's were conducted to examine the effects of participant's gender and its interaction with message type on perceived persuasiveness and willingness to donate private information. There was no main effect of message type ($F_{\text{Message}}(1, 338) = 2.24$, $p = .340$) and no main effect of gender ($F_{\text{Gender}}(2, 338) = 2.85$, $p = .111$) on perceived persuasiveness. There was no interaction effect of participant's gender and message type on perceived persuasiveness ($F_{\text{Message} * \text{Gender}}(1, 338) = .08$, $p = .780$).

There was also no main effect of message type ($F_{\text{Message}}(1, 338) = .22$, $p = .719$) and no main effect of gender ($F_{\text{Gender}}(2, 338) = 1.67$, $p = .369$) on willingness to donate private information. There was also no interaction effect of participant's gender and message type on willingness to donate private information ($F_{\text{Message} * \text{Gender}}(1, 338) = 2.16$, $p = .142$). This demonstrates that the perceived persuasiveness and willingness to donate private information were not driven by participant's gender or an interaction with message type.

Discussion. Results from this study showed that in the context of donation for energy efficiency improvement, people did not perceive the communal focus message for private information donation for public good more persuasive than a message without communal focus. Heuristic information processing and systematic did not mediate the effects of a communal focus message on consumer's perceived persuasiveness and on their willingness to donate private information. One of the possible reasons may be that energy usage

information is collected at the household level rather than at the individual level, and energy efficiency information is more distant to the “self” of potential donors and thus perceived as less private or sensitive. At its most basic, privacy means regulation of access to self (Altman, 1975). Information sensitivity can be defined as the extent to which individual’s feel that sharing their personal information will be harmful (Gandy, 1993). Further, the perception of information sensitivity is context dependant (Nowak & Phelps, 1992) and heavily influences to what degree something is considered a privacy concern (Sheehan & Hoy, 2000). Phelps, Nowak, and Ferrell (2000) examined the consumer’s willingness to provide information to marketers across five categories of data: lifestyle interests, media habits, personal contact information, and financial information. They found a wide range of willingness to provide this information, with consumers being most willing to provide demographic information, and least willing to provide financial information. In addition, this willingness was affected by the other factors such as the potential benefits or sharing, the amount of control provided over the information, as well as the individual consumer’s personal characteristics. Goodwin (1991) noted that even for non-deviant consumption there was a concern of judgements damaging to an individual’s self-concept that caused a hesitance to provide information. In addition, in a study conducted by Milne, Pettinico, Hajjat, and Markos (2017), medical history, DNA profile, and health insurance ID ranked 3rd, 4th, and 7th respectively amongst the 52 different information categories on consumer’s risk and sensitivity perception. Information categories such as home address and ZIP code only ranked 11th and 38th respectively in term of risk and sensitivity.

It is also possible that the sample changing between the prior study and this one affected the results. In Study 2, the sample was undergraduate students in Canada from 17 – 51 years old, 46.4% of them were Caucasians and in Study 3A it was MTurk workers who reported being 20 – 84 years old, mostly lived in the US, 80.3% of them were Caucasian.

There was a small difference in the number who failed the attention check. There were 13 participants that failed the attention check in Study 2 whereas only 3 participants failed the attention check in Study 3A. However, the results of both studies did not change when those participants were part of the final sample. In addition, the lack of a significant difference in the pretest may also suggest the difference between conditions was not large enough.

Another possible reason is the mediation effects of the proposed mediators was too small to be detected and needed a larger sample size to have sufficient power. With an effect size of $f^2 = .02$, desired statistical power level = 0.8, number of predictors = 1, and probability level 95%, the minimal required sample size is 385 whereas the actual sample size for this study was 350.

Study 3B will examine the causal link between Dual Dimensions of Communion and Agency in Social Cognition theory and Heuristic-Systematic cognition information processing theories returning to the context of medical private information donation for public good.

Study 3B

To achieve the probability level = 0.05, a Cohen's effect size $d = 0.35$, and the desired statistical power level = 0.8, I planned to recruit a sample of two hundred and sixty participants at a minimum. Twenty-eight participants did not pass attention check but their responses do not change the study results and were added to the final sample. The final sample included 301 undergraduate students (57.1% male, mean age 20 years) who participated in the study in exchange for course credit.

After signing the consent form, participants were asked to look at marketing materials regarding a private information donation program which read "Donate for Better Winnipeg Healthcare" as in the Study 2. Since the donation message did not result in a significant main

effect in Study 3A, I decided to run another study in the healthcare context to confirm the main effect of communal focus donation message that I found in Study 2 as well as to test the mediating effect of heuristic and systematic information processing. The treatment group read a donation appeal highlighting communal focus (*“Share as much, or as little, as you like and discover the value your life online can bring into other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future.”*) while the control group read a neutral donation appeal (*Contribute to our campaign today - you can become part of our of the way our community develops in the future.”*) (see Appendix C: Experimental Stimuli).

Measures

Manipulation check. To allow for an assessment of whether there were any differences in communal evaluation of the two donation messages, after responding to the two main dependent measurements, participants were again given the definition of communion and agency (Abele & Wojciszke, 2014): *“Agentic content refers to goal-achievement and task functioning (**competence, assertiveness, decisiveness**), whereas communal content refers to the maintenance of relationships and social functioning (**benevolence, trustworthiness, morality**)”*, and were asked to evaluate the degrees of Communion and Agency (*1 = Not at all to 7 = Very much*) of the donation message.

The first dependent measure was participants’ perceived persuasiveness of the donation appeal adapted from Rosaen, Dibble, and Hartmann, (2019), using a 7-point scale that features the following bipolar terms: not persuasive/persuasive, unconvincing/convincing, not effective/effective, and incoherent/coherent. This measure was presented after participants viewed the above messages, and higher scores indicate greater persuasiveness (see Appendix

B: Survey questions). This was the same measure used in Study 2 and 3A. A composite measure of all items into a perceived persuasiveness index was reliable (McDonald's $\omega = .89$).

The second dependent measurement was participants' willingness to donate their private medical information (e.g., their blood type, biometric, DNA information, see Appendix B: Survey questions), using a 7-point scale with 1 = Not at all to 7 = Very much. This was the same measure used in Study 2. A higher score indicated a higher willingness to donate private information for public good. These items were combined into a willingness to donate index (McDonald's $\omega = .90$).

The third measurement was participants' information processing. I measured heuristic and systematic information processing with the same measure as in Study 3A (Griffin et al. 2002). The McDonald's ω reliability of the heuristic processing scale was .76, and the McDonald's ω reliability of the systematic processing scale was .73. As in Study 3A, the measures of heuristic and systematic information processing were conducted after the measures of the dependent variables to avoid potential contamination. At the end of the study, participants reported their demographic information and were debriefed.

Results and Discussion

Manipulation check: The communal focus message was perceived as significantly more communal than the control message ($M_{Communal} = 4.93$, $SD_{Communal} = 1.32$; $M_{Control} = 4.54$, $SD_{Control} = 1.47$; $F(1,299)=5.99$, $p=.015$). The communal focus message was perceived as marginally more agentic than the control message ($M_{Communal} = 4.17$, $SD_{Communal} = 1.36$; $M_{Control} = 3.88$, $SD_{Control} = 1.42$; $F(1,298)=5.99$, $p=.081$).

Tests of Hypothesis. Two ANOVAs were performed to examine the hypotheses and the effects of the communal focus donation message on participants' perceived persuasiveness

and willingness to donate their private information to the Better Winnipeg Healthcare campaign. There was a significant difference between communal focus message and control message in terms of participants' perceived persuasiveness ($M_{Communal_Persuasiveness} = 4.51$, $SD_{Communal_Persuasiveness} = 1.25$; $M_{Control_Persuasiveness} = 4.02$, $SD_{Control_Persuasiveness} = 1.34$; $F(1,300) = 10.69$, $p < .001$). There was no significant difference between communal focus message and control message in term of participants' willingness to donate their private information ($M_{Communal_Willingness} = 3.52$, $SD_{Communal_Willingness} = 1.43$; $M_{Control_Willingness} = 3.31$, $SD_{Control_Willingness} = 1.57$; $F(1,298) = 1.49$, $p = .223$). There was a positive correlation between the two variables, $r(298) = .432$, $p < .001$. Hypothesis 1 was therefore partially supported.

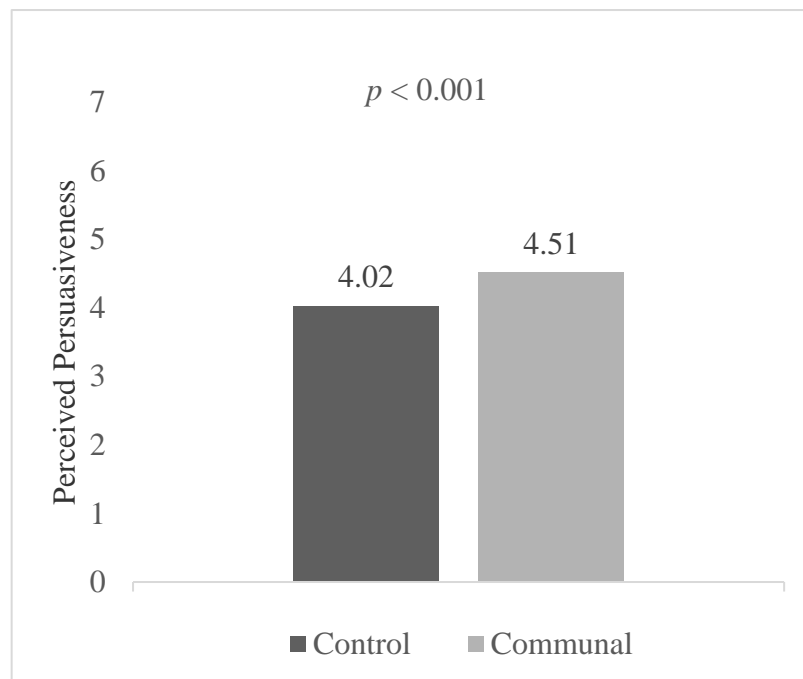


Figure 8. Consumer's Perceived Persuasiveness to Donate Private Information

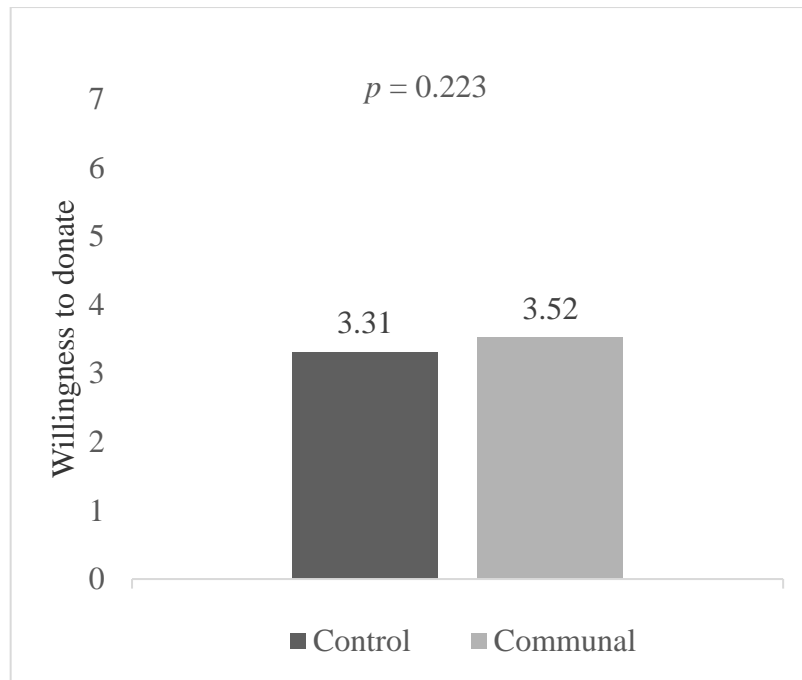


Figure 9. Consumer's Willingness to Donate Private Information

Mediation. I used PROCESS Model 4 (Hayes, 2017) to explore whether heuristic and systematic processing mediated perceived persuasiveness and willingness to donate private information. In the first model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), perceived persuasiveness (Y), heuristic processing (M_1) and systematic processing (M_2) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .07$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}} [.003, .15]$) and a non-significant index of systematic processing ($\beta_{\text{Systematic}} = .08$, $SE_{\text{Systematic}} = .05$, 95% $CI_{\text{Systematic}} [-.03, .19]$).

In the second model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M_1) and systematic processing (M_2) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .09$, $SE_{\text{Heuristic}} = .05$, 95% $CI_{\text{Heuristic}} [.01, .21]$) and an

insignificant index of systematic processing ($\beta_{\text{Systematic}} = .06$, $SE_{\text{Systematic}} = .04$, 95% $CI_{\text{Systematic}}$ [-.01, .16]).

In the third model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M_1) and systematic processing (M_2) and perceived persuasiveness (M_3) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .07$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}}$ [.002, .17]), an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .03$, $SE_{\text{Systematic}} = .03$, 95% $CI_{\text{Systematic}}$ [-.01, .10]), and a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .19$, $SE_{\text{Persuasiveness}} = .06$, 95% $CI_{\text{Persuasiveness}}$ [.07, .32]).

In the next models, I used PROCESS Model 6 (Hayes, 2017) to explore the sequential mediating effects of heuristic processing, systematic processing, and perceived persuasiveness. In the first model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), perceived persuasiveness (Y), heuristic processing (M_1) and systematic processing (M_2) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .07$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}}$ [.001, .16]), a non-significant index of systematic processing ($\beta_{\text{Systematic}} = .04$, $SE_{\text{Systematic}} = .05$, 95% $CI_{\text{Systematic}}$ [-.05, .15]), and a significant index of sequential mediation supporting the path heuristic processing \rightarrow systematic processing ($\beta_{\text{Heuristic} \rightarrow \text{Systematic}} = .03$, $SE_{\text{Heuristic} \rightarrow \text{Systematic}} = .02$, 95% $CI_{\text{Heuristic} \rightarrow \text{Systematic}}$ [.001, .08]).

In the second model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), perceived persuasiveness (Y), systematic processing (M_1) and heuristic processing (M_2) showed an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .08$, $SE_{\text{Systematic}} = .05$, 95% $CI_{\text{Systematic}}$ [-.02, .19]), an insignificant index of heuristic processing ($\beta_{\text{Heuristic}} = .05$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}}$ [-.01,

.13]), and an insignificant index of sequential systematic processing \rightarrow heuristic processing ($\beta_{\text{Systematic} \rightarrow \text{Heuristic}} = .02$, $SE_{\text{Systematic} \rightarrow \text{Heuristic}} = .01$, 95% $CI_{\text{Systematic} \rightarrow \text{Heuristic}}$ [-.004 to .04]).

In the third model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M_1) and systematic processing (M_2) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .09$, $SE_{\text{Heuristic}} = .05$, 95% $CI_{\text{Heuristic}}$ [.002 to .21]), an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .03$, $SE_{\text{Systematic}} = .04$, 95% $CI_{\text{Systematic}}$ [-.04, .12]), and a significant index of sequential heuristic processing \rightarrow systematic processing ($\beta_{\text{Heuristic} \rightarrow \text{Systematic}} = .03$, $SE_{\text{Heuristic} \rightarrow \text{Systematic}} = .02$, 95% $CI_{\text{Heuristic} \rightarrow \text{Systematic}}$ [.001, .06]).

In the fourth model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), systematic processing (M_1) and heuristic processing (M_2) showed an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .06$, $SE_{\text{Systematic}} = .04$, 95% $CI_{\text{Systematic}}$ [-.01, .16]), an insignificant index of heuristic processing ($\beta_{\text{Heuristic}} = .07$, $SE_{\text{Heuristic}} = .05$, 95% $CI_{\text{Heuristic}}$ [-.01, .18]), and an insignificant index of sequential systematic processing \rightarrow heuristic processing ($\beta_{\text{Systematic} \rightarrow \text{Heuristic}} = .02$, $SE_{\text{Systematic} \rightarrow \text{Heuristic}} = .02$, 95% $CI_{\text{Systematic} \rightarrow \text{Heuristic}}$ [-.01, .06]).

In the fifth model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M_1) and perceived persuasiveness (M_2) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .08$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}}$ [.01, .17]), a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .17$, $SE_{\text{Persuasiveness}} = .07$, 95% $CI_{\text{Persuasiveness}}$ [.05, .31]), and a significant index of sequential heuristic processing \rightarrow perceived persuasiveness ($\beta_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .04$, $SE_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .02$, 95% $CI_{\text{Heuristic} \rightarrow \text{Persuasiveness}}$ [.005, .09]).

In the sixth model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), perceived persuasiveness (M_1) and heuristic processing (M_2) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .21$, $SE_{\text{Persuasiveness}} = .07$, 95% $CI_{\text{Persuasiveness}} [.08, .36]$), an insignificant index of heuristic processing ($\beta_{\text{Heuristic}} = .04$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}} [-.04, .12]$), and a significant index of sequential perceived persuasiveness \rightarrow heuristic processing ($\beta_{\text{Persuasiveness} \rightarrow \text{Heuristic}} = .04$, $SE_{\text{Persuasiveness} \rightarrow \text{Heuristic}} = .02$, 95% $CI_{\text{Persuasiveness} \rightarrow \text{Heuristic}} [.01, .08]$).

In the seventh model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M_1), systematic processing (M_2), and perceived persuasiveness (M_3) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .07$, $SE_{\text{Heuristic}} = .04$, 95% $CI_{\text{Heuristic}} [.004, .16]$), an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .02$, $SE_{\text{Systematic}} = .02$, 95% $CI_{\text{Systematic}} [-.02, .07]$), a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .13$, $SE_{\text{Persuasiveness}} = .05$, 95% $CI_{\text{Persuasiveness}} [.04, .25]$), an insignificant index of sequential heuristic processing \rightarrow systematic processing ($\beta_{\text{Heuristic} \rightarrow \text{Systematic}} = .01$, $SE_{\text{Heuristic} \rightarrow \text{Systematic}} = .01$, 95% $CI_{\text{Heuristic} \rightarrow \text{Systematic}} [-.001, .04]$), a significant index of sequential heuristic processing \rightarrow perceived persuasiveness ($\beta_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .03$, $SE_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .02$, 95% $CI_{\text{Heuristic} \rightarrow \text{Persuasiveness}} [.001, .06]$), an insignificant index of sequential systematic processing \rightarrow perceived persuasiveness ($\beta_{\text{Systematic} \rightarrow \text{Persuasiveness}} = .02$, $SE_{\text{Systematic} \rightarrow \text{Persuasiveness}} = .02$, 95% $CI_{\text{Systematic} \rightarrow \text{Persuasiveness}} [-.02, .06]$), and a significant index of sequential heuristic processing \rightarrow systematic processing \rightarrow perceived persuasiveness ($\beta_{\text{Heuristic} \rightarrow \text{Systematic} \rightarrow \text{Persuasiveness}} = .01$, $SE_{\text{Heuristic} \rightarrow \text{Systematic} \rightarrow \text{Persuasiveness}} = .01$, 95% $CI_{\text{Heuristic} \rightarrow \text{Systematic} \rightarrow \text{Persuasiveness}} [.001, .03]$).

In the eighth model, communal focus of the message (i.e., binary variable: Yes (communal focus condition) = 1, No (control condition) = 0) (X), willingness to donate (Y), heuristic processing (M₁), systematic processing (M₂) (M₁ and M₂ parallel), and perceived persuasiveness (M₃) (M₃ was sequential after M₁ and M₂) showed a significant index of heuristic processing ($\beta_{\text{Heuristic}} = .24, SE_{\text{Heuristic}} = .12, 95\% CI_{\text{Heuristic}} [.02, .47]$), an insignificant index of systematic processing ($\beta_{\text{Systematic}} = .17, SE_{\text{Systematic}} = .11, 95\% CI_{\text{Systematic}} [-.05, .39]$), a significant index of sequential heuristic processing \rightarrow perceived persuasiveness ($\beta_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .30, SE_{\text{Heuristic} \rightarrow \text{Persuasiveness}} = .07, 95\% CI_{\text{Heuristic} \rightarrow \text{Persuasiveness}} [.16, .44]$), a significant index of sequential systematic processing \rightarrow perceived persuasiveness ($\beta_{\text{Systematic} \rightarrow \text{Persuasiveness}} = .46, SE_{\text{Systematic} \rightarrow \text{Persuasiveness}} = .07, 95\% CI_{\text{Systematic} \rightarrow \text{Persuasiveness}} [.32, .60]$), and a significant index of sequential perceived persuasiveness \rightarrow willingness to donate ($\beta_{\text{Persuasiveness} \rightarrow \text{Donate}} = .49, SE_{\text{Persuasiveness} \rightarrow \text{Donate}} = .06, 95\% CI_{\text{Persuasiveness} \rightarrow \text{Donate}} [.38, .61]$).

Next, I used PROCESS Model 4 (Hayes, 2017) to explore the mediating effects of perceived persuasiveness on the effect of each type of information processing on willingness to donate. In the first model, heuristic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .18, SE_{\text{Persuasiveness}} = .04, 95\% CI_{\text{Persuasiveness}} [.11, .27]$) and a significant index of direct effect ($\beta_{\text{Heuristic} \rightarrow \text{Willingness}} = .31, SE_{\text{Heuristic} \rightarrow \text{Willingness}} = .08, 95\% CI_{\text{Heuristic} \rightarrow \text{Willingness}} [.15, .47]$). Perceived persuasiveness partially mediated the effect of heuristic processing on willingness to donate private information for public good.

In the second model, systematic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .23, SE_{\text{Persuasiveness}} = .04, 95\% CI_{\text{Persuasiveness}} [.15, .32]$) and a significant index of direct effect ($\beta_{\text{Systematic} \rightarrow \text{Willingness}} = .24, SE_{\text{Systematic} \rightarrow \text{Willingness}} = .09, 95\% CI_{\text{Systematic} \rightarrow \text{Willingness}} [.07, .41]$). Perceived

persuasiveness partially mediated the effect of systematic processing on willingness to donate private information for public good. Table 2 below summarizes the results of the mediation analyses.

IV	DV	Mediator	Hayes Model Number	Mediation Path Significance
communal focus	perceived persuasiveness	heuristic processing	4	Yes
		systematic processing		No
communal focus	willingness to donate	heuristic processing	4	Yes
		systematic processing		No
communal focus	willingness to donate	heuristic processing	4	Yes
		systematic processing		No
		perceived persuasiveness		Yes
communal focus	perceived persuasiveness	heuristic processing → systematic processing	6	Yes
communal focus	perceived persuasiveness	systematic processing → heuristic processing	6	No
communal focus	willingness to donate	heuristic processing → systematic processing	6	Yes
communal focus	willingness to donate	systematic processing → heuristic processing	6	No

communal focus	willingness to donate	heuristic processing → perceived persuasiveness	6	Yes
communal focus	willingness to donate	perceived persuasiveness → heuristic processing	6	Yes
communal focus	willingness to donate	heuristic processing → systematic processing → perceived persuasiveness	6	Yes
communal focus	willingness to donate	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="text-align: center;">heuristic processing</div> <div style="text-align: center;">↓</div> <div style="text-align: center;">perceived persuasiveness</div> <div style="text-align: center;">↑</div> <div style="text-align: center;">systematic processing</div> </div>	customized	Yes No
heuristic processing	willingness to donate	perceived persuasiveness	4	Yes
systematic processing	willingness to donate	perceived persuasiveness	4	Yes

Table 2. Summary of Study 3B Mediation Analysis

In summary, the results of the above models consistently show a significant mediating effect of heuristic processing on perceived persuasiveness and willingness to donate private information for public good in support of H2.

Gender. Two post-hoc two-way ANOVA's were conducted to examine the effects of participant's gender and its interaction with message type on perceived persuasiveness and willingness to donate private information. There was a main effect of message type ($F_{Message}(1, 229) = 12.95, p < .001$) but no main effect of gender ($F_{Gender}(3, 299) = 2.01, p = .112$) on perceived persuasiveness. There was no interaction effect of participant's gender and message type on perceived persuasiveness ($F_{Message*Gender}(1, 229) = .21, p = .644$).

There was no main effect of message type ($F_{Message}(1, 298) = 2.03, p = .155$) but a main effect of gender ($F_{Gender}(3, 298) = 6.77, p < .001$) on willingness to donate private information. There was no interaction effect of participant's gender and message type on willingness to donate private information ($F_{Message*Gender}(1, 298) = .54, p = .464$). This demonstrates that willingness to donate might be affected by participant's gender but the perceived persuasiveness and willingness to donate private information were not driven by an interaction between participant's gender and message type.

Results from this study showed that in the context of donation for healthcare improvement, people perceived the communal focus message for private information donation for public good more persuasive than a message without communal focus. Heuristic information processing mediated the effects of communal focus of the message on consumer's perceived persuasiveness and on their willingness to donate private information. The next study will directly examine the moderating effects of context (e.g. health care and

energy efficiency) and other factors on the effect of communal focus on consumer's perceived persuasiveness and willingness to donate their private information for public good.

CHAPTER 6

STUDY 4

In Study 3A and 3B, I find indirect evidence from two experiments for the moderating effect of context (energy efficiency vs. healthcare) on consumer's perceived persuasiveness and willingness to donate their private information donation for public goods. I conducted Study 4 to demonstrate the effects of context (energy efficiency vs. healthcare) on the main effect of communal focus appeals on consumer's perceived persuasiveness and willingness to donate private information for public good in an experiment setting. The stimuli for this study were communal focus appeals for the energy efficiency context (Study 3A) and for the healthcare context (Study 3B).

To achieve the probability level = 0.05, the effect size $d = 0.35$, and the desired statistical power level = 0.8, I planned to recruit a sample of two hundred and sixty participants at a minimum. Thirteen participants failed the attention check of context at the end of the study but their responses do not change the study results and were added to the final sample. The final sample included 308 Prolific participants (31.3% male, mean age 38 years) who participated in the study for nominal compensation.

After signing the consent form, participants were asked to look at marketing materials regarding a private information donation program. Participants were assigned randomly to read a communal focus donation appeal in energy efficiency context (*"Share as much, or as little, as you like and discover the value your energy consumption can bring to other people in the world. Contribute to our campaign today - you can become part of the way our community develop in the future."*) or a communal focus donation appeal in healthcare context (*"Share as much, or as little, as you like and discover the value your medical information can bring to other people in the world. Contribute to our campaign today - you*

can become part of the way our community develop in the future.”) (see Appendix C: Experimental Stimuli).

Measures

Manipulation check. To allow for assessment of whether there were any differences in communal and agentic evaluations of the two donation messages, after responding to the two main dependent measurements, participants were again given the same definition of communion and agency from prior studies (Abele & Wojciszke, 2014): “*Agentic content refers to goal-achievement and task functioning (competence, assertiveness, decisiveness), whereas communal content refers to the maintenance of relationships and social functioning (benevolence, trustworthiness, morality)*”, and were asked to evaluate the degrees of communion and agency (*1 = Not at all to 7 = Very much*) of the donation message they read at the beginning of the study.

The first dependent measure was participants’ perceived persuasiveness of the donation appeal adapted from Rosaen, Dibble, and Hartmann, (2019), using a 7-point scale that features the same terms from prior studies: not persuasive/persuasive, unconvincing/convincing, not effective/effective, and incoherent/coherent. This measure was presented after participants viewed the above messages, and higher scores indicate greater persuasiveness (see Appendix B: Survey questions) as in prior studies. A composite measure of all items into a perceived persuasiveness index was reliable (McDonald’s $\omega = .91$).

The second dependent measure was participants’ willingness to donate their private information (see Appendix B: Survey questions), using a 7-point scale with *1 = Not at all to 7 = Very much*. A higher score indicated a higher willingness to donate private information for public good.

The third dependent measure was participants' information processing as used in prior studies. The heuristic and systematic information processing was measured with the same established scale from Griffin, Neuwirth, Giese and Dunwoody (2002) as in Study 3A and Study 3B. The first four items were combined into a heuristic processing index (McDonald's $\omega = .77$) and the next five items were combined into a systematic processing index (McDonald's $\omega = .72$).

The fourth measure was participant's perception on how private the information in the donation domain was (see Appendix B: Survey questions) measured on one item, using a 7-point scale with 1 = *Not at all* to 7 = *Very much*. A higher score indicated a higher perceived privacy of the information.

The measurements of heuristic information processing, systematic information processing, and perceived privacy were conducted after the dependent measurements to separate the main effect from any possible direct effect of the proposed mediating variables and covariates on the dependent variable. At the end of the study, participants reported their demographic information and were debriefed.

Results and Discussion

Manipulation check. The communal focus donation message in an energy efficiency context was perceived as marginally more communal than the communal focus donation message in the health care context ($M_{Energy} = 5.06$, $SD_{Energy} = 1.43$; $M_{Healthcare} = 4.75$, $SD_{Healthcare} = 1.55$; $F(1,299)=3.29$, $p=.071$). There was no significant difference in term of agentic evaluation between the two messages ($M_{Energy} = 3.78$, $SD_{Energy} = 1.63$; $M_{Healthcare} = 3.82$, $SD_{Healthcare} = 1.56$; $F(1,300) = .04$, $p=.840$). Two paired samples t-Test's showed that in both contexts, the communal level of the messages was higher than the agentic level of the

messages ($M_{Communal_Energy} = 5.06$; $SD_{Communal_Energy} = 1.43$; $M_{Agentic_Energy} = 3.80$; $SD_{Agentic_Energy} = 1.63$; $p < .001$; $M_{Communal_Healthcare} = 4.75$; $SD_{Communal_Healthcare} = 1.55$; $M_{Agentic_Healthcare} = 3.78$; $SD_{Agentic_Healthcare} = 1.56$; $p < .001$).

Tests of Hypothesis. Two one-way ANOVAs were performed to examine the effects of the communal focus donation message on participants' perceived persuasiveness and willingness to donate their private information to the randomly assigned donation campaign context (energy efficiency vs. healthcare). There was no significant difference between the energy efficiency and the healthcare context in term of participants' perceived persuasiveness ($M_{Energy_Persuasiveness} = 4.00$, $SD_{Energy_Persuasiveness} = 1.56$; $M_{Healthcare_Persuasiveness} = 4.10$, $SD_{Healthcare_Persuasiveness} = 1.35$; $F(1,305) = .33$, $p = .565$). There was no significant difference between the energy efficiency and the healthcare context in term of participants' willingness to donate their private information ($M_{Energy_Willingness} = 3.10$, $SD_{Energy_Willingness} = 1.69$; $M_{Healthcare_Willingness} = 3.05$, $SD_{Healthcare_Willingness} = 1.64$; $F(1,304) = .06$, $p = .810$).

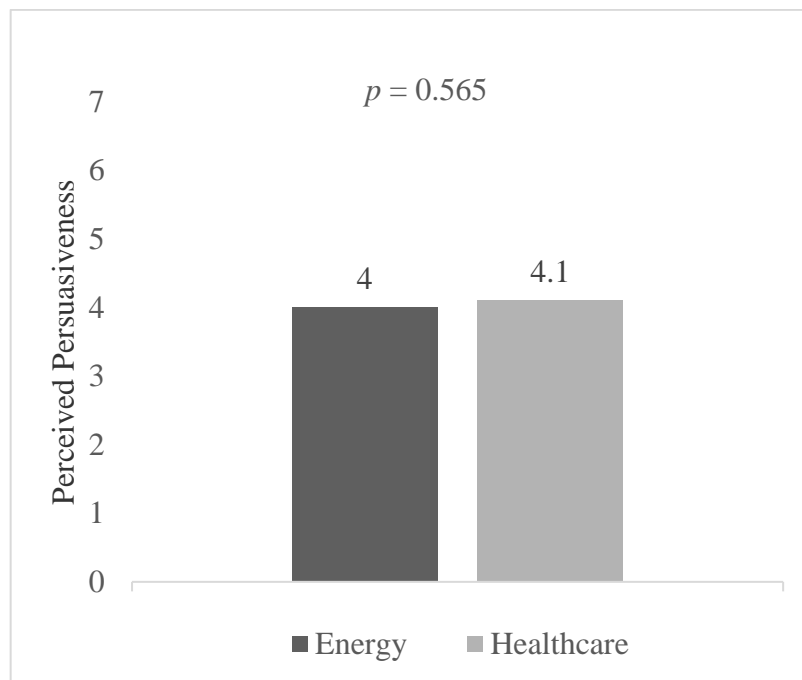


Figure 10. Consumer's Perceived Persuasiveness to Donate Private Information

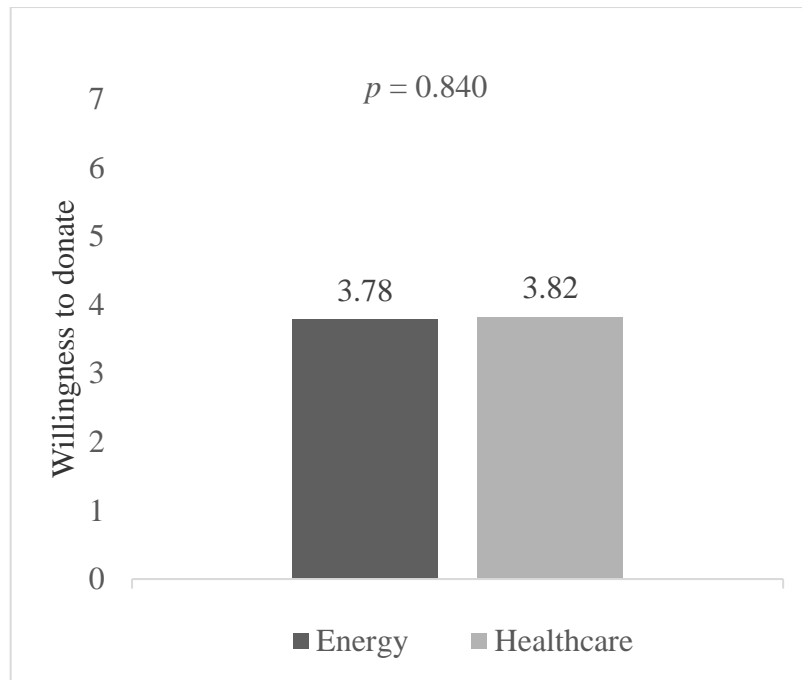


Figure 11. Consumer's Willingness to Donate Private Information

Mediation. I ran two ANOVA's to explore the effects of donation context on heuristic and systematic information processing. The energy efficiency message was processed significantly more heuristically than the healthcare message ($M_{Energy} = 3.36$, $SD_{Energy} = 1.09$; $M_{Healthcare} = 3.13$, $SD_{Healthcare} = .93$; $F(1,303) = 4.21$, $p = .041$.) There was no significant difference in term of systematic processing between the two examined contexts ($M_{Energy_Persuasiveness} = 4.60$, $SD_{Energy_Persuasiveness} = .90$; $M_{Healthcare_Persuasiveness} = 4.50$, $SD_{Healthcare_Persuasiveness} = .99$; $F(1,303) = .90$, $p = .343$).

I used PROCESS Model 4 (Hayes, 2017) to explore the mediating effects of perceived persuasiveness on the effect of each type of information processing on willingness to donate. In the first model, heuristic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{Persuasiveness} = .19$, $SE_{Persuasiveness} = .07$, 95% $CI_{Persuasiveness} [.06, .33]$) and an insignificant index of direct effect ($\beta_{Heuristic \rightarrow Willingness} = .08$, $SE_{Persuasiveness} = .07$, 95% $CI_{Persuasiveness} [-.06, .21]$). Perceived

persuasiveness mediated the effect of heuristic processing on willingness to donate private information for public good.

In the second model, systematic processing (X), willingness to donate (Y), perceived persuasiveness (M) showed a significant index of perceived persuasiveness ($\beta_{\text{Persuasiveness}} = .35$, $SE_{\text{Persuasiveness}} = .07$, 95% $CI_{\text{Persuasiveness}} [.22, .49]$) and a significant index of direct effect ($\beta_{\text{Systematic} \rightarrow \text{Willingness}} = .16$, $SE_{\text{Persuasiveness}} = .07$, 95% $CI_{\text{Persuasiveness}} [.02, .31]$). Perceived persuasiveness partially mediated the effect of systematic processing on willingness to donate private information for public good. These results replicated the findings in Study 3A and 3B.

Next, I examined the effects of heuristic, systematic information processing, context and perceived privacy on consumer's perceived persuasiveness and willingness to donate using linear regressions. The first multiple linear regression was used to test if heuristic information processing and systematic information processing significantly predicted perceived persuasiveness. The fitted regression model was: Perceived persuasiveness = 1.05 + .47*(Systematic) + .27*(Heuristic). The overall regression was statistically significant ($R^2 = 0.12$, $F(2, 302) = 20.24$, $p < .001$). It was found that systematic information processing ($\beta = .47$, $p < .001$) and heuristic information processing ($\beta = .27$, $p < .001$) significantly predicted perceived persuasiveness.

The second multiple linear regression was used to test if heuristic information processing, systematic information processing, and perceived privacy significantly predicted perceived persuasiveness. The fitted regression model was: Perceived persuasiveness = .69 + .42*(Systematic) + .22*(Heuristic) + .20*(Perceived privacy). The overall regression was statistically significant ($R^2 = 0.16$, $F(3, 299) = 19.07$, $p < .001$). It was found that systematic information processing ($\beta = .42$, $p < .001$), heuristic information processing ($\beta = .22$, $p = .005$), and perceived privacy ($\beta = .20$, $p < .001$) significantly predicted perceived persuasiveness.

The third multiple linear regression was used to test if heuristic information processing, systematic information processing, perceived privacy, and context (dummy variable for donation context with 0 = Energy efficiency and 1 = Healthcare) significantly predicted perceived persuasiveness. The fitted regression model was: Perceived persuasiveness = .45 + .43*(Systematic) + .24*(Heuristic) + .21*(Perceived privacy) + .27*(Context). The overall regression was statistically significant ($R^2 = .17$, $F(4, 299) = 15.11$, $p < .001$). It was found that systematic information processing ($\beta = .43$, $p < .001$), heuristic information processing ($\beta = .24$, $p = .003$), and perceived privacy ($\beta = .21$, $p < .001$) significantly predicted perceived persuasiveness; context ($\beta = .27$, $p = .090$) marginally predicted perceived persuasiveness.

The fourth multiple linear regression was used to test if heuristic information processing and systematic information processing significantly predicted willingness to donate. The fitted regression model was: Willing to donate = -.34 + .54*(Systematic) + .30*(Heuristic). The overall regression was statistically significant ($R^2 = 0.12$, $F(2, 301) = 20.16$, $p < .001$). It was found that systematic information processing ($\beta = .54$, $p < .001$) and heuristic information processing ($\beta = .30$, $p < .001$) significantly predicted willingness to donate.

The fifth multiple linear regression was used to test if heuristic information processing, systematic information processing, and perceived privacy significantly predicted willingness to donate. The fitted regression model was: Willingness to donate = -.87 + .46*(Systematic) + .23*(Heuristic) + .31*(Perceived privacy). The overall regression was statistically significant ($R^2 = 0.20$, $F(3, 298) = 24.18$, $p < .001$). It was found that systematic information processing ($\beta = .46$, $p < .001$), heuristic information processing ($\beta = .23$, $p = .011$), and perceived privacy ($\beta = .31$, $p < .001$) significantly predicted willingness to donate.

The sixth multiple linear regression was used to test if heuristic information processing, systematic information processing, perceived privacy, and context (dummy variable for

donation context with 0 = Energy efficiency and 1 = Healthcare) significantly predicted willingness to donate. The fitted regression model was: Willingness to donate = $-.98 + .47*(\text{Systematic}) + .23*(\text{Heuristic}) + .32*(\text{Perceived privacy}) + .12*(\text{Context})$. The overall regression was statistically significant ($R^2 = 0.20$, $F(4, 298) = 18.22$, $p < .001$). It was found that systematic information processing ($\beta = .47$, $p < .001$), heuristic information processing ($\beta = .23$, $p = .009$), and perceived privacy ($\beta = .32$, $p < .001$) significantly predicted perceived persuasiveness; context ($\beta = .12$, $p = .491$) did not significantly predict willingness to donate.

Study 4 provided some evidence for the effect of donation context on consumer's perceived persuasiveness, but not on willingness to donate private information for public good. One possible explanation was the participants in the sample were mostly European and they had high levels of privacy concerns that affected their judgment of the donation appeals and decision to donate their information.

In addition, the study provided evidence for the positive relationship of perceived privacy, perceived persuasiveness and willingness to donate private information using linear models. It also provided additional evidence for my underlying propositions. Specifically, I found that in all models, systematic information processing and heuristic information processing had significant positive effects on the dependent variables of perceived persuasiveness, and willingness to donate private information for public good. Perceived persuasiveness also mediated the effect of heuristic and systematic information processing on willingness to donate private information for public good. The concern of information privacy might affect consumer's systematic and heuristic information processing of the donation message.

CHAPTER 7

GENERAL DISCUSSION AND CONTRIBUTIONS

Previous research has examined how normative and informative influences affect people's behaviors (Burnkrant & Cousineau, 1975; Godbold & Pfau, 2000; Schultz, Khazian, & Zaleski, 2008; Goldstein et al., 2008; Kim, Lee, & Hur, 2012; Lapinski, Anderson, Shugart, & Todd, 2014; Stöckli et al., 2018). My dissertation investigated communal focus in a normative influence persuasion tactic in the context of consumer's private information donation for public good. Study 1 provided the first empirical evidence of real-life usage of the agency and communion in private data donation soliciting contexts. The web content analysis in Study 1 provided some important insights for this research. The results demonstrate that agency and communion constructs are indeed commonly used in the natural language of private data donation persuasion. Moreover, organizations that collect private data from consumers for public good have been using communal focus messages more often than agentic content. These results are shown by content analysis via two coding methods (i.e., human intelligence) and text-analysis (i.e., artificial intelligence) These insights also indicate the potential of this dissertation findings to real-world private information donation soliciting practices. The actual messages collected for Study 1 were also the realistic materials used to design experimental stimuli for later studies of this dissertation.

Study 2 provided the first demonstration of the direct positive effects of communal focus appeals on consumer's perceived persuasiveness and willingness to donate private information for public good in a controlled laboratory setting. In the context of healthcare, compared to a control message, a communal focus donation message created significantly higher perceived persuasiveness and willingness to donate private information for public good in participants. The analysis showed that perceived persuasiveness significantly mediated the effect of communal focus message on willingness to donate private information. I further examined the role of gender and the interaction of gender and message type (communal focus vs. control) in consumer's

perceived persuasiveness and willingness to donate their private information. Although there was a marginally significant main effect of message type, there was no main effect of gender or the interaction effect of participant's gender and message type on the two examined dependent variables. This provided extra evidence that participant's high perceived persuasiveness and high willingness to donate private information were driven by the communal focus message, not by gender or an interaction of gender with message type. Results from this study supported Hypothesis 1 whereby a consumer who read the communal focus donation message perceived it as more persuasive and was more willing to donate their private information for public good after reading the message. Further, perceived persuasiveness mediated willingness to donate private information. In studies 3A and 3B, I directly examined my proposed mediating effect of heuristic information cognition processing in an experimental setting.

The goal of studies 3A and 3B was to confirm the main effect of communal focus messages on consumers' perceived persuasiveness and willingness to donate private information for public good as found in study 2 and to examine the underlying hypothesized mechanism of heuristic information processing. I used two different donation contexts of energy efficiency (Study 3A) and healthcare (Study 3B) in an attempt to increase the generalizability of the dissertation findings. In Study 3A, a communal focus message did not create a significant difference in participant's perceived persuasiveness and willingness to donate their private information to the fictional Better Energy Efficiency campaign. Hypothesis 1 therefore was not supported in the context of energy efficiency. Mediation analysis utilizing PROCESS Model 4 (Hayes, 2017) also showed that heuristic and systematic processing did not mediate perceived persuasiveness or willingness to donate private information. H2 therefore was not supported in this context. A mediation analysis was also performed to test the mediating effect of perceived persuasiveness on willingness to donate private information, following the data analysis procedures in Study 2. Results showed that perceived persuasiveness did not mediate willingness to donate private information. I also examined the role of gender and the

interaction of gender and message type on the two interested dependent variables. Once again, there was no main effect of gender or interaction effect of participant's gender and message type on the two examined dependent variables. There was also no main effect of message type on perceived persuasiveness or willingness to donate in the context of energy efficiency.

From the Study 3A results, in the context of energy efficiency, communal focus messages did not significantly create a positive effect on people's perceived persuasiveness and willingness to donate compared to a neutral donation message. Potential reasons for this finding might be that energy efficiency information is collected at the household level, not at the individual level. The information therefore might be perceived as less private and sensitive to the audience of the donation message. This was supported by Milne et al., (2017) study where medical history, DNA profile, and health insurance ID ranked 3rd, 4th, and 7th on consumer's risk and sensitivity information while home address and ZIP code only ranked 11th and 38th. Heuristic information processing and systematic did not mediate the effects of communal focus of the message on consumer's perceived persuasiveness and on their willingness to donate private information in this context. Perhaps a stronger manipulation might show effects in an energy efficiency context.

It is also important to note that there were differences in study results due to data quality from different sources. Study 2 and 3B collected the data from an undergraduate student sample from a Canadian university, Study 3A utilized the MTurk participants mostly from the US and Study 4 was conducted on Prolific with the participants mostly from Europe. There was also a difference in the number who failed the manipulation check. There were 13 participants that failed the attention check in Study 2 whereas only 3 participants failed the attention check in Study 3A. However, the results of both studies did not change when those participants were added to the sample sizes.

In Study 2, the sample was undergraduate students in Canada from 17 – 51 years old, 46.4% of them were Caucasian and in Study 3A the sample was MTurk workers from 20 – 84 years old, mostly lived in the US, 80.3% of them were Caucasian. The difference in residence might affect participants' attitudes and beliefs in energy efficiency. In a study by Hutton, Mauser, Filiatrault, and Ahtola (1986), continuous cost-related feedback called Energy Cost Indicator (ECI) was provided to Canadian and American consumers to test its effects on reductions of household electricity and gas use. In addition, information regarding energy conservation was provided to research participants. The results showed that behaviour change was observed in the Canadian consumers, but not in the American consumers. The authors also showed that in Canada, awareness of energy issues was higher than in the US. This may play a role in the differences seen across the various studies in my dissertation.

Because Study 3A did not show the proposed main and mediating effects when I changed the donation context to energy efficiency, I decided to return to the context of medical private information donation for public good in Study 3B to replicate the main effect I found in Study 2 as well as to examine my hypotheses. Furthermore, I also recruited participants with similar demographics to participants in Study 3B to confirm the Study 2 findings. Results from Study 3B replicated what I found in Study 2. In the context of private medical information donation, a communal focus message was perceived significantly more persuasive than a neutral message. Mediation analysis following Hayes (2017) also confirmed that the heuristic information processing mediated the effects of communal focus of the message on consumer's perceived persuasiveness and on their willingness to donate private information. Two post-hoc two-way ANOVA's were once again conducted to examine the effects of participant's gender and its interaction with message type on perceived persuasiveness and willingness to donate private information. For the first dependent variable of perceived persuasiveness, there was a main effect of message type but no main effect of

gender on perceived persuasiveness. There was no interaction effect of participant's gender and message type on perceived persuasiveness. For the second dependent variable of willingness to donate private information for public good, there was no main effect of message type but there was a main effect of gender on willingness to donate private information. There was no interaction effect of participant's gender and message type on willingness to donate private information. From this, I conclude that willingness to donate might be affected by participant's gender but the perceived persuasiveness and willingness to donate private information were not driven by an interaction between participant's gender and message type.

Because of the differences in the results of Study 3A and Study 3B when donation messages were tested in the two difference contexts of healthcare and energy efficiency, in Study 4 I directly examined the effects of context (e.g. health care and energy efficiency) and perceived privacy of the donating information on the effect of communal focus on consumer's perceived persuasiveness and willingness to donate their private information for public good. Results showed that there was no significant difference between the energy efficiency and the healthcare context in term of participants' perceived persuasiveness. There was also no significant difference between the energy efficiency and the healthcare context in term of participants' willingness to donate their private information. However, the effects of heuristic information processing and systematic information processing on willingness to donate were both respectively mediated by perceived persuasiveness.

In addition, multiple simple linear regressions with heuristic information processing, systematic information processing, perceived privacy, and context were conducted to explore the effects of these independent variables on the two interested dependent variables: perceived persuasiveness and willingness to donate private information for public good.

Results showed a marginal effect of context on perceived persuasiveness, but not on willingness to donate private information. A possible explanation was that the participants in the sample size were mostly Europeans, and they may have different level of privacy concern. This in turn determined their evaluation of the donation appeals and decision to donate their information. Study 4 also provided the evidence for the positive relationship of perceived privacy, perceived persuasiveness and willingness to donate private information using linear models. It also provided additional evidence for my underlying propositions related to information processing. Specifically, I found that in all models, systematic and heuristic information processing had significant and positive effects on the dependent variables of perceived persuasiveness, and willingness to donate private information for public good. Information privacy concerns effected consumer's systematic and heuristic information processing of the donation message.

In Study 4 due to the time and sample size constraints, I did not test two additional control messages in energy efficiency and healthcare contexts. This would have allowed a more fulsome investigation of the moderating role of context in this dissertation. Another possible explanation for the insignificant effects in the study was in the energy setting, people may use a high degree of heuristic processing, regardless of whether the message was communal focus or control. However, in the healthcare setting, people may use a higher degree of heuristic processing when reading the communal focus message, and a lower degree of heuristic processing when reading the control message. Also, heuristic processing could be slightly lower in the healthcare-communal focus condition than in the energy-communal focus condition. There would be no effect of communal focus or setting (healthcare vs. energy) on systematic processing. Regarding perceived persuasiveness, my prediction is participants will perceive a high level of persuasiveness in the healthcare-communal focus condition, energy-communal focus condition, and energy-control condition

(through high heuristic processing). However, participants will perceive a low level of persuasiveness in the healthcare-control condition (through low heuristic processing). As a result, participants will have high willingness to donate private information in the healthcare-communal focus condition, energy-communal focus condition, and energy-control condition. However, participants will have a low willingness to donate private information in healthcare-control condition (through low heuristic processing). In addition, I predict that participants will have high privacy concerns in the healthcare-control condition, but low privacy concerns in the other conditions. In future studies I am going to test all four conditions in a 2 (communal focus vs. control message) x 2 (energy efficiency vs. healthcare context) to examine the overall conceptual framework as follows.

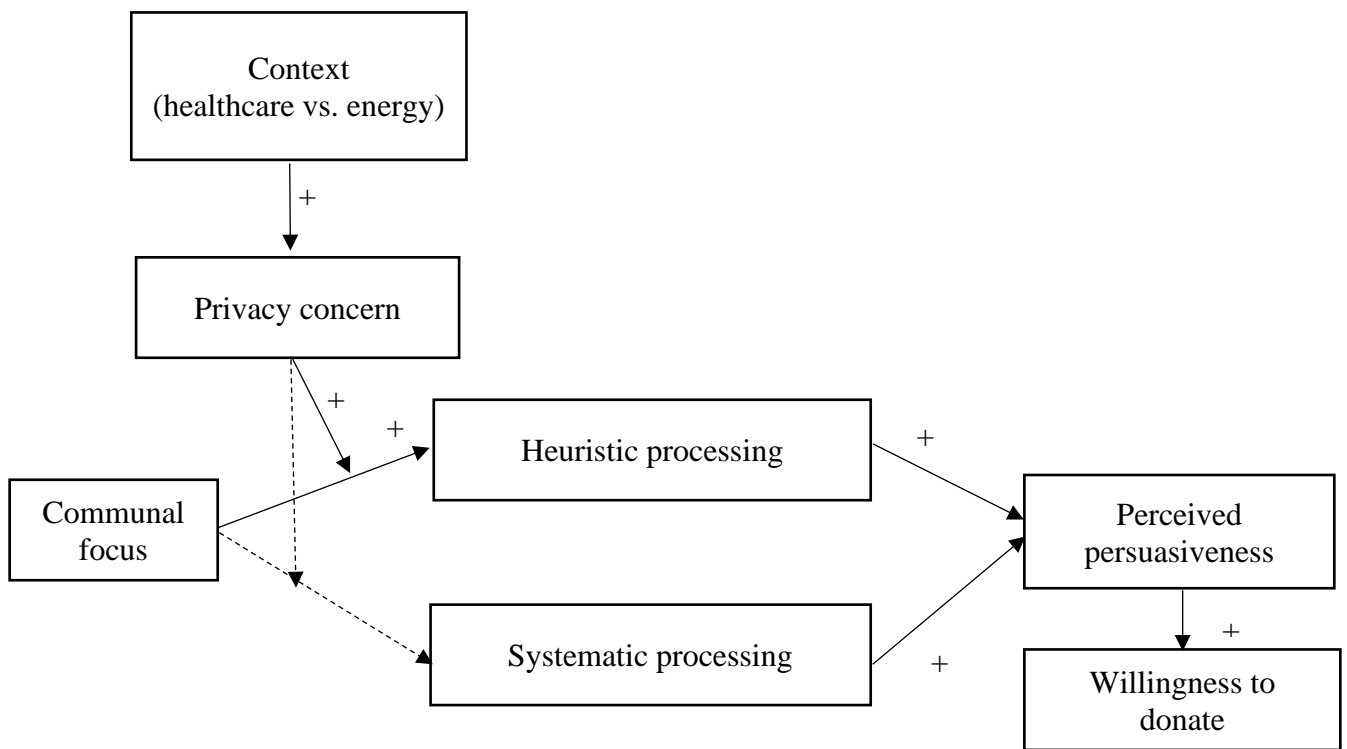


Figure 12. Overall Theoretical Model

As I used online participants from Amazon’s MTurk and Prolific for Study 3A and Study 4, it is important to note that there are some concerns about the quality of data from crowdsourcing participants. One amongst these is whether those online crowdsourcing participants were

attentive or doing other activities while taking the survey. Attention checks have been shown as a good way to mitigate that concern (Chandler, Mueller, & Paolacci, 2014; Huang, Bowling, Liu, & Li, 2015), which is why I have included them in all studies. In all studies, the data analysis was conducted for the whole sample as well as the sample with participants failing the attention check excluded. For all of the studies, the results from both sample sizes provided the same patterns and significance. Based on that and to be comprehensive, results are reported with all participants included.

The results of this research will enrich the literature in the areas of privacy, donation and consumer behavior. The findings of my dissertation will extend the theory of dual dimensions of social cognition and the sequential heuristic-systematic information processing into the context of persuasion for an increasing but yet under examined prosocial behavior. I build on the theory by explaining the relationship between communal focus and perceived persuasiveness through heuristic information processing. Specifically, this interdisciplinary approach demonstrates that the dual dimensions theory, from the social cognition literature, and the normative-informative influences from the persuasion literature, can and should be applied to the context of healthcare private information donation for public good. The research provides a richer understanding of the theory and defines a new mechanism for donation behaviour. This is a contribution to the persuasion and donation literature as it deepens our understanding of the many complex motivators that exist for a new form of prosocial behaviour, private information donation behaviour. Literature on donation and charitable giving has well examined the mechanisms for monetary, time, in-kind, blood, body part, egg, embryo, or sperm donations, yet there is a lack of research in the novel area of private information donation. This was the gap in our literature to which my dissertation provided an answer.

The outcomes of this research will also have managerial and consumer implications. Insights into the roles of cognition information process allow staff at non-profit organizations to create more persuasive and effective messages to call for consumers' private information

donation for public good, especially in the context of healthcare. This research demonstrates that a communal focus message will trigger more heuristic, faster, and less effortful information processing, therefore the donation message will be perceived as more convincing to prospective donors. The research also provides the knowledge on how the different types of information processing can be activated due to the consumer's perceived privacy of the donating information. Creating more opportunities to build the organization's credibility and to reduce consumer's concerns about information privacy would benefit the organization in collecting private information from this consumer group and providing donors with assurances to address their specific concerns. The creation of trust will connect the donor not only to the specific public good but also to the private information collecting organizations. Since many of those organizations in real life collect private information for longitudinal research or collect private information for a variety of domains and public purposes, they can create long lasting support from the donors of the organization as they continue to donate their updated private information.

Lastly, and in my opinion, most importantly, this research shows that private information donation can be a medium to express individuals' philanthropic self and to practise their prosocial behaviors, over and above other more common forms of donation, such as money, tangible goods, time, blood, and body parts. From the existing literature, we know that these forms of donation have different meanings to the donors, the charity organizations, as well as the prosocial act observers. A deeper understanding of how private information donation is and can be used towards consumer's prosocial behaviour allows organizations to harness the benefits of this type of giving while working more sensitively and effectively with the donors. This research also helps the consumer in understanding how organizations collecting consumer's private information for public good and the creation of communal focus donation messages could aid them in the information processing and decision making to donate their private information. The importance of understanding of how to motivate private information donating for public good also sparks numerous additional questions. If a communal focus donation message is effective in

persuading consumers to donate their private information for public good in a healthcare context, then what are the effective ways to persuade consumers to donate their private information for public good in other domains, such as energy efficiency, traffic optimization, or debt management? Would these be answered by what we know about persuasion and prosocial behaviour or could there be something more needed to be understood in the motivation related to attachment theory and the need to attach the donation to the public good in some meaningful way to the individual (Schervish 1997; Jeong & Liu, 2010)?

Limitations & Opportunities for Future Research

Private information donation strategies are a new and underexplored topic. The persuasion literature shows that multiple principles of influence, including scarcity, authority, social proof, sympathy, reciprocity, consistency, and unity can be used individually or in combination for persuasion (Cialdini, 1984; 2009; 2016). The applications of the communal focus message in private information donation can be considered as a combination of social proof, consistency, and unity principles, which have shown their effectiveness in the context of healthcare. This research did not show a positive effect of communal focus donation message on interested outcomes in an energy efficiency context and others were not examined (e.g., traffic optimization, debt management). It is worth investigating the applications of other principles of influence in other contexts.

In addition, a person's culture may affect how the use of principles of influence, a dimension of social cognition, is perceived or promoted, which may affect the perceived persuasiveness, and in turn may affect the decision to donate their private information for public good (Cialdini, Wosinska, Barrett, Butner, & Gornik-Durose, 1999). Lastly, both informative and normative influences are considered direct persuasion (Steele & Ostrom, 1974; Sundie, Cialdin, Griskevicius & Kenrick, 2012; Aronson, 1999). However, there is literature that indicates marketers can also use an indirect persuasion approach (Snyder, 1945). Non-directive and

directive approaches first were discussed in the fields of psychotherapy and counseling (Snyder, 1945). In the directive method, an authoritative role is assumed by the counselor, one where they lead the conversation and provide instructions to the client. The non-directive approach institutes an unstructured conversation, where the flow and direction is controlled by the client, with the therapist adopting the role of a listener (Cuijpers et al., 2012). The term “directive” is used in communication studies to indicate methods where the communicator directly gives the conclusion, and “non-directive” for methods where the audience instead draws their own conclusions from the conversation (Hovland & Mandell, 1952). However, it has not yet been clearly determined whether directive or non-directive messages are more effective at persuading others. In this dissertation, in the context of persuasion for the new behaviour of donating private information for public good, the stimuli were direct approaches. However, research showed that a non-directive approach may have been more successful at persuading a change in attitude (Hovland & Mandell, 1952). Combined with the complexity of researching private information donation persuasion in different domains, this could suggest there might be some opportunity for me to explore further the applications of indirect approaches in private information donation persuasion.

As well, my heuristic-systematic information processing mechanism in Study 3A, Study 3B, and Study 4 was measured by an existing questionnaire. Another established method to measure heuristic-systematic cognition information processing is using Implicit Association Test (IAT) (Aquino & Reed, 2002; Richetin, Perugini, Prestwich, & O’Gorman, 2007; Forehand, Perkins, & Reed, 2011). The process requires installation of the measuring software on computer and a close supervision during the data collection process. However, due to the COVID-19 pandemic, I was not able to collect data from in-person participants. It might be a good next step to design a study where I use the IAT to measure heuristic-systematic information processing to better inform my results.

Further understanding of the role of communal focus on private information donation message persuasion and actual sequent donation behaviors could involve a field study. A field study will increase the external validity of the research when it involves partnering with a real organization for a good cause from the local area and I will be able to measure actual donating behaviors.

In my dissertation, I focused on communal focus appeals. One reason for this focus was that multiple pre-tests with different messages did not yield consistent results in term of agentic messages. This may be because donation itself is perceived as a communal behaviour, which makes it difficult to design a donation message that is high on agency but low on communion. In future studies it might be worth investigating a different approach to create an agentic focus donation message.

In Study 2, Study 3A, and Study 3B where I tested the two conditions of donation messages: control and communal focus, the communal focus messages consisted of more words than the neutral messages. The neutral messages were 18 words, and the communal messages were 42 words. However, the length would be most important when comparing agentic and communal focus messages. It can be difficult to manipulate any construct without some more information and specific vocabulary. In addition, the design of the communal messages was based off of the communal focus messages collected in Study 1 to increase the fidelity. This might raise a concern that the results of the studies were driven by the heuristic information processing of a slightly longer message being seen as more persuasive. In future studies I will design the messages with similar length to exclude this alternative explanation.

CHAPTER 8

CONCLUSION

This dissertation enriches literature in the areas of social cognition, information processing and their applications in soliciting for private information and consumer persuasion. The findings of my dissertation extended the theory of dual dimensions of social cognition and the heuristic-systematic information processing into the context of persuasion for an increasing but yet under examined prosocial behavior. I built on the theory by explaining the relationship between communal focus and perceived persuasiveness through heuristic information processing. Specifically, this approach demonstrated that one fundamental dimension of social cognition, communion, can and should be applied to the context of private information donation for public good while defining a new mechanism for the perceived persuasiveness of the donation messages. When consumers read a communal focus donation message in the context of healthcare, they would find the message more persuasive and become more willing to donate their private medical information for public good. This process is mediated by heuristic information processing cognition. Context also appears to matter in the donating information. This was a contribution to the persuasion and prosocial behavior literature as it deepens our understanding on how consumers' process the message of a novel type of donation and prosocial behavior. Literature on donation and charitable giving has well examined the mechanisms for time, money, in-kind, body part and human's gametes donations, yet there is a lack of research in the novel area of private information donation. This was the gap in our literature to which my dissertation provided an answer.

The outcomes of this research also have managerial and consumer implications. Further understanding of the information processing mechanism allows staff at non-profit organizations to design more persuasive and effective messages to call for consumers' private information donation for public good. This research demonstrated that a communal focus message will be processed heuristically, faster and with less effort, therefore perceived as

more convincing to prospective donors. More importantly, this research opens the great potential of other research in private information donation and its consumer's unique behaviours.

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APPENDIX A

LIST OF WEBSITES

<u>PLATFORM</u>	<u>DONOR</u>	<u>RECIPIENTS</u>	<u>DATA</u>	<u>CATEGORY</u>	<u>LAUNCH</u>	<u>WEBSITE</u>
Citizen Me	User Generated	Researches	Personal data such as Social Media or Smartphone behaviours.	General	2014	http://Citizenme.com/
DigMe	User Generated	Users, Businesses, Others	Collection of personal data: social networks, finance or health.	Internet	2009	http://Digi.me
Github	GitHub	Users, Businesses, Developers, Others	An open suite of softwares and open algorithms	General	2011	https://github.com/inbloom/

Data for Climate Action (D4CA)	Multiple	Participating Developers	Various anonymized, aggregated datasets available	General	2015	http://www.unglobalpulse.org/data-for-climate-action
Global Forest Watch	Multiple	Multiple	Crowdsourced and geographical data.	Environment	2014	http://www.globalforestwatch.org/
Open SNP	User Generated	Open	Genotype and phenotype : data from an online community of over 1600 individuals who've chosen to upload and publicly share their direct-to-consumer	Health	2011	http://OpenSNP.org

			genetic testing results. (23andMe, DeCODEme, FamilyTreeDNA).			
Donate Your Data Waoo	User Generated	Charities	Collecting browsing history using browser plug.	Internet	2014	http://Donateyourdata.info/
Data Donors (Wikilife)	User Generated	Open	Data types includes physical activity, diet, sleep, mood, and many others.	General	2012	http://Datadonors.org
Donate Your Data Ecobee	User Generated	NGOs	Voluntarily contributed home energy data.	Energy	2016	http://Ecobee.com/donateyourdata/
Harvards Personal	User Generated	"Public actors"	Personal data for the greater good.	Health	2005	http://Personalgenomes.org/

Genome Project						
Heart to Heart	User Generated	Researchers	Heart rates: using PhotoPlethysmoGraphy (PPG) that measures light reflected in the blood.	Health	2015	http://Heartrateapp.com/
Our Data Helps	User Generated	Academic Researchers	Social media and health data.	Health	2016	http://Ourdatahelps.org
ProQOL Data Donation	User Generated	Academic Researchers	A collection of databases, domain theories, and data generators.	Health	2007	http://Archive.ics.uci.edu/ml/donation_policy.html
The Data Donation	User Generated	Family members,	Personal health and fitness data.	Health	2013	http://We.analyzegenomes.com/apps/data-donation-pass/

Pass		physicians, and selected research projects				
The Good Data	User Generated	Selected Partners	Browsing data.	Internet	2014	http://TheGoodData.org
Flu Near You	Public	Harvard, Boston Children's Hospital and The Skoll Global Threats Fund	Thousands of individuals submit weekly health	Health	2011	https://flunearyou.org
Tide Pool Big Data Donation	User Generated	Open	Enables an ecosystem of apps and tools that help	Health	2013	http://Tidepool.org

Project			people who are living with Type 1 diabetes.			
Patients Like Me	User Generated	Open and Genetech Research	A patient network.	Health	2004	http://Patientslikeme.com/
Bitmark	User Generated	Commercial	Every type of digital data, be it digital art, personal health or location data.	General	2014	http://Bitmark.com/
Data Coup	User Generated	Data brokers	Data from debit/credit cards, Facebook, Twitter, LinkedIn, Foursquare,	General	2014	http://Datacoup.com/

			Google+, Youtube, Tumblr, Meetup and Instagram.			
Esoko	Farmers	Esoko	Multiple: weather, crop yields, production estimates and market prices.	Agriculture	2016	https://esoko.com/who-we-are/
Genomic Data Commons	Multiple	NIH / University of Chicago	NCI-generated data from a number of cancer genomic datasets, including The Cancer Genome Atlas (TCGA) and Therapeutically	Health	2016	https://gdc.cancer.gov/

			Applicable Research to Generate Effective Therapies (TARGET).			
OpenTraffic	Easy Taxi, Grab and Le.Taxi	OpenTraffic Partners, Conveyal, Mapzen, and World Bank Group	Crowdsourced traffic data from the anonymous positions of vehicles and smartphones around the world.	Transportation	2015	http://opentraffic.io/
Flattr	User Generated	Creators of Online Content	Interaction with content on the websites you visit measured using	Internet	2010	Flattr.com

			their browser add on.			
23andMe Research Portal	23andMe users	Selected Partners	A database of anonymized genetic data from more than 650,000 customers who decide to participate on the online medical studies.	Health	2006	https://www.23andme.com/en-int/research/
Data World	User Generated	Open	Open data sets of all kinds.	General	2015	http://Data.world
Open Humans	User Generated	Open	Personalised data: fitbit, ancestary, runkeeper, ect.	General	2015	http://Openhumans.org/

Open Paths	Iphone IOS Devices - User Generated	Open	Personal location data files recorded by iOS devices.	Location	2011	http://Openpaths.cc/
Sage Bionetworks Network	Partners & Patients	Academic Researchers	Complex biological data.	Health	2013	http://Sagebase.org/
The Living Atlas	Public participatin g, Organizatio ns	ArcGIS	Crowdsourced map data, GIS data and images from the public.	Digital Society	2015	https://livingatlas.arcgis.com/en/#s=0
Waze Connected Citizens	User Generated	Waze	Real-time traffic data.	Transport	2006	http://gpsworld.com/esri-partners-with-waze-on-open-data-sharing-for-governments/

Program						
Cancer Commons	Patients, Physicians, and Scientists	Public	Data and knowledge aggregating and validating the insights, intuitions, and experiences of the networks clinicians.	Health	2015	http://CancerCommons.org
Evolytics	Public participatin g, Organizatio ns	Evolytics	Various anonymized, aggregated datasets available	General	2005	https://evolytics.com/blog/turning-data-into-donations/

Covid-19 spread out tracking	People living in Germany	Robert Koch Institute	vital signals collected by wearable health and fitness tracking devices	Health	2020	https://corona-datenspende.de/science/en/
The Center for Victims of Torture	Public participatin g, Organizatio ns	The Center for Victims of Torture	Measurement of Compassion Satisfaction, Compassion Fatigue, Secondary Trauma & Vicarious TraumaCompassion Satisfaction, Compassion Fatigue, Secondary	Health	2004	https://proqol.org/

			Trauma & Vicarious Trauma			
Medical Data Donors e.V.	Internet users	Medical researchers and students	Medical exam data	Health	2018	https://medicaldatadonors.org/
own your data	Internet users	Data requestors	Crowdsourced data	General	2018	https://www.ownyourdata.eu/
Wikidata Data donation	Internet users	Data requestors	data items	General	2012	https://www.wikidata.org/wiki/Wikidata:Data_donation
Bits About Me	Internet users	companies and institutions	Personal data	General	2017	https://bitsabout.me/news/data-donation-on-marketplace/

Stem Cells and Google Search	Internet users	University of Kaiserslautern's Algorithm Accountability Lab	Collecting browsing history using browser plug.	General	N/A	https://www.eurostemcell.org/datadonation/offboarding
Digital Health Europe	Europe citizens	Digital Health Europe	Personal health data.	Health	2020	https://digitalhealtheuropa.eu/events/digitalhealth-europe-collaboration-platform-on-citizens-secure-access-to-and-sharing-of-health-data-workshop.html

Data Does Good	Internet users	Data Does Good	Amazon purchase information	Business	2016	https://www.datadoesgood.com
The Data Donor Movement	User Generated	Healthcare Providers	Personal health data.	Health	2016	https://dateva.biz/for-people/donating-data/
All of Us	People living in US	Medical researchers and students	Personal health data.	Health	2015	https://allofus.nih.gov/
Million Veterans Program	US Veterans	Scientific researchers	Data of genes, lifestyle, military exposures, health and illness	Health	2011	https://www.research.va.gov/mvp/

The Human Project	New Yorkers	Researchers of The Human Project at New York University	Health assessments: Genome and microbiome sequencing; physical exams; medical records and billing codes; drug and chemical exposure; brain activity scanning (EEG); diet; sleep behavior; physical activity levels; home air and noise quality. Psychological	General	2018	https://www.thehumanproject.org/
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			assessments: Personality traits; IQ; mental health; memory; risk preference; temporal discounting, executive function; attention, affect, and emotional reactivity. Education and employment: K-12 grades; standardized test scores; college and			
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			graduate school attainment; employment institutions; job promotions and transfers. Social network assessment: Social network structure; communication partners and patterns; location capture.			
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			<p>Financial assessments:</p> <p>Financial transaction records; income; regular and retirement savings; insurance; assets; subjective sense of socioeconomic status.</p> <p>Other:</p> <p>Criminal justice and civil court interactions; media consumption; religious affiliation</p>			
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			and participation; volunteer and recreation activities; philanthropy.			
Ambry Genetics	Patients	Scientific researchers	germline exome data on hereditary breast and ovarian cancer	Health	2016	https://www.ambrygen.com/
The Personal Genome Project	Public participatin g	Public	genome, health, and trait data	Health	2005	Personalgenomes.org

APPENDIX B

SURVEY QUESTIONS

Pretest:

1. Informed consent

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** (kelley.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

This consent form gives you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information. This study consists of two tasks. You will be first asked to look at a donation appeal and then to answer a questionnaire about your perception towards your willingness to donate your private information. In total, this study will take no longer than 10 minutes. There are no known risks other than those present in everyday life to participating in this study. Participation in this study is voluntary, and you can stop at any time without any penalty. To stop, click on the “Return HIT” button, or close your browser window. All responses to the questionnaires will be kept in a locked office accessible only to the primary researchers. There is no identifying information asked for on any of the questionnaires. The outlet for this research will be an academic journal in Marketing. There will be no identifying information in these publications. The University of Manitoba may look at your research records to see that the research is being conducted in a

safe and proper way. At the end of the study, we will provide you with feedback on the specific nature of the research questions under investigation. For a summary of the results, please contact the corresponding researcher. We may decide to end your participation if we determine that you are not following the instructions closely enough. If you satisfactorily complete the study, you will receive .50 USD per HIT to compensate you for your participation.

Payments are made via Amazon's payment system. The anonymous research results will analyzed by the researchers and will be shared in publications and at scientific conferences. If you would like a copy of the study results once they are available, please contact the PI at the email address: mait34@myumanitoba.ca. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice. To withdraw, simply click through to the end and type the word withdraw in the final box. If you refuse to answer some questions but do not withdraw from the study, you implicitly allow your data to be analyzed. If you withdraw, you will not lose the compensation associated with the study. Please note that once you submit your response and close your internet browser, you will not be able to withdraw your responses as we cannot link the survey responses back to you. After you complete the study session, you will be provided with a written debriefing form that will explain the hypotheses of the studies, including contact information for the researchers in case you have any questions. Only the investigators: Trang Mai-McManus and Kelley Main will have access to the research anonymous data. The information will be stored as spreadsheets with all participants' questionnaire responses. The data file will be stored on the PI's UMSharePoint account. The account and data file require passwords that only PI and person assigned by PI know to open. Participants will not be identified through their responses. The data will be stored in an anonymous manner in case it is needed for future research/verification purposes. Data will be

kept indefinitely as mandated by our discipline's guidelines for retaining data for publication. Data is collected and held first on Qualtrics' secure and protected servers (this is the industry gold standard), and once data collection is complete than the data is downloaded it is held on the PI's UMSharePoint for at least five years. The data is also kept on the Qualtrics servers indefinitely.

These research projects have been approved by the University of Manitoba Research Ethics Board. If you have any concerns or complaints about any of these projects, you may contact the above-named persons or the Human Ethics Secretariat at 204-474-7122. By clicking on the “Accept HIT” button, you indicate that you are 18 years of age or older, that you voluntarily agree to participate in this study and that you understand the information in this consent form. You have not waived any legal rights you otherwise would have as a participant in a research study. The data from the study will be used only for academic research. No part of the data will be sold or used for any commercial purpose. If you would like to have a copy of this consent form for your records, please print out this consent page or screen shot it.

I consent to participate in this study:

I accept

I do not accept

2. Random condition of private information donation for “Donate for Better Winnipeg Healthcare” campaign: See Appendix C

3. Agency and communion evaluations:

Below is the definition of agentic and communal content provided by Abele & Wojciszke, 2014: “Agentic content refers to goal-achievement and task functioning

(*competence, assertiveness, decisiveness*), whereas communal content refers to the maintenance of relationships and social functioning (*benevolence, trustworthiness, morality*)”

Please recall and indicate your evaluation of the “Donate for Better Winnipeg Healthcare” campaign message:

	Not at all 1	2	3	4	5	6	Very much 7
Agentic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Attention check

Please answer the following questions honestly and sincerely. Your answers will not affect your compensation.

4a. Have you ever participated in this or a similar study before?

- Yes
- No
- Unsure

4b. Did you get distracted or take a break while completing this study?

Yes

No

4c. Were you engaging in an unrelated activity (e.g., watching T.V., talking on the phone, texting, checking your email, checking Facebook, etc.) while participating in this study?

Yes

No

4d. What is your favorite Color?

This is an attention question, please ignore the question above and choose "Beige"

- Red
- Blue
- Green
- Pink
- Black
- White
- Beige
- Purple
- Brown

5. Please answer some questions about yourself

I am

- Male
- Female
- Non-binary
- Prefer not to disclose

6. Age: _____

7. My first language is:

- English
- French
- Other

8. What is your ethnicity?

- White
 - Black
 - Asian
 - First Nations/Native Canadian
 - Southeast Asian
 - Other (please specify)
-

9. I speak English fluently

- Yes
- No

10. In your opinion, what was the purpose of this research?

11. Thank you and debrief

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** (kelley.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

Debriefing: The purpose of this project is to examine the effects of communal persuasion message on people's perceived persuasiveness and willingness to donate their private information for public good. Specifically, we hypothesize that the communal persuasion message will lead to consumer's higher perceived persuasiveness and willingness to donate their private information for public good than a neutral message because of the mediating effects of cognitive heuristic information processing. The outcomes of this research will have both theoretical implications such as enriching the literature on donation and social cognition, as well as managerial implications like providing recommendations to institutions that collect consumer's private information for public good. If you are interested in viewing a copy of the preliminary results or learning more about this topic, please contact the principal investigator **Trang Mai-McManus** at mait34@myumanitoba.ca and we can provide further resources and a copy of preliminary results. Preliminary results should be available by February 2022. Thank you for your participation in our study! Your participation is greatly appreciated. The researchers are responsible to ensure that their study description and debriefing are in accordance with their approved ethics protocol. **If you would like to have a copy of this debrief for your records, please print out this debrief page or screen shot it.**

Study 2:

1. Informed consent

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** (kelley.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

Research Study Description: This study consists of two tasks. You will be first asked to look at a donation appeal and then to answer a questionnaire about your perception towards your willingness to donate your private information. In total, this study will take no longer than 10 minutes. There are no known risks other than those present in everyday life to participating in this study. If for any reason you do not wish to respond to a question or if you wish to withdraw from the study, you may do so at any time without penalty. You will still receive full credit if you chose to exercise this option. If for any reason you do not wish to respond to a question or if you wish to withdraw from the study, you may click forward without answering. If you refuse to answer some questions but do not withdraw from the study, you implicitly allow your data to be analyzed. Please be assured, that your responses are anonymous and no personal information will actually be solicited in this survey. Please note that when you submit your response, you will not be able to withdraw them as we cannot link the survey responses back to you.

Only the investigators: Trang Mai-McManus and Kelley Main will have access to the research anonymous data. The information will be stored as spreadsheets with all participants' questionnaire responses. The data file will be stored on the PI's UMSharePoint account. The account and data file require passwords that only PI and person assigned by PI know to open.

Participants will not be identified through their responses. The data will be stored in an anonymous manner in case it is needed for future research/verification purposes. Data will be kept indefinitely as mandated by our discipline's guidelines for retaining data for publication. Data is collected and held first on Qualtrics' secure and protected servers (this is the industry gold standard), and once data collection is complete than the data is downloaded it is held on the PI's UMSharePoint for at least five years. The data is also kept on the Qualtrics servers indefinitely. To contact researchers with any questions or to request a copy of the preliminary results, you may email using the contact information above. If any questions come up during or after the study, please contact **Trang Mai-McManus** (mait34@myumanitoba.ca).

Clicking “I accept” indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way. **This research has been approved by the Research Ethics Board at the University of Manitoba, Fort Garry campus. If you have any concerns or complaints about this project you may contact the Principal Investigator or the Human Ethics Coordinator at +1(204) 474-7122 or humanethics@umanitoba.ca.**

I consent to participate in this study:

I accept

I do not accept

2. Random condition of private information donation for “Donate for Better

Winnipeg Healthcare” campaign: See Appendix C

3. Please indicate your evaluation of the “Donate for Better Winnipeg Healthcare” campaign (**Perceived persuasiveness of the donation appeal** (adapted from Rosaen, Dibble, & Hartmann, 2019))

Not persuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Persuasive
Unconvincing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Convincing
Not effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Effective
Incoherent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Coherent

4. Willingness to donate private information for public good

Please indicate to what extend are you willing to donate the following information to “Donate for Better Winnipeg healthcare” campaign

	Not at all 1	2	3	4	5	6	Very much 7
Blood type	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health insurance number	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DNA information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biometrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Names of individual's health care providers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Manipulation check

Below is the definition of agentic and communal content provided by Abele & Wojciszke, 2014: “Agentic content refers to goal-achievement and task functioning (*competence, assertiveness, decisiveness*), whereas communal content refers to the maintenance of relationships and social functioning (*benevolence, trustworthiness, morality*)”

Please recall and indicate your evaluation of the “Donate for Better Winnipeg Healthcare” campaign message:

	Not at all 1	2	3	4	5	6	Very much 7
Agentic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Attention check

What is your favorite Color?

This is an attention question, please ignore the question above and choose "Beige"

- Red
- Blue
- Green
- Pink
- Black
- White
- Beige
- Purple
- Brown

7. Please answer some questions about yourself

I am

- Male
- Female
- Non-binary
- Prefer not to disclose

8. Age: _____

9. My first language is:

- English
- French
- Other

10. What is your ethnicity?

- White
 - Black
 - Asian
 - First Nations/Native Canadian
 - Southeast Asian
 - Other (please specify)
-

11. I speak English fluently

- Yes
- No

12. In your opinion, what was the purpose of this research?

13. Thank you and debrief

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper

School of Business; **Kelley Main** (kelly.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

Debriefing: The purpose of this project is to examine the effects of communal persuasion message on people's perceived persuasiveness and willingness to donate their private information for public good. Specifically, we hypothesize that the communal persuasion message will lead to consumer's higher perceived persuasiveness and willingness to donate their private information for public good than a neutral message because of the mediating effects of cognitive heuristic information processing. The outcomes of this research will have both theoretical implications such as enriching the literature on donation and social cognition, as well as managerial implications like providing recommendations to institutions that collect consumer's private information for public good.

If you are interested in viewing a copy of the preliminary results or learning more about this topic, please contact the principal investigator Trang Mai-McManus at mait34@myumanitoba.ca and we can provide further resources and a copy of preliminary results. Preliminary results should be available by February 2022.

Thank you for your participation in our study! Your participation is greatly appreciated. The researchers are responsible to ensure that their study description and debriefing are in accordance with their approved ethics protocol.

Study 3A:

1. Informed consent

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus ([REDACTED]), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** ([REDACTED]). Professor - Department of Marketing, Asper School of Business

Research Study Description:

This consent form gives you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information. This study consists of two tasks. You will be first asked to look at a donation appeal and then to answer a questionnaire about your perception towards your willingness to donate your private information. In total, this study will take no longer than 10 minutes. There are no known risks other than those present in everyday life to participating in this study. Participation in this study is voluntary, and you can stop at any time without any penalty. To stop, click on the “Return HIT” button, or close your browser window. All responses to the questionnaires will be kept in a locked office accessible only to the primary researchers. There is no identifying information asked for on any of the questionnaires. The outlet for this research will be an academic journal in Marketing. There will be no identifying information in these publications. The University of Manitoba may look at your research records to see that the research is being conducted in a safe and proper way. At the end of the study, we will provide you with feedback on the specific nature of the research questions under investigation. For a summary of the results,

please contact the corresponding researcher. We may decide to end your participation if we determine that you are not following the instructions closely enough. If you satisfactorily complete the study, you will receive 1 USD per HIT to compensate you for your participation.

Payments are made via Amazon's payment system. The anonymous research results will analyzed by the researchers and will be shared in publications and at scientific conferences. If you would like a copy of the study results once they are available, please contact the PI at the email address: [REDACTED]. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice. To withdraw, simply click through to the end and type the word withdraw in the final box. If you refuse to answer some questions but do not withdraw from the study, you implicitly allow your data to be analyzed. If you withdraw, you will not lose the compensation associated with the study. Please note that once you submit your response and close your internet browser, you will not be able to withdraw your responses as we cannot link the survey responses back to you. After you complete the study session, you will be provided with a written debriefing form that will explain the hypotheses of the studies, including contact information for the researchers in case you have any questions.

Only the investigators: Trang Mai-McManus and Kelley Main will have access to the research anonymous data. The information will be stored as spreadsheets with all participants' questionnaire responses. The data file will be stored on the PI's UMSharePoint account. The account and data file require passwords that only PI and person assigned by PI know to open. Participants will not be identified through their responses. The data will be stored in an anonymous manner in case it is needed for future research/verification purposes. Data will be kept indefinitely as mandated by our discipline's guidelines for retaining data for publication. Data is collected and held first on Qualtrics' secure and protected servers (this is the industry

gold standard), and once data collection is complete than the data is downloaded it is held on the PI's UMSharePoint for at least five years. The data is also kept on the Qualtrics servers indefinitely.

These research projects have been approved by the University of Manitoba Research Ethics Board. If you have any concerns or complaints about any of these projects, you may contact the above-named persons or the Human Ethics Secretariat at 204-474-7122. By clicking on the “Accept HIT” button, you indicate that you are 18 years of age or older, that you voluntarily agree to participate in this study and that you understand the information in this consent form. You have not waived any legal rights you otherwise would have as a participant in a research study. The data from the study will be used only for academic research. No part of the data will be sold or used for any commercial purpose. If you would like to have a copy of this consent form for your records, please print out this consent page or screen shot it.

I consent to participate in this study:

I accept

I do not accept

2. Random condition of private information donation for “Donate for Better Energy Efficiency” campaign: See Appendix C

3. Please indicate your evaluation of the “Donate for Better Energy Efficiency” campaign (Perceived persuasiveness of the donation appeal (adapted from Rosaen, Dibble, & Hartmann, 2019)

Not persuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Persuasive
Unconvincing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Convincing
Not effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Effective
Incoherent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Coherent

4. Willingness to donate private information for public good

Please indicate to what extent are you willing to donate the following information to “Donate for Better Energy Efficiency” campaign:

	Not at all 1	2	3	4	5	6	Very much 7
Home address	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Postal/Zip Code	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
House age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of floors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HVAC usage data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utility account number	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utility meter ID	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utility meter data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Heuristic – systematic information processing measurements

Please indicate to what extent do you agree with the following statement when reading “Donate for Better Energy Efficiency” campaign message:

	Not at all 1	2	3	4	5	6	Very much 7
When I encounter <u>the message</u> , I focus on only a few key points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I have to act on this matter, the advice of one expert is good enough for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see <u>the message</u> , I rarely spend much time thinking about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is far more information on <u>this message</u> than I personally need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After I encounter <u>the message</u> , I am likely to stop and think about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I need to act on this matter, the more viewpoints I get the better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It is important for me to interpret **the message** in a way that applies directly to my life

After thinking about **the message**, I have a broader understanding

When I encounter **the message**, I read to most of it, even though I may not agree with its perspective.

6. Manipulation check

Below is the definition of agentic and communal content provided by Abele & Wojciszke, 2014: “Agentic content refers to goal-achievement and task functioning (*competence, assertiveness, decisiveness*), whereas communal content refers to the maintenance of relationships and social functioning (*benevolence, trustworthiness, morality*)”

Please recall and indicate your evaluation of the “Donate for Better Winnipeg Healthcare” campaign message:

	Not at all 1	2	3	4	5	6	Very much 7
Agentic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Attention check

Please answer the following questions honestly and sincerely. Your answers will not affect your compensation.

6a. Have you ever participated in this or a similar study before?

- Yes
- No
- Unsure

6b. Did you get distracted or take a break while completing this study?

- Yes
- No

6c. Were you engaging in an unrelated activity (e.g., watching T.V., talking on the phone, texting, checking your email, checking Facebook, etc.) while participating in this study?

- Yes
- No

6d. What is your favorite Color?

This is an attention question, please ignore the question above and choose "Gray"

- Red
- Gray
- Green
- Pink
- Black
- White
- Beige
- Purple
- Brown

7. Please answer some questions about yourself

I am

- Male
- Female
- Non-binary
- Prefer not to disclose

8. Age: _____

9. My first language is:

- English
- French
- Other

10. What is your ethnicity?

- White
 - Black
 - Asian
 - First Nations/Native Canadian
 - Southeast Asian
 - Other (please specify)
-

11. I speak English fluently

- Yes
- No

12. In your opinion, what was the purpose of this research?

13. Thank you and debrief

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** (kelley.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

Debriefing: The purpose of this project is to examine the effects of communal persuasion message on people's perceived persuasiveness and willingness to donate their private information for public good. Specifically, we hypothesize that the communal persuasion message will lead to consumer's higher perceived persuasiveness and willingness to donate their private information for public good than a neutral message because of the mediating effects of cognitive heuristic information processing. The outcomes of this research will have both theoretical implications such as enriching the literature on donation and social cognition, as well as managerial implications like providing recommendations to institutions that collect consumer's private information for public good. If you are interested in viewing a copy of the preliminary results or learning more about this topic, please contact the principal investigator **Trang Mai-McManus** at mait34@myumanitoba.ca and we can provide further resources and a copy of preliminary results. Preliminary results should be available by February 2022. Thank you for your participation in our study! Your participation is greatly appreciated. The researchers are responsible to ensure that their study description and debriefing are in accordance with their approved ethics protocol. **If you would like to have a copy of this debrief for your records, please print out this debrief page or screen shot it.**

Study 4:

1. Inform consent

Project Title: Persuading Messages for Private Information Donation

Principal Investigator(s) and contact information: Trang Mai-McManus

([REDACTED]), PhD Candidate – Department of Marketing, Asper School of Business; Kelley Main ([REDACTED]). Professor - Department of Marketing, Asper School of Business.

This consent form gives you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

This study consists of two tasks. You will be first asked to look at a donation appeal and then to answer a questionnaire about your perception towards your willingness to donate your private information. In total, this study will take no longer than 10 minutes. There are no known risks other than those present in everyday life to participating in this study. Participation in this study is voluntary, and you can stop at any time without any penalty. To stop, click on the “Return” button, or close your browser window.

All responses to the questionnaires will be kept in a locked office accessible only to the primary researchers. There is no identifying information asked for on any of the questionnaires. The outlet for this research will be an academic journal in Marketing. There will be no identifying information in these publications. The University of Manitoba may

look at your research records to see that the research is being conducted in a safe and proper way. At the end of the study, we will provide you with feedback on the specific nature of the research questions under investigation. For a summary of the results, please contact the corresponding researcher. We may decide to end your participation if we determine that you are not following the instructions closely enough. If you satisfactorily complete the study, you will receive £1.3 per response to compensate you for your participation. Payments are made via Prolific's payment system.

The anonymous research results will analyzed by the researchers and will be shared in publications and at scientific conferences. If you would like a copy of the study results once they are available, please contact the PI at the email address: mait34@myumanitoba.ca. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice. To withdraw, simply click through to the end and type the word withdraw in the final box. If you refuse to answer some questions but do not withdraw from the study, you implicitly allow your data to be analyzed If you withdraw, you will not lose the compensation associated with the study. Please note that once you submit your response and close your internet browser, you will not be able to withdraw your responses as we cannot link the survey responses back to you. After you complete the study session, you will be provided with a written debriefing form that will explain the hypotheses of the studies, including contact information for the researchers in case you have any questions.

Only the investigators: Trang Mai-McManus and Kelley Main will have access to the research anonymous data. The information will be stored as spreadsheets with all participants' questionnaire responses. The data file will be stored on the PI's UMSharePoint account. The account and data file require passwords that only PI and person assigned by PI know to open.

Participants will not be identified through their responses. The data will be stored in an anonymous manner in case it is needed for future research/verification purposes. Data will be kept indefinitely as mandated by our discipline's guidelines for retaining data for publication. Data is collected and held first on Qualtrics' secure and protected servers (this is the industry gold standard), and once data collection is complete than the data is downloaded it is held on the PI's UMSharePoint for at least five years. The data is also kept on the Qualtrics servers indefinitely.

I consent to participate in this study:

I accept

I do not accept

2. Random condition of private information donation for “Donate for Better Energy Efficiency” campaign or “Donate for Better Healthcare” campaign: See Appendix C.

3. Please indicate your evaluation of the donation campaign (**Perceived persuasiveness of the donation appeal** (adapted from Rosaen, Dibble, & Hartmann, 2019))

Not persuasive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Persuasive
Unconvincing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Convincing
Not effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Effective
Incoherent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Coherent

4. Willingness to donate private information for public good

Please indicate to what extent are you willing to donate your information to the donation campaign

Not at all 1	2	3	4	5	6	Very much 7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please indicate to what extent do you agree with the following statement when reading donation campaign message

	Not at all 1	2	3	4	5	6	Very much 7
When I encounter the message, I focus on only a few key points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I have to act on this matter, the advice of one expert is good enough for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see the message, I rarely spend much time thinking about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is far more information on this message than I personally need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After I encounter the message, I am likely to stop and think about it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I need to act on this matter, the more viewpoints I get the better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important for me to interpret the message in a	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

way that applies directly to my life

After thinking about the message, I have a broader understanding

When I encounter the message, I read to most of it, even though I may not agree with its perspective.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Manipulation check:

Below is the definition of agentic and communal content provided by Abele & Wojciszke, 2014:

*“Agentic content refers to goal-achievement and task functioning (**competence, assertiveness, decisiveness**), whereas communal content refers to the maintenance of relationships and social functioning (**benevolence, trustworthiness, morality**)”*

Please recall and indicate your evaluation of the of the donation campaign message:

	Not at all 1	2	3	4	5	6	Very much 7
Agentic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. Please recall the purpose of the donation campaign:

For Better
Healthcare

For Better
Energy Efficiency

8. Please indicate how private do you think your information of that domain is:

Not at all
1

2

3

4

5

6 Very much
7

Please answer the following questions honestly and sincerely. Your answers will not affect your compensation.

9a. Have you ever participated in this or a similar study before?

Yes

No

Unsure

9b. Did you get distracted or take a break while completing this study?

Yes

No

9c. Were you engaging in an unrelated activity (e.g., watching T.V., talking on the phone, texting, checking your email, checking Facebook, etc.) while participating in this study?

Yes

No

9d. What is your favorite Color?

This is an attention question, please ignore the question above and choose "Gray"

- Red
- Gray
- Green
- Pink
- Black
- White
- Beige
- Purple
- Brown

10. Please answer some questions about yourself

I am

- Male
- Female
- Non-binary
- Prefer not to disclose

11. Age: _____

12. My first language is:

- English
- French
- Other

13. What is your ethnicity?

- White
 - Black
 - Asian
 - First Nations/Native Canadian
 - Southeast Asian
 - Other (please specify)
-

14. I speak English fluently

- Yes
- No

15. In your opinion, what was the purpose of this research?

16. Thank you and debrief

Project Title: Consumer Information Donation

Investigator(s) and contact information: **Trang Mai-**

McManus (mait34@myumanitoba.ca), PhD Candidate – Department of Marketing, Asper School of Business; **Kelley Main** (kelley.main@umanitoba.ca). Professor - Department of Marketing, Asper School of Business

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APPENDIX C

EXPERIMENTAL STIMULI

Study 2 and Study 3B:

Medical context - Control condition:



DONATE
FOR BETTER WINNIPEG HEALTHCARE.

Contribute to our campaign today - you can become part of the way our community develops in the future.

Medical context - Communal focus condition:



DONATE
FOR BETTER WINNIPEG HEALTHCARE.

Share as much, or as little, as you like and discover the value your life online can bring to other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future.

Study 3A:

Energy efficiency context - Control condition:



EFFICIENT ENERGY

**DONATE
FOR BETTER ENERGY EFFICIENCY.**

Contribute to our campaign today - you can become part of the way our community develops in the future.

Energy efficiency context - Communal focus condition:



EFFICIENT ENERGY

**DONATE
FOR BETTER ENERGY EFFICIENCY.**

Share as much, or as little, as you like and discover the value your life online can bring to other people in the world. Contribute to our campaign today - you can become part of the way our community develops in the future .

Study 4:

Communal focus – healthcare context condition:



**DONATE
FOR BETTER HEALTHCARE**

Share as much, or as little, as you like and discover the value your medical information can bring to other people in the world. Contribute to our campaign today – you can become part of the way our community develop in the future.

Communal focus – energy efficiency context condition:



**DONATE
FOR BETTER ENERGY EFFICIENCY.**

Share as much, or as little, as you like and discover the value your energy consumption can bring to other people in the world. Contribute to our campaign today – you can become part of the way our community develop in the future.