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**WHEN VALUE-EXPRESSION ENHANCES MOTIVATION TO REASON ABOUT
ATTITUDES TOWARDS CENSORSHIP IN SINGAPORE**

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DECLARATION

I hereby declare that this thesis is my original work and it has been written by me in its entirety.

I have duly acknowledged all the sources of information which have been used in the thesis.

This thesis has also not been submitted for any degree in any university previously.

Noorfaadhilah Abdul Halil Khan

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When Value-Expression Enhances Motivation to Reason about Attitudes towards Censorship in Singapore

There has been growing recognition worldwide of the harms caused by hate speech and fake news (Hall, 2020). Exposure to hate speech towards marginalized groups can lead to greater outgroup prejudice (Soral, Bilewicz, & Winiewski, 2018), and ultimately incite violence towards these groups. For instance, coordinated hate campaigns on Facebook likely contributed to violence during the 2017 removals of 625,000 Rohingya people from Myanmar (United Nations Human Rights Council, 2018, p. 330). In addition, the harm caused by viral fake news cannot be underestimated. During the United States' 2016 presidential election campaign, misinformation was widely spread by Russian troll accounts on Twitter (Badawy et al., 2018). More recently, the global Covid-19 pandemic has led to the proliferation of dangerous fake news, ranging from unproven Covid-19 'cures' to false government statements (United Nations, 2020). The threat posed by hate speech and fake news have led to heated public debate on the need for tighter censorship legislations in various countries worldwide (Henley, 2018; Strossen, 2018; Hall, 2020).

Singapore is no stranger to censorship, be it of the arts or the press (e.g., George, 2012; Tan, 2018). As recently as 2019, the Singapore Government passed an Act enabling ministers to independently order the correction or take-down of malicious online falsehoods. Titled the Protection from Online Falsehoods and Manipulation Act (POFMA), the Act represents the latest of the Government's censorship legislation (POFMA, 2019). Such laws may be useful in curbing fake news, but could arguably also be wielded to limit freedom of speech (George, 2017). Further concerns surround the ability of censorship to allow the Government to consolidate political power, increase regulatory oversight on social media, and censor criticisms against the state (Neo, 2019). Meanwhile, public support for censorship in Singapore has continued to increase over time (Detenber & Rosenthal, 2017). It is clear

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that the legislation of censorship is a consequential, nuanced issue that deserves careful deliberation by lawmakers, public stakeholders, and Singaporeans alike. The present research thus aims to address an important question: how can both anti-censorship and pro-censorship individuals in Singapore be motivated to deliberate about stricter censorship legislation in a reasoned manner?

Cognitive Processing Motivation

The primary outcome of interest in the current research is the motivation to reason about censorship, henceforth operationalized as cognitive processing motivation (See, Petty, & Fabrigar, 2008). Cognitive processing motivation refers to one's motivation to rely on thoughts and beliefs (rather than feelings and emotions) when forming one's attitudes towards an issue. A person with high cognitive processing motivation towards the issue of censorship would be motivated to process information about censorship in a deliberative and reasoned manner.

Cognitive processing motivation is typically assessed using a two-item measure, rated on a Likert scale: "To what extent do you think your attitudes toward <object> are driven by your beliefs?" and "To what extent do you think your attitudes toward <object> are driven by your thoughts?" (See et al., 2008). Previous research has demonstrated that scores on this measure reflect one's motivation to process cognitive information about an attitude object, independent of one's ability (See et al., 2013).

Previous research has elucidated the downstream consequences of cognitive processing motivation. Because a person who is specifically asked for their opinion may be expected to provide a thoughtful, reason-based response, prior research has shown that people with greater cognitive processing motivation prefer to advocate for their opinions only when requested, rather than spontaneously (Teeny & Petty, 2018). That is, the more motivated one

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is to process cognitive information related to gun control (Study 1) and legalization of gay marriage (Study 2), the greater one's intentions to engage in requested advocacy. In addition, individuals with greater cognitive processing motivation are more receptive to beliefs-focused (versus emotions-focused) appeals (See et al., 2008). They perceive cognitive (rather than affective) information as more meaningful and worth remembering (Keer, van den Putte, de Wit, & Neijens, 2013). As for behavioural outcomes, cognitive processing motivation positively predicts the proportion of time one spends reading cognitive (versus affective) information (See, Petty, & Fabrigar, 2013).

While the consequences of cognitive processing motivation have been well-researched, no studies have identified its antecedents. As such, the present research is also the first to address this gap by proposing a potential predictor of cognitive processing motivation.

Value-Expressive Attitudes

One potential way that people can be motivated to engage in reasoning about censorship is through the values that they hold. According to functional theories of attitudes (e.g., Smith, Bruner, & White, 1956; Katz, 1960; Herek, 1987), people may hold attitudes that help them to express core values and their personal identity (Katz, 1960). This value-expressive function of attitudes is typically contrasted with the social-adjustive function (Maio & Olson, 2000), which reflects the desire to hold attitudes that help one to fit in with important social groups instead.

From a philosophical perspective, living life in accordance with one's values requires one to engage in extensive reflection, criticism, and revision (e.g., Tiberius, 2008). Put differently, values tend to be associated with deliberative thought. In addition, values researchers have long theorized that values are at the centre of people's cognitive networks of attitudes and beliefs (e.g., Rosenberg, 1968, Rokeach, 1973). In other words, a hypothetical

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map illustrating the connections between values, beliefs, and attitudes would reveal a small set of values to be at the core. Thus, values are cognitively linked to a wide range of attitudes and beliefs (Rokeach, 1973; Maio, 2016).

The extant literature on values has also noted the potential role that values might play in enhancing cognitive processing motivation, though this hypothesis has not been empirically tested. For instance, a recent review on attitudinal change suggests that receiving a persuasive message that is relevant to one's existing values should lead to thoughtful, in-depth processing of the message (Watt, Maio, Haddock, & Johnson, 2008). There has been some indirect evidence that is consistent with this notion. Value-expressive attitudes, that is, attitudes that reflect one's core values, are resistant to attack (Johnson & Eagly, 1989; Luttrell, Petty, Briñol, & Wagner, 2016) and elicit a high degree of commitment to relevant behaviours in the face of adversity (Lydon & Zanna, 1990). To summarize, value-expressive attitudes tend to be especially strong (Maio & Olson, 2000). Given that strong attitudes result from deliberative processing (e.g., Petty & Cacioppo, 1986; Chaiken, Liberman, & Eagly, 1989), such research suggests that value-expressive attitudes lead to strong attitudes perhaps because the value-expressive function enhances deliberation.

Although a challenge for functional theories of attitude lies in the difficulty in measuring these functions (see Shavitt, 1990), significant methodological advances have contributed to renewed interest in attitude functions. Herek (1987) developed the Attitude Functions Inventory to assess several broad functions of attitudes. For instance, the value-expressive function of attitudes is assessed by the item "My opinions about <attitude object> mainly are based on my concern that we safeguard the civil liberties of all people in our society". Participants rated each statement on a nine-point Likert scale ranging from one (not at all true of me) to nine (very true of me). Such an approach is consistent with theorizing that the value-expressive function can exist as an individual difference (e.g., Snyder, 1974). That

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is, some individuals tend to hold attitudes for the purpose of expressing their values more than other individuals. At the same time, because the value-expressive function of attitudes has been also been theorized to differ in its situational salience (Shavitt, 1990), Murray, Haddock, and Zanna (1996) developed a manipulation of the value-expressive function. Using a leading attitude functions questionnaire, false feedback, and a procedure linking specific attitudes to personal values, the researchers experimentally induced the self-perception that one's attitudes tended to express one's values. The present research utilizes both these approaches to operationalize the value-expressive function.

Value-Expression in Anti- versus Pro-Censorship Individuals

I also propose a potential moderator of the relationship between value-expressive function and cognitive processing motivation: one's own attitude towards censorship. This is because there are noteworthy individual differences underlying people's attitudes towards censorship, and the constellation of beliefs that typify individuals who are anti- and pro-censorship respectively might impact the way that value-expression affects their cognitive processing motivation for censorship. Firstly, those who are anti-censorship tend to be less supportive of right-wing authoritarianism (Bilewicz, Soral, Marchlewska, & Winiewski, 2015). That is, they are less willing to submit to established authorities, and less attached to the norms decreed by authorities. Anti-censorship individuals also tend to be less politically conservative than pro-censorship individuals (Suedfeld, Steel, & Schmidt, 1994). Furthermore, those who support the censorship of pornography, sacrilegious images, and depictions of homosexual behaviour also tend to support the censorship of racist, sexist, violent, and homophobic images or messages (Fisher et al., 1999). In other words, support for censorship appears to be consistent across messages and images of differing political content.

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Of particular relevance, in Singapore, support for censorship appears to be positively correlated with conservatism as well (Ho, Detenber, Malik, & Neo, 2012). In addition, those against censorship in Singapore tend to exhibit an independent self-construal (i.e., see themselves as free to do as they like and feel less obligated to others), while those supportive of censorship tend to have a more interdependent self-construal (i.e., perceive that their decisions can affect important others, and thus feel more obligated to those around them; Detenber & Rosenthal, 2017). Given that the value-expressive function facilitates the expression of one's self-concept (Maio & Olson, 2000), anti-censorship individuals who are more concerned about their individuality should be more impacted by the value-expressive function. That is, anti-censorship individuals who hold greater value-expressive attitudes or who focus on the value-expressive function of their attitudes should be more motivated to engage in cognitive processing when thinking about censorship. Meanwhile, to the extent that they tend to display a high degree of concern for how their decisions can impact others, pro-censorship individuals may already be motivated to be thoughtful about censorship regardless of the extent to which their attitudes express their values. Evidence for this prediction comes from studies on harm-avoidance in the moral domain, which show that individuals who are concerned with preventing harm to others tend to rely more on deliberative reasoning (rather than their intuitive feelings) in their moral judgments (Cornwell & Higgins, 2016). The interaction hypothesis was tested in Studies 1 and 2 using operationalizations from prior research on the value-expressive function. Support for this hypothesis would be consistent with the conceptualization of value-expressive attitudes in functional theories of attitudes.

At the same time, the differences in self-construal between pro- and anti-censorship individuals, at least in Singapore (Detenber & Rosenthal, 2017), suggest that different values could vary in self-relevance between both types of individuals. Given that values can be multidimensional with respect to how self-oriented and other-oriented they are (Schwartz et

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al., 2012), similar effects on cognitive processing motivation could emerge for both anti- and pro-censorship individuals. In particular, self-direction reflects the goal of independent thought and action (Schwartz et al., 2012). For anti-censorship individuals, valuing self-direction may lead them to be more aware of how censorship impacts their personal freedom, and thus they would be more motivated to engage in thoughtful processing about censorship. Meanwhile, security reflects the goal of safety, harmony, and stability in society (Schwartz et al., 2012). As pro-censorship individuals are more concerned with how their decisions can impact others, valuing security could enable them to be more cognizant about the effect of censorship on societal stability, thus increasing their motivation to consider censorship in a reasoned manner. Thus, Study 3 explores the possibility that both anti-censorship *and* pro-censorship individuals would show greater cognitive processing motivation, but the former group does so when self-direction is the potential basis for their attitudes whereas the latter group does so when security is the value potentially expressed by their attitudes.

The Present Research

In the first two studies, we predicted that the value-expressive function would positively predict cognitive processing motivation for the issue of censorship, particularly for anti-censorship individuals. We also investigated whether attitudes towards censorship of hate speech would moderate the relationship between the value-expressive function and cognitive processing motivation, such that the positive relationship between value-expressive function and cognitive processing motivation is enhanced for anti-censorship individuals, relative to pro-censorship individuals. Study 1 employed a measurement-only design, in which the value of personal freedom was measured. Study 2 utilized a manipulation of value-expressive function and attempted to make salient a broader range of values. Due to the broader range of values potentially being relevant for pro-censorship individuals, we also expected a main effect of value-expression on cognitive processing motivation in Study 2.

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Finally, in Study 3, a measurement-only design was employed to explore the role of specific values (i.e., self-direction and security) in enhancing cognitive processing motivation for pro- and anti-censorship individuals. We predicted that among anti-censorship individuals, concern for self-direction (rather than security) would positively predict cognitive processing motivation regarding censorship. Among pro-censorship individuals, concern for security (rather than self-direction) would positively predict cognitive processing motivation regarding censorship. Participants considered their attitudes towards a different censorship issue – the Protection from Online Falsehoods and Manipulation Act.

Study 1

The goal of Study 1 was to investigate whether (1) value-expressive function positively predicts cognitive processing motivation for censorship, and (2) the relationship between value-expressive function and cognitive processing motivation differs between pro- and anti-censorship individuals in Singapore. Furthermore, to find out if the hypothesized pattern is unique to cognitive processing motivation, a measure of affective processing motivation was included.

Value-expressive function was measured via the Attitude Functions Inventory (Herek, 1987). For Study 1, attitudes towards censorship were examined in the context of media censorship in Singapore, particularly content that may cause hostility between different racial or religious groups. Finally, affective and cognitive processing motivation were measured (See et al., 2008).

Method

Participants and Design

200 university students ($M_{\text{age}} = 21.34$, $SD_{\text{age}} = 1.85$; 75.0% female, 22.5% male, 2.5% preferred not to say) from the National University of Singapore were recruited for this study.

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Participants were reimbursed with either partial course credit or five dollars at the end of the experiment. A 2(attitudes towards race-related censorship: negative versus positive) X 2(value-expressive function: low versus high) between-subjects design was employed. Both the predictor variables were measured as continuous variables, and their levels were operationalized as one standard deviation (SD) below and above the mean.

Materials

Participants first read a short passage introducing the censorship of race-related issues in Singapore. The passage was crafted to introduce and provide a balanced perspective regarding the issue, rather advocating one view over the other. Participants then proceeded to report their attitudes towards the issue. The order of presentation of questionnaires following the passage was counterbalanced.

Predictor variables.

Attitudes towards censorship of race-related issues. Participants completed two semantic-differential scales (against-in favour of; negative-positive) measuring their overall attitudes towards the censorship of race-related issues in Singapore (adapted from Crites, Fabrigar, & Petty, 1994). Responses were recorded on a seven-point scale ($M = 4.23$, $SD = 1.52$, $\alpha = .88$), and averaged to create a composite measure of attitudes. Higher scores reflected more positive attitudes.

Value-expressive function. Participants completed one item assessing the value-expressive function of their attitudes (Herek, 1987): “My existing opinions about race-related censorship in Singapore mainly are based on my concern that we safeguard the personal freedoms of all people in our society”. Responses were recorded on a nine-point scale (1 = not at all true of me; 5 = somewhat true of me; 9 = very true of me). Higher scores indicated greater value-expression in one’s attitudes ($M = 6.56$, $SD = 1.86$).

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Criterion variables.

Cognitive processing motivation. Two items assessing cognitive processing motivation were taken from See and colleagues (2013): “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your beliefs?” and “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your thoughts?”. Responses were recorded on a seven-point scale (1 = not at all; 4 = somewhat; 7 = totally), and were averaged to create a composite measure of cognitive processing motivation ($M = 5.10$, $SD = 1.16$, $\alpha = .75$). Higher values reflected greater cognitive processing motivation.

Affective processing motivation. To be thorough, following prior research, affective processing motivation was also examined in the current research: “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your feelings?” and “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your emotions?” (See et al., 2013). Responses were recorded on a 7-point scale (1 = not at all; 4 = somewhat; 7 = totally), and were averaged to create a composite measure of affective processing motivation ($M = 4.27$, $SD = 1.41$, $\alpha = .89$). Higher values reflected greater affective processing motivation.

Results

Predicting Cognitive Processing Motivation

Mean-centered value-expressive function (“based on my concern we safeguard the personal freedoms of all people in our society”) and mean-centered attitudes were entered as predictors in the first step of a hierarchical multiple regression predicting cognitive processing motivation (Table 2). In the second step, the interaction term between mean-

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centered attitudes and mean-centered value-expressive function was entered. Results were interpreted from the first step of the model in which they appeared.

The value-expressive function positively predicted cognitive processing motivation, $B = .17$, $SE = .05$, $t(197) = 3.80$, $p < .001$, $pr^2 = .07$. In other words, those who reported that their attitudes towards censorship of race-related issues tended to be driven by their concern for safeguarding the personal freedoms of all people in society also reported a greater motivation to process cognitive information related to the issue. Attitudes did not predict cognitive processing motivation, $B = .07$, $SE = .06$, $t(197) = 1.24$, $p = .22$, $pr^2 = .01$. Consistent with the hypothesis, the *attitudes x value-expressive function* interaction was significant, $B = -.08$, $SE = .03$, $t(196) = -2.87$, $p = .005$, $pr^2 = .04$ (Figure 1).

Decomposing the interaction, those against the censorship of race-related issues (i.e., attitudes one SD below the mean) differed in their level of cognitive processing motivation, such that the greater the extent of the value-expressive function, the greater the cognitive processing motivation, $B = .32$, $SE = .07$, $t(196) = 4.70$, $p < .001$, $pr^2 = .10$. However, those supportive of the censorship of race-related issues (i.e., attitudes one SD above the mean) did not differ in cognitive processing motivation regardless of their value-expressive function, $B = .09$, $SE = .05$, $t(196) = 1.68$, $p = .10$, $pr^2 = .01$.

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Table 1

Zero-order correlations between continuous variables

Variables	1	2	3	4
1. Censorship attitudes	-			
2. Value-expressive function	-.29***	-		
3. Cognitive processing motivation	.01	.25***	-	
4. Affective processing motivation	-.14*	.18*	.32***	-

Note. * $p < .05$, *** $p < .001$.

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Table 2

Hierarchical regression predicting cognitive processing motivation

Predictor	β	pr^2
Step 1		
Value-Expressive Function: continuous	.27***	.07
Attitudes: continuous	.09	.01
Step 2		
Value-Expressive Function x Attitudes Interaction	-.21**	.04

Note. $R^2 = .11$, $R^2_{\text{change}} = .04$, ** $p = .005$, *** $p < .001$

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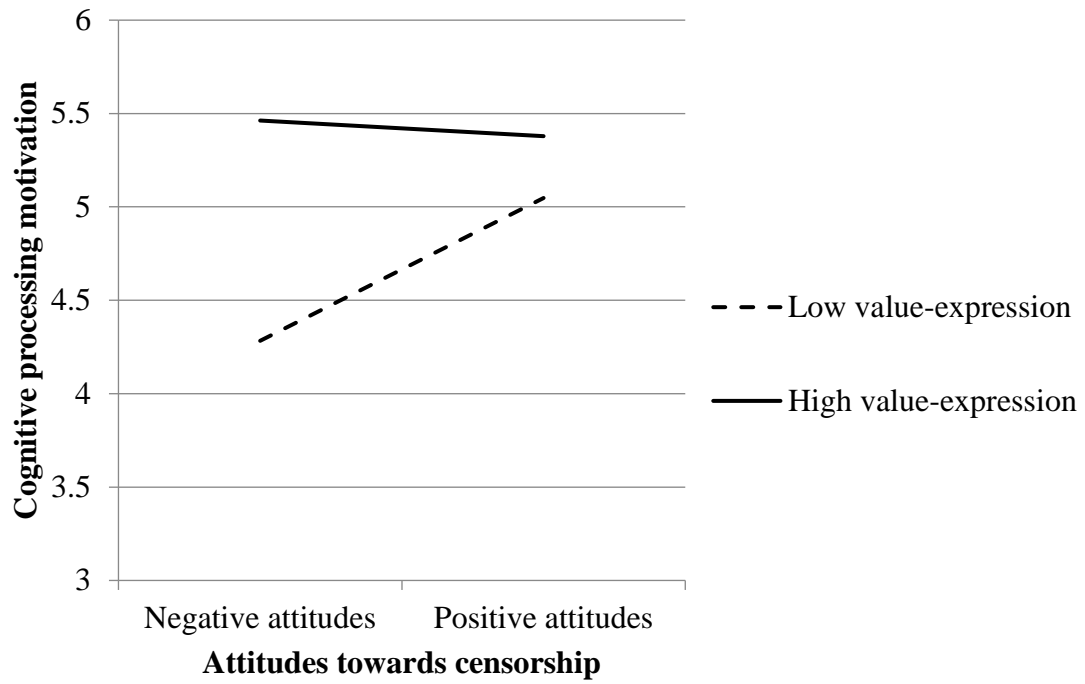


Figure 1. Interaction between attitudes towards race-related censorship and value-expressive function on cognitive processing motivation.

Predicting Affective Processing Motivation

Mean-centered value-expressive function (“based on my concern we safeguard the personal freedoms of all people in our society”) and mean-centered attitudes were entered as predictors in the first step of a hierarchical multiple regression predicting affective processing motivation (Table 3). In the second step, the interaction term between mean-centered attitudes and mean-centered value-expressive function was entered. Results were interpreted from the first step of the model in which they appeared.

The value-expressive function positively predicted affective processing motivation, $B = .18$, $SE = .06$, $t(197) = 2.11$, $p = .036$, $pr^2 = .02$. In other words, those who reported that their attitudes towards censorship of race-related issues were driven more by their concern for safeguarding the personal freedoms of all people in society also reported a greater motivation to processing affective information related to the issue. Attitudes did not significantly predict affective processing motivation, $B = -.09$, $SE = .07$, $t(197) = -1.34$, $p = .18$, $pr^2 = .01$.

The interaction between attitudes and value-expressive function was not significant, $B = -.05$, $SE = .03$, $t(196) = -1.42$, $p = .16$, $pr^2 = .01$.

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Table 3

Hierarchical regression predicting affective processing motivation

Predictor	β	pr^2
Step 1		
Value-Expressive Function: continuous	.15*	.02
Attitudes: continuous	-.10	.01
Step 2		
Value-Expressive Function x Attitudes Interaction	-.10	.01

Note. $R^2 = .04$, $R^2_{\text{change}} = .01$, $*p = .036$

Discussion

The value-expressive function positively predicted cognitive processing motivation. In other words, participants whose attitudes served to express their values tended to have greater motivation to process cognitive information related to race-related censorship. The positive relationship between the value-expressive function and cognitive processing motivation supports the hypothesis that relying on one's values requires extensive reflection, criticism, and revision (Tiberius, 2008). However, as the salience of personal values was not manipulated, the direction of this relationship is unclear.

Unexpectedly, the value-expressive function also positively predicted affective processing motivation, $p = .036$. It is possible that the salience of values elicited a spillover effect on the perceived use of affective information – previous research suggests that people's values may be associated with strong feelings (Skitka, Bauman, & Sargis, 2005). That said, research also suggests that the influence of values on people's reliance on emotions is largely unconscious (e.g., Maio, 2016). The latter perspective seems to be supported by the present findings – value-expression appears to be a stronger predictor of cognitive processing motivation ($R^2 = .06$) compared to affective processing motivation ($R^2 = .03$).

Of most relevance to the hypothesis, however, the relationship between value-expressive function and cognitive processing motivation was moderated by censorship attitudes. As expected, participants with positive attitudes towards race-related censorship exhibited relatively high cognitive processing motivation regardless of whether their attitudes tended to serve a value-expressive function. On the other hand, participants with negative attitudes towards race-related censorship differed in their cognitive processing motivation depending on the extent of value-expression in their attitudes. Specifically, participants who reported higher value-expression in their attitudes had higher cognitive processing motivation

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(comparable to those with positive attitudes) than participants who reported lower value-expression in their attitudes. The current finding suggests that the value-expressive function can increase motivation to process cognitive information for individuals against race-related censorship.

Study 2

Study 1 provided preliminary evidence that the value-expressive function enhances cognitive processing motivation among anti-censorship individuals, but not among individuals who are pro-censorship. However, since the value-expressive function was measured, there is insufficient evidence to conclude that a causal relationship is present. The goal of Study 2 is to replicate the previous study's findings via a manipulation, rather than measurement, of value-expressive function. Furthermore, in Study 1, the value-expressive function was operationalized as the perception that one's attitudes serve to express the value of personal freedom, such that the function exerts its influence only when the value has strong or obvious connections to censorship. In Study 2, the value-expressive function was operationalized more broadly (e.g., values encompassing freedom, peace, moral uprightness), with less obvious connections to censorship, and thus provides a more stringent test of the hypothesis.

In addition, a post-hoc power analysis of the critical interaction in Study 1 was conducted using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009), and indicated that the two-tailed test ($\alpha = 0.05$) with 200 participants and effect size $f^2 = 0.04$ achieved a power of 0.80. The analysis was used to inform sample sizes for Studies 2 and 3.

Method

Participants and Design

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Given that Study 1 had an effect size of $pr^2 = .04$, and that the direction of the effect in Study 1 was consistent with our hypothesis, $N = 156$ participants would give us 80% power to detect an effect that is of the same size as in Study 1 and also in the same direction as in Study 1 (and as originally hypothesized) in a one-tailed test. In the final sample, 157 undergraduates ($M_{age} = 20.63$, $SD_{age} = 1.75$; 61.8% female, 38.2% male) from the National University of Singapore participated in a computer-based survey for partial course credit. A 2(attitude function: value-expressive versus control) X 2(attitudes towards race-related censorship: positive versus negative) between-subjects design was employed, with participants randomly assigned to either the value-expressive or control condition. Attitudes towards race-related censorship were measured as a continuous variable, and operationalized as one standard deviation (SD) below and above the mean.

Procedure

At the beginning of the session, participants were informed that they would be participating in two short, unrelated studies in order to make full use of the 30-minute session. Questionnaires and materials were fully presented on computer. In the first half of the session, all participants were briefly introduced to the concept of attitude function. Participants in the experimental condition then received the value-expressive attitude function manipulation whereas those in the control condition completed several filler questionnaires. All participants completed a self-report measure of their attitude function before receiving a message informing them that they had completed the first study. In addition to a new 'welcome' screen, a different background colour and font was used in the subsequent half of the experiment to reduce suspicion.

In the second half, participants were instructed to read a passage describing censorship of race-related issues in Singapore, identical to that in Study 1. Participants then

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reported their attitudes and processing motivations regarding the described issue. Finally, participants reported their demographic information and were debriefed.

Materials: First half.

Value-expressive function condition. A three-step attitude function manipulation was adapted from Murray and colleagues (1996) to convince participants that their attitudes generally reflected the value-expressive function. In the first step, participants completed a nine-item Attitude Functions Questionnaire on the basis of distinguishing whether their attitudes typically fulfilled either a value-expressive or social-adjustive function. In reality, the questionnaire items were worded to induce greater agreement with items representing the value-expressive function (e.g., “A person’s values should be one of the most important factors in determining their attitudes.”) and disagreement with items expressing an opposing social-adjustive function (e.g., “My views of the world are simply a reflection of those of my peers.”).

Upon completion of the questionnaire, the next screen notified participants that their responses had been compared against a database of previous respondents to calculate their dominant attitude function. In this second step, a results screen indicated that their scores fell within the 80th percentile for the value-expressive function. Participants read a passage that described the traits of people whose attitudes typically reflected the value-expressive function versus people whose attitudes typically reflected the social-adjustive function. Importantly, the former group was described more favourably than the latter, in order to further motivate participants to believe that their attitudes were more value-expressive in nature.

In the final step, participants completed a second survey, purportedly to refine the validity of the Attitude Function Questionnaire. Its actual purpose was to consolidate participants’ perceptions that their attitudes fulfilled the value-expressive function, via linking

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specific values to their attitudes towards a range of university-related issues (e.g., plagiarism, orientation activities). Participants reported their attitudes towards each issue before indicating which of several values (e.g., freedom, peace, moral uprightness) had the greatest impact on their attitudes toward each issue.

Control condition. Participants in the control condition completed several filler questionnaires: the Self-Monitoring Scale (Snyder, 1974), Right-Wing Authoritarianism Scale (Altemeyer, 1981), and Analysis-Holism Scale (Choi, Koo, & Choi, 2007). Lastly, they were instructed to complete the self-report measure of attitude function under the pretext of examining whether the various personality traits that they had reported were related to attitude function.

Manipulation check. As a manipulation check, participants in the value-expressive condition were informed that the Attitude Functions Questionnaire was not 100% valid, and would misclassify respondents from time to time. Participants then indicated the extent to which they actually thought their attitudes were based on the value-expressive function ($M = 4.69$, $SD = 1.12$, $\alpha = .81$) and the social-adjustive function ($M = 4.34$, $SD = 1.19$, $\alpha = .88$). Respondents were recorded on a 7-point scale (1 = not at all like me; 7 = very much like me). Participants in the control condition completed the same items at the end of the filler questionnaires, ostensibly to investigate whether their reported attitude function was linked to certain personality traits.

Materials: Second half.

Predictor variable: Attitudes towards censorship of race-related issues. Using items from Crites et al. (1994), participants completed two seven-point semantic-differential scales measuring overall attitudes (against-in favour of; negative-positive). Responses were

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averaged to create a composite measure of attitudes ($M = 4.22$, $SD = 1.52$, $\alpha = .90$). Higher scores reflected more positive attitudes.

Dependent variable: Cognitive processing motivation. Two items assessing cognitive processing motivation were taken from See and colleagues (2013): “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your beliefs?” and “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your thoughts?”. Responses were recorded on a seven-point scale (1 = not at all; 4 = somewhat; 7 = totally), and were averaged to create a composite measure of cognitive processing motivation ($M = 4.96$, $SD = 1.03$, $\alpha = .77$). Thus, higher scores reflected greater cognitive processing motivation.

Dependent variable: Affective processing motivation. Once again, to be thorough, affective processing motivation was examined: “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your feelings?” and “To what extent do you think your attitudes toward censorship of race-related issues in Singapore are driven by your emotions?” (See et al., 2013). Responses were recorded on a 7-point scale (1 = not at all; 4 = somewhat; 7 = totally), and were averaged to create a composite measure of affective processing motivation ($M = 4.37$, $SD = 1.35$, $\alpha = .93$). Higher scores reflected greater affective processing motivation.

Manipulation check. As a second check of the success of the attitude function manipulation, participants completed an open-ended measure of the reasons they had for holding their existing opinions about censorship of race-related issues in Singapore (Watt, Maio, Rees, & Hewstone, 2006).

Results

Manipulation Check

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Reported social-adjustive function was significantly higher in control than in the value-expressive condition, $p < .001$. Furthermore, reported value-expressive function was higher in the value-expressive condition than in control, $p = .037$, indicating that the value-expressive function manipulation was successful (Table 4).

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Table 4

Reported attitude function by condition

	Condition	<i>M (SD)</i>
Reported social- adjustive function	Value-expressive	3.81 ^a (1.21)
	Control	4.86 ^b (.91)
Reported value- expressive function	Value-expressive	4.88 ^b (1.11)
	Control	4.51 ^c (1.10)

Note. Different superscript letters indicate that differences between the means are statistically significant, $p < .05$.

Predicting Cognitive Processing Motivation

Dummy-coded attitude function (0 = control; 1 = value-expressive) and mean-centered attitudes were entered as predictors in the first step of a hierarchical multiple regression analysis predicting cognitive processing motivation (Table 6). In the second step, the interaction term between mean-centered attitudes and dummy-coded attitude function was entered. Results were interpreted from the first step of the model in which they appeared.

Unexpectedly, the value-expressive manipulation did not significantly enhance cognitive processing motivation relative to control, $B = .12$, $SE = .16$, $t(154) = 0.75$, $p = .46$, $pr^2 = .00$. Furthermore, attitudes did not significantly predict cognitive processing motivation, $B = .07$, $SE = .05$, $t(154) = 1.33$, $p = .19$, $pr^2 = .01$. Of greater importance, the hypothesized *attitudes x attitude function* interaction was marginally significant, $B = -.20$, $SE = .11$, $t(153) = -1.88$, $p = .062$, $pr^2 = .02$ (Figure 2).

Decomposing the interaction, the results showed that as expected, among anti-censorship individuals (i.e., attitudes one SD below the mean), those in the value-expressive condition tended to have greater cognitive processing motivation than control participants, $B = .44$, $SE = .23$, $t(153) = 1.87$, $p = .063$, $pr^2 = .02$. However, among pro-censorship individuals (i.e., attitudes one SD above the mean), value-expressive condition did not affect cognitive processing motivation, $B = -.18$, $SE = .23$, $t(153) = -0.79$, $p = .43$, $pr^2 = .00$.

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Table 5

Zero-order correlations between variables

Variables	1	2	3	4
1. Censorship attitudes	-			
2. Attitude function	.08	-		
3. Cognitive processing motivation	.11	.07	-	
4. Affective processing motivation	.20**	-.14*	.44***	-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

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Table 6

Hierarchical regression predicting cognitive processing motivation

Predictor	β	pr^2
Step 1		
Attitude Function: 0 = control; 1 = value-expressive	.06	.00
Attitudes: continuous	.11	.01
Step 2		
Attitude Function x Attitudes Interaction	-.20 ⁺	.02

Note. $R^2 = .04$, $R^2_{\text{change}} = .02$, $^+p = .062$

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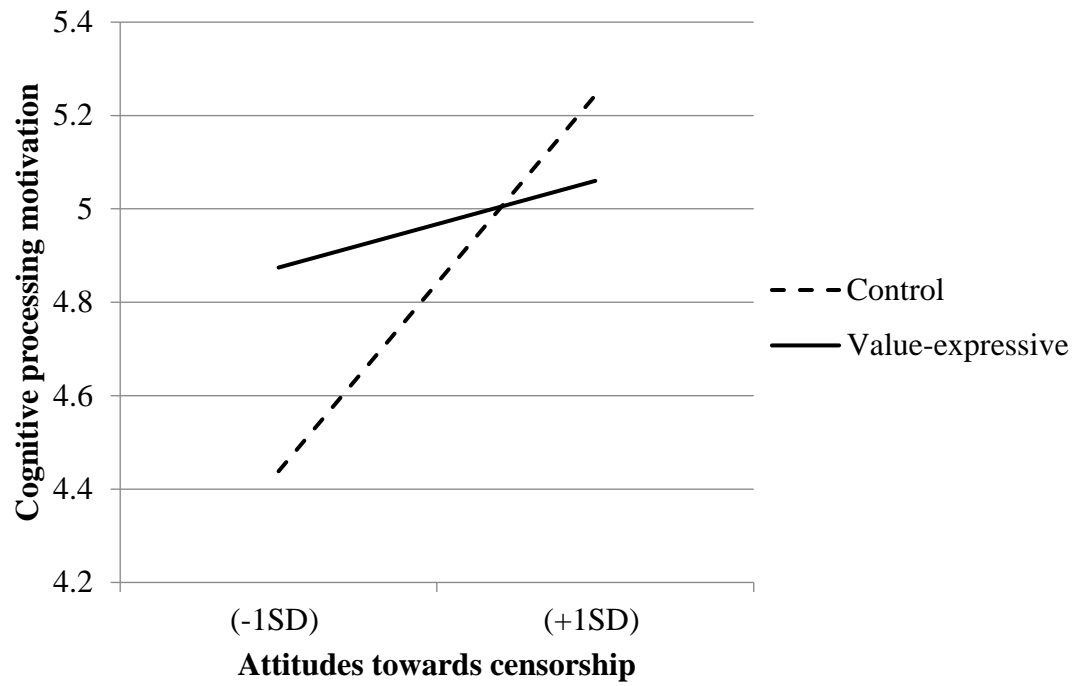


Figure 2. Interaction between attitudes towards race-related censorship and attitude function on cognitive processing motivation.

Predicting Affective Processing Motivation

Dummy-coded attitude function condition (0 = control; 1 = value-expressive) and mean-centered attitudes were entered in the first step of a hierarchical multiple regression analysis predicting affective processing motivation (Table 7). In the second step, the interaction term between mean-centered attitudes and dummy-coded attitude function condition was entered. Results were interpreted from the first step of the model in which they appeared.

Dummy-coded condition significantly affected affective processing motivation, such that participants in the value-expressive condition reported lower affective processing motivation than control, $B = -.42$, $SE = .21$, $t(154) = -2.00$, $p = .048$, $pr^2 = .03$. Furthermore, attitudes positively predicted affective processing motivation, $B = .19$, $SE = .21$, $t(154) = 2.69$, $p = .008$, $pr^2 = .05$.

Unexpectedly, there was a significant *attitudes x attitude function* interaction, $B = .37$, $SE = .14$, $t(153) = 2.70$, $p = .008$, $pr^2 = .05$ (Figure 3). Decomposing the interaction, participants against race-related censorship (i.e., attitudes one SD below the mean) differed in their level of affective processing motivation – participants in the value-expressive condition reported lower affective processing motivation than control $B = -.99$, $SE = .30$, $t(153) = -3.35$, $p = .001$, $pr^2 = .07$. On the other hand, participants supportive of race-related censorship (i.e., attitudes one SD above the mean) reported similar levels of affective processing motivation regardless of condition, $B = .14$, $SE = .29$, $t(153) = .46$, $p = .64$, $pr^2 = .00$.

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Table 7

Hierarchical regression predicting affective processing motivation

Predictor	β	pr^2
Step 1		
Attitude Function:	-.16*	.03
0 = control; 1 = value-expressive		
Attitudes: continuous	.21**	.05
Step 2		
Attitude Function x Attitudes Interaction	.28**	.05

Note. $R^2 = .11$, $R^2_{\text{change}} = .04$, * $p < .05$, ** $p < .010$

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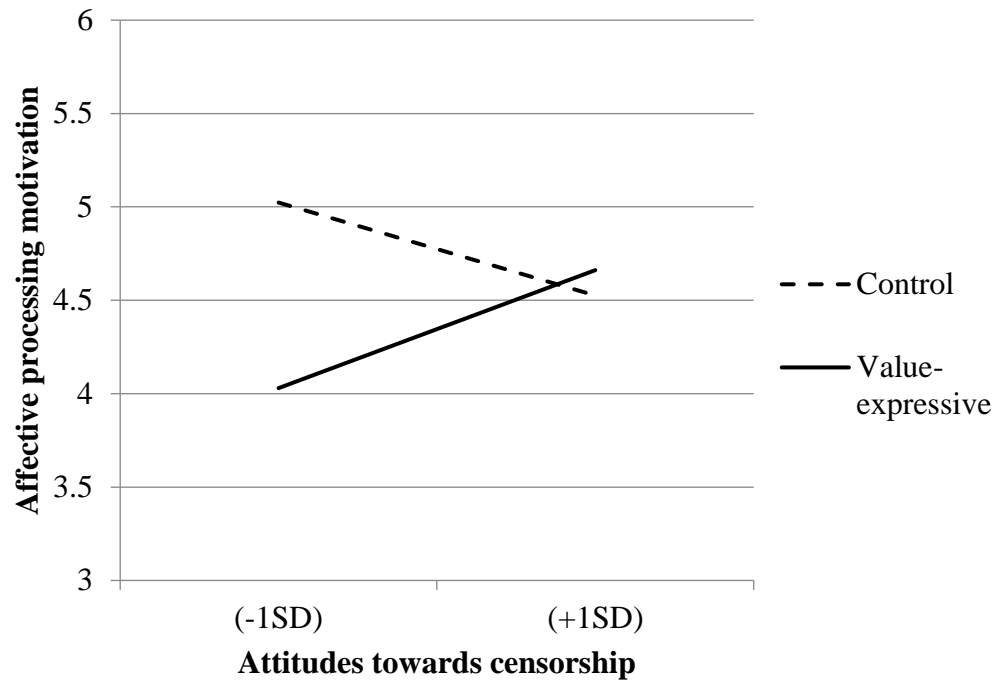


Figure 3. Interaction between attitudes towards race-related censorship and attitude function on affective processing motivation.

Discussion

Study 2 replicated the *censorship attitudes x value-expressive function* interaction found in Study 1, but via a manipulation of value-expressive function. The value-expressive manipulation only amplified cognitive processing motivation for participants with negative attitudes towards race-related censorship. This implies that making the value-expressive function salient only increases motivation to process cognitive information for anti-censorship individuals. As in Study 1, cognitive processing motivation was equally high among participants with positive attitudes, regardless of value-expressive function salience.

There was also a significant interaction between attitudes and attitude function when predicting affective processing motivation – only participants with negative attitudes towards race-related censorship differed in their level of affective processing motivation based on attitude function. Specifically, participants in the value-expressive condition reported lower affective processing motivation than control. This suggests that anti-censorship individuals become less motivated to process affective information when the value-expressive function is made salient. Although one might wonder if this means that factors that enhance cognitive processing motivation necessarily reduce affective processing such that both types of motivation are antagonistic to each other, we do not make such a conclusion due to the following reasons. First, this interaction was only obtained in Study 2 but not Study 1. Second, previous theorizing on affect and cognition has proposed that the two exert independent rather than antagonistic influences on attitudes (e.g., Zanna & Rempel, 1988). Third, empirically, affective processing motivation tends to be positively, not negatively, correlated with cognitive processing motivation ($r = .32$ in Study 1; $r = .44$ in Study 2).

Meta-Analysis

A fixed-effects meta-analysis conducted for Studies 1 and 2 to determine the significance of the combined probabilities for the effects of value-expressive function among participants with negative versus positive attitudes towards censorship (Rosenthal & Rosnow, 2008). Fisher's z was used as an indicator of effect size. Effect sizes did not differ significantly for anti-censorship individuals ($\chi^2 = 1.69, p = .150$), but differed significantly for pro-censorship individuals ($\chi^2 = 6.30, p = .015$). The averaged effect size among anti-censorship individuals was $z = 0.38$, while the averaged effect size among pro-censorship individuals was $z = -0.03$. Due to the large difference in effect size across studies for pro-censorship individuals, some caution is necessary when interpreting the combined effect size (Rosenthal & Rosnow, 2008).

Additionally, p -values differed significantly across the studies for anti-censorship individuals ($\chi^2 = 4.17, p = .030$), but not for pro-censorship individuals ($\chi^2 = 1.07, p = .300$). The p -values were combined across studies. Importantly, consistent with the hypotheses, the effects of the value-expressive function among anti-censorship participants were reliable, $Z = 4.21, p < .001$, such that high value-expression (Study 1) and the value-expressive manipulation (Study 2) led to greater cognitive processing motivation than did low value-expression (Study 1) and control (Study 2). Also, as predicted, effects of the value-expressive function among pro-censorship participants were not reliable, $Z = 0.78, p = .218$.

Study 3

Study 3 sought to extend the previous studies' findings by exploring the role of specific values in enhancing cognitive processing motivation for both pro- and anti-censorship individuals. The previous studies suggest that value-expression generally tends to be more influential in enhancing cognitive processing motivation among anti-censorship

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individuals. Nevertheless, it would be informative to explore whether similar effects can be found for pro-censorship individuals if the salient value is more relevant to them. In particular, pro-censorship individuals may be more motivated to consider censorship in a reasoned manner when the value of security (i.e., safety, harmony, and stability of society) is more salient.

We drew on research suggesting that individuals against censorship tend to have an independent self-construal, while those supportive of censorship tend to have an interdependent self-construal (Detenber & Rosenthal, 2017). Put differently, anti-censorship individuals may be concerned about their individuality, while pro-censorship individuals may be concerned about whether their decisions impact others around them. Thus, we hypothesized that among anti-censorship individuals, concern for self-direction (rather than security) would positively predict cognitive processing motivation. Among pro-censorship individuals, concern for security (rather than self-direction) would predict greater cognitive processing motivation. Values were measured via the Brief Schwartz Values Survey (Sandy, Gosling, Schwartz, & Koelkebeck, 2017).

Furthermore, we assessed attitudes towards an up-and-coming censorship issue. In 2019, the Singapore Government passed the Protection from Online Falsehoods and Manipulation Act, which gives ministers the authority to issue stop-communication, correction, or take-down directives on any online statement that is found to contain malicious falsehoods or misleading information (POFMA, 2019). The rationale for this Act is to deal with malicious online falsehoods that could potentially influence election outcomes, incite hatred between different groups, and undermine confidence in the Government. However, detractors argue that the Act will further hinder civil debate in Singapore, while enabling the Government to consolidate political power.

Method

Participants and Design

210 students ($M_{\text{age}} = 21.2$, $SD_{\text{age}} = 2.21$; 73.3% females, 26.7% males) from the National University of Singapore participated in an online survey for monetary compensation. A 2(value concern: high versus low) X 2(attitudes towards POFMA: positive versus negative) between-subjects design was employed for the values of self-direction and security respectively. All predictor variables were measured as continuous variables, and their levels were operationalized as one standard deviation (SD) below and above the mean.

Procedure

Participants followed a link to complete the survey on Qualtrics. As it was an online survey, participants were encouraged to use their computer or laptop and to complete the study in a quiet location. At the start of the survey, all participants read a passage describing the Protection from Online Falsehoods and Manipulation Act in Singapore¹. Afterwards, they completed measures of attitudes, cognitive processing motivation, and values, in that order. Lastly, they reported their demographics.

Materials.

Predictor variable: Attitudes towards POFMA. Participants completed two semantic-differential scales measuring overall attitudes (Crites et al., 1994). Responses were recorded on a seven-point scale, and were averaged to create a composite measure of attitudes ($M = 5.11$, $SD = 1.03$, $\alpha = .86$). Higher scores reflected more positive attitudes towards the censorship law.

¹ Two versions of the passage were created, where one passage additionally mentioned that POFMA had been used against Covid-19 misinformation. Participants were randomly presented with either passage. However, as the passage condition did not moderate any of the present results, it will not be discussed.

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Predictor variable: Schwartz values. Participants then completed the Brief Schwartz Values Survey (Sandy et al., 2016), using a six-point scale to rate the extent to which they were similar to the individuals portrayed in twenty brief descriptions (1 = not like me at all; 6 = very much like me). Two items assessed self-direction concern: “S/he thinks it's important to be interested in things. S/he likes to be curious and to try to understand all sorts of things” and “Thinking up new ideas and being creative is important to him/her. S/he likes to do things in his/her own original way”. Responses were averaged to create a composite measure of self-direction concern ($M = 4.11$, $SD = 0.94$, $\alpha = .63$). In addition, one item assessed security concern: “Having a stable government is important to him/her. S/he is concerned that the social order be protected” ($M = 4.67$, $SD = 0.95$). Higher scores reflected greater value concern.

Dependent variable: Cognitive processing motivation. Once again, participants completed two items assessing cognitive processing motivation (See et al., 2013). Responses were averaged to create a composite measure of cognitive processing motivation ($M = 4.79$, $SD = 0.99$, $\alpha = .62$). Higher scores reflected greater cognitive processing motivation.

Results

Concern for Self-Direction as Predictor

Mean-centered self-direction concern and mean-centered attitudes were entered as predictors in the first step of a hierarchical multiple regression analysis predicting cognitive processing motivation (Table 9). In the second step, the interaction term between mean-centered self-direction concern and mean-centered attitudes was entered. Results were interpreted from the first step of the model in which they appeared.

Self-direction concern did not significantly predict cognitive processing motivation, $B = .11$, $SE = .07$, $t(207) = 1.57$, $p = .118$, $pr^2 = .01$. Attitudes towards the new Act positively

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predicted cognitive processing motivation, $B = .20$, $SE = .07$, $t(207) = 3.13$, $p = .002$, $pr^2 = .04$. More importantly, the *attitudes x self-direction concern* interaction was significant, $B = -.15$, $SE = .07$, $t(206) = -2.24$, $p = .026$, $pr^2 = .02$ (Figure 4).

Decomposing the interaction, anti-censorship individuals (i.e., attitudes one SD below the mean) differed in their level of cognitive processing motivation, such that the greater the concern for self-direction, the greater the cognitive processing motivation, $B = .29$, $SE = .11$, $t(206) = 2.73$, $p = .007$, $pr^2 = .03$. For pro-censorship individuals (i.e., attitudes one SD above the mean), cognitive processing motivation was equally high regardless of self-direction concern, $B = -.02$, $SE = .09$, $t(206) = -0.20$, $p = .844$, $pr^2 = .00$.

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Table 8

Zero-order correlations between continuous variables

Variables	1	2	3	4	5
1. Censorship attitudes	-				
2. Self-direction	-.13	-			
3. Security	.29***	-.00	-		
4. Cognitive processing motivation	.20**	.08	.29***	-	
5. Affective processing motivation	.08	.19**	.02	.34***	-

Note. ** $p < .01$, *** $p < .001$.

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Table 9

Hierarchical regression predicting cognitive processing motivation

Predictor	β	pr^2
Step 1		
Self-Direction: continuous	.11	.01
Attitudes: continuous	.21***	.04
Step 2		
Self-Direction x Attitudes	-.15*	.02
Interaction		

Note. $R^2 = .07$, $R^2_{\text{change}} = .02$, $*p < .05$, $***p < .005$

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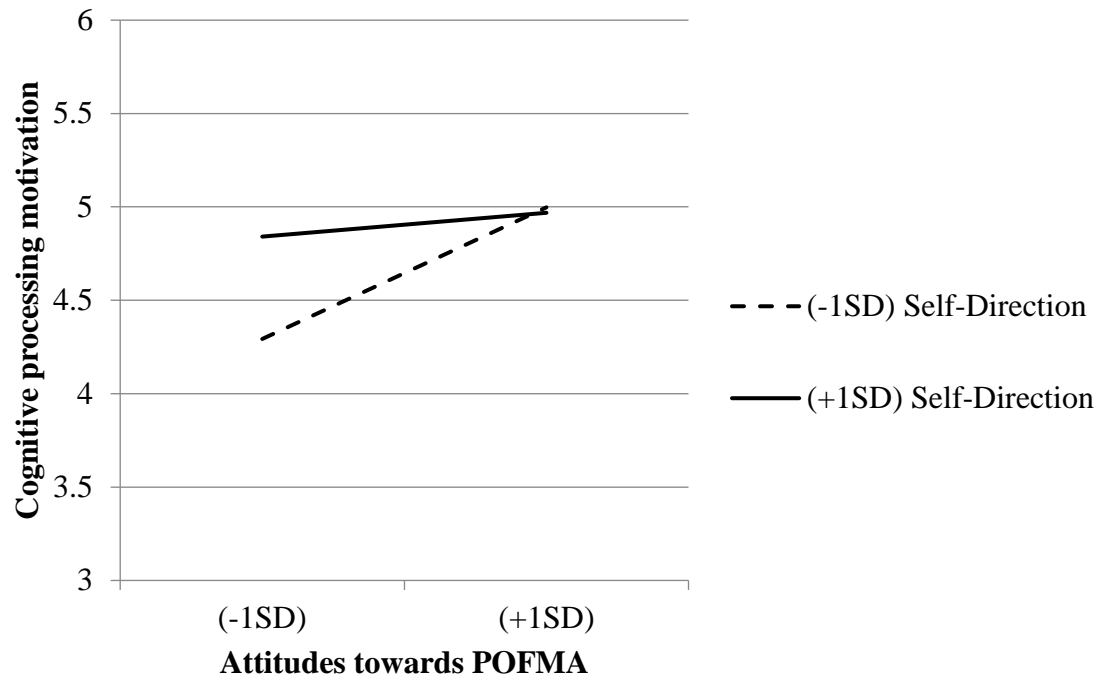


Figure 4. Interaction between attitudes towards POFMA and self-direction concern on cognitive processing motivation.

Concern for Security as Predictor

Mean-centered security concern and mean-centered attitudes were entered as predictors in the first step of a hierarchical multiple regression analysis predicting cognitive processing motivation (Table 10). In the second step, the interaction term between mean-centered security concern and mean-centered attitudes was entered. Results were interpreted from the first step of the model in which they appeared.

Security concern positively predicted cognitive processing motivation, $B = .26$, $SE = .07$, $t(207) = 3.59$, $p < .001$, $pr^2 = .06$. In other words, those who placed more importance on safety, harmony, and stability in society also had a greater motivation to process cognitive information related to the new Act. Attitudes towards the Act marginally positively predicted cognitive processing motivation, $B = .12$, $SE = .07$, $t(207) = 1.85$, $p = .065$, $pr^2 = .02$. More importantly, the *attitudes x security concern* interaction was marginally significant, $B = .13$, $SE = .07$, $t(206) = 1.93$, $p = .055$, $pr^2 = .02$ (Figure 5).

Decomposing the interaction, among anti-censorship individuals (i.e., attitudes one SD below the mean), security concern marginally positively predicted cognitive processing motivation, $B = .16$, $SE = .09$, $t(206) = 1.81$, $p = .071$, $pr^2 = .02$. Among pro-censorship individuals (i.e., attitudes one SD above the mean), security concern positively predicted cognitive processing motivation, $B = .42$, $SE = .11$, $t(206) = 3.82$, $p < .001$, $pr^2 = .07$. Thus, the positive relationship between security concern and cognitive processing motivation was stronger among pro-censorship individuals, compared to anti-censorship individuals².

²A second item measuring security assessed preference for order and cleanliness in the private domain: “It is important to him/her that things be organized and clean. S/he really does not like things to be a mess.”. Scores for the two items had low internal consistency ($\alpha < .01$), thus separate regression analyses were conducted for both items. There was a significant interaction between attitudes and security item 2 ($p = .038$). The interaction results with either item as predictor followed a similar pattern. However, as item 1 is more relevant to caring about safety and stability in society, I focused on this item in the analysis.

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Table 10

Hierarchical regression predicting cognitive processing motivation

Predictor	β	pr^2
Step 1		
Security: continuous	.25***	.06
Attitudes: continuous	.13 ⁺	.02
Step 2		
Security x Attitudes Interaction	.13 ⁺	.02

Note. $R^2 = .12$, $R^2_{\text{change}} = .03$, ⁺ $p < .070$, *** $p < .001$

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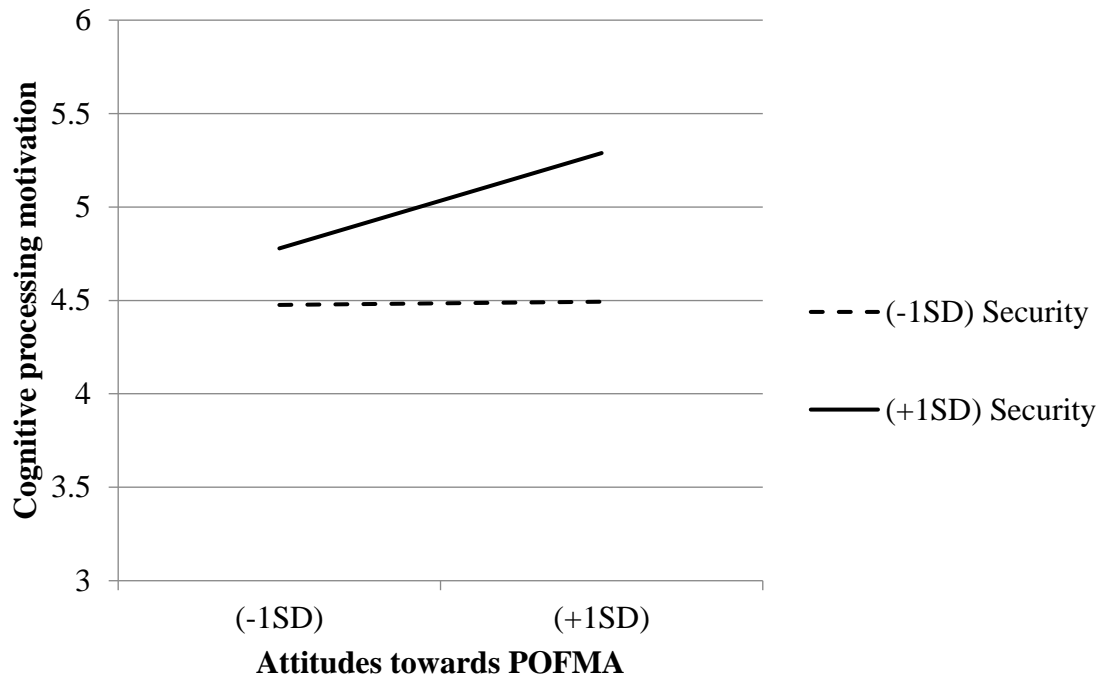


Figure 5. Interaction between attitudes towards POFMA and security concern on cognitive processing motivation.

Discussion

The results of Study 3 suggest that distinct values may underlie the motivation that anti- and pro-censorship individuals possess to consider censorship in a reasoned manner. For anti-censorship individuals, the more they value independent thought and action, the more motivated they are to engage in cognitive processing about censorship. On the other hand, for pro-censorship individuals, the more they value safety, harmony, and security in society, the higher their cognitive processing motivation. Concern for self-direction was not associated with greater cognitive processing motivation among pro-censorship individuals. Indeed, their cognitive processing motivation for censorship remained relatively high regardless of concern for self-direction, replicating the pattern from Studies 1 and 2.

Interestingly, for anti-censorship individuals, concern for security marginally positively predicted cognitive processing motivation. This was unexpected as security was hypothesized to be of low personal relevance to someone who opposes censorship. It must be noted that in Singapore, the Confucian ethic of harmony is promoted in official rhetoric, national policies and public education (Ho, 2017). A key feature of this ethic is that individuals have obligations to the wider society, rather than act as sovereign beings. As such, the importance of social harmony and order may be deeply ingrained among the general population. In connection with the current results, the value of security may be highly accessible or relevant to all participants regardless of their concern for self-direction.

Taken together, anti-censorship individuals may be more motivated to process cognitive information about censorship when either self-direction or security is salient. As self-direction is hypothesised to be of greater relevance, the effects on cognitive processing motivation are also expected to be more significant than if security is salient. On the other hand, pro-censorship individuals are only more motivated to be thoughtful about censorship

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when security is a salient concern. This particular finding extends the implications of the present research, as the previous two studies did not find any impact of value-expression for pro-censorship individuals. Study 3 teases out a potential reason underlying the high cognitive processing motivation among pro-censorship individuals in Studies 1 and 2 – namely, their high concern for security.

General Discussion

The present research sought to investigate the antecedents of motivation to reason about one's attitudes towards censorship in Singapore. In the first two studies, I found that the value-expressive function positively predicted cognitive processing motivation, particularly among anti-censorship individuals. In other words, making their values a salient consideration in their attitudes towards censorship enhanced their motivation to engage in reasoning about censorship. This is consistent with previous theorizing that values occupy a central position in one's mental schemata (e.g., Rosenberg, 1968, Rokeach, 1973), as well as philosophical ideas that the development and usage of personal values involves cognitive reflection (e.g., Tiberius, 2008). The present research thus empirically clarifies the relationship between values and cognitive processing motivation, specifically for the issue of censorship. Curiously, across multiple studies and different operationalizations of values, it appears that anti-censorship individuals tend to be fairly low in cognitive processing motivation before their values are made salient. This pattern suggests that those against censorship in Singapore generally try to avoid thinking about this issue in depth, unless they recall their important values.

Meanwhile, for pro-censorship individuals, cognitive processing motivation was relatively high regardless of the value-expressive function. This is in line with previous research on cognitive processing in the moral domain, whereby individuals with greater

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concern for preventing harm engage in more careful reasoning and rely less on their feelings when making judgments (Cornwell & Higgins, 2016). Further basis for the significance of prevention focus comes from signal detection theory, which distinguishes between four possible responses in signal detection: hits, misses (errors of omission), false alarms (errors of commission), and correct rejections (Tanner & Swets, 1954). Of relevance, research suggests that individuals with a prevention focus have a stricter decision criterion so as to avoid mistakes – put differently, individuals with a prevention focus are concerned with ensuring correct rejections and ensuring against errors of commission (Camacho, Higgins, & Luger, 2003). Finally, individuals with a preventive focus have been shown to rely on external rather than internal sources of information, thereby reducing the importance of feelings in their judgment (Bless et al., 1996). Due to the preventive focus of censorship (e.g., preventing harmful content from being spread in society), those who are in favour of it are likely to be motivated to consider the issue thoughtfully and carefully.

Study 3 moreover considered the importance of specific values in enhancing cognitive processing motivation. Because self-direction might be more self-relevant to anti-censorship individuals, it was hypothesized to positively predict cognitive processing motivation for this group. The results partially supported these predictions. For anti-censorship individuals, self-direction concern positively predicted cognitive processing motivation, while security concern only marginally positively did so. For pro-censorship individuals, only the concern for security positively predicted cognitive processing motivation.

Implications

The findings shed light on the conditions under which people in Singapore would be motivated to be thoughtful about censorship. As anti-censorship individuals have an independent self-construal (Detenber & Rosenthal, 2017), they may be relatively

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unconcerned about the societal harms caused by hate speech and misinformation, leading to low motivation to consider censorship in a reasoned manner. Inducing value-expressive salience is thus one way of increasing their cognitive processing motivation for censorship. Conversely, participants who supported censorship had high cognitive processing motivation regardless of value-expressive function. This implies that support for censorship in Singapore does not reflect apathy regarding this subject. Rather, those supportive of censorship may be more sensitive to the potential harm caused by hate speech and misinformation, and hence are inherently motivated to be thoughtful about censorship. These findings can potentially be applied in societal-level interventions encouraging civic engagement on issues related to censorship. One example of an intervention to spark civic discourse in Germany made use of interactive digital polls located in public areas (Valkanova, Walter, Vande Moere, & Müller, 2014). The present findings can be used to optimise the effectiveness of such interventions in increasing constructive public engagement about local issues. For instance, asking the public to consider their attitudes towards censorship with respect to their personal values can be a direct way of promoting more thoughtful discussion, as compared to only requesting their personal opinions.

The findings provide evidence that it is possible to enhance cognitive processing motivation for both pro- and anti-censorship individuals respectively. Among anti-censorship individuals, eliciting concern for self-direction can be an effective way of enhancing cognitive processing motivation. Among pro-censorship individuals, concern for security may be a necessary component of their typically high cognitive processing motivation. Practically, the findings therefore suggest that different approaches may be needed to enhance cognitive processing motivation among anti- and pro-censorship individuals. Anti-censorship individuals can be encouraged to consider their attitudes more carefully either using a message that makes values in general salient (e.g., “We should reflect on our core

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values when discussing the issue of censorship”), or the value of self-direction (e.g., “Censorship is an issue that impacts personal freedom”). Meanwhile, pro-censorship individuals can be encouraged to consider their attitudes more carefully using a more targeted approach: making salient the value of security (e.g., “Censorship is an issue that impacts societal stability”). Of note, the findings also suggest that making salient a potentially mismatched value (e.g., self-direction for pro-censorship individuals) is unlikely to dampen the motivation to be thoughtful about censorship. That is, both self-direction and security can be made salient within the same message to target pro- and anti-censorship individuals simultaneously.

Our findings also contribute to understanding a potential antecedent of cognitive processing motivation – the value-expressive function (Katz, 1960; Maio & Olson, 2000). Thus far, the functional approach to attitudes has typically been applied to understand health- and consumer-related attitudes (e.g., Wang, 2009; Wilcox, Kim, & Sen, 2009), and less typically to understand political attitudes (e.g., Griffiths & Pedersen, 2009). The present research suggests that the functional approach to attitudes can also be applied to enrich our theoretical understanding of socio-political attitudes and their bases. If people’s attitudes towards a government policy tend to be based in their personal values, for instance, one may expect that they would be more interested in processing cognitive rather than emotional information regarding the topic. Future research could focus on the role of other functions on processing motivations. Of note, the social-adjustive function reflects attitudes that allow people to fit in with a social group, while the instrumental function is present in attitudes that maximize rewards and minimize punishments for the self (Katz, 1960). These two functions of attitudes hold particular relevance in the socio-political domain, as people are known to hold political attitudes based on their perceptions of the collective opinion of society (Mutz, 1998) as well as their tangible self-interests (Boninger, Krosnick, & Berent, 1995).

Limitations and Future Directions

One limitation was the relatively weak effect of the value-expressive function on cognitive processing motivation among anti-censorship individuals when the function was manipulated rather than measured. Indeed, it may be difficult to influence the extent to which people choose to rely on their values in their attitudes using a brief manipulation. When attempting to persuade people to rely on their values, perhaps a more targeted manipulation is needed. Thus, instead of attempting to convince an individual that their attitudes towards a wide range of objects reflect their core values, one could instead help the individual draw concrete links between specific values that they endorse and the attitude object in question (Ostrom & Brock, 1969). For instance, explicitly linking an individual's censorship attitudes to their concern for societal harmony and stability might help to introduce a value-basis to their censorship attitudes.

Another line for further inquiry is to distinguish between unbiased versus biased cognitive processing motivation, where biased processing means to defend and maintain one's extant values, identities, and attitudes (Kunda, 1990). For socio-political issues such as censorship, where people may have a strong sense of moral conviction in their attitudes (Skitka et al., 2005), people may believe that their opinion is the most rational one to have. This might motivate them to process cognitive information that confirms their initial position, rather than engage in unbiased reasoning. While we did not measure the extent to which participants engaged in unbiased versus biased reasoning, future research may examine whether cognitive processing motivation is associated with the proportion of time one spends reading anti- versus pro-attitudinal messages.

The finding that concern for security predicts greater cognitive processing motivation among pro-censorship individuals also poses an important follow-up question: is the concern

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for security a necessary prerequisite for the high cognitive processing motivation among pro-censorship individuals? Or, since self-construal is strongly linked to endorsement of individualistic/relational values (Verplanken, Trafimow, Khusid, Holland, & Steentjes, 2009), is having an interdependent self-construal sufficient? To clarify the relationship between security concern and cognitive processing motivation, a potential study might experimentally manipulate the salience of different values before measuring cognitive processing motivation for censorship. Someone who is supportive of censorship would be expected to show higher cognitive processing motivation for censorship when security, rather than self-direction, is made salient.

Finally, previous research has provided evidence that value-expressive attitudes are resistant to persuasion and increase commitment to relevant behaviours under adversity (Maio & Olson, 2000). We speculate that the noted strength of value-expressive attitudes is a downstream consequence of greater cognitive processing motivation. That is, an increase in cognitive processing motivation may lead to greater elaboration in one's attitudes, which can then enhance the strength of one's attitudes (Petty & Krosnick, 1995). Future research may examine the hypothesis that cognitive processing motivation mediates the relationship between value-expression in attitudes and attitude strength.

Conclusion

To conclude, the present research aimed to uncover the antecedents of people's cognitive processing motivation regarding the issue of censorship in Singapore. Regardless of whether value-expressive function was measured or manipulated, or the specific censorship legislation being considered, value-expressive function interacted with censorship attitudes to influence cognitive processing motivation (Studies 1 and 2). Among anti-censorship individuals, value-expression positively predicted cognitive processing motivation. Among

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pro-censorship individuals, cognitive processing motivation was relatively high regardless of value-expression. Furthermore, while self-direction enhances motivation to reason only among anti-censorship individuals, security enhances motivation to reason especially among pro-censorship individuals (Study 3). Practically, the findings illustrate the conditions under which people in Singapore can be motivated to be thoughtful about censorship. Future studies may investigate how function affects information-processing outcomes in other socio-political attitudes.

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