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Understanding Aggression in Digital Environment: Relationship between Shame and Guilt and Cyber Aggression in Online Social Network

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Understanding Aggression in Digital Environment: Relationship between Shame and Guilt and Cyber Aggression in Online Social Network

Memahami Agresi di Dunia Digital: Hubungan antara Rasa Malu dan Rasa Bersalah terhadap Agresi Cyber di Jejaring Sosial Online

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ABSTRACT
Violence on the internet often occurs in Indonesia due to several aspects, such as political reason and entertainment purpose. It has emerged due to the rapid digital movement, which produces numerous digital applications that can widen the connection among humans from various backgrounds. Sometimes, different values and perceptions are the factors that incinerate violence on the internet, particularly verbal violence. In this study, we apply the term *cyber aggression* (CA), a form of structured and unstructured behavior to harm others online, to explain this phenomenon. The emergence of this new-kind of behavior must be addressed by the government and other stakeholders in managing social and political stability that requires intergroup relation. This study aims to explain two specific predictors that can empirically understand CA from the psychological perspective, namely, moral emotions and frequency of social media usage. Result shows that one dimension of moral emotion—guilt—is a significant predictor to inhibit CA. Moreover, shame precisely encourages people to conduct CA.

ABSTRAK
Kekerasan di internet seringkali terjadi karena berbagai aspek, seperti alasan politik dan kepentingan hiburan. Terminologi ini muncul dikarenakan perkembangan digital yang masif yang memprodukso berbagai aplikasi digital yang memungkinkan manusia melebarkan koneksinya antar manusia dari berbagai latar belakang. Terkadang, perbedaan nilai dan persepsi menjadi faktor yang memicu terjadinya kekerasan di internet, khususnya kekerasan verbal. Dalam studi ini, kami menggunakan istilah empiris cyber aggression (CA), sebuah perilaku terstruktur atau tidak terstruktur untuk melukai orang lain dalam situasi online, guna menjelaskan fenomena ini. Kemunculan dari perilaku baru ini harus dilihat oleh Pemerintah dan stakeholder lain dalam menjaga stabilitas sosial dan politik yang membutuhkan hubungan antar kelompok. Studi ini bertujuan untuk menjelaskan secara spesifik prediktor yang menjelaskan terjadinya CA, yaitu emosi moral dan frekuensi penggunaan media sosial. Hasil menunjukkan bahwa hanya satu dimensi dari emosi moral yang dapat menjadi prediktor yang signifikan untuk membatasi CA. Lebih jauh, emosi malu merupakan emosi yang mendorong individu untuk lebih meningkatkan perilaku CA.

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1. Introduction

Violence on the internet has long been situated in various areas in Indonesia. Some examples can be seen when the country holds elections, whether at regional or national level. *Black campaign*, a form of campaign to insult one political candidate that often happens in the online setting, is an example to describe violence on the internet. The perpetrator of this campaign can be called a *hater*. *Black campaign* and *hater* are two terms that cannot be separated from numerous political events in Indonesia. Even though defining a *hater* by applying an empirical approach is difficult, it can be defined as a party who acts in the online setting, can either be an individual or a group who is tasked to deliver "attack" through verbal message to the opponent with specific purposes, such as organizational and individual purposes (Assegaf, 2016). The presence of a *hater* has become a primary topic for the Indonesian government (GoI) to deal with. As an attempt to overcome this issue, GoI has established a set of rules to penalize people who disrespect others through National Regulation (UU) No. 19 (2016). The regulation attempts to limit users when

they utilize the internet and online social networks. However, it is considered debatable because the content is perceived to limit freedom to speak in a democratic country. Therefore, another point of view to tackle this issue must be addressed, and understanding morality as the subject that affects decision making can be an alternative.

Moral, as a scientific variable, can be defined as the human internal mechanism that works to regulate decision making with regard to right (true) or wrong (false) concepts, which exist in society (Lapsley, 1996; Haidt, 2001). Several variables help understand human morality, from moral emotions (Tangney & Dearing, 2003; Cohen et al., 2011), moral values (Haidt, 2001), to moral judgments (Everett et al., 2016). Through morals, humans can form meanings about objects, environments, and societies up to God's perceptions and use them as references for decision making. Ward and King (2019) illustrated that religious people tend to believe that engaging in religious activities and believing in God can boost one's morality. In addition, morals have been reviewed through various points of view even by scholars from hard science, such as combining a moral decision making model and artificial intelligence (AI) software to develop a good algorithm for AI (Conitzer et al., 2017) and an approach through neuroscience (Pokorny et al., 2017). These two studies suggest the importance of moral as a significant variable for a well-functioning society. Therefore, for Indonesia, comprehensive studies in the area of human morality are significantly important in many fields, such as policy development and strategic intervention, to manage society. Morals can be a regulatory system for humans to produce behaviors in a society. Through morals, people can understand appropriate and inappropriate behaviors that are suitable in a particular context. This moral consideration is affected by emotion as the energy and marker to do good things (appropriate) and avoid bad things (inappropriate; Tangney et al., 1996; Cohen et al., 2011).

Emotions involved in moral consideration can be called moral emotions. According to Cohen et al. (2011), the two labels can be considered significant variables in affecting moral decision making, guilt, and shame. Guilt refers to a psychological state that occurs in human beings to produce self-reflection after the emotional object is digested. Shame refers to a similar concept but different behavioral outputs, thus, avoiding the object. Various studies have covered the role of moral emotions in many aspects of moral behaviors. For example, Xie et al. (2014) illustrated that moral emotions (shame and guilt) moderate how people carry evaluations of corporate green and nongreen actions. Green action at the corporate level can be defined as an action conducted by corporate to support green environment (i.e., growing plants and keeping the sea clean). They showed that when participants are induced by moral emotions, they tend to support green actions higher than other participants in different groups. Cohen (2010) revealed the contribution of moral emotions toward business negotiations and its effect on the reduction of human aggression in a conditional setting (Stuewig et al., 2010). Apart from cause–effect studies, moral emotions have been reviewed in the organizational field, such as in relation with work ethics (Lindebaum et al., 2017), corporate psychopathy (Walker & Jackson, 2017), and deviant workplace behaviors (Harvey et al., 2016).

Specifically, the role of moral emotions in affecting aggression has been examined through numerous studies, such as bullying in school (Thornberg et al., 2015) and the aggression intention of college students (Stuewig et al., 2010). In accordance to that, the present study focuses on a new form of aggression called *cyber aggression* (CA) and how CA is affected by degrees of moral emotions, shame, and guilt. CA exists due to the interactions among humans or particularly called users in the online setting, which is facilitated by computers and their digital applications (Howard, 2011; Runions, 2013; Runions et al., 2017). Basically, the logic of CA is established when an interaction is made among humans. In this context, humans refer to users who develop communication with others in the online setting. In this case, CA may exist due to different points of view and values between individuals and groups, thereby provoking an unstable psychological state. To completely understand CA, Howard (2011) proposed a theory named *quadripartite model of aggression* (QMA) to understand aggression from two different psychological angles. QMA explains that two psychological motives exist, *regulatory control* (RC; impulsive vs. controlled) and *motivational goal* (MG; appetitive aversive), which contribute to human aggression. RC itself refers to how humans perceive the act of aggression according to their cognitive function. Impulsive, as a part of RC, is defined as an unconscious act of aggression that reacts due to a specific emotional object. Meanwhile, controlled aggression refers to an act of aggression conducted with deliberative effort. If RC focuses on deliberative function, then MG concentrates on emotional state that underlies aggression where the term "appetitive" is defined as obtaining a positive state; by contrast, averse focuses on negative emotion removal. Even though CA is one of the risk factors in the online environment, it is a progressive movement in information and technology. Moreover, computers and digital applications have played a crucial role in supporting humans in various activities, such as support to facilitate psychological needs (Sheldon & Bryant, 2016).

The issue of CA currently becomes an empirical trend due to significant changes in human behaviors,

particularly those that may be related to online interactions. This issue must be clearly considered by governments in many countries because bringing significant impacts from the socio-political perspective is possible, such as prejudice among groups; social distance and conflict that lead to real physical aggression and riot. From Allport's (1954) perspective, prejudice can be attributed to human or group interactions, which carry different values and perspectives. Although social interactions in the online environment are relatively different from direct interactions, where physical connection is required, human perceptions about others that produce emotions somewhat cannot be controlled through valid calculations and rigid theoretical frameworks (Russell, 1980; Russell, 2003). Human interaction emerges as something subjective that cannot be calculated using an appropriate formula. Many online media have provided various features that facilitate users for various forms of interactions (i.e., *Instagram* was initially developed as a photo-sharing application, and now it has evolved with chat rooms and *reels*). This application improves the speed and widens the social interaction network that brings many advantages. However, the negative consequences of CA should not be forgotten and must be overcome completely. Indonesia already has a special institution named as *National Cyber Institution* (Ihsanuddin, 2018) to handle and prevent this issue, but this institution cannot work by itself. It needs society's participation to be active.

CA has been spread out among Indonesian users through various forms, such as sending aggressive messages on *Twitter* or insulting others on *Instagram* or *Facebook*. Users nowadays do not hesitate to launch verbal attacks to others, especially when it comes to political preferences (Kuwado, 2018; Polycarpus, 2018). Even though polarization, which is produced by different political preferences, is a common phenomenon in a democratic country, the escalation must be controlled. Conflict is not an option in a democratic country due to its effect on economic and socio-political stability. National Police and Indonesian Army, as primary stakeholders, are responsible for dealing with this issue as the national priority. An updated security and defense portfolio with a behavioral approach should be prepared to overcome CA over time. As the starting point, empirical data must be gathered to comprehensively understand this issue. Governments and stakeholders must map several variables that are related to CA to understand cause variables and confounding variables, which may be related to it. To identify the relationship of CA with other behavioral variables, correlational research must be conducted. Therefore, our study focuses on the relationship between CA and moral emotions. Moral emotions are chosen because they can motivate people accessing their self-regulatory process, including hostility and aggression regulation (Ausubel, 1955; Damon, 1988; Tangney et al., 1992). The characteristic of Indonesia where most citizens consider religious belief as an important aspect is another reason. According to a study conducted by Pew Research Center (2018), more than 90% of Indonesian citizens see religions as guiding principles (important) for their behaviors, and morality may become an important aspect.

Our study aims to identify the empirical relationship between moral emotions (Tangney et al., 1992; Cohen et al., 2011) as predictor variables and CA (Runions, 2013; Runions & Bak, 2015; Runions et al., 2017) as the outcome variable. We calculate the correlation degree with statistical outputs derived from *Pearson correlation* and linear regression using SPSS. As an attempt to measure these variables, two self-report instruments are applied in this study, *Guilt and Shame Proneness Scale* (GASP-S; Cohen et al., 2011) to identify the degree of proneness of a participant who feels shame and guilt when dealing with a particular behavior that requires moral judgment. The second instrument is *Cyber Aggression Typology Questionnaire* (CATQ; Runions et al., 2017 to measure the degree of CA when users utilize computers and the internet. The empirical reasons for using these two instruments will be further discussed in the Methods section. Both instruments are adapted to Indonesian version through two steps based on the empirical guidance developed by Beaton et al. (2000). Step 1 examines the eligibility of the theoretical ground with the Indonesian context. Step 2 is related to reliability testing. After the adaptation process, our step continues with correlation identification and the measurement of the contributions of predictor variables toward an outcome. During this process, we include one demographic variable that can contribute to the relationship between moral emotions and CA, that is, the frequency of social media usage (FSMU). This variable captures the frequency of internet usage, including social application that requires online network. Therefore, we hope that moral emotions can be strong negative predictors for CA within Indonesia.

2. Methods

Procedure

Data for this study are obtained using an online form, which is categorized in three sections. Section 1 is related to informed consent and demographic characteristics of participants (i.e., initial, sex, religion, and age). Sections 2 and 3 request participants to complete two instruments, GASP-S and CATQ. Data collection is conducted by distributing the link through digital communication applications (i.e., *WhatsApp*, *Telegram*, and *Instagram direct message*) and online social networking sites (i.e., *Facebook* and *Twitter*). The data collection process is performed in two phases. For phase one, our focus is validity checking for two instruments; for phase two, authors calculate correlation and regression for moral emotions as predictor variables and CA as an outcome variable. FSMU, which is

identified as a covariate variable, is examined through *hierarchical regression* (HMR) calculation along with four dimensions of moral emotions. We select FSMU as a covariate based on the study of Law et al. (2010) who stated that the more users access the internet, the more they can conduct CA (i.e., sending aggressive messages).

Measuring Moral Emotions with Four Dimensions: GASP-S

GASP-S consists of 16 items in the form of statements and/or questions. Participants were requested to respond to each statement through the attitudinal scale ranging from 1 (very unlikely) to 7 (very likely). To be applied in the Indonesian context, this instrument was adapted on the basis of the procedure developed by Beaton et al. (2000) that comprises five stages of the cross-cultural adaptation process, (1) language translation from the original version, (2) synthesis, (3) back translation, (4) expert committee review, and (5) pre-testing. All these stages are passed until authors finally decide 16 items with Indonesian language. According to GASP-S, moral emotions are categorized with two emotional labels, shame and guilt. Both emotions are viewed as self-conscious emotions that are evoked by self-reflection and self-evaluation (Tangney, 2003; Cohen et al., 2011). These two psychological processes are performed on the basis of specific emotional incidents, which involve moral evaluation regarding true or false. Based on both processes, shame and guilt are considered self-regulatory emotions, which can regulate human behaviors in making moral decisions.

GASP-S is constructed on the basis of existing instruments that also measure moral emotions, *Test of Self-Conscious Affect-3* (Tangney et al., 2000) and the *Dimensions of Conscience Questionnaire* (Johnson et al., 1987). Based on these two instruments, GASP-S evolves and differentiates shame and guilt on the basis of two behavioral categories, *self-behavior distinction* (SBD; Lewis, 1971; Tangney, 1996; Cohen et al., 2011) and *public–private distinction* (PPD; Benedict, 1946; Cohen et al., 2011). SBD refers to the psychological internal process that delivers meanings to shame and guilt on the basis of cognitive judgments (i.e., guilt focuses on one behavior—*I did a bad thing*, whereas shame pays attention to one's self—*I am bad*). If SBD focuses on internal human judgment, then PPD pays attention to different behavioral responses when moral incidents occur in public and private settings. Shame emerges when one deals with public environment and guilt when one deals with private environment. On the basis of both principles, shame and guilt basically emerge as post-consequence emotions with two psychological processes, self-evaluation and behavioral intention. To examine these processes, Cohen et al. (2011) developed four behavioral dimensions to explore shame and guilt in GASP-S. Two dimensions for shame, namely, negative self-evaluation (NSE; i.e., "*You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you feel like a bad person?*") and withdraw (WTH; i.e., "*After making a huge mistake on an important project at work in which people are depending on you, your boss criticizes you in front of your coworkers. What is the likelihood that you would feign sickness and leave work?*"). In accordance with shame, two dimensions are constructed for guilt, negative behavior evaluation (NBE; i.e., "*After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?*") and repair (RPR; i.e., "*You reveal a friend's secret, though your friend never finds out. What is the likelihood that your failure to keep the secret would lead you to exert extra effort to keep secrets in the future?*").

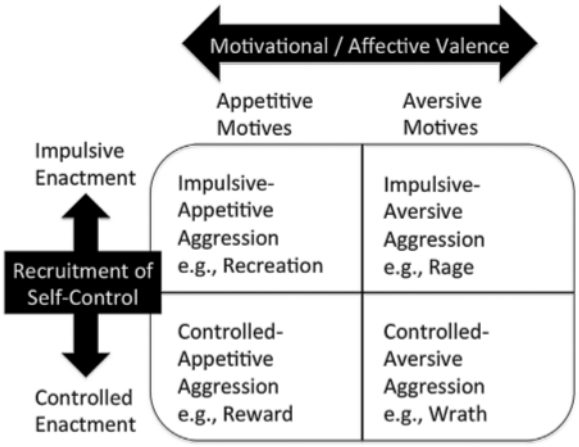

Figure 1. Quadripartite Typology of Aggression (QVT) according to Howard (2011) and Runions et. al (2017)

Note: Quadripartite Typology of Aggression. Adapted from "Disentangling Function s of Online Aggression: The Cyber Aggression Typology Questionnaire (CATQ)", by K. C. Runions, 2016, Aggressive Behavior, 43, p.76. Copyrights 2016 by Wiley Periodicals, Inc.

Measuring Aggression in Digital Environment: CATQ

The concept of CA is derived from the previous psychological framework of human aggression, which refers to any form of behavior that physically and/or psychologically harms others due to a subjective reason (Howard, 2011). Howard (2011) also developed a theoretical model in explaining human aggression in general, namely, *quadripartite violence typology* (QVT). This model explains two reasonable causes of human aggression, RC, which relates to cognitive function, and MG that focuses on emotional state. RC

and MG are represented with two opposite poles, and each of them is visualized with horizontal (for MG) and vertical (for RC) lines. In conclusion, the combination of both lines creates four quadrants of aggression type, as shown in Figure 1.

From the QVT perspective presented in the model, Runions et al. (2017) constructed a self-assessment instrument to examine the tendency of CA to occur in digital environment called CATQ. This instrument consists of 29 statements (items), which must be completed by participants by selecting one of the scale ranges from 1 (totally disagree) to 4 (totally agree). Parallel with GASP-S, this study also follows the cultural adaptation process for the psychological instrument by relying on the Beaton et al. (2000) framework. During the adaptation process, an alignment is made with the Indonesian context. The primary purpose of our study involving how participants use social media is an important aspect to address. Social media is a popular term for Indonesians when they refer to online social networks. Modifications are made in some items of CATQ. For example, "social media" words are added to each item to sharpen the purpose of the measurement (i.e., "*I use social media to take revenge on someone after they share issues that hurt me*.").

3. Result

Participant

A total of 248 participants are involved in this study (172 females), they are dominated by young people in Indonesia (Mean = 21.85; Standard Deviation = 4.7). All participants come from the educated group with their latest education being varied, from senior high school (62.5%) to bachelor's degree (33.1%). All the participants access the instruments through the online form with two sections. Section 1 is related to demographic data, such as gender, education, and questions related to FSMU. After participants complete Section 1, they can proceed to Section 2 to complete CATQ and GASP-S. Approximately 96.8% of the participants have been utilizing social media platforms for over three years, and about 44.4% of them use social media more than four hours a day. Such data suggest that participants are social media active.

Adaptation, Item Analysis, and Reliability Testing

Item analysis and reliability checking are conducted to examine the psychometric properties for two instruments, GASP-S and CATQ. Some items for GASP-S and CATQ are modified to be suitable for the Indonesian context, including language and pattern. For example, the term "honor society" is modified into "reward in school." After the translation and synthesis processes, the validity and reliability of the instruments are determined through psychometric examinations. The first attempt identifies the capability of items in measuring moral emotions and CA. The second attempt focuses on reliability analysis to see whether both instruments show consistent results in measuring variables (Cohen & Swerdlik, 2010; Chadha, 2009). *Item total correlation* (ITC) and *Cronbach's alpha* reliability coefficient are applied to examine whether the items can be used to measure the degrees of moral emotions and CA for Indonesian participants. ITC refers to a set of methods to analyze the correlation degree between items and the constructed theoretical framework, whereas *Cronbach's alpha* focuses on checking the instrument reliability (Cohen & Swerdlik, 2010). During this process, four items of GASP-S are dropped in each dimension due to the low correlation degree between item score and the total score. Meanwhile, no items are dropped for CATQ. For the reliability calculation, GASP-S (α = 0.76) and CATQ (α = 0.96) exhibit good consistency among items in measuring variables. This conclusion is made on the basis of the minimum standard (>0.70) of score in determining whether one instrument is reliable (Tavakol & Dennick, 2011).

Moral Emotions and FSMU in Predicting CA

As an attempt to examine the effects of moral emotions that affect CA, HMR is applied, with two blocks for each dimension in CATQ. Four HMR calculations are conducted to examine the effects of two predictors, moral emotions (guilt & shame) and FSMU on the four CA dimensions. The two blocks are analyzed to identify the contribution of each predictor toward CA. Both blocks are applied on the basis of the study of Law et.al (2010) who emphasized that access to the internet (availability of a computer in a bedroom) plays a significant role in three forms of CA, such as aversive messaging, posting/commenting on embarrassing photos, and opening hostile websites. These behaviors are translated by asking participants four questions related to social media usage (*i.e., "How many times do you access LINE?" "How many times do you share information on Facebook?" "How often do you share your opinion on Twitter? "How often do you discuss issues on Instagram?"*). Four online social media platforms are captured as the stimuli in each question, LINE; *Twitter*; *Instagram*, and *Facebook*. Based on the data, authors may calculate the average score for each behavioral dimension while accessing social media (access, response, share, and brainstorm), including the total score. Table 1 shows the correlation between FSMU and each dimension of moral emotion and CA.

The statistical result in Table 1 illustrates the correlation between FSMU and the four dimensions of moral emotions toward CA. All dimensions are significantly correlated with impulsive–aversive (I–AV) and controlled–appetitive (C–AP) aggressions. Overall, the range of correlational values in these four dimensions is from 0.1 to 0.2, and the direction shows negative and positive correlations. Table 1 shows that moral emotions do not completely prohibit CA from emerging after users perceive moral stimuli. Shame–WTH is the only variable

Table 1. Correlation Matrices between FSMU and CA

	I–AP	I–AV	C–AP	C–AV
FSMU	0.097	0.266**	0.129*	0.162**
Guilt–NBE	−0.243**	−0.057	−0.185**	−0.122*
Guilt–Repair	−0.147*	−0.012	−0.141*	−0.095
Shame–NSE	−0.159**	−0.013	−0.130*	0.176**
Shame–WTH	0.130*	0.144*	0.177**	0.103

Note. *Pearson-product moment correlation was the method used to calculate matrix correlation between two variables; *Significant in $p < 0.05$; **Significant in $p < 0.01$*

Table 2. Summary of Hierarchical Multiple Regression for FSMU and Moral Emotions toward C–AP

C–AP	B	SE	*ß*
Block 1: Covariate			
FSMU	0.135	0.066	0.129*
Block 2: Moral emotions			
FSMU	0.169	0.065	0.161*
Guilt–NBE	−0.160	0.067	−0.245*
Guilt–Repair	−0.045	0.069	−0.065
Shame–NSE	0.009	0.077	0.013
Shame–WTH	0.156	0.042	0.237**

Note: $R^2 = 0.017$. for Step 1; $\Delta R^2 = 0.099$ for Step 2 ($p < 0.05$); *$p < 0.05$.; **$p < 0.01$.

that shows a positive direction. This dimension refers to an intention to pull away after one feels shame due to a moral incident (Cohen et al., 2011). On the basis of these results, we can argue that when participants withdraw from emotional moments that evoke shame, it will lead them to conduct CA often.

As an attempt to identify comprehensive relationships among variables, HMR calculations are conducted to foresee the relationship between two predictors toward the four dimensions of CA. HMR is performed to identify the standardized value (β) and unstandardized value (B) to see the contribution degree for each predictor. HMR functions as a calculation method to identify the value change when predictors interact with outcome variables by considering R and R^2 notations. A two-block calculation is applied to identify the interaction effect of two predictors on each dimension of CA. Block 1 comprises one covariate variable, FSMU, whereas Block 2 consists of FSMU and four dimensions of moral emotions.

The degree ranges from $\beta = 0.139$ ($p < 0.05$) for IA–AP up to $\beta = 0.279$ ($p < 0.05$). Table 2 shows a summary of the HMR calculation for C–AP, one of the dimensions in CATQ. Based on the calculation, C–AP is the dimension with the most significant findings. FSMU becomes the most dominant predictor in C–AP for Block 1 ($\beta = 0.129$, $p < 0.05$) and Block 2 ($\beta = 0.161$, $p < 0.05$). For the C–AP dimension, only two dimensions in GASP-S act as significant predictors, Guilt–NBE ($\beta = -0.245$, $p < 0.05$) and Shame–WTH ($\beta = 0.237$, $p < 0.05$) with different relationship directions. This result indicates that moral emotions, particularly Guilt–NBE and Shame–WTH have different effects in elucidating C–AP, a form of CA that can be controlled and conducted to achieve specific goals. Only Guilt–NBE can negatively predict the degree of C–AP. By contrast, Shame–WTH is shown as a variable that may predict the degree of C–AP with its positive relationship.

Apart from C–AP, two dimensions of moral emotions have similar results—impulsive–appetitive aggression (I–AP) and controlled–aversive aggression (C–AV). The statistical analysis shows that FSMU ($\beta = 0.139$, $p < 0.05$ and $\beta = 0.188$, $p < 0.01$); Guilt–NBE ($\beta = -0.349$, $p < 0.01$ and $\beta = -0.207$, $p < 0.01$) and Shame–WTH ($\beta = 0.199$, $p < 0.01$ and $\beta = 0.132$, $p < 0.05$) are the three variables that have a significant role in predicting I–AP and C–AV. These findings indicate that only Guilt–NBE may negatively predict I–AP and C–AV as dimensions of moral emotions. In correspondence with C–AP, Shame–WTH is similarly shown as the variable that can predict the degrees of I–AP and C–AV. Different from these three dimensions, in IA–AV, only one aspect of moral emotion may be regarded as a significant predictor, that is, Shame–WTH ($\beta = 0.151$, $p < 0.05$).

4. Discussion

This research captures the degrees and directions of correlations and predictions of moral emotions, noted as shame and guilt toward the intention of conducting CA.

The results indicate different directions of the relationship between shame and guilt. Shame, for NSE and WTH, tends to have a positive correlation, but only one variable has a significant result, Shame–WTH. By contrast, both dimensions in guilt have negative relationships with CA, but only NBE produces a significant and positive direction. This result suggests that we should partially reject our hypotheses, particularly for guilt as a moral emotion. Thus, a comprehensive discussion to identify why this result occurs is discussed in this section.

Shame has a positive correlation with CA for various reasons, indicating that this emotion is also significant to predict the tendency of CA. A theoretical review conducted by Elison et al. (2014) explains that anger and aggression are part of coping strategies and behavioral adaptations to overcome shame. CA may become a form of anger and aggression in the online setting. FSMU can also strengthen the relationship between shame and the tendency for CA. Based on this empirical explanation, CA may be inevitable when interactions involving arguments and debates among users occur. This phenomenon may emerge in a large scale in the future because the internet of things and progressive movement in digital environment have increased over the time, particularly during the COVID-19 pandemic where people around the world count on the internet as their primary need to connect with others (Candela et al., 2020). Emotion is also a complex issue on human beings and a challenging aspect to be controlled by institutions. Based on the basic definition of emotion, a psychological state that appears through the existence of an emotional object (Russell, 2003), various emotions always cover interactions among users in the online setting, including shame. Regulation No. 19 Year 2016 is the alternative solution but not the only one. By giving punishments to perpetrators, another moral emotion may arise, that is, guilt through law enforcement.

5. Conclusion

CA has become a huge issue not only for Indonesia but also around the world. In the contexts of intergroup relations and how people connect to one another nowadays, CA seems to become a challenge. Indonesia is a diverse country and has already developed a regulation to overcome it through Regulation No. 19 Year 2016, which concerns about information and electronic transactions. Although some groups have argued that this regulation tends to limit the freedom of expression, considering Indonesia as a democratic country, law enforcement becomes an instrument to manage interactions on social media and other forms of digital platforms. Law enforcement is seen as a way to deliver deterrent effects to perpetrators. However, this study reveals that shame, a possible emotional label that may become a post-consequence after law enforcement, may predict participants to engage further in CA. Another strategy called virtual police existence, where a police team manages and controls social interactions in various social media platforms through network analysis and AI (Andryanto, 2021), may become an alternative solution.

References

Allport, G. W. (1954). *The Nature of Prejudice*. Addison-Wesley Pub. Co.

Andryanto, S. D. (2021). Polisi Virtual atau Polisi Siber, Begini Cara Kerjanya. *Tempo.co*. https://metro.tempo.co/read/1453165/polisi-virtual-atau-polisi-siber-begini-cara-kerjanya.

Assegaf, J. S. (2018). Boni Hargens: 1 tahun Jokowi, sama dengan 10 tahun SBY. *Solopos.com*. http://www.solopos.com/2016/01/07/fenomena-haters-boni-hargens-1-tahun-jokowi-sama-dengan-10-tahun-sby-678488.

Ausubel, D. P. (1955). Relationships between shame and guilt in the socializing process. *Psychological Review*, 62(5), 378-390. https://doi.org/10.1037/h0042534

Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, *25*(24), 3186-3191. https://doi.org/10.1097/00007632-200012150-00014

Benedict, R. (1946). *The chrysanthemum and the sword.* Houghton-Mifflin.

Candela, M., Luconi, V., & Vecchio, A. (2020). Impact of the COVID-19 pandemic on the Internet latency: A large-scale study. *Computer Networks*, 182, 107495. https://doi.org/10.1016/j.comnet.2020.107495

Chadha, N. K. (2009). *Applied psychometry*. Sage Publication.

Cohen, R. J., & Swerdlik, M. E. (2010). *Psychological testing and assessment: An introduction to tests and measurement 7th.ed*. McGraw-Hill.

Cohen, T. R., Wolf, S. T., Panter, A. T., & Insko, C. A. (2011). Introducing the GASP scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*, *100*(5), 947. https://doi.org/10.1037/a0022641

Conitzer, V., Sinnot-Armstrong, W., Borg, J. S., Deng, Y., & Kramer, M. (2017). Moral decision making frameworks for artificial intelligence. *AAAI 2017 Conference paper.*

https://aaai.org/ocs/index.php/AAAI/AAAI17/paper/view/14651/13991.

Damon, W (1988). *The moral child: Nurturing children's natural moral growth.* Free Press.

Elison, J., Garofalo, C., & Velotti, P. (2014). Shame and aggression: Theoretical considerations. *Aggression and Violent Behavior*, *19*(4), 447-453. https://doi.org/10.1016/j.avb.2014.05.002

Everett, J. A., Pizarro, D. A., & Crockett, M. J. (2016). Inference of trustworthiness from intuitive moral judgments. *Journal of Experimental Psychology: General*, *145*(6), 772-787. https://doi.org/10.1037/xge0000165

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, *108*(4), 814-834. https://doi.org/10.1037/0033-295x.108.4.814

Harvey, P., Martinko, M. J., & Borkowski, N. (2017). Justifying deviant behavior: The role of attributions and moral emotions. *Journal of Business Ethics*, *141*(4), 779-795. https://doi.org/10.1007/s10551-016-3046-5

Howard, R. C. (2011). The quest for excitement: A missing link between personality disorder and violence? *Journal of Forensic Psychiatry and Psychology*, *22*(5), 692-705. https://doi.org/10.1080/14789949.2011.617540

Ihsanuddin. (2018, January 2). Jokowi teken Perpres, badan Siber nasional langsung di Bwah presiden. *Kompas.com*. http://nasional.kompas.com/read/2018/01/02/17103991/jokowi-teken-perpres-badan-siber-nasional-langsung-di-bawah-presiden.

Johnson, R. C., Danko, G. P., Huang, Y. H., Park, J. Y., Johnson, S. B., & Nagoshi, C. T. (1987). Guilt, shame, and adjustment in three cultures. *Personality and Individual Differences*, *8*(3), 357-364. https://doi.org/10.1016/0191-8869(87)90036-5

Kuwado, F. J. (2018). Jokowi: Kampanye Hitam Harus Dihilangkan dari Demokrasi Kita! *Kompas.com*. http://nasional.kompas.com/read/2018/01/08/17073761/jokowi-kampanye-hitam-harus-dihilangkan-dari-demokrasi-kita.

Lapsley, D. K. (1996). *Moral Psychology*. Routledge.

Law, D. M., Shapka, J. D., & Olson, B. F. (2010). To control or not to control? Parenting behaviors and adolescent online aggression. *Computers in Human Behavior*, *26*(6), 1651-1656. https://doi.org/10.1016/j.chb.2010.06.013

Lewis, H. B. (1971). *Shame and Guilt in Neurosis.* International Universities Press.

Lindebaum, D., Geddes, D., & Gabriel, Y. (2017). Moral emotions and ethics in organizations: Introduction to the special issue. *Journal of Business Ethics*, *141*(4), 645-656. https://doi.org/10.1007/s10551-016-3201-z

Pew Research Center, (2018). *How religious commitment varies by country among people of all ages* [The Age Gap in Religion around The World]. https://www.pewforum.org/2018/06/13/how-religious-commitment-varies-by-country-among-people-of-all-ages/.

Polycarpus, R. (2018). Presiden ajak Hindari kampanye Hitam. *MediaIndonesia.com*. https://mediaindonesia.com/politik-dan-hukum/189846/presiden-ajak-hindari-kampanye-hitam.

Pokorny, T., Preller, K. H., Kometer, M., Dziobek, I., & Vollenweider, F. X. (2017). Effect of psilocybin on empathy and moral decision-making. *International Journal of Neuropsychopharmacology*, *20*(9), 747-757. https://doi.org/10.1093/ijnp/pyx047

Runions, K. C. (2013). Toward a conceptual model of motive and self-control in cyber-aggression: Rage, revenge, reward, and recreation. *Journal of Youth and Adolescence*, *42*(5), 751-771. https://doi.org/10.1007/s10964-013-9936-2

Runions, K. C., & Bak, M. (2015). Online moral disengagement, cyberbullying, and cyber-aggression. *Cyberpsychology, Behavior, and Social Networking*, *18*(7), 400-405. https://doi.org/10.1089/cyber.2014.0670

Runions, K. C., Bak, M., & Shaw, T. (2017). Disentangling functions of online aggression: The Cyber-Aggression Typology Questionnaire (CATQ). *Aggressive Behavior*, *43*(1), 74-84. https://doi.org/10.1002/ab.21663

Russell, J. A. (1980). A circumplex model of affect. *Journal of Personality and Social Psychology*, *39*(6), 1161-1178. https://doi.org/10.1017/S0954579405050340

Russell, J. A. (2003). Core affect and the psychological construction of emotion. *Psychological Review*, *110*(1), 145-172. https://doi.org/10.1037/0033-295x.110.1.145

Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior*, *58*, 89-97. https://doi.org/10.1016/j.chb.2015.12.059

Stuewig, J., Tangney, J. P., Heigel, C., Harty, L., & McCloskey, L. (2010). Shaming, blaming, and maiming: Functional links among the moral emotions, externalization of blame, and aggression. *Journal of Research in Personality,* 44(1)*,* 91-102. https://doi.org/10.1016/j.jrp.2009.12.005.

Tangney, J. P., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology*, *62*(4), 669-675. https://doi.org/10.1037//0022-3514.62.4.669

Tangney, J. P. (1996). Conceptual and methodological issues in the assessment of shame and guilt. *Behaviour Research and Therapy, 34*(9), 741-754. https://doi.org/10.1016/0005-7967(96)00034-4

Tangney, J. P., Wagner, P. E., Hill-Barlow, D., Marschall, D. E., & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology, 70*(4), 797-809. https://doi.org/10.1037/0022 3514.70.4.797

Tangney, J. P., Dearing, R. L., Wagner, P. E., & Gramzow, R. H. (2000). *The Test of Self-Conscious Affect-3 (TOSCA-3).* George Mason University.

Tangney, J. P., & Dearing, R. L. (2003). *Shame and Guilt*. Guilford Press.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53-55. https://doi.org/10.5116/ijme.4dfb.8dfd

Thornberg, R., Pozzoli, T., Gini, G., & Jungert, T. (2015). Unique and interactive effects of moral emotions and moral disengagement on bullying and defending among school children. *The Elementary School Journal*, *116*(2), 322-337. https://doi.org/10.1086/683985

Walker, B. R., & Jackson, C. J. (2017). Moral emotions and corporate psychopathy: A review. *Journal of Business Ethics*, *141*(4), 797-810. https://doi.org/10.1007/s10551-016-3038-5

Ward, S. J., & King, L. A. (2019). Moral stereotypes, moral self-image, and religiosity. *Psychology of Religion and Spirituality*, *13*(2), 160-174. https://doi.org/10.1037/rel0000263

Xie, C., Bagozzi, R. P., & Grønhaug, K. (2015). The role of moral emotions and individual differences in consumer responses to corporate green and non-green actions. *Journal of the Academy of Marketing Science*, *43*(3), 333-356. https://doi.org/10.1007/s11747-014-0394-5