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An Integration of Self-Conscious Emotions into Cognitive-Functional Model: The Case of Guilt and Shame

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ABSTRACT

This experimental study aimed at testing the Cognitive-Functional Model by employing shame and guilt as approach-avoidant emotions. A solution plan for unemployment problem was used as a persuasive message under two levels of reassurance expectations. A hundred and twenty-nine Turkish fourth-graders from Ankara Yıldırım Beyazit University, Gazi University, and Hacettepe University participated in the study. After obtaining the written informed consent, participants completed two initial attitude questions towards unemployment, then shame and guilt were successfully simulated among the participants via two induction messages. Participants were asked to read the solution plan, then to complete the dependent measures, including listing up to five message relevant thoughts, evaluating the argument strength, and finally evaluating the solution plan. The results confirmed four of six hypotheses we had proposed. Guilt (vs. shame) increased the motivation to be engaged with the message, and resulted in deeper information processing regardless of the expectations of reassurance certain or uncertain. Accepting or rejecting the message in guilt condition relied mainly on the strength of the argument despite reassurance expectations. Uncertainty of reassurance (vs. certainty) generated more motivation to process the message deeply. The interaction effect between emotions and reassurance level was significant only on the number of message relevant thoughts in favor of participants in guilt/uncertain condition. The results were discussed in the light of the previous literature, limitations of the current study as well as suggestions for future work were addressed.

Keywords: The CFM, Shame, Guilt, Reassurance Expectations, Unemployment

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Bilinçli Duyguların Bilişsel-İşlevsel Modele Entegrasyonu: Suçluluk ve Utanç Örneği

ÖZ

Bu deneysel çalışma, yaklaşmaktan kaçınan duygular olarak utanç ve suçluluk duygularını kullanarak Bilişsel-İşlevsel Modeli test etmeyi amaçlamıştır. İşsizlik sorununa yönelik bir çözüm planı, güvence beklentisinin iki düzeyi altında ikna edici bir mesaj olarak kullanılmıştır. Araştırmaya Ankara Yıldırım Beyazıt Üniversitesi, Gazi Üniversitesi ve Hacettepe Üniversitesi'nden 129 Türk dördüncü sınıf öğrencisi katılmıştır. Yazılı bilgilendirilmiş onam alındıktan sonra, katılımcılar işsizliğe yönelik iki ilk tutum sorusunu tamamlamışlardır, ardından iki başlangıç mesajı aracılığıyla katılımcılar arasında utanç ve suçluluk başarıyla simüle edilmiştir. Katılımcılardan çözüm planını okumaları, ardından mesajla ilgili en fazla beş düşünceyi listeleme, argüman gücünü değerlendirme ve son olarak çözüm planını değerlendirme dahil olmak üzere bağımlı ölçümleri tamamlamaları istenmiştir. Sonuçlar, önerilen altı hipotezden dördünü doğrulandığını göstermiştir. Suçluluk duygusu (utanca kıyasla), mesajla ilgilenme motivasyonunu artırdı ve kesin veya belirsiz güvence beklentilerine bakılmaksızın daha derin bilgi işlemeyle sonuçlandı. Mesajı suçluluk durumunda kabul etmek veya reddetmek, güvence beklentilerine rağmen esas olarak argümanın gücüne dayanıyordu. Güvencenin belirsizliği (kesinliğe karşı), mesajı derinlemesine işlemek için daha fazla motivasyon yaratmıştır. Duygular ve güvence düzeyi arasındaki etkileşim etkisi, yalnızca suçluluk/belirsizlik durumundaki katılımcılar lehine mesajla ilgili düşüncelerin sayısı üzerinde anlamlıydı. Sonuçlar önceki literatür ışığında tartışılmış, mevcut çalışmanın sınırlılıkları ve gelecekteki çalışmalar için önerilere değinilmiştir.

Anahtar Kelimeler: CFM, Utanç, Suçluluk, Güvence Beklentileri, İşsizlik

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INTRODUCTION

Persuasion is one of the essential topics in the psychology field, which is known as the attempt to intentionally and purposefully change one's attitude, including three main dimensions: thoughts, feelings, and behavior (Briñol & Petty, 2012). While persuasion-related research is increasingly drawing researchers' attention, the role of emotions generally has been overlooked (Nabi, 2002; Petty et al., 2003; Wirz, 2018). According to Lazarus (1991), emotions are assumed to be discrete where each emotion indicates a unique relationship between the individual and the surrounding environment. Each emotion has a particular goal or motivation expressed in the action readiness or action tendency to achieve that goal (Nabi, 1999). For example, anger is an emotion that assumed to have an approach tendency and fear is associated with avoidance tendency (Nabi, 1999). Tannenbaum et al. (2015), on the other hand, found that fear appeals can have a positive impact on one's attitude and behavior, particularly under specific settings. To illustrate, the effectiveness of fear messages was greater when the related messages contained efficacy statements and portrayed greater susceptibility. Moreover, Mitchell et al. (2001) examined the impact of three different emotions, including anger, sadness, and happiness on the processing of persuasive messages. Similar to fear appeals in Tannenbaum et al. (2015) research, Mitchell et al. (2001) found that the strength of the provided message had a positive effect on participants' attitude.

In the majority of the studies basic emotions have been purely studied with no special attention to rational processes. Therefore, the role of rational processes has been intensively disregarded in connection with emotions in the persuasion process. Nabi (1999) proposed the Cognitive Functional Model (CFM), which fills the gap between emotional and rational processes (i.e., information processing) and the way they function when an individual confronts a persuasion message.

In the current study we endeavor to shed light on the rational process by integration two self-conscious emotions (i.e., guilt and shame) into the CFM. The impact of the two emotions on students' attitude towards unemployment as well as the associated information processing style were experimentally investigated.

The Cognitive Functional Model

The CFM is a model proposed by Nabi (1999) and rests on integrating cognitive response models of persuasion, functional emotional theories, and research work that employed both theoretical and practical aspects of how an attitude is influenced by the related or unrelated effect of a message. In other words, the CFM, in an attempt to fill a theoretical gap, links both emotional and rational approaches by putting the major emphasis on emotions and investigate how they affect the attention and subsequent information processing of a persuasive message (see Figure 1.).

According to the CFM, similar to the "core relational theme" by Lazarus (1991), emotions are assumed to be discrete where each emotion has its particular action that affect the relationship between the individual and the surrounding environment. Two of the most relevant and typical examples are fear and anger. For instance, when a situation is perceived to have an obstacle that might hinder one's goal-oriented behavior or cause offense to them or their beloved ones, anger

is likely to appear. On the other hand, when the situation is perceived as threatening physically and/or psychologically, fear is likely to emerge (Nabi, 1999).

The CFM postulates that a discrete emotion is aroused when the message content expresses the core relational theme of that emotion, which must be recognized by the receiver of the message. The resulting emotional response is accompanied by two simultaneous motivations.

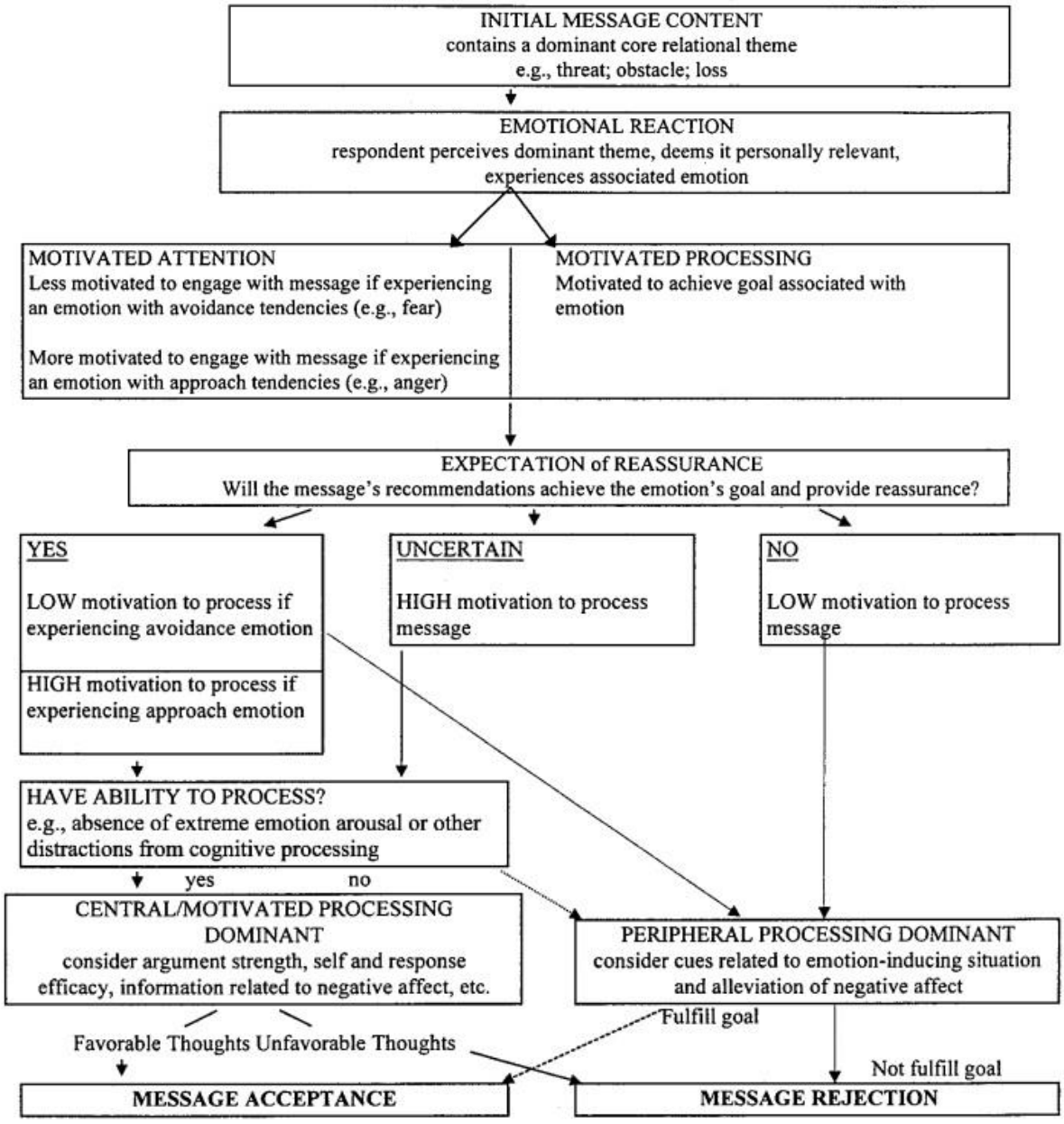

Figure 1. The Cognitive Functional Model

The first motivation, which is known as motivated attention, is concerned with the degree of motivation whether to engage or not with the message and its content based on the emotion tendency: avoidance or approach tendencies. Emotions with avoidance tendencies (e.g., fear) decrease the motivation to process the information given in the message, while emotions with approach tendencies (e.g., anger) increases the motivation and thus information processing. The

second motivation, which is named as motivated processing, is responsible for achieving the emotion-induced goal.

Message receivers, regardless of the provoked avoidance or approach tendencies, are induced to take emotionally consistent action to deal with a difficult situation that needs a solution. Accordingly, they will be inclined to seek "valid and relevant" reassuring information in the subsequent message, which in turn determines the depth of their information processing. Their expectation of reassurance also determines whether accepting or rejecting the message is based mainly on the strength and the quality of the given argument or on its peripheral features (Nabi, 1999).

According to the CFM, there is a possibility of three reassurance expectations. First, the relative uncertainty of the presence and/or validity of upcoming information will lead to deep and careful information processing in all cases. Second, the relative certainty of the validity and the relevance of the reassuring will lead to closer information processing when the receivers experience an emotion with approach tendencies. However, when they experience emotion with avoidance tendencies, they will tend to process information less carefully. Third, the certainty of the presence of upcoming reassuring information will increase the likelihood of avoidance tendencies not to be engaged with the message. The CFM suggests that these assumptions are derived from several factors, such as message cues, individual differences, and past experience with messages.

Cognitive-Functional Model Test

In her first test of the CFM, Nabi (2002) examined the effect of: 1) anger (as an approach emotion) and fear (as an avoidance emotion); 2) certain/uncertain expectation of message reassurance on students' attitudes towards "domestic terrorism legislation." The results were partially consistent with the model. The main effects for both emotion type and certainty level of reassurance were found. Anger, compared to fear, led to more careful information processing. Similarly, uncertain message reassurance, compared to certain reassurance, promoted deeper information processing. On the other hand, the interaction between the type of emotion and certainty level of reassurance was insignificant.

Nabi had put emphasis on basic emotions, especially anger and fear, as approach-avoidant emotion. On the other hand, she did not give attention to all emotions, particularly self-conscious emotions. In this study, we try to fill this gap by integrating two main self-conscious emotions (i.e., guilt and shame) in the CFM.

Guilt and Shame

A comprehensive literature review found self-conscious emotions, particularly guilt and shame, to be another disregarded area with respect to persuasion and the role they might play in the persuasion processes. Guilt and shame are known to be two separate forms of self-conscious emotions. Tracy and Robins (2004) described self-conscious emotions as social emotions that occur in situations that direct one's attention to maintain social norms as well as to self-evaluation. For decades, guilt and shame have been discussed if they are distinctively different emotions and have similar qualities. Although both shame and guilt are seen as negative emotions, they differ in different ways (Tangney, 1991). Lewis (1971) suggested that guilt is

derived from appraisals that are purely related to one's behavior, while shame arises out of appraisals related to the inner self. In other words, guilt directs one's attention towards a specific action, and shame directs the attention towards the whole self. Lewis also pointed out that guilt and shame influence several cognitive processes, including attention, memory, and information processing.

Ghorbani et al. (2013) described guilt as an "agitation-based emotion" irritated by one's regret for improper action or a wrong decision. As a result of this regret and feeling guilty, the individual tends to either repair the mistake or punish him/herself. Shame, on the other hand, was described as a "dejection-based emotion" characterized by blaming one's whole self, resulting in a person's perception of herself as being potentially or actually being criticized. (Ghorbani et al., 2013). When guilt and shame were assessed from self-criticism perspective, shame seemed to take a less constructive form of self-criticism compared to guilt, which was associated with more self-forgiveness (Carpenter et al., 2016; Tracy et al., 2007).

With regards to the current study, as we intend to integrate guilt and shame in the CFM, which deals with emotions with avoidance or approach tendencies, we consider guilt and shame from an avoidance-approach emotion perspective. It is asserted by many scholars that guilt is associated with approach tendencies that encourage the individual to be engaged with subsequent arguments seeking more details regarding the problem. However, shame is associated with avoidance tendencies driving the individual to evade possible negative sequences or criticism (Haidt, 2003; Schmader & Licke, 2006; Tangney, 1991). Based on this distinction between shame and guilt, we expect them to fit to be harmoniously employed in the model.

Current Study

As another trial to test Nabi's model, in the current study we examined the impact of guilt and shame with two reassurance certainty levels on Turkish students' attitudes towards unemployment. We followed the style of Nabi's study after we made sure about the feasibility of our study. Based on the above-mentioned information that guilt and shame are found to be associated with approach and avoidance motivation, we expect that: 1) Guilt (vs. shame) will increase the motivation to be engaged with the message, which results in deeper information processing; 2) Uncertainty of reassurance (vs. certainty) will generate more motivation to process the message deeply/carefully; 3) Guilt will lead to deeper information processing with high motivation regardless of the expectations of reassurance certain or uncertain; 4) Shame condition will show less careful message processing when the reassurance is certain, and high careful processing when the reassurance is uncertain; 5) Accepting or rejecting the message in guilt condition will depend more on the strength of the argument regardless of the condition certainty or uncertainty; 6) Accepting or rejecting the message in shame condition will depend more on the strength of the argument when the condition is uncertain, and on the peripheral processing when the condition is certain.

METHOD

Participants

A hundred and twenty-nine undergraduates from Ankara Yıldırım Beyazit University, Gazi University, and Hacettepe University participated in this study. Only fourth-graders were accepted to participate in the study with no psychology students included. The sample included 71 females (55%) and 58 males (45%) with a mean age of 21.9 years (SD, .65). Written informed consent was obtained from the participants before the data collection phase (see appendix A).

Measurement Tools

Socio-Demographic Sheet

Included in the sheet, age, gender, university, department were collected first.

Initial Attitude

Initial attitude towards unemployment was measured by obtaining participants' responses to two statements: In order to solve the unemployment problem, the state needs to develop more effective policies, and Unemployment is a serious problem for new graduates. Participants rated to what extent they agree with the tow statements on the Likert scale ranging between 1 (strongly disagree) and 7 (strongly agree) (α=.86).

Stimuli

Similar to Nabi's study, two stimuli were used in the current study. The first stimulus, which worked as an emotional induction message, was a small vignette in which a graduate student describes him/herself as well as the reason why he/she cannot find a job. We created two emotion induction vignettes; one was designed to elicit shame, and the other one was to elicit guilt (see appendix B).

The second stimulus, which worked as a persuasive message, was a piece of fictitious news attributed to a famous Turkish newspaper (Habertürk) and addressed a proposed government solution to terminate the unemployment problem. We developed two persuasive messages under two levels of expectation of reassurance (certain and uncertain) where two different headlines and introductory parts of the given news were employed (see appendix C). In the fictitious news, we listed four policies by which the problem of unemployment would be solved. The last-mentioned policy is designed to be flawed. Only people who carefully read the text would be aware of this. Persuasive messages were designed, as in Nabi's (2002) study, to persuade only those who carefully process the text.

Emotional Arousal

To make sure that the purposed emotions were successfully induced, the participants were asked to rate how much they felt (anger, shame, disgust, guilt, and fear) while reading the vignette (emotional induction message) on a 7-point scales calibrated from 1 (not at all) to 7 (extremely).

Dependent Measures

The dependent measures of the current study were all related to the proposed solution plan and as follows: 1) Number and type of message-relevant thoughts; 2) Perceived argument strength; 3) Attitude toward the solution plan.

Number and Type of Message-Relevant Thoughts. After the participants read the fictitious news (persuasive messages), they were asked to list thoughts (up to five thoughts) they had while reading the given solution plan of unemployment. A coder who is blind to the aim and conditions of the study coded the message-relevant thoughts listed by the participants and classified them into positive and negative thoughts. In the cases where the answers contain both negative and positive thoughts, we counted the number of each, and the type and final number was calculated by subtracting them. It is assumed that what indicates processing depth is the overall quantity of thoughts relevant to the message (Nabi, 2002).

Perceived Argument Strength. We assessed the perceived argument strength by using four bipolar adjectives (strong/weak, intelligent/unintelligent, convincing/unconvincing, persuasive/unpersuasive) on a 7-point scale. Deeper information processing of the given message should bring a perception of the given argument as weak. A highly reliable measure consisted of the four items was found on SPSS (α=.97).

Attitudes Toward the Solution Plan. Similar to the perceived argument strength scale, six bipolar adjectives (acceptable/unacceptable, favorable/unfavorable, right/wrong, positive/negative, good/bad, wise/ foolish) on a 7-point scale were used to assess participants' evaluation of the solution plan. SPSS revealed a highly reliable measure formed by these six items (α=.98).

Additional Questions

After the emotional arousal scale, participants, on a 5-point scale, were asked to rate to what extent did they feel that the text reflected them while reading the first vignettes (emotional induction vignettes). Participants were also asked to rate how difficult they think it will be to find a job after graduation a 7-point scale.

Design

This experimental study utilized a 2 (emotion: shame or guilt) × 2 (expectation of reassurance level: certain or uncertain) factorial design to answer the research questions. The independent variables were self-conscious emotions and expectation of reassurance. The dependent variables were the depth of information processing and attitudes. The convenience sampling strategy was used to obtain participants from three universities. After we recruited the participants, they were randomly assigned to the four conditions.

Pilot Study

Prior to conducting the study, reliabilities of the above-mentioned tools were checked in a small pilot study, in which six students read the messages and completed the questions we prepared. By doing so, we guaranteed the effectiveness and consistency of our materials, as well as we made some changes regarding the response format of 3 questions (i.e., we reversed the response

options of three questions to obtain more reliable responses and to avoid possible bias or social desirability in the answers).

Procedure

After we recruited and randomly assigned the participants to the experimental groups, they received the sheets that included the previously mentioned materials. After they completed the initial attitudes towards unemployment, they read the emotional induction message by which shame or guilt is expected to be triggered. Then they rated, on emotional arousal scale, the emotions they felt while reading the emotional induction message. In addition, they rated to what extent they felt that the text reflected them.

Next, participants read the fictitious news that included a solution plan for unemployment with certain or uncertain reassurance levels. Participants listed the thoughts they had while reading the solution plan. On a semantic differential scale, the perceived argument strength, and attitudes of the students towards the solution plan were assessed. Then, participants rated the possible difficulty of finding a job after graduation. Finally, participants completed the socio-demographic questions.

RESULTS

Initial Attitudes

Descriptive statistics and frequencies of the participants' responses showed that 75.2% of the participants strongly agreed, 21.7% agreed, and 3.1% slightly agreed that unemployment is a serious problem for new graduates (see Table 1.). Besides, 69% of the participants strongly agreed, 27.9% agreed, and 3.1% slightly agreed that the state should develop more effective policies to tackle the unemployment problem. Interestingly, no single negative response was recorded (see Table 2.). These findings confirm that all participants hold similar attitudes toward the problem of unemployment.

Table 1. Unemployment is a Serious Problem for New Graduates

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	97	75.2	75.2	75.2
Agree	28	21.7	21.7	96.9
Slightly Agree	4	3.1	3.1	100.0
Total	129	100.0	100.0	

Table 2. The State Needs to Develop More Effective Policies to Solve the Unemployment Problem

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	89	69,0	69,0	69,0
Agree	36	27,9	27,9	96,9
Slightly Agree	4	3,1	3,1	100,0
Total	129	100,0	100,0	

Emotional Arousal Check

To test whether shame and guilt were successfully induced, we run independent t-test. The results showed that participants who read the induction message of shame reported the highest levels of shame significantly compared to other emotions, (M=3.35, SD=.99), t (127) = 7.95, p<.05. Participants in the guilt condition significantly showed the highest levels of shame compared to other emotions, (M=3.23, SD=.92), t (127) = -7.43, p<.05. These results indicate that the manipulation we used worked successfully to induce shame and guilt.

It is worth noting that the only other significant emotion found was fear, t (127) = -1.99, p<.05. Participants in the guilt condition reported higher degrees of fear (M=2.09, SD=.78) than those in the shame condition (M=1.83, SD=.73).

Emotions and Dependent Variables

We run t-test to find out whether there was a significant difference between shame and guilt groups in terms of message relevant thoughts they listed after reading the persuasive messages. The results showed that participants in the guilt condition had listed more message relevant thoughts (M = 2.77, SD = .94) compared to those in the shame condition (M=1.97, SD=.82), t (127) = -5.15, p<.05. Chi-square test showed a significant difference between shame and guilt in the type of listed thoughts, χ (1) = 5.09, p<.05. Descriptive statistics showed that the number of listed negative thoughts, which reflects that the given message is weak, was higher in the guilt condition than in the shame condition (see Table 3.).

Table 3. Numbers of Positive and Negative Thoughts in Guilt and Shame Conditions

	Positive Thoughts	Negative Thoughts	Total
Shame	42	21	63
Guilt	31	35	66
Total	73	56	129

The results revealed that the argument was perceived to be weaker by participants in the guilt condition (M=3.95, SD=1.74) compared to those in the shame condition (M=4.81, SD=1.47), t (126) = 2.99, p<.05. Similarly, with regard to attitude towards the solution plan for the unemployment problem, participants in the guilt condition showed less positive attitudes (M=3.97, SD=1.74) compared to those in the shame condition (M=4.96, SD=1.41), t (127) = 3.51, p<.05.

Reassurance Expectation and Dependent Variables

The results demonstrated that participants in the uncertain reassurance condition listed more message relevant thoughts (M=2.70, SD=.89) compared to those in the certain reassurance condition (M=2.08, SD=.95), t (127) = 3.83, p<.05. A significant difference in the type of listed thoughts was also recorded, χ (1) = 4.03, p<.05. Descriptive statistics indicated that the number of negative thoughts listed in the uncertain reassurance condition was higher than in the other condition (see Table 4.).

Table 4. Numbers of Positive and Negative Thoughts Listed by Participants

	Positive Thoughts	Negative Thoughts	Total
Uncertainty	30	33	63
Certainty	43	23	66
Total	73	56	129

Regarding perceived strength of argument, there was no significant difference between the certain and uncertain reassurance groups, t (126) = -1.61, p>.05. Unlikely, participants in the uncertain reassurance condition reported less positive attitudes towards the solution plan for the unemployment problem (M=4.11, SD=1.66) compared to those in the certain reassurance condition (M=4.78, SD=1.60), t (127) = -2.34, p<.05.

Emotions, Reassurance Expectation, and Dependent Variables

Factorial ANOVAs were performed to test the interaction effect between emotions and reassurance expectations on the dependent variables. The only significant interaction effect between emotions and reassurance expectation was on the number of message relevant thoughts, F (1, 125) = 8.78, p<.05, η2=.066. The highest number of thoughts was listed by the participants in the guilt/uncertain condition (M=2.85, SD=.98), and the least was among those in the shame/certain condition (M = 1.50, SD =.56). The results showed insignificant interaction effect between emotion and reassurance expectation on the type of message relevant thoughts, F (1, 125) = 1.63, p>.05, the perceived argument strength, F (1, 124) = .716, p>.05, and attitude towards the solution plan, F (1, 125) = 1.50, p>.05.

Other Findings

With respect to participants' perception of the difficulty of getting a job after graduation, the highest recorded response was (moderately difficult) with 29.5%, and the least was (very easy) with 3.1% (see Table 5.). Table 6. summarizes the distribution of participants' responses to the question (To what extent did you feel that the text reflects you?) after reading the induction message of shame and guilt. The results showed no difference between males and females in any of the variables. Likewise, there was no significant differences between the students from the three universities.

Table 5. How Difficult Do You Think It Will Be to Find a Job After Graduation

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Easy	4	3,1	3,1	3,1
Moderately Easy	20	15,5	15,5	18,6
Slightly Easy	19	14,7	14,7	33,3
Neutral	16	12,4	12,4	45,7
Slightly Difficult	18	14,0	14,0	59,7
Moderately Difficult	38	29,5	29,5	89,1
Very Difficult	14	10,9	10,9	100,0
Total	129	100,0	100,0	

Table 6. Distribution of the Participant' Responses

		To What Extent Did You Feel That the Text Reflected You Why Reading It					Total
		Not At All	Slightly	Moderately	Very	Extremely	
Induction Message	Shame	8	27	20	7	1	63
	Guilt	12	25	26	2	1	66
	Total	20	52	46	9	2	133

DISCUSSION

In the current study, we tested Nabi's Cognitive Functional Model by integrating self-conscious emotions (shame and guilt). Unemployment was the problem (stimuli) we employed in both emotional induction and persuasive messages. We successfully triggered shame and guilt through two induction messages in both conditions. Furthermore, results revealed another significant emotion recorded among students, which was fear. Although fear is known to be an emotion with avoidance tendency (Nabi, 2002), participants in guilt condition showed higher rates of fear than those in shame condition. We attribute this to the nature of the problem we addressed in our study, and thus participants who graduate in a few months are likely to experience this problem. We think that guilt, as an approach emotion, is likely to evoke fear among students, more than shame does, as it drives them to seek more available information and solutions for the inevitable problems they are expected to face. Shame, as an emotion with avoidance tendency, generally leads to withdrawal actions not to face the problem or to seek further related information, particularly if there is reassurance certainty. Because of that, we expect that fear is likely to appear among participants who had approach motivation resulted from guilt. In a consistent way, Nelissen, Leliveld, van Dijk, and Zeelenberg (2011) demonstrated that employing guilt and fear brings more effective results to proposers when they engage in bargaining. This reflects the significant association between the two emotions.

We tested six hypotheses in this paper. In line with Adams, Ambady, Macrae, and Kleck (2006), Haidt (2003), Schmader and Licke (2006), and Tangney (1991), our results confirmed the first hypothesis, where guilt (vs. shame) increased the approach motivation to be engaged with the message, which in turn led to more careful information processing. We can conclude that from the number of relevant thoughts students had listed, as well as the type of thoughts. Students in guilt (vs. shame) condition listed more thoughts, and the type of thoughts they listed tend to be negative. Besides, we would also accept the third hypothesis where feeling guilt led to deeper information processing with high motivation regardless of the expectations of reassurance being certain or uncertain. The results also confirmed our fifth hypothesis, where the students in guilt (vs. shame) condition more negatively evaluated the argument, as well as they recorded more negative attitudes. That is, accepting or rejecting the message in guilt condition depended more on the strength of the argument regardless of the reassurance expectation level.

With regard to the second hypothesis, our results were consistent with Nabi's (2002), Gleicher and Petty's (1992), and Tiedens and Linton's (2001), who argued that uncertain appraisals are more likely to lead to effortful and careful information processing compared to certain appraisals. Like guilt (vs. shame), uncertain (vs. certain) reassurance led to more motivation to be engaged with the message and thus more effortful information processing. A higher number

of thoughts, as well as higher negative thoughts, were listed in uncertain (vs. certain) reassurance condition.

The interaction effect between emotions and reassurance level was significant only on the number of message relevant thoughts, which were recorded most among participants in guilt/uncertain condition. However, an insignificant interaction effect was recorded in all other cases. It is noteworthy that these findings are harmonious with Nabi's results of her test study of the model. Nabi found significant main effects of emotions and reassurance expectation levels and insignificant interaction effects between both. In this case, we falsify the fourth and sixth hypotheses.

Limitations and Suggestions: Although this study is filling a gap in the literature by integrating self-conscious emotions into the CFM, it is confined by some limitations. The data was collected from students during short breaks between classes at universities, which means that we collected it mostly from fatigued participants. This, in turn, may have led to biased results, particularly in the qualitative section, even though we obtained satisfying results compared to Nabi's first test of the model. That was noticed during coding of the thoughts participants were asked to list regarding the persuasive message. Several participants, who were eliminated, had listed completely unrelated thoughts, and instead, they mentioned their opinions about unemployment. Several response sheets were also eliminated because of blankly left questions, and the final number of the included participants was 129, as we mentioned previously. Another limitation is related to the time devoted to the conduct of the study. Since the paper was supposed to be turned in before the end of the semester, the researcher could not provide the ideal settings for data collection, by which the first limitation could have been eliminated.

As the conductor of the second trial of testing the CFM after the original author, we suppose that replicating the test of the model in different contexts would lead to more accurate and reliable outcomes. Despite the strong assumptions in the literature for all details of the CFM, neither this study nor that of Nabi's could come up with completely compatible results with the CFM. The probability of a methodological error is very likely. Because of that, we recommend replicating the study under more controlled conditions (e.g., recruiting participants more carefully, choosing stronger and reviewed induction and more persuasive messages as stimuli, a more comfortable atmosphere for the participants to obtain reliable results, etc.).

In addition, we strongly believe that a second study of the current study would be beneficial as we come up with new and unexpected results (e.g., the triggered fear besides guilt and shame). The impact of other sociodemographic variables as well as possible group differences could be assessed in the second study, such as place of residence (e.g., rural area, city, etc.), socioeconomic status, and self-construal (independent or interdependent self). Finally, changing the problem from unemployment to another problem would give more reliable and trustworthy results in the second study.

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