EFFECTS OF SEXISM AND SELF-CONSTRUAL ON WOMEN'S MENTAL INTRUSION AND

AUTOBIOGRAPHICAL MEMORY

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อิทธิพลของการเหยียดเพศและการตีความตัวตนต่อการรบกวนทางความคิดและความจำเชิง
อัตชีวประวัติในเพศหญิง

น.ส.ณัฐตา กำภู ณ อยุธยา

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต
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ณัตตา กำภู ณ อยุธยา : อิทธิพลของการเหยียดเพศและการตีความตัวตนต่อการรบกวนทางความคิดและความจำเชิง
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งานวิจัยชิ้นนี้เป็นการทดลองแบบออนไลน์ (online experiment) เพื่อทดสอบว่าการตีความตัวตนสามารถลดการเกิด
สิ่งรบกวนทางความคิดและความจำเชิงอัตชีวประวัติเกี่ยวกับความรู้สึกไร้ความสามารถ อันเป็นผลกระทบจากการเหยียดเพศทั้งแบบ
ปฏิปักษ์และแบบให้คุณได้หรือไม่ นิสิต/นักศึกษาปริญญาตรีเพศหญิงจำนวน 89 คน อายุระหว่าง 18 ถึง 24 ปี เข้าร่วมการทดลอง
โดยวิธีการเลือกตามความสะดวก ผู้เข้าร่วมการทดลองถูกสุ่มเข้ากลุ่มการทดลองการเหยียดเพศแบบปฏิปักษ์หรือการเหยียดเพศ
แบบให้คุณ จากนั้นสุ่มเข้ากลุ่มการตีความตัวตน 3 กลุ่ม คือ การตีความตัวตนแบบเป็นอิสระ การตีความตัวตนแบบกลุ่มนิยม และ
กลุ่มควบคุม จากนั้นผู้เข้าร่วมการทดลองทำแบบทดสอบความจำระยะสั้นและประเมินระดับการเกิดการรบกวนทางความคิดที่
เกิดขึ้นระหว่างการทำแบบทดสอบ ตามด้วยกิจกรรมการเขียนคำสำคัญเกี่ยวกับความจำเชิงอัตชีวประวัติเกี่ยวกับความรู้สึกไร้
ความสามารถ

จากการวิเคราะห์ข้อมูลทางสถิติโดยใช้การวิเคราะห์ความแปรปรวนพหุคูณ (MANOVA) พบนัยสำคัญทางสถิติระหว่าง
การเหยียดเพศและการตีความตัวตนต่อความจำเชิงอัตชีวประวัติ ($F(2, 83) = 3.38$, $p < .05$) แต่ไม่พบในการรบกวนทางความคิด
($F(2, 83) = 1.06$, $p = .351$)

อย่างไรก็ตาม การจัดกระทำการตีความตัวตนสามารถลดการรบกวนทางความคิดและความจำเชิงอัตชีวประวัติ
เกี่ยวกับความรู้สึกไร้ความสามารถได้เฉพาะในเงื่อนไขการเหยียดเพศแบบปฏิปักษ์ แต่ไม่สามารถลดได้ในเงื่อนไขการเหยียดเพศแบบ
ให้คุณ ผู้เข้าร่วมการทดลองในกลุ่มการเหยียดเพศแบบเป็นปฏิปักษ์และการตีความตัวตนแบบกลุ่มนิยมทำคะแนนการทดสอบ
ความจำระยะสั้นได้สูงที่สุด รายงานการรบกวนทางความคิดและความจำเชิงอัตชีวประวัติเกี่ยวกับการไร้ความสามารถน้อยที่สุด
เนื่องจากการเหยียดเพศแบบเป็นปฏิปักษ์โจมตีกลุ่มเพศหญิงอย่างตรงไปตรงมาในขณะที่การตีความตัวตนแบบกลุ่มนิยมกระตุ้นให้
ผู้เข้าร่วมการทดลองทำการทดสอบเพื่อกลุ่มเพศของตนเอง ในทางกลับกันผู้เข้าร่วมการทดลองในกลุ่มการเหยียดเพศแบบให้คุณทำ
แบบทดสอบความจำระยะสั้นได้ดีที่สุด และรายงานการรบกวนทางความคิดและความจำเชิงอัตชีวประวัติเกี่ยวกับการไร้
ความสามารถน้อยที่สุดเมื่อถูกสุ่มเข้ากลุ่มควบคุมของการตีความตัวตน จากผลการทดลองอาจตีความได้ว่ากิจกรรมของกลุ่มควบคุม
ช่วยให้ผู้เข้าร่วมการทดลองมีสมาธิกับกิจกรรมมากกว่าที่จะสนใจการเหยียดเพศแบบให้คุณที่มีบริบทกำกวม

สาขาวิชา	จิตวิทยา	ลายมือชื่อนิสิต	
ปีการศึกษา	2563	ลายมือชื่อ อ.ที่ปรึกษาหลัก	

Natta Kambhu : EFFECTS OF SEXISM AND SELF-CONSTRUAL ON WOMEN'S MENTAL INTRUSION AND AUTOBIOGRAPHICAL MEMORY. Advisor: Asst. Prof. PRAPIMPA JARUNRATANAKUL, Ph.D.

This online experiment aims to examine self-construal as a moderator to prevent negative effect, namely, mental intrusions and autobiographical memory about being incompetent, from hostile and benevolent sexism. Thai female undergraduates (N = 89) aged between 18 to 24 (M = 20.30, SD = 1.30) were recruited through convenience sampling technique. Participants were randomly assigned to either benevolent sexism or hostile sexism condition followed by one of the three self-construal written task (independent, interdependent, or no self-construal conditions). Participants completed a set of short-term memory question in order to assessed their mental intrusions during the time completing the task and were asked to recall about the time they felt incompetent and listed it out.

A Multivariate Analysis of Variance (MANOVA) was conducted to examine the influence of sexism (hostile vs. benevolent) and self-construal (interdependent vs. independent VS. no self-construal) on female mental intrusions and autobiographical memory, the interaction effect was significant for autobiographical memory, ($F_{(2, 83)}$ = 3.38, $p < .05$), but not mental intrusions ($F_{(2, 83)}$ = 1.06, p = .351). However, self-construal manipulation was only help reduce mental intrusions and autobiographical memory about being incompetent in the hostile sexism but not the benevolent sexism. The best self-construal treatment for the hostile sexism condition was interdependent self-construal as participants in this group scored highest in short-term memory task (M = 26.61, SD = 5.58), reported lowest mental intrusions (M = 3.22, SD = 1.40) and autobiographical memory (M = 7.56, SD = 4.39). It could imply that hostile sexism directly attacks female and interdependent self-construal motivated them to complete the task for their gender group. While benevolent sexism seems to work best with control task of self-construal because their performance were better (M = 25.42, SD = 4.18) and level of mental intrusions (M = 3.17, SD = 0.73) and autobiographical memory (M = 8.69, SD = 5.27) were lower than other conditions. The outcomes suggested that control task might help participants to focus on unrelated topics instead of ambiguous benevolent sexism text.

ACKNOWLEDGEMENTS

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Chapter I

Introduction

Background of the Study

Mental intrusion was firstly defined by Rachman (1978) as intrusive thought. It represents unwanted and unacceptable thoughts. Mental intrusion is usually found together with subjective discomfort which will interrupt ongoing activity (Rachman, 1981). When individuals experience mental intrusion, they usually experience thoughts that are inconsistent with the belief system of a person (Salkovskis, 1985). External factors can cause numbers of mental intrusions (Parkinson, & Rachman, 1981), and intense mental intrusion were found to be correlated with the amount of stress experienced (Horowitz, 1975).

Sexism is one among many inequalities that usually occur to women. It has been shown to have numbers of negative effects on women, especially to task performance at work (Dardenne et al., 2007; Vescio et al., 2005). Early studies on sexism have mainly concentrated on the reduction of task performance and examined the process in which sexism can attack women's cognitive functions and performance.

Growing body of evidence revealed that sexist behaviors, especially benevolent sexism (positive and protective behavior towards women who conform to their traditional gender role), hinder cognitive abilities of women (Dardenne et al., 2007). Benevolent sexism is ambiguous and difficult to be identified because it appears to protect and rewards women. Nonetheless, benevolent sexism could form uncomfortable feelings and produce mental intrusions (Beiloc k & Carr, 2005; Dardenne et al., 2007). As a result, mental intrusion distract their working memory, suggest that they were incompetent comparing to men (Vescio et al., 2005), and can lead to the activation of autobiographical memory about them being incompetent because individuals can easily retrieve memories that are linked to their current

moods and thoughts (Blaney, 1986; Rusting, 1998), therefore, impairs their performance.

Recent studies have started to focus on the solutions to buffer the negative effect of threat towards female for example communal goal interventions which direct female to emphasize STEM (science, technology, engineering, and mathematics) as communal (desire to work and help other people) to increase female persistence, motivation, and interest towards STEM (Diekman et al., 2017; Diekman et al., 2015); Utility-value interventions underline importance of certain tasks in order to achieve either communal (helping others) or agentic (individual achievement) goal (Brown, Smith, Thoman, Allen, & Muragishi, 2015; Brown, Thoman, Smith, & Diekman; 2015). Self-affirmation is another construct that can buffer the effect of sexism by helping women to focus on their value and competent (Martens et al., 2006; Sherman & Cohen, 2006). However, there is an argument that self-affirmation might not be compatible in some cases, as some people might not fully form their identity and might not be able to indicate their core value when engaging in self-affirmation intervention (De Jong et al., 2016).

As a consequence, current study intends to explore an existing construct that might be able to buffer the effect of sexism on cognitive abilities such as, self-construal. Self-construal explains how individuals describe themselves, either by connecting or separating the self to social contexts, defined as interdependent and independent self-construal. Both types of self-construal have shown to impact individual's experiences differently and large portion of individuals' behavior are derived from the results of self-construal on cognition, emotion, and motivation (Markus & Kitayama, 1991). It was documented that each individual hold both types of self-construal (Trafimow et al., 1991). Personal experiences will determine which self-construal will be activated at a certain situation, and the activated self-construal will influence individuals' behavior, judgement, and perception (Markus & Kitayama,

1991). However, little evidence was found to use self-construal as an intervention to buffer the effect of sexism. Thus, the present study aims to answer whether manipulating self-construal, of which it imposes effect on cognitive, motivation, and emotion, can reduce damages caused by sexism.

Theoretical Perspectives

The Ambivalent Sexism theory

Glick and Fiske (1996) suggested that sexism is a multidimensional concept which consists of two attitudes, hostile and benevolent. These attitudes represent two opposite feelings towards women, negative and positive. Hostile sexism represents classic definition of prejudice, proposed by Allport (1954). Allport (1954) defined prejudice as "an antipathy based upon a faulty and inflexible generalization" (p. 9). Antipathy is a construct that can be used to identify the existence of prejudice, as for hostile sexism, it can be seen through negative stereotyping towards women. On the other hand, individuals can hardly find a link between benevolent sexism and prejudice, because it consists of a positive feeling towards women, expressed in the form of prosocial behaviors or seeking for intimacy. Glick and Fiske (1996) identified these hostile and benevolent as ambivalent sexism.

Even though benevolent sexism is subjective positive feelings towards women, it shares the same value as hostile sexism by seeing women as a weaker sex and restricts them to domestic roles. Benevolent sexism promotes the idea of men as a protector and provider, therefore, reinforcing men power over women (Nadler & Morrow, 1959). Sexism can be seen as a reward and punishment system. Benevolent sexism rewards women who behave according to their traditional gender role, such as conforming to their domestic role, while hostile sexism serves to punish women who do not abide by their traditional gender role such as women who threaten men's status (Glick & Fiske, 1999).

Moreover, Glick and Fiske (1996) further suggested that both hostile sexism and benevolent sexism shared three components including paternalism, gender differentiation, and heterosexuality. Paternalism consists of dominative paternalism in which women are viewed as less competent than men, and protective paternalism in which women need to be protected by men because they were seen as less competent. Gender differentiation refers to the difference in biological aspects which lead to the difference in social role. Heterosexuality is the desire of intimacy which can be categorized as genuine desire (heterosexual intimacy) or desire to dominate (heterosexual hostility).

Sexism has affected women in different aspects. For example, hostile sexism was found to significantly predict gender harassment (Diehl et al., 2018), both hostile and benevolent sexism also contribute to the preserving of gender discrimination and inequalities (Glick & Fiske, 2001), it can enforce domestic violence (Sakalli, 2002), sexual harassment, or even rape (Fiske & Glick, 1995; Yamawaki et al., 2007).

Current study aims to examine consequences of both hostile and benevolent sexism as they affect women differently. Many researches concentrate on sexism in the work recruitment context intended to portray the situation that women might encountered with sexism (Dardenne et al., 2007; Dumont et al., 2010). As for this study, researcher create the situation where women need to complete the task, which they were told to have less ability than men.

Hostile sexism.

Hostile sexism is an overt negative behavior towards women. Therefore, makes women more likely to resist and combat such behavior because it is easy for them to identify those behavior as prejudice (Fernandez et al., 2004).

Even though hostile sexism has caused many negative consequences both to society and to individual, number of studies have shown that when women encountered hostile sexism, their performance was not affected. According to

Dardenne, Dumont, and Bollier (2007), they proposed that, according to theories of emotion, when women encountered hostile sexism, they will interpret the situation as unfair (Frijda, Kuipers, & Ter Schure, 1989; Scherer, 1988; Smith & Ellsworth, 1985). When individuals perceived the situation as unfair, it produced the response mechanism called 'reactance', which will work as a strong motivation to react in order to regain their freedom over such unfair situation (Wortman, & Brehm, 1975). In the hostile sexism situation, women who were underestimated would react to the situation by increasing their motivation to perform to overcome the situation.

Benevolent sexism.

The results from prior study about danger of benevolent sexism has shown that when comparing between women who experienced both types of sexism, they were unable to perceive benevolent sexism as an act of sexism. However, it produced uncomfortable feelings, and mental intrusions, which lead to a decrease in performance. While hostile sexism can clearly be identified as an act of sexism and it suggests that women are disliked by men, however, it does not affect women's performance and did not generate mental intrusion. In contrast, benevolent sexism is considered as implicit process therefore, it creates an ambivalent feeling while activating senses of incompetent in women. As a result, women who faced benevolent sexism often doubt their abilities, which leads to a decrease in self-esteem, and self-confidence (Dardenne et al., 2007).

Based on the aforementioned studies, benevolent sexism appears to be more positive to women and might not be recognized as a prejudice but it exerts much greater effect than hostile sexism when it comes to demolished performance of women in feminine domains. The study proposed that intrusive thoughts about women being incompetent only occurred when benevolent sexism were expressed. When the situation is difficult to attribute externally, it disrupts women's cognitive capacities (Dardenne et al., 2007).

A study by Dumont, Sarlet, and Dardenne (2010) yielded consistent results with previous research, confirming that women who are exposed to benevolent sexism could experience more intrusive thoughts about them being incompetent when completing cognitive tasks rather than those experiencing hostile sexism. Their study further demonstrated that when facing benevolent sexism, women's self-construal was shifted which consequently elicited their memories of being incompetent. This entailed their autobiographical memories.

As previously elaborated, benevolent sexism has many negative effects on women both to external and internal factors. Currently, it is not possible to eliminate the act of sexism or avoid sexist situation. Researcher intention is to identify a simple solution for women to cope with such act. As a result, the current study aims to explore whether the manipulation of self-construal will help reduce women's autobiographical memory about being incompetent.

Self-construal

Self-construal as defined by Markus and Kitayama (1991) refers to how individuals describe the meaning of the self either by viewing the self as separated from social contexts or as connected with social context. The degrees to which individuals see themselves as separated or connected with others are known as independent self-construal and interdependent self-construal. Both types of self-construal have shown to impact individual's experiences differently and large portion of individuals' behavior are derived from the results of self-construal on cognition, emotion, and motivation.

Even though individuals in Western countries were found to be more independent than individuals in Asia and Africa, it was documented that each individual hold both types of self-construal (Trafimow et al., 1991). Personal experiences will determine which self-construal will be activated at a certain situation, and the activated self-construal will influence individuals' behavior,

judgement, and perception. As a result, it is possible that Westerners could show more interdependent self-construal judgment in particular situation as well as Asians and African with independent self-construal (Markus & Kitayama, 1991)

Independent self-construal.

Independent self-construal is the way in which an individual does not feel connected with one's own significant others such as family, and friends. Personal characteristics and behaviors are mostly depended on one's own feelings and thoughts rather than on others, and rather stable across all situations. However, in some circumstances, independent self-construal individual might adjust one's own behaviors according to the presence of others, for example; students sometimes behave well in front of their teacher. Independent individuals always represent themselves through their desire, preference, and ability. When it comes to describing themselves, these inner selves are the most accessible in their memory (Markus & Kitayama, 1991).

Independent self-construal can be seen through the characteristics of, relatively, most individuals in America and Canada, for example men in the United States were found to hold an independent self-construal over interdependent self-construal (Cross & Madson, 1997). Individuals with high independent self-construal value their characteristics that differentiate them from other group members because the uniqueness and ability to express their internal attributes are sources of their self-esteem. Individuals with independent self-construal concern about social context, however, the aim is not to fit in the social context itself, but rather to observe others, comparing themselves with others, and to reconfirm their inner self in particular situations (Markus & Kitayama, 1991).

Cognition.

Independent self-construal individuals see themselves as separate from others, therefore, they are less likely to be interested in social context, but usually

pay full attention to their inner selves. A study by Kitayama et al. (1990) has shown that independent self-construal individuals reported more similarity to others when the questions asked 'Are others similar to self?' rather than 'Is self similar to others?'. The results implied that one answers the aforementioned question by taking self-understanding into account. This is due to the fact that an independent individual has a better understanding on one-own's self than the others.

Individuals with independent self-construal usually have stable characteristics across situations and they often think about themselves in terms of their abilities and attributes (Singelis, 1994). Therefore, researcher hypothesized that once individuals were manipulated with independent self-construal, they will focus on their true self and will not be easily affected by sexist cues.

Emotion.

According to Markus and Kitayama (1991) independent self-construal individuals often experienced more ego-focused emotion, such as pride, anger, or frustration. These emotions typically related to individuals' internal attributes, generated from individuals' needs and desires. Ego-focused emotions often represent internal thoughts and are self-defining, as a consequence, independent self-construal individuals expressed more of this type of emotion.

Motivation.

Motives for independent self-construal derive from individuals' inner needs and desires, such as need for self-esteem or need to achieve personal goal, those needs are assumed to be related with one's achievement and competency. Sense of control or agency of independent individuals often develop through ability to express one's internal needs and ability to tolerate external factors or social contexts that might interrupt one's own attribute (Markus & Kitayama, 1991).

Interdependent self-construal.

Unlike their counterpart, interdependent self-construal individuals tend to identify themselves with those people that they have close relationship with. Their behaviors are determined and organized by the ways they perceived others in their relationship think or feel, and they will adjust themselves to fit in with the social context. Their self-esteem can be boosted by how they perceived their ability to fit in as a group member (Markus & Kitayama, 1991) and to meet their group's standard (Hannover et al., 2006). Therefore, for interdependent self-construal individuals, a proper social relationship with others is one way to complete and fulfil the meaning of their life (Markus & Kitayama, 1991).

Interdependent self-construal mostly represents characteristics of people in Asia, Africa, and southern Europe. Interdependent self-construal individuals do express their internal attributes, for instance their opinions, judgements, and personal characteristics, however those attributes are assumed to be situational specific, and therefore, sometimes interdependent individuals are seen as unstable. Personal characteristic of interdependent individuals is prioritized as a secondary role, because their primitive role is to uphold relationship within group, specifically with people that they have close-relationship with (Markus & Kitayama, 1991).

Cognition.

Interdependent individuals pay more attention to social context, people, and the aspect of self that is linked to other, hence, they are likely to develop more knowledges about others such as; other people feelings, and reactions. When it comes to describe themselves, interdependent individuals will see the self-representation attached to social context. As a result, interdependent individuals will have cognitive representation of themselves or others in a context specific form, and less likely to see things 'in general' (Markus & Kitayama, 1991).

In this regard, the current proposed study hypothesized that when individuals are manipulated with interdependent self-construal, they will feel more attached to social context and concerned more about what others think of them, thus, individuals in interdependent self-construal condition should be disturbed more by sexist cues.

Emotion.

Unlike independent self-construal, interdependent self-construal individuals experience more of other-focused emotions, emotions that concerning other people, such as, sympathy or shame. Resulting from their cognitive process that is often put themselves in others' shoes, so that they are more considerate about others' thought and feeling. However, this type of emotion generally prevents individuals from expressing one's internal attributes, in order to maintain their interdependent selves, consequently, their expression may not be consistent with their true feeling (Markus & Kitayama, 1991).

Motivation.

Because interdependent self-construal individuals are attentive to the needs and feelings of others more than themselves, thus they should experience such motives that concerning with others or social context. Their self-esteem can be fulfilled by the degree of how well they can suppress their inner needs and desires for the sake of others, for this reason, interdependent individuals usually have strong motives to reach expectation of other, specifically, their significant others (Markus & Kitayama, 1991).

Self-construal manipulation and measurement

Evidences from previous researches show that individuals hold both types of self-construal simultaneously. However, individuals' behavior, and judgements will be influenced by the type of self-construal that is activated at a given time

(Trafimow, Triandis, & Goto, 1991). Additionally, self-construal can be manipulated easily by inducing the opposite perspective (Oyserman & Lee, 2008).

There are multiple manipulations used to manipulating self-construal in individuals. The very first technique was invented from Trafimow, Triandis, and Goto (1991), which asked participants to think of what made them similar or different from their family and friends, similar for interdependent self-construal and different for independent self-construal. This technique is also called a similar/different prime technique. One of the limitations of this technique is that the neutral condition was not included, so the effect of the techniques cannot be compared.

The second technique was also developed by Trafimow, Triandis, and Goto (1991). In this technique, participants were asked to make a judgement on a given scenario, about emperor who need to send a general to war. In order to make a judgment, participants need to take into consideration either their judgements were based on the emperor's concern of his own status (independent self-construal), or on his concern over loyalty to his family (interdependent self-construal).

In order to ensure the effects of these two techniques, the "Who am I?" test by Kuhn, and McPartland (1954) was used to test the result of manipulation. Participants who received the independent self-construal treatment would answer with a more individualistic value and those who received the interdependent self-construal treatment would describe themselves with more group-oriented value. The limitation of these two techniques was that the manipulation did not comprise of control condition, therefor the proportion of manipulation cannot be compared.

Brewer and Gardner (1996) have developed another technique for self-construal manipulation. The technique directed participants to find singular pronouns (I, me, mine) for independent self-construal manipulation and to find plural pronouns (we, our, us) for interdependent self-construal manipulation. This

technique was upgraded by including control condition, which is to find third-person pronouns (they, them, it).

Other than those classical techniques, Cheng and Lam (2007) develop a technique use with students by telling them to complete a test by either competing with students in the same school (independent) or students from other school (interdependent). Stapel and Kooman (2001) tell participants to write a paragraph by using the given pronouns and words (I, me, mine, unique, special, unusual for independent, and we, our, ourselves, together, integrate, harmony for interdependent).

The manipulation technique used in current study will adopt the technique developed by Trafimow, Triandis, and Goto (1991). It was validated later in studies by Trafimow, and Finlay (1996), and Ybarra and Trafimow (1998). Researcher selected this technique because the technique required participants to think about what they expect to see in themselves and what are the expectations others have on them which compatible with the context in this study. Moreover, the technique was shown be effective across various type of studies (Swaminathan, Page, & Gürhan-Canli, 2007; Verplanken et al., 2009; Ybarra, & Trafimow, 1998).

Mental Intrusion and Autobiographical Memory

A number of studies have shown that women's cognitive ability often got disrupted as a result of sexism. In the current study, researcher focus on two variables including mental intrusion and autobiographical memory. Mental intrusion or unwanted intrusive thoughts often happen subconsciously, but they can develop into a great deal of anxiety. These intrusions are usually directed at the topic involved sexual, violent, or about themselves being socially unaccepted. Such intrusions are not only occurred, but they interrupted, or disturbed individuals by eliciting the feeling of fear and implying that the thoughts might mean something offensive against them as a person. Sometimes, mental intrusion occur repeatedly

and produce doubts in many aspects such as, relationships, decisions making ability, identity, need of certainty, and so on. Moreover, these unwanted intrusions might not reflect natural truth and make completely no sense (Seif & Winston, 2018).

Mental intrusion not only develop an anxiety, but it is also consuming the space of working memory that operate for problem solving activity. Working memory is required in order to complete cognitive task, but when intrusive thoughts arise, it absorbs parts of working memory and make it difficult for individuals to fully concentrate or process cognitive task (Ashcraft & Kirk, 2001).

Autobiographical memory is the memory that consists of the information about the self and individuals' life experiences. According to Brewer (1986), autobiographical memory is one element of three constructs (ego, self-schema, a combination of personal memories, and autobiographical facts) that form the self for each individual. There are no absolute truth or fault about autobiographical memory, because this memory is based on individual ability to recall particular event in life. Some events can be clearer than the others. It is common that individuals will remember more about basic facts of the situation but small details might be forgotten.

The easiest way to recall autobiographical memories is to come up with a memory cue about past situation. Galton (1879) has developed one of the most famous and popular method to measure autobiographical memory, by presenting subjects with a keyword and asking them to recall memory related to the words they have seen.

In the current study, we will examine mental intrusion and autobiographical memory about being incompetent that occur as a result of sexism manipulation. When an individual experience benevolent sexism, mental intrusion might arise because of the ambiguity of the context. Researcher expects that intrusive thought

will interrupt individuals' cognitive process when completing task and prompt them to easily recall their autobiographical memory about them being incompetent.

Cognitive Task

Previous studies demonstrated that sexism can caused disruption to women's cognitive capacity and decrease women's performance, especially with the task that required working memory. When individuals perform task that requires cognitive capacity, working memory will provide necessary information to solve the problem and at the same time it will suppress unrelated information (Engle, 2001; Engle et al., 1999). While working memory is required when completing cognitive task, it can be demolished when interfered with intrusive thoughts that emerged as a consequence of sexism (Dardenne et al., 2007).

The present study used memory task to represent the cognitive task, as memory task required attentional resource and information storage capacity. Particularly, the researcher aims to apply the test in a neutral manner rather than masculine or feminine, in order to illustrate that woman cognitive can be disturb even in the task that was not perceived as masculine (Dardenne at al., 2007). The task consists of alphabetic memorization and a simple alphabetic order.

Gender Identification

According to social identity theory, Tajfel and Turner (1979) defined social group as an accumulation of individuals with common social categories and share the same interpretation regarding their identity. Smith and Henry (1996) suggested that being a member of social group influence individuals' thoughts, feeling and behavior. Group identification explained the extent to which individuals defined the importance of being a member of group to their self-concept (McCoy & Major, 2003; Smith & Henry, 1996).

Gender identification is the extent to which individual identified themselves as a member of the gender group. However, membership of the gender group can be

classified into two categories; subjective membership, or sense of belonging to the group, and objective membership. Gender identification emphasizes the importance of subjective membership, as it works as an indicator of how strong individuals identify themselves to the group (Becker & Wagner, 2009). Growing evidence proposed that individuals who have high gender identification are likely to experience the threat to their gender more intensely because they take it as threat to their self-concept or identity (McCoy & Major, 2003). Moreover, high gender identification individuals also suffered more from sexism because it portrays negative aspects direct at their gender group, which is considered as high self-relevant (Becker & Wagner, 2009). Furthermore, Kaiser and Hagiwara (2011) emphasized that only women who highly identified themselves with gender group are suffered from the damaged to their working memory caused by social identity threat.

Related Study

Dumont, Sarlet, and Dardenne (2010) investigated the impact of sexism on self-construal and autobiographical memory. Their findings indicated that self-construal and autobiographical memory can be shifted to incompetent once women experienced benevolent sexism. They explained that while hostile sexism was perceived as more aggressive, it did not activate mental intrusion or open the access to their autobiographical memory about being competent. Nevertheless, when experiencing benevolent sexism, women brain activity will have less cognitive control that needed to perform working memory tasks and formed mental intrusions about being incompetent (Dardenne et al., 2013).

Number of researches about autobiographical memory confirmed that emotion play important part in retrieving memories, it was explained that memories which are related to individuals' current mood are more likely to be retrieved rather than unrelated memories (Blaney, 1986; Rusting, 1998). This phenomenon was tested by induction technique, where researchers induce emotion through various

approaches for example, video clips (Josephson, 1996), music (Miranda & Kihlstrom, 2005), and mood-inducing statements (Velten, 1968), followed by the retrieving of autobiographical memories. The result was not only confirmed the theory, but also suggested that memories which were not related to current emotion also take more time to be retrieved (Riskind, 1983). As a result, reading benevolent sexist texts might suggest that women were incompetent and activate their autobiographical memories about being incompetent.

Working memory of women who are more gender-identified are more likely to be impaired by gender based social identity threat because women who identify themselves with their group will take the threat against their group more personally unlike women who are less gender-identified. Kaiser and Hagiwara (2001) demonstrated that, only being a woman is not enough for working memory to be impaired by social identity threat. Women who are more gender-identified reported comparable amount of sexist thought, anxiousness, and angriness after reading sexist texts, compared to those who are less gender-identified, but only highly identified group experienced working memory impairment.

Becker and Wright (2011) demonstrated that women who were encountered with hostile sexism increased their collective action for their own group while women who exposed to benevolent sexism decreased their collective action. The experiment explained that women who exposed to hostile sexism would see less advantages of being a member of gender group and see gender system as unfair, therefore, increased their interest in collective action that favored their group. On the contrary, women exposed to benevolent sexism perceived more advantage of being a member of gender group and considered gender system as just, which in turn decreased their interest in collective action. The result suggested that, in hostile sexism, the threat to gender group was easy to identify. Consequently, intention for collective action emerged in order to defend and preserve their group's status.

In the present study, researcher proposed that women who were confronted with hostile sexism would have less intrusive thoughts and autobiographical memories in interdependent self-construal condition rather than independent self-construal condition.

However, the same state does not happen when women were confronted with benevolent sexism. For benevolent sexism, it either activates self-doubt or mental intrusion towards themselves (Dardenne et al., 2007), or strengthen the perception that they receive advantages from being a woman (Becker & Wright, 2011). This consequently does not trigger the need for collective action to protect their gender group.

There are numerous interventions which have been employed to alleviate the negative effects of sexism or stereotype threat in women such as, Growth Mindset Interventions (e.g., encourage idea of intelligence that is incremental) (Lin-Siegler, Dweck, & Cohen, 2016), Communal Goal Interventions (view STEM as communal) (Smith, Brown, Thoman, & Deemer, 2015), and Value-affirmation Interventions (i.e., confirm individuals' value and importance) (Brady et al., 2016).

Self-construal is one aspect of the self that can influence individual's cognitive, motivation, and emotion. Self-construal has been documented in many studies that it can be manipulated and the results can be seen in the change of individual's behavior and judgement (Stapel & Koomen, 2001; Trafimow et al.,1991). In the current study, researcher will examine the role of self-construal as a moderator to reduce the effect of benevolent sexism on women cognitive ability.

Based on social identity theory, and literature reviews, the following hypotheses are proposed. First, researcher hypothesized that subjects in the benevolent sexism condition will have more mental intrusion and autobiographical memory about being incompetent comparing to subjects in hostile sexism condition, consistent with previous research (Dardenne et al., 2007; Dumont et al., 2010).

Second, manipulation of self-construal will interact with the effect of sexism, lead to the decrease in mental intrusions and autobiographical memory about being incompetent. Those in the independent self-construal condition will pay attention to their uniqueness and see themselves as separated from others, as a result, they should feel less threaten by benevolent sexist text comparing to women with interdependent self-construal.

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Research Objectives

To examine a buffering effect of self-construal which might alleviate a negative effect of benevolent sexism on mental intrusion and autobiographical memory among females.

Present Study

Previous research on sexism has mostly focused on task competence or performance of women when facing sexism. This study, however, will focus on intra-personal variable such as mental intrusion about self-incompetence, and autobiographical memory about being incompetent, to prove that sexism could potentially pose many negative impacts. Moreover, among a number of studies, there are little evidences that previous research has examined the effect of self-construal on mental intrusion and autobiographical memory that occurred, as a result of sexism. The current research aimed to develop an intervention by using self-construal in order to reduce mental intrusion about being incompetent in women when they confronted with benevolent sexism. It is important not only to identify the consequences of sexism on women but also to explore how to buffer its effect.

Research Variables

Independent variables: Hostile sexism

Benevolent sexism

Independent self-construal

Interdependent self-construal

Dependent variables: Mental intrusions

Autobiographical memories

Research hypotheses

H1: Participants in the benevolent sexism condition will report higher scores on autobiographical memories comparing to hostile sexism condition.

H2: Participants in the benevolent sexism condition will report more mental intrusions comparing to hostile sexism condition.

H3: Sexism and self-construal will have an interaction effect on mental intrusions and autobiographical memories.

H3(a): In the benevolent sexism and independent self-construal condition, participants will report fewer mental intrusions comparing to those in the interdependent self-construal and neutral condition (control group).

H3(b): In the benevolent sexism and independent self-construal condition, participants will report better autobiographical memories comparing to those in the interdependent self-construal and neutral condition (control group).

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Conceptual Framework

Figure 1.

Model of hypotheses
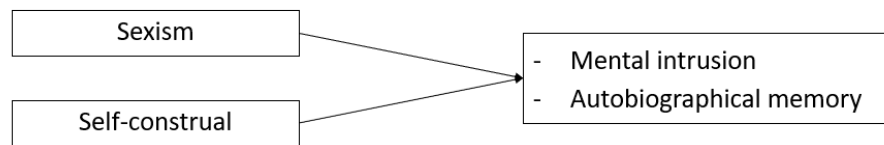
Note: Gender identification will be measure as selection criteria, as it was previously found that individuals with high gender identification will be affected by sexism more than those who less identified.

Research Benefits

1. Increase understanding on the effect of self-construal on cognitive process

2. Increase understanding on how benevolent sexism undermines female cognitive process

3. Identify new method that can buffer a negative effect of sexism among women

4. Increase understanding on the danger of mental intrusions on women cognitive ability

5. Understand the difference between consequences of hostile and benevolent sexism.

Operational Definitions

1. Sexism refers to two opposite attitudes, negative and positive, towards women (Glick & Fiske, 1996).

1.1. Hostile sexism refers to the perception of hostility and underestimation towards women who does not conform to their traditional gender role, or who threaten men status.

Hostile sexism manipulation in this study refers to the act of reading hostile sexist text, developed by referencing from hostile sexism components by Glick and Fiske (1996).

1.2. Benevolent sexism refers to the perception of protection and favor towards women who conform to their traditional gender role.

Benevolent sexism manipulation in this study refers to the act of reading benevolent sexist text, developed by referencing from benevolent sexism component by Glick and Fiske (1996).

2. Self-construal is the degree to which individuals see themselves as separated or connected to social context according to Markus and Kitayama (1991), consist of two types; independent and interdependent.

2.1. Independent self-construal is when individuals see themselves as separated from social context.

Independent self-construal manipulation in this study refers to the writing task about how participants see themselves as separated to others.

2.2. Interdependent self-construal is when individuals see themselves as connected to social context.

Interdependent self-construal manipulation in this study refers to the writing task about how participants see themselves as connected to others.

2.3. Self-construal measurement in this study measure by score on each construct of Self-Construal Scale (SCS Short 10-Items; D'Amico & Scrima, 2016). The scale consists of 10 items. Total of 5 items represent independent self-construal, and 5 items represent interdependent self-construal. 7 points Likert-scale ranging from 1 = strongly disagree to 7 = strongly agree. Participants score higher on which construct indicated that they represent more strongly on that certain type of self-construal.

3. Gender identification is the degree to which individuals identified themselves with the gender group that they belong in.

Gender identification in this study refers to score participants get on gender identification scale developed from Collective Self-Esteem scale (Luhtanen, &

Crocker, 1992). The scale is a 4 items Likert scale type ranging from 1 = strongly disagree to 7 = strongly agree.

4. Mental intrusions are unwanted negative thoughts that come to mind and cause individuals to feel uncomfortable.

Mental intrusions about being incompetent in this study refer to score in mental intrusions questionnaire that participants answer (Dumont, Sarlet, & Dardenne, 2010). Questionnaire consists of 6 items Likert type ranging from 1 = never came to my mind to 7 = always came to my mind.

5. Autobiographical memories are memories that contain information about the self and individuals' life experiences.

Autobiographical memories about being incompetent in this study refer to the number of memories participants recall about themselves being incompetent. The less memories participants recalled, the better.

6. Female in this study refer to a person whom their biological sex and gender identity is female.

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Chapter II

Methodology

Design

The present research is an online experimental study with a 2 (hostile sexism and benevolent sexism) x 3 (independent self-construal, interdependent self-construal, and neutral) between-subjects design. The dependent variables were mental intrusions and autobiographical memories. MANOVA analysis will be used to examine the interaction of variables.

Participants

Populations.

Populations in the experiment will be female undergraduates aged 18 – 25 years without any restrictions on faculties or universities. Online poster regarding the study will be distributed through online channel such as; facebook page or twitter account of faculties and universities in Thailand. Interested female undergraduates can access the experiment via online link or QR code provided on online poster.

Participants will be randomly assigned to six experimental conditions by Qualtrics program. Prior to experimental study, pilot study will be conducted to test manipulation, and scale validation purposes.

Participants for pilot study.

Thirty Thai female undergraduates were employed to participate in the pilot study. The experiment consists of six conditions, approximately five participants per condition.

Participants in actual study.

Initially, a minimum of hundred and twenty-three female undergraduates were to participate in the experiment. The number of participants was calculated by using G*power program, given an effect size = 0.10, calculated according to Hedges,

and Olkin (1985), and determined by referencing the work of Dumont et al. (2008), α = 0.05, and power = 0.80.

The experiment consists of six conditions, approximately twenty participants per condition. Sample size was calculated by referencing Hair, Black, and Babin (2010). The Multivariate Analysis of Variance (MANOVA) sample size should comprise of at least seven participants per group/ cell to be able to identified the differences between group (Lipsey, Kraemer, & Thiemann, 1987). Moreover, participants in each group/ cell must be greater than number of dependent variables (Tabachnick et al., 2019).

In order to participate in the study, participants must meet the inclusion criteria as followed;

- Participants must be female (biological).
- Participants must be Thai, age between 18-25 years old.
- Participants must have mother tongue in Thai.
- Currently an undergraduate student at any university.
- Participants are able to complete the experiment without a break for approximately 30 minutes.
- Participants should complete experiment alone in private space without interruption for maximum concentration.
- Participants should have average score of gender identification scale equal or more than 2 (average score equal to 2 or less could imply that participants were not identified with their gender group).

Pilot study

Pilot study will be conducted prior to the actual experiment. Pilot study was the same as the actual experiment in order to test manipulation and measurement employed in this study.

Materials

> **Materials use in this experiment.**

To ensure that participants clearly understand the experiments' purpose and procedure, all materials used in this experiment were presented in Thai language. All tasks were performed through Qualtrics program in order to reduce bias that might happen from contact between participants and experimenter.

> *Measurements.*

1. Gender identification scale

The gender identification scale was derived from Collective Self-Esteem scale, identification subscale (Luhtanen & Crocker, 1992). The scale consists of 4-items 7 points Likert scale type ranging from 1 (strongly disagree) to 7 (strongly agree). The scale was modified from Collective Self-Esteem scale to assess the degree of participants' identification to their female gender group. Participants with average score less than 2 will be categorized as not identified with female gender group and will be excluded from the analysis.

Data collected from 42 participants in pilot study shown that Cronbach's alphas for this 4-items gender identification were .74. Examples of items in the scale are shown in Appendix A.

2. Self-construal scale

The scale used is a short 10 items self-construal scale (D'Amico & Scrima, 2016) that were developed and validated from a 24 and 30 items SCS scale (Singelis, 1994). A short 10 items SCS is a 7 points Likert-scale type ranging from 1 (strongly disagree) to 7 (strongly agree). The scale consists of 5 items representing independent self-construal and 5 items representing interdependent self-construal. The result from pilot study shown that the scale was slightly reliable with Cronbach's alphas at .70 and .52 respectively. Examples of items in the scale are shown in appendix B.

3. Questionnaire for mental intrusion that occur when performing cognitive task

Mental intrusion questionnaire was modified from the study by Dumont, Sarlet, and Dardenne (2010). It is used to measure the frequency of mental intrusion that occurred during the time of performing cognitive task. The questionnaire consists of 6-items 7 points Likert scale type ranging from 1 (never came to my mind) to 7 (always came to my mind). Examples of items in the questionnaire are shown in appendix C.

4. Autobiographical memory task

Autobiographical memory task was acquired from the study by Dumont, Sarlet, and Dardenne (2010). The task is used to measure participants' number of autobiographical memories about being incompetent that participants recall after encounter with sexism manipulation. Number of keywords given by participants represent how much they feel incompetent. Examples of task are shown in appendix D.

5. Short term memory task

Short term memory task required participants to complete 6 questions by remember alphabets from 2 to 12 letters. The score from pilot study (N = 26) was calculated by using 27% top and bottom of discrimination index. Question number 1 and 2 have discrimination index equal to 0, so these questions were excluded from the calculation. However, questions number 3 to 6 have discrimination index higher than 0.30 (0.86, 2.42, 2.86, and 3.00 respectively) so the questions was included when calculating the result.

Manipulations and manipulation check.

1. Sexist texts serve as sexism manipulation

The manipulation of sexism, researcher developed sexist cues to match with the explicit expression of Ambivalent Sexism Inventory by Glick, and Fiske (1996). Example of the description shown in appendix E.

2. Questionnaire for sexism manipulation check

Questionnaire for sexism manipulation check was developed in accordance with sexist texts to assess participants feeling about sexist cue. It consists of 6-items 7 points Likert scale type ranging from 1 (strongly disagree) to 7 (Strongly agree). 3 items measure hostile sexism and 3 items measure benevolent sexism. Example of questionnaire shown in appendix F.

3. Self-construal task serves as self-construal manipulation

Self-construal manipulation used in this experiment was the modify version from Trafimow, Triandis, and Goto (1991). Original manipulation consists of 2 questions manipulate either independent self-construal or interdependent self-construal. Researcher developed an item for control condition. Once participants complete the question, participants will be presented with guideline text that directed them to complete short-term memory task either for their own accomplishment or for their gender group. Example of questions shown in appendix G.

Procedure

Once Institutional Review Board (IRB) grant permission to conduct research, researcher proceed as follows;

1. Researcher will release experimental poster via online channel such as; facebook group of universities or faculties of any universities in Thailand. The poster will indicate that this project is a one-time online experiment that will take approximately 30 minutes to complete and recruiting only female participants. The project will be known as an experimental study to assess women memories and perceptions. Female undergraduate from any university/ faculties are welcome.

2. Inform consent will be present on the first page of the experiment, indicating the purpose and procedure of this study. Participants will be informed that the experiment is on voluntary basis and that participants have a right to leave the experiment at any moment. Participants will be ensured that their answer and result will be confidential and anonymous. Participants will be asked to choose 'accept' to confirm participation or 'deny' to leave the experiment page.

3. Once participants accept to join the experiment, they have to fill in personal information page which consist of;

3.1. Demographics: gender, age, origins, university and faculty.

3.2. Gender identification scale. The scale assesses the significance of being a member of female gender group to the self.

3.3. Self-construal scale. The scale will help researcher to understand participants' personality trait and compare the different between before and after self-construal manipulation.

4. Participants will be given the description, serves as cover story, that this is a study regarding memories and perceptions. The description will explain that this study was previously done and the result shown that male participants scored better than female participants. The description includes the result from previous study and suggestion for future study.

5. Qualtrics program will randomly assigned participants into two conditions, consists of;

5.1. Hostile sexism condition. The description about the experiment, the result from previous studies and suggestions are negative and suggested that female participants are less competent than male.

5.2. Benevolent sexism condition. The description about the experiment, the result from previous studies and suggestions seems positive and protective to female group.

5.3. After finish reading the description about the experiment, participants have to complete a questionnaire about their opinion on the description text. This questionnaire serves as sexism manipulation check.

6. Next step, participants will be presented with a self-construal task. This task served as self-construal manipulation. Participants will be randomly assigned to three conditions, by Qualtrics program, consists of;

6.1. Independent self-construal condition. Within five minutes, participants will be asked to think about how they different from their female friends and write down participants own expectation about the task. After finish writing participants will be told to complete the task for their own accomplishment.

6.2. Interdependent self-construal condition. Within five minutes, participants will be asked to think about their similarity with their female friends and write down what participants think their friends would expect from them about the task. After finish writing participants will be told to complete the task for their gender group accomplishment.

6.3. Control condition. Within five minutes, participants will be asked to write about what they have learnt during the previous semester.

7. After submitted the self-construal task, participants will be presented with six short-term memory tasks. Before start, participants will be reminded to read the instruction carefully and press 'Start' when they are ready. The task details are as follows;

7.1. Participants will be presented with a set of alphabets and participants need to memorized them within 5 seconds. After 5 seconds the alphabets will be disappeared automatically.

7.2. Without taking note, participants need to type down all the alphabets that they remember in the box provided.

7.3. The number of alphabets will increase for each question.

8. After finished memory task, participants complete a questionnaire to assess their mental intrusions. Participants will be asked to rate which thoughts that came to their mind during the time that they perform memory task.

9. Last part is an autobiographical memory task, participants will be told that this is a long-term memory task. The actual purpose of this task is to measure participants' autobiographical memory about them being incompetent. The stages for this task are as follows;

9.1. Participants have to pick one out of four undisclosed choices, which will tell them which of specific topic of memory that they need to recall. However, all choices are identical, by asking participants that within five minutes, they have to retrieve, as many as possible, memories about the situations that make them feel silly, incompetent, and less smart than others.

9.2. After reading a given instruction, participants have to write down only a keyword for the situation, but no need to describe the situation. The number of keyword that participants write down would represent the number of autobiographical memories about them being incompetent.

10. After the experiment, participants will be fully debriefed, started by writing down what they think is the real purpose of the study and their feelings after complete the experiment, then reveal the actual purpose of this study.

11. By completing this experiment, participants might feel uncomfortable or incompetent as a result of the study. Participants are welcome to contact experimenter via contact details provided if they would like to consult about the experiment or to withdraw their answer after knowing the purpose of the experiment. The answer that participants wish to withdraw will be deleted from the system immediately and will not report in a complete study. In case that participants feel the need to consult with professional regarding their concerns,

participants may contact Center for Psychological Wellness at Faculty of Psychology

via tel. 02 218 1171 or email: wellness.chula@gmail.com.

Experimental flow

Figure 2.

Experimental flow
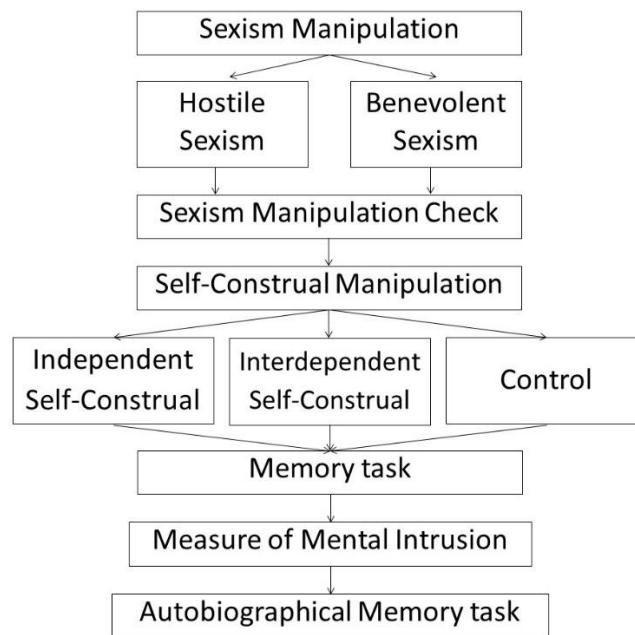
Data Analysis

Data analysis will be conducted using IBM SPSS statistics program version 21. Inferential statistics will be used to analyze research hypotheses, using between group Multivariate Analysis of Variance (MANOVA). Sexism (hostile and benevolent) and self-construal (independent, interdependent, and no self-construal) serve as independent variables and mental intrusions and autobiographical memories about being incompetent as dependent variables.

Chapter III

Results

Descriptive statistics was performed to describe demographical information of participants. *T*-test was used to test mean difference of key variables (H1 and H2), comparing the result of mental intrusions and autobiographical memories between participants in the hostile sexism condition and the benevolent sexism condition. Lastly, Multivariate Analysis of Variance (MANOVA) was performed to test interaction effect between sexism and self-construal and compare the difference between independent self-construal, interdependent self-construal, and no self-construal manipulation (H3, H3(a), and H3(b)).

Results will be divided into 3 parts as followed;

1. Data screening and descriptive statistics of participants.
2. Manipulation checks and other analysis.
3. Hypotheses testing.

Data screening and descriptive statistics of participants

As aforementioned, researcher aimed at a total of 123 participants and approximately 20 participants per condition. However, as this study is an online experiment, there are relatively high number of participants dropouts, a total of 182 experimental link were accessed but only 111 (60.99%) were completed. Furthermore, 2 responses were eliminated because the mean score of gender identification scale was lower than 2. Moreover, 13 responses failed to meet sexism manipulation criteria and 5 other responses did not answer the self-construal question, these responses were also excluded from the calculation. After performing a box plot analysis, 2 data set were identified as outlier, therefore, they were eliminated from the calculation. Resulting in the final number of 89 participants, which are lower than the initial expected number. However, the minimum

requirement for MANOVA to be performed was that the number of participants in each group/cell must exceed the number of dependents variable (Tabachnick et al., 2007).

Participants were Thai female undergraduates with no restrictions on university or faculty and participated on a voluntary basis. 89 participants aged ranged from 18 – 24 years (M = 20.30, SD = 1.30), demographic information of participants was displayed in Table 1.

Table 1
Demographical information of participants

		Frequency	Percentage
Age	18	4	4.50
	19	21	23.60
	20	29	32.60
	21	22	24.70
	22	8	9.00
	23	2	2.20
	24	3	3.40
Year in university	First year	7	7.90
	Second Year	39	43.80
	Third year	26	29.20
	Fourth year	14	15.70
	Sixth year	3	3.40
Region	Bangkok	45	50.60
	Central	10	11.20
	North	6	6.70
	Northeast	15	16.90

East	3	3.40
South	10	11.20
Total/Response rate	89	100

Manipulation check

Sexism manipulation check.

T-test was performed to test the mean differences for sexism manipulation check scale between participants in the hostile sexism conditions and the benevolent sexism conditions. As expected, mean score measuring hostile sexism was significantly higher for participants in the hostile sexism condition (*M* = 4.56, *SD* = 1.43) than in the benevolent sexism condition (*M* = 3.65, *SD* = 1.38), *t*(87) = 3.104, *p* < .01. Contrarily, mean score for benevolent sexism was also significantly higher for the benevolent sexism condition (*M* = 3.83, *SD* = 1.24) than the hostile sexism condition (*M* = 2.91, *SD* = 1.16), *t*(87) = -3.628, *p* < .001.

Self-construal manipulation check.

Self-construal written task was coded into two categories; first was answers that was based on participants feelings and perception, including words such as; I, me, mine, myself, and different. Second was answers that concerned other people, including words such as; we, us, ours, and similar. Researcher coded the answers by counting the number of mentioned words in each category. *T*-test then used to test the difference between group. As expected, the answer related to the self was answered more by participants in the independent self-construal group (*M* = 3.03, *SD* = 2.40) more than participants in the interdependent self-construal group (*M* = 0.21, *SD* = 0.50), *t*(55) = 6.197, *p* < .001. On a contrary, the answer related to others was answered more by participants in the interdependent self-construal group (*M* = 2.14, *SD* = 1.94) than participants in the independent self-construal group (*M* = 0.14, *SD* = 0.35), *t*(55) = -5.389, *p* < .001.

Moreover, 10 items self-construal scale (D'Amico & Scrima, 2016) was collected from participants at the beginning of the experiment, the purpose was to compare between participants self-construal initial trait and their state after the manipulation. The written task confirmed that participants answer their self-construal task according to the manipulation, but not their baseline trait.

Short-term memory task performance

Task performance is one of the factors that needed to be analyzed, as it is believed to have connection with both dependent variables, mental intrusions and autobiographical memory. More mental intrusions should interrupt working memory then lead to poor performance and more biographical memories about being incompetent.

T-test was performed to test the mean difference for task performance between the hostile sexism condition and the benevolent sexism condition. The average of short-term memory score between the two group was statistically significant, $t(87) = 2.42$, $p < .05$. Average short-term memory score for the hostile sexism condition was 25.22 ($SD = 4.31$) and the benevolent sexism condition was 23.15 ($SD = 3.76$). Taking a look more closely on Table 2, reporting score for each group, participants in the hostile sexism and interdependent self-construal perform best ($M = 26.61$, $SD = 5.58$), followed by independent self-construal ($M = 25.26$, $SD = 4.52$) and control ($M = 24.53$, $SD = 3.45$). For the benevolent sexism, participants perform best in the control group ($M = 25.42$, $SD = 4.18$), followed by interdependent and independent self-construal, respectively ($M = 22.14$, $SD = 3.02$ & $M = 22.13$, $SD = 3.56$).

Table 2

Descriptive statistics for short-term memory task performance

Type of sexism	Self-construal	n	SD	Short-term memory score

Hostile	Independent	17	4.52	25.26
	Interdependent	9	5.58	26.61
	Control	19	3.45	24.53
Benevolent	Independent	12	3.56	22.13
	Interdependent	19	3.02	22.24
	Control	13	4.18	25.42

When testing the two-way Analysis of variance (ANOVA) between sexism and self-construal on performance, the main effect was found for sexism, $F(1, 83) = 6.40$, $p < .05$, but not for self-construal, $F(2, 83) = 0.77$, $p = .467$. Interaction effect between sexism and self-construal was also found significant at $F(2, 83) = 63.45$, $p < .05$. See Table 3.

Table 3

Two-way ANOVA, main and interaction effect on short-term memory task performance

Predictor	Sum of Squares	df	Mean Square	F	p	partial η^2
(Intercept)	49076.70	1	49076.70	3124.10	.000	.143
sexism	100.56	1	100.56	6.40	.013*	.072
SC	24.18	2	12.09	0.77	.467	.018
sexism x SC	108.33	2	54.17	3.45	.036*	.077
Error	1303.85	83	15.71			

*Notes: *p < .05. SC = Self-construal.*

Figure 3.

Interaction between sexism and self-construal on short-term memory score

Figure 3 shows a line graph titled "Short-term memory score" with y-axis "Mean score" ranging from 21 to 27, and x-axis categories "Hostile" and "Benevolent". Three lines represent Independent (solid), Interdependent (dashed), and Control (dash-dot).
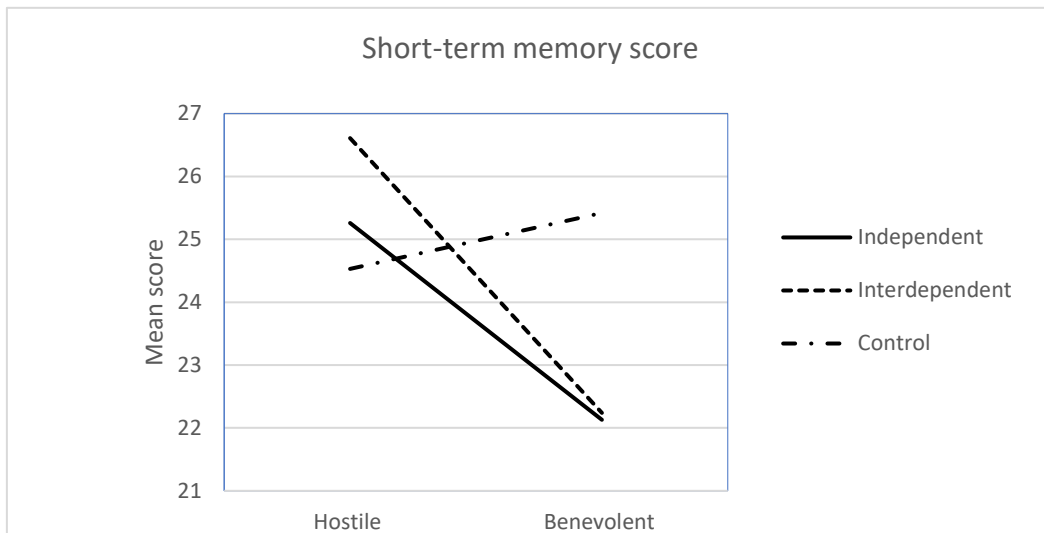
Hypotheses testing.

Autobiographical memory.

H1 was hypothesized that participants in the benevolent sexism condition will report more autobiographical memory than participants in the hostile sexism condition. Autobiographical memory measured by the number of keywords participant report about them being incompetent. *T-test* was performed to test mean difference between the benevolent sexism condition and the hostile sexism condition. Participants in the benevolent sexism condition reported significantly higher number of autobiographical memory than the hostile sexism condition, $t(87) = -2.18$, $p < .05$. Participants in the benevolent sexism condition reported an average of 11.16 ($SD = 6.54$) keywords about being incompetent while participants in the hostile sexism condition reported an average of 8.60 ($SD = 4.31$) keywords. The results confirmed the first Hypothesis (H1).

Mental intrusions.

The second Hypothesis (H2) was participants in the benevolent condition will rate higher mental intrusions while completing the short-term memory task comparing to those in the hostile sexism condition. The score generated from mental intrusions scale that participants rate after complete the short-term memory task. For the result, even though participants in the benevolent sexism conditions report slightly higher average score of mental intrusions than participants in the hostile sexism condition, but not significantly different, $t(87) = -1.57$, $p = 0.121$. Average score for the benevolent sexism condition was 3.77 ($SD = 1.23$) and for the hostile sexism condition was 3.35 ($SD = 1.30$). The second Hypothesis (H2) was not supported.

Multivariate Analysis of Variance (MANOVA).

In order to perform Multivariate Analysis of Variance (MANOVA), there are number of assumptions needed to be met. According to Hair, Black, Babin, & Anderson (2010), there are three assumptions to be assessed before performing MANOVA; 1) dependent variables should be correlated to some degree (low to moderate); 2) dependent variables should be normally distributed in groups of independent variables; and 3) the covariance matrices are equal (homogeneity of covariance).

Assumptions of MANOVA testing.

First of all, in order to run the Multivariate Analysis of Variance, researcher performed correlation analysis to make sure there was no multicollinearity between dependent variables. Autobiographical memory and mental intrusion were found to be slightly positively correlated, $r(88) = .251$, $p < .05$, thus there is no multicollinearity.

To test that all dependent variables are normally distributed in groups of independent variables, researcher carried out the Kolmogorov-Smirnov test to confirm normal distribution. However, autobiographical memory of independent self-

construal and no self-construal group, and mental intrusions of hostile sexism and

independent self-construal group failed to meet the criteria of normal distribution as

they have *p* value less than 0.05. For this reason, skewness and kurtosis statistics

were conducted. The acceptable value of skewness and kurtosis was +/- 2 (George &

Mallery, 2010; Hair et al., 2010). The result of skewness and kurtosis confirmed that

all data were considering normally distributed. See Table 4.

Table 4

MANOVA normal distribution test

Variables	Group	Skewness	SE.	Kurtosis	SE.	Kolmogorov-Smirnov
Autobiographical memory	HS	.313	.354	-.548	.695	.050
	BS	.425	.357	-.759	.702	.148
	IND	.904	.434	-.208	845	.002**
	Inter	.421	.441	-.803	.858	.174
	Control	-.028	.414	-.580	.809	.049*
Mental intrusions	HS	-.228	.354	-.760	.695	.035*
	BS	.449	.357	.195	.702	.166
	IND	-1.107	.434	.966	.835	.000***
	Inter	.236	.441	-.490	.858	.200
	Control	.262	.414	-.162	.809	.090

Notes: *p < .05, **p < .01, ***p < .001. HS = Hostile sexism, BS = Benevolent sexism,

IND = Independent self-construal, Inter = Interdependent self-construal, Control = No

self-construal.

Next, The Box's Test of Equality of Covariance Matrices[a] needed to be test to

confirm the homogeneity of covariance among all groups. The assumption was not

violated, as the result of Box's *M* (23.37) was not significant, *p* = .113. Meaning that the differences were not significant between covariance matrices.

Interaction testing.

The following step was to examine whether there are significant differences among sexism (hostile and benevolent) and self-construal (Independent, interdependent, and no self-construal) groups on autobiographical memory and mental intrusions. Because Box's Test or the assumption of homogeneity of variance-covariance was not violated, therefore, Wilk's Lambda will be used to determine the differences (Glen, 2015). With the alpha level at .05, the result indicated that the differences among sexism and self-construal groups on autobiographical memory and mental intrusions were not significant, *Wilk's* Λ = .91, $F(4, 164)$ = 1.94, *p* = .107, multivariate η^2 = .045 . While the interaction between two independent variables were not significant, the main effect of sexism was significant, *Wilk's* Λ = .92, $F(2, 82)$ = 3.47, *p* = .036, multivariate η^2 = .078, meaning that there are significant differences among sexism groups (hostile and benevolent) on dependent variables. On the other hand, the main effect for self-construal was not significant, *Wilk's* Λ = .95, $F(4, 164)$ = 1.14, *p* = .340, multivariate η^2 = .027 (Table 5).

Table 5

Multivariate Tests: Differences among groups

Effect	Wilk's Lambda					
	Value	*F*	Hypothesis df	Error df	*p*	partial η^2
Intercept	.095	391.317	2.000	82.000	.000	.905
Sexism	.922	3.465	2.000	82.000	.036*	.078
SC	.947	1.139	4.000	164.000	.340	.027
Sexism*SC	.912	1.938	4.000	164.000	.107	.045

Notes: **p* < .05. SC = Self-construal.

Hypothesis H3 proposed that sexism and self-construal will have interaction effect on autobiographical memory and mental intrusions. The results were confirmed for autobiographical memory ($F(2, 83) = 3.38$, $p < .05$) but not mental intrusions ($F(2, 83) = 1.06$, $p = .351$). There was a significant main effect for sexism on autobiographical memory ($F(1, 83) = 5.93$, $p < .05$) but not significant for mental intrusions ($F(1, 83) = 2.19$, $p = .143$). As for self-construal, there was no significant main effect for both autobiographical memory ($F(2, 83) = 1.27$, $p = .287$) and mental intrusions ($F(2, 83) = 1.34$, $p = .267$).

Table 6

Main and interaction effect of sexism and self-construal

Predictor	DV	Sum of Squares	df	Mean Square	F	p	partial η²
(Intercept)	AB	8008.83	1	8008.83	274.84	.000	.768
	MI	1033.34	1	1033.34	648.62	.000	.887
sexism	AB	173.05	1	173.05	5.94	.017*	.067
	MI	3.48	1	3.48	2.19	.143	.026
SC	AB	73.76	2	36.88	1.27	.287	.030
	MI	4.27	2	2.14	1.34	.267	.031
sexism x SC	AB	197.14	2	98.57	3.38	.039*	.075
	MI	3.38	2	1.69	1.06	.351	.025
Error	AB	2418.605	83	29.14			
	MI	132.28	83	1.59			

Notes: *$p < .05$. SC = Self-construal, AB = Autobiographical memory, MI = Mental intrusions.

Figure 4.

Interaction between sexism and self-construal on autobiographical memory about being incompetent
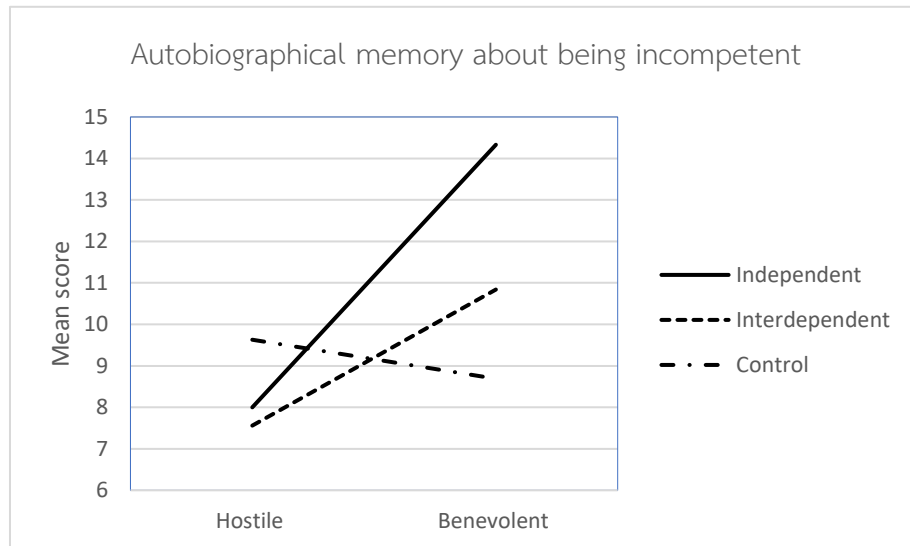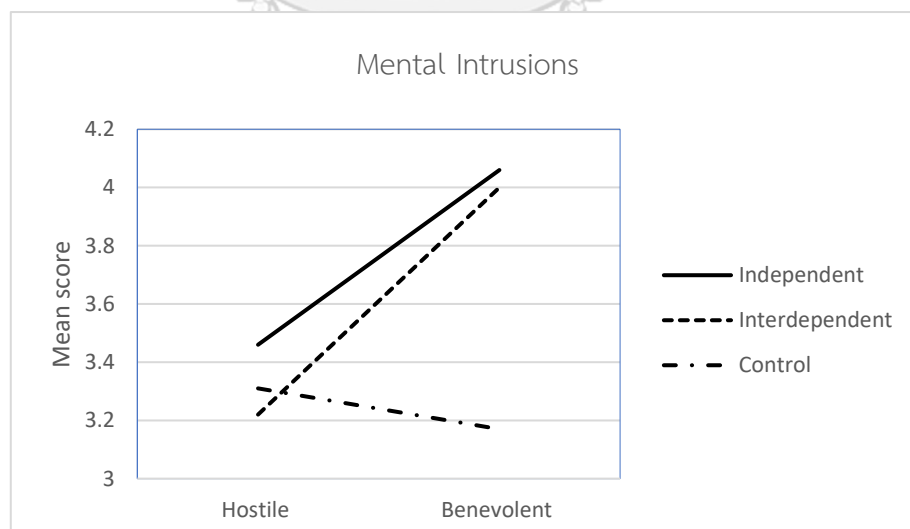

Figure 5.

Interaction between sexism and self-construal on mental intrusion

When taking a look at descriptive statistics of autobiographical memory and mental intrusions score, the results did not turn out as expected. Researcher hypothesized among participants in the benevolent sexism condition, the independent self-construal group will report less autobiographical memories and mental intrusions comparing to the interdependent self-construal and no self-construal group. But mean score for both dependent variables suggested that those in the independent self-construal reported the highest average of autobiographical memories (M = 14.33, SD = 6.79) and mental intrusions (M = 4.06, SD = 0.91). While the group that reported the lowest average of autobiographical memories (M = 8.69, SD = 5.27) and mental intrusions (M = 3.17, SD = 0.73) was no manipulations of self-construal group. While the interdependent self-construal group reported moderate autobiographical memories (M = 10.84, SD = 6.65) and mental intrusions (M = 4.00, SD = 1.54). As a result, hypotheses H3(a) and H3(b) were not supported. Apart from the hypotheses, the result for participants in the hostile sexism condition appeared as follow: participants in the interdependent self-construal group have the lowest autobiographical memories followed by the independent self-construal and no self-construal manipulations, respectively (M = 7.56, SD = 4.39 for Interdependent, M = 8.00, SD = 4.82 for independent, and M = 9.63, SD = 3.77 for control). Similar results for mental intrusions, the interdependent group report the lowest score followed by no manipulations of self-construal group then the independent group (M = 3.22, SD = 1.40 for Interdependent, M = 3.31, SD = 1.47 for control and, M = 3.46, SD = 1.09 for independent). Overall, participants in the hostile sexism group report less autobiographical memories about being incompetent and less mental intrusions while performing short-term memory task than the benevolent sexism group. See Table 7.

Table 7

Descriptive statistics of autobiographical memory and mental intrusions score

Type of sexism	Self-construal	n	Autobiographical memory		Mental intrusions	
			Mean	SD	Mean	SD
Hostile	IND	17	8.00	4.82	3.46	1.09
	Inter	9	7.56	4.39	3.22	1.40
	Control	19	9.63	3.77	3.31	1.47
Benevolent	IND	12	14.33	6.79	4.06	0.91
	Inter	19	10.84	6.65	4.00	1.54
	Control	13	8.69	5.27	3.17	0.73

Notes: IND = Independent self-construal, Inter = Interdependent self-construal, Control = No self-construal.

Chapter IV

Discussion

This online experiment aims to examine the effect of self-construal manipulation on undergraduate female by measuring mental intrusions and autobiographical memory that occur after experienced sexist context. The results showed that participants in the benevolent sexism condition report more autobiographical memory about being incompetent and mental intrusions than the hostile sexism condition. Sexism and self-construal also have an interaction effect on autobiographical memory but not mental intrusions. While H3(a) hypothesized that among participants in the benevolent sexism, those who faced independent self-construal condition would report the lowest autobiographical memory and mental intrusions, the results did not appear accordingly. Overall, not all results turned out as expected, therefore researcher will separate the discussion into two sections. The first section will be discussing about Hypotheses 1 and 2, which mainly concentrate on the relationship between sexism, mental intrusions and autobiographical memory. The second section will be about Hypotheses 3, 3(a), and 3(b), which will focus on self-construal and the interaction between sexism and self-construal.

Sexism, mental intrusions, and autobiographical memory.

According to the findings, after been through both sexism manipulation and self-construal manipulation, participants in the hostile sexism group still reported less autobiographical memory about them being incompetent and less mental intrusions than those in the benevolent sexism condition. However, significant effect was only found in autobiographical memory but not mental intrusions. In order to explain the outcomes between the two dependent variables, short-term memory task performance also need to be explained, as it was an important indicator that help explaining the relationship between mental intrusions and autobiographical memory.

Mental intrusion or unwanted intrusive thoughts in this experiment occurred as a result of benevolent sexism manipulation, according to Beilock and Carr (2005), only benevolent sexism can increase mental intrusions because it is implicitly implied that women are incompetent, therefore, generating self-doubt. Considering the outcomes of mental intrusion scale in this experiment, participants in benevolent sexism condition have a higher average mental intrusions score comparing to their counterpart. Even though, Hypothesis 2 was not supported as the outcome was not statistically significant, but its tendency implied that it was consistent with result of previous research (Beilock & Carr, 2005). However, mental intrusions not only threatened individual sense of competence, but it is also reduced working memory capacity (Ashcraft & Kirk, 2001), which is a crucial mechanism use to perform memory task.

Short-term memory task performance between the hostile sexism and the benevolent sexism was significantly different, as hypothesized, the hostile sexism has a higher average score. Because mental intrusions can interrupt working memory activity (Dardenne et al., 2007), participants in the benevolent sexism who report higher degree of mental intrusions also score lower in short-term memory task compare to those in the hostile sexism who report a lower degree of mental intrusions. A coherent outcomes of short-term memory performance and mental intrusions, confirmed the aforementioned theory.

Moving on to the last variable, autobiographical memory about being incompetent, this dependent variable is believed to occur as a result of poor short-term memory performance. Autobiographical memory is the memory about experiences in individuals' life, and memory that is related to individual current feeling is more easily to retrieve than the unrelated one (Blaney, 1986; Rusting, 1998). In this situation, participants in the benevolent sexism condition that reported high mental intrusions and had low short-term memory score have high tendency to

reported more autobiographical memory about being incompetent. The findings were supportive of Hypothesis 1, participants in the hostile sexism condition reported significantly less autobiographical memory about being incompetent than participants in the benevolent sexism condition.

From the finding, it could signify that mental intrusions, short-term memory performance, and autobiographical memory about being incompetent, are consequences that occurred as a result of benevolent sexism. When female was threatened by benevolent sexism, that was subtle and difficult to interpret, mental intrusions usually emanate in their mind. These intrusive thoughts are working as an obstruction that prohibit working memory to fully perform, and disturb their cognitive function. At the end, once female, who full of self-doubt and feels incapable of completing the task, were asked to retrieved memories about them being incapable or incompetent, these memories are the most easily to be recovered.

However, there is one experimental condition that the result was not consistent with the others, which is the benevolent sexism and no self-construal manipulation condition. Therefore, further explanation regarding self-construal manipulation is needed to be addressed.

Self-construal

In this section, self-construal will be discussed along with other related findings. Initially, researcher was expected to see self-construal helps improve performance, reduce mental intrusions and autobiographical memory about being incompetent among participants in benevolent sexism group. By added 3 types of self-construal written tasks, independent, interdependent, and no self-construal, for participants to complete after been through sexist cues. Regrettably, the outcomes suggested otherwise. Therefore, Hypotheses 3(a) and 3(b) were not supported. Yet, the results show some interaction effect between sexism and self-construal on

autobiographical memory, but not mental intrusion, Hypothesis 3 was also not supported.

Hostile sexism.

First part, the hostile sexism and the manipulations of self-construal will be discussed. Overall, participants in the hostile sexism condition received higher score for short-term memory task and reported fewer mental intrusions and autobiographical memories. Previous studies (Dardenne et al., 2007) suggested that when facing with hostile sexism, participants performance will not to be affected as hostile sexism is an overt negative behavior towards women, therefore it creates motivation to react to an unfair situation as a response mechanism (Wortman, & Brehm, 1975). As a result, increase women motivation to perform. In the hostile sexism condition, participants read sexist text which suggested that women perform worse than men in memory task and should not be chosen to participated in short-term memory test. Then, participants were asked to complete a self-construal written task, intended to buffer the effect of sexism.

Interdependent self-construal.

Interdependent self-construal task asked participants to think and write about the similarity they have with their female friends and the expectation their friends have on them when completing the memory task. The interdependent self-construal task enhanced participants' motivation to perform for the benefit of their gender group. As Markus and Kitayama (1991) explained that individual with interdependent self-construal should have motives that concern others or their social context and their self-esteem can be lifted by how well they response to the need of others. Moreover, participants recruited for this experiment were all Thai female, where Markus and Kitayama (1991) found that an Asian individual is generally regarded as an interdependent person rather than an independent one. Therefore, participants in interdependent self-construal might feel more related to the context and perform better as it matched their baseline personality. As a result, participants in the hostile

sexism and interdependent self-construal condition were the group that obtained the highest score for short-term memory task, and report very little of mental intrusions and autobiographical memories about being incompetent.

Independent self-construal.

On a contrary, independent self-construal task required participant to think and write about their differences between them and their female friends and the expectation they have on themselves when completing the memory task. Independent self-construal task separate participants' self from social context (Markus, & Kitayama, 1991). In this case it might reduce the effect of sexist text by making participants feel less threaten as a group and only produce motivation to perform for themselves. Anyhow, their performance was only a little lower than the first group, so as their degree of mental intrusions and numbers of autobiographical memory were also not much different. The result suggested that participants in this group had motivation to perform, but does not seem to be as strong as interdependent self-construal group. As earlier mentioned, that participants are Thai female, therefore there was a possibility that participants have interdependent self-construal as their trait (Markus, & Kitayama, 1991). This might explain why performance for participants in this group is a little bit lower than participants in the interdependent self-construal group.

No self-construal.

In no self-construal manipulation, participants required to shortly summarized about 2 subjects that they have studied during the previous semester. Among three conditions of self-construal, participants in this condition got the lowest score in short-term memory task, it could imply that when there was no instruction that leads participants to complete the task either for their gender group or for themselves, participants in this condition only complete the task to overcome the perceived unfairness from hostile sexist text (Wortman, & Brehm, 1975), without additional motivations. The degree of mental intrusions and numbers of

autobiographical memories answered by participants in this condition were also not much different from the other two aforementioned conditions.

Findings of the hostile sexism condition was pretty straightforward; it was not different from what researcher originally expect. What needed to be addressed is more about their counterpart, the benevolent sexism condition.

Benevolent sexism.

Second part is about the benevolent sexism and the manipulations of self-construal. Benevolent sexism is more complicated comparing to hostile, as it is found to be more ambiguous and difficult to be interpreted as sexism, despite its ambiguity, it could create uncomfortable feelings and mental intrusions which leads to the decreased in performance (Dardenne et al., 2007). General outcome of participants in the benevolent sexism condition was not as primarily expected, both independent and interdependent self-construal manipulations did not help improved performance and reduced mental intrusions and autobiographical memory. Oppositely, participants in these two conditions perform worst and report more mental intrusions and autobiographical memory than other conditions. Sexist text in this condition were somewhat subtle, it suggested that men performance in memory task was better so when it comes to completing this kind of task women and men should have different passing criteria.

Independent self-construal.

Starting with independent self-construal condition, researcher predicted that the manipulation of independent self-construal will help participants focused on their inner self, and separate the self from social context (Markus, & Kitayama, 1991), which should reduce threat from benevolent sexism text. However, the results were opposite, participants in this groups performed worst in short-term memory task, therefore, rate the highest in both mental intrusions and autobiographical memory

about being incompetent. Researcher examined the answer from self-construal written task, and found possible reason to explain this phenomenon.

Comparing to other conditions, participants in this condition answer the question more negatively about how they different from others in their gender group, some answer including "I am pretty careless, and probably cannot do well in memory task", "I wish I could be less reckless when completing any kind of task", "I am not happy with myself because I am not a beauty standard type of women" etc. These examples of answers reflecting a strong self-doubt and lack of confidence. Even thought, after the written task, there was an instruction text directing participants to complete the task for their own accomplishment, but if participants feel they are incapable, a short instruction might not be enough to increase their motivation to perform. To conclude, independent self-construal written task did not serve it purpose to help participants focus on their difference and uniqueness, conversely, in some cases it provokes their sense of incompetence. Obviously, it did not buffer the negative effect from benevolent sexism.

Interdependent self-construal.

Findings from this condition was not much different from the independent self-construal group. One aspect that researcher believed to have influenced the outcome for both this condition and independent self-construal condition was that benevolent sexist text clearly told participants that male and female should have different passing criteria. This factor might lead participants to think that it was not necessary to devote their full afford to complete the task, if male and female are to have different passing score.

When looking more closely on individual answer, researcher found the differences in the answer about expectations between participant the hostile sexism condition and this condition. In the hostile sexism condition, many participants answered that their female friends will expect to see them do well in short-term

memory task, and some participants even mentioned that their friends might wish they could perform better or equal to male. But in this condition, participants answer more neutral, for example "My friend won't expect anything from me", "They probably hope to see me perform as good as other female friend", or "Let's not compare female performance to male". From the answer, it was obvious that participants in the benevolent sexism condition seems to have less motivation to perform at their best. On that account, interdependent self-construal manipulation does not drive participants to perform for their gender group.

No self-construal.

Unlike in the hostile sexism condition, participants who performed best in the benevolent sexism condition were those in no self-construal condition. It appeared that writing about two subjects they studied in the previous semester helps participants to focus on unrelated topics and score more in short-term memory task. There was no clear evidence that complete an unrelated task will help participants to shift their focus to other topic rather than sexist cue. But the result suggested that control task may be able to block the effect of benevolent sexism, as the short-term memory score of participants in this condition was comparable to those in the hostile sexism condition. Furthermore, both mental intrusions and autobiographical memory were also as good as in the hostile sexism condition. Thus, there are reasons to believe that the control task can deviate participants from sexist cue and allow them to fully concentrate on short-term memory task.

Self-construal task

In conclusion, self-construal manipulation used in this experiment only help participants in the hostile sexism condition, but not the benevolent sexism condition. Hostile sexism was straightforward and easily to understand, when participants encounter self-construal written task, it was clear that they need to either think about their gender group and complete the task for the benefit of their gender or think about themselves and complete the task for their own good. But it was not as

simple for the benevolent sexism, written task can double the confusion. Some participants in the benevolent condition even reported that they get confused while tried to find connections between sexist text and self-construal written task.

Limitations

First of all, conducting online experiment is one of the main limitations for this study. Initially, this experiment intended to conduct in laboratory setting, but due to the current situation of Covid-19, researcher was unable to conduct experiment in controlled setting. Online sexism manipulation was not as effective as expected, there are relatively high number of data that was eliminated because the requirement of sexism manipulation was not met. Moreover, the result also shows that some participants were not fully concentrate when completing the task, some data were 100% complete but the answer were either very short and unrelated or answer completely different thing from what asked. The tool and place participants utilized to complete the experiment were also uncontrollable, even though, researcher make a remark, asking participants to complete the experiment all at once without a break and in private area, some response show the time consumed to complete the experiment was unrealistic.

Secondly, sexism manipulation that used as a cover story might not be effective enough for some participants to feel as it was a sexist text, especially for benevolent sexism condition. Most of the answer that were eliminate because sexism requirement was not met are from participants in benevolent sexism condition. Because the text was not clear enough that participants will gain benefit or receive help from being female, therefore some of the participants did not develop ambiguous feelings. Cover story should be strongly develop in the future reseach.

Since many data were eliminated, there are two main limitations, sample size was too small and unequal for each condition. The unequal of sample sized is one of the main downsides for this experiment. Because MANOVA was perform to analyzed the data, it was always ideal to have similar number of participants in every condition, however, researcher failed to meet this requirement. Due to an unequal sample size, the power was also relatively low (.623 for autobiographical memory and .230 for mental intrusion.)

Study implications

Research implications

Future research may further explore about benevolent sexism, since there are rooms for other construct to play a part in reducing the effect of benevolent sexism. On the contrary, there is a possibility that hostile sexism can be exploited to increase motivation to perform or performance in some specific setting, as some of previous research also shown that performance of participants in the hostile sexism condition were higher than the control condition (Dardenne et al., 2007). Thus, the result of this study suggested that interdependent self-construal helps increasing performance for Thai female but as Thailand is an Asian country that are more collectivistic and less individualistic (Lacko et al., 2020) comparing to Western country, to conduct the study in Western country the result might turn out differently.

Practical implications

As sexism is the problem that can occur to women at any age, this study aims to find an easy way for women to handle the situation professionally at any setting. Self-construal, either interdependent or independent can make a different for women who encountered hostile sexism. Thinking about their own expectation or the expectation others have on them can drive women to overcome the negative effect of hostile sexism. On the other hand, distracting themselves from the current

situation by thinking about unrelated subject can also shift their focus and reduce the negative effect of benevolent sexism.

Chapter V

Conclusion

This online experimental intended to explore a new construct that might help reducing negative effect of sexism, especially benevolent sexism, on women mental intrusions and autobiographical memory about being incompetent. Mental intrusion is one of the negative effects that happen to women when facing with benevolent sexism, it also occupied working memory, resulting in the decreased in performance. While autobiographical memory will be easiest to retrieved if the memory is related with current circumstance. Therefore, it will be used to measure if women who was threatened by benevolent sexism will feel incompetent and can retrieved more memory about being incompetent, comparing to those in hostile condition. Furthermore, self-construal manipulations (independent self-construal, interdependent self-construal, and no self-construal manipulation) were selected to test its moderation effect on the two dependent variables; mental intrusions and autobiographical memory.

Researcher hypothesized that participants in the hostile sexism condition will report fewer mental intrusions and autobiographical memory about being incompetent when comparing to the benevolent sexism condition. And with the manipulation of self-construal, participants in the benevolent sexism condition who were randomized in the independent self-construal group will report fewer mental intrusions and auto biographical memories than the interdependent self-construal and the control group, because researcher believed that independent self-construal will help participants to focused on their differences and uniqueness.

Online experimental were conducted on female undergraduate students from any university and faculties. Participants were randomly assigned to either the hostile sexism condition or the benevolent sexism condition. After that, participants were manipulated with a self-construal written task, asked participants to completed the short-term memory task either for themselves or for their gender group. Once finish, participants reported the degree of their intrusive thoughts and listed out their memories about the time that they feel incompetent or not as smart as the others.

As primarily predicted, the benevolent sexism condition report more mental intrusions and autobiographical memories about them being incompetent than the hostile sexism condition. Sexism and self-construal do have interaction effect but only on autobiographical memory. However, the manipulation of the two types of self-construal were only effective for the hostile sexism condition but not the benevolent sexism condition. For the hostile sexism condition, participant who received interdependent self-construal or independent self-construal treatment perform better on their short-term memory task comparing to the no self-construal manipulation group. But all group report similar number of mental intrusions and autobiographical memory. On the other hand, once encountered with benevolent sexism, self-construal written task did not reduce its negative effect. Those in independent self-construal and interdependent self-construal performed worst among all groups, and report more mental intrusions and autobiographical memory about being incompetent. Surprisingly, participants in the no manipulation of self-construal performed best, and report fewer mental intrusions and autobiographical memory among all benevolent sexism conditions.

Hostile sexism was easy to identified as an unfair situation, therefore it was also easy to manage. Self-construal manipulation directed participants to complete the task at their best either for their gender group or for themselves. For those who encountered with hostile sexism, it produce reactance mechanism by increase their motivation to perform and overcome the unfairness they received (Wortman, & Brehm, 1975). However, benevolent sexism was subtle and puzzling, the self-construal written task that asked participants to think about what they similar or different from other might not help them overcome the effect of it, but could lead them to emphasized on the negative aspects in their life. While the easy task that did not required complex thinking like the control task, could help participants in the benevolent group to stay concentrate and forget about the sexist situation.

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Appendices

Appendix A

ตัวอย่างมาตรการระบุตัวตนกับกลุ่มเพศ

<u>คำชี้แจง</u> ให้ท่านนึกถึงเหตุการณ์ทั่วไปในชีวิตของท่าน จากนั้นอ่านข้อความแต่ละข้อต่อไปนี้ แล้วเลือกคำตอบที่ท่าน
เห็นว่าตรงกับตัวท่านมากที่สุด

*หมายเหตุ กลุ่มเพศหญิงในงานวิจัยนี้ หมายถึง บุคคลใดๆ ที่มีลักษณะทางเพศเป็นเพศหญิงโดยกำเนิด

	ข้อความ	ไม่เห็นด้วย อย่างยิ่ง	ไม่เห็นด้วย	ค่อนข้างไม่ เห็นด้วย	เห็นด้วยและ ไม่เห็นด้วย พอๆกัน	ค่อนข้าง เห็นด้วย	เห็นด้วย	เห็นด้วย อย่างยิ่ง
1.	โดยทั่วไป การเป็นส่วน หนึ่งของกลุ่มเพศหญิง มี ผลต่อความรู้สึก ของฉันน้อยมาก	1	2	3	4	5	6	7
2.	การเป็นส่วนหนึ่งของ กลุ่มเพศหญิง เป็นการ สะท้อนที่สำคัญถึงตัวตน ของฉัน	1	2	3	4	5	6	7
3.	การเป็นส่วนหนึ่งของ กลุ่มเพศหญิง ไม่ได้ สำคัญกับการรับรู้ว่าฉัน เป็นคนแบบไหน	1	2	3	4	5	6	7
4.	โดยทั่วไป การเป็นส่วน หนึ่งของกลุ่มเพศหญิง เป็นส่วนสำคัญต่อ ภาพลักษณ์ของฉัน	1	2	3	4	5	6	7

Appendix B

ตัวอย่างมาตรการตีความตัวตน

<u>คำชี้แจง</u> ให้ท่านนึกถึงเหตุการณ์ทั่วไปในชีวิตของท่าน จากนั้นอ่านข้อความแต่ละข้อต่อไปนี้ แล้วเลือกคำตอบที่ท่าน
เห็นว่าตรงกับตัวท่านมากที่สุด

	ข้อความ	ไม่เห็น ด้วย อย่างยิ่ง	ไม่เห็น ด้วย	ค่อนข้าง ไม่เห็น ด้วย	เห็นด้วย และไม่เห็น ด้วย พอๆกัน	ค่อนข้าง เห็นด้วย	เห็น ด้วย	เห็น ด้วย อย่าง ยิ่ง
1.	ฉันทำอะไรด้วยตัวเอง โดยไม่สนใจว่าคน อื่นจะคิดอย่างไร	1	2	3	4	5	6	7
2.	ฉันยินดีเสียสละประโยชน์ส่วนตัวเพื่อเป็น ประโยชน์ต่อกลุ่มของฉัน	1	2	3	4	5	6	7
3.	ฉันเลือกที่จะปฏิเสธอย่างตรงไปตรงมา มากกว่าที่จะเสี่ยงกับการถูกเข้าใจผิด	1	2	3	4	5	6	7
4.	ฉันชอบที่จะเป็นคนตรงไปตรงมาและ เปิดเผยเวลาที่ต้องเผชิญกับคนที่เพิ่งเจอ กันครั้งแรก	1	2	3	4	5	6	7
5.	ฉันรู้สึกมีส่วนรับผิดชอบหากพี่หรือน้อง ของฉันล้มเหลว	1	2	3	4	5	6	7
6.	ฉันมักจะรู้สึกว่าความสัมพันธ์ระหว่างฉัน กับคนอื่นสำคัญกว่าความสำเร็จของ ตัวเอง	1	2	3	4	5	6	7
7.	ฉันทำตัวเหมือนเดิมไม่ว่าจะอยู่กับใคร	1	2	3	4	5	6	7
8.	ความสุขของฉันขึ้นอยู่กับความสุขของคน รอบตัวฉัน	1	2	3	4	5	6	7
9.	ฉันจะอยู่ในกลุ่มหากคนในกลุ่มต้องการ ฉัน แม้ฉันจะรู้สึกไม่มีความสุขก็ตาม	1	2	3	4	5	6	7
10.	ไม่ว่าจะอยู่ที่บ้านหรือที่มหาวิทยาลัยฉันก็ จะทำตัวเหมือนเดิม	1	2	3	4	5	6	7

Appendix C

ตัวอย่างแบบสอบถามเพื่อวัดความคิดรบกวน

<u>คำชี้แจง</u> ให้ท่านอ่านข้อความต่อไปนี้ แล้วประเมินตนเองว่าระหว่างที่ท่านตอบคำถามการทดสอบความจำระยะสั้น
ท่านมีความรู้สึกต่อไปนี้มากน้อยเพียงใด

	ข้อความ	ไม่มีความคิดเหล่านี้เลย	แทบจะไม่มีความคิดเหล่านี้	มีความคิดเหล่านี้เล็กน้อย	มีความคิดเหล่านี้บางครั้ง	มีความคิดเหล่านี้ค่อนข้างบ่อย	มีความคิดเหล่านี้บ่อย	มีความคิดเหล่านี้ตลอดเวลา
1.	ระหว่างทำแบบทดสอบความจำระยะสั้น ฉันรู้สึกไม่มีสมาธิ	1	2	3	4	5	6	7
2.	ระหว่างทำแบบทดสอบความจำระยะสั้น ฉันรู้สึกไม่มีความสามารถในการจำ	1	2	3	4	5	6	7
3.	ระหว่างทำแบบทดสอบความจำระยะสั้น ฉันรู้สึกว่าฉันทำได้ไม่ดี	1	2	3	4	5	6	7
4.	ระหว่างทำแแบบทดสอบความจำระยะสั้น ฉันรู้สึกว่าคนอื่นๆ จะต้องจำได้มากกว่าฉันอย่างแน่นอน	1	2	3	4	5	6	7
5.	ระหว่างทำแบบทดสอบความจำระยะสั้น ฉันรู้สึกว่าคนอื่นๆ จะต้องสมาธิมากกว่าฉันอย่างแน่นอน	1	2	3	4	5	6	7
6.	ระหว่างทำแบบทดสอบความจำระยะสั้น ฉันรู้สึกว่าฉันไม่มีทางที่จะได้คะแนนดี	1	2	3	4	5	6	7

Appendix D

ตัวอย่างแบบสอบถามเพื่อวัดความจำเชิงอัตชีวประวัติเกี่ยวกับการรู้สึกไร้ความสามารถ

<u>คำชี้แจง</u> ให้ท่านนึกถึงสถานการณ์ตามหัวข้อที่ท่านสุ่มเลือกได้ แล้วเขียนคำสำคัญ (key word) สั้นๆเกี่ยวกับ
สถานการณ์ตามหัวข้อดังกล่าว หนึ่งคำสำคัญแทนหนึ่งสถานการณ์ โปรดนึกถึงสถานการณ์ให้ได้จำนวนมากที่สุด
ภายในเวลา 5 นาที

	ตัวอย่าง
โจทย์	"โปรดนึกถึงสถานการณ์ที่ทำให้ท่านรู้สึกอับอาย และเขียนคำสำคัญ (key word) เกี่ยวกับสถานการณ์เหล่านั้นให้ได้มากที่สุด ภายในเวลา 5 นาที"
คำสำคัญ	1. หกล้มในที่สาธารณะ 2. ทักคนผิด 3. ลืมรูดซิปกางเกง 4. ... 5. ...

	การศึกษาจริง
โจทย์	"โปรดนึกถึงสถานการณ์ที่ทำให้ท่านรู้สึก 'โง่เขลา ไม่มีความสามารถ หรือฉลาดน้อยกว่าคนอื่นๆ' และโปรดเขียนคำสำคัญ (key word) เกี่ยวกับสถานการณ์เหล่านั้นให้ได้มากที่สุดภายในเวลา 5 นาที" เมื่อครบกำหนดเวลา 5 นาที ระบบจะทำการเปลี่ยนหน้าโดยอัตโนมัติ
คำสำคัญ	1. 2. 3. 4. 5.

Appendix E
ตัวอย่างคำอธิบายโครงการและข้อเสนอแนะ

(Hostile sexism)

<u>**คำชี้แจง**</u> ให้ท่านอ่านคำอธิบายเกี่ยวกับโครงการวิจัย และผลจากการศึกษาที่ผ่านมาโดยละเอียด เพื่อให้ท่านเข้าใจความเป็นมา และวัตถุประสงค์ของงานวิจัย เมื่ออ่านจบ ท่านจะต้องทำการประเมินความรู้สึกของท่านต่อคำอธิบายโครงการวิจัย

<u>คำอธิบายเกี่ยวกับโครงการวิจัย</u>

โครงการวิจัยนี้เกี่ยวกับการศึกษาเรื่องการรับรู้และความจำ มีวัตถุประสงค์เพื่อทดสอบความสามารถด้านการรับรู้ การสังเกต และการจดจำ เพื่อเปรียบเทียบความแตกต่างระหว่างกลุ่มตัวอย่างเพศชายและหญิง ผู้เข้าร่วมงานวิจัยจะต้องตอบคำถามทั้งหมด 3 ชุด

ชุดที่ 1 การประเมินตนเอง
ชุดที่ 2 การทดสอบความจำระยะสั้น
ชุดที่ 3 การประเมินความจำระยะยาว

<u>ผลการศึกษาที่ผ่านมา</u>
จากงานวิจัยที่ผ่านมาพบความแตกต่างในความสามารถด้านการรับรู้และการจดจำระหว่างเพศชายและเพศหญิง โดยเพศหญิงทำคะแนนได้แย่กว่า จากการวิเคราะห์สาเหตุเพิ่มเติมพบว่า เพศชายสามารถรับมือกับสถานการณ์กดดันได้ดีกว่าเพศหญิง เนื่องจากเพศหญิงมีอารมณ์แปรปรวน ไม่คงเส้นคงวา ส่งผลให้ไม่สามารถทำกิจกรรมภายใต้ความกดดันได้ดีเท่าเพศชาย

<u>ข้อเสนอแนะงานวิจัย</u>
ในการเลือกผู้เข้าร่วมกิจกรรมที่ต้องอาศัยความสามารถด้านการรับรู้และการจดจำ หรือหากมีการทดสอบความสามารถด้านการรับรู้และการจดจำ ควรเลือกเพศชายเข้าร่วมกิจกรรม เพราะมีประสิทธิภาพมากกว่าเพศหญิงที่ไม่เหมาะกับกิจกรรมหรือการทดสอบดังกล่าว

<u>ผลสรุปของคะแนน</u>
เพศชายมีคะแนนสูงกว่าเพศหญิงอย่างมีนัยสำคัญ เนื่องจากเพศชายมีสมาธิมากกว่าในสถานการณ์ที่กดดัน

** ในงานวิจัยนี้ จะคิดคะแนนแบบแยกเพศชายหญิงเพื่อเปรียบเทียบค่าเฉลี่ยของกลุ่มนิสิต/นักศึกษาไทย

(Benevolent Sexism)

<u>คำชี้แจง</u> ให้ท่านอ่านคำอธิบายเกี่ยวกับโครงการวิจัย และผลจากการศึกษาที่ผ่านมาโดยละเอียด เพื่อให้ท่านเข้าใจความเป็นมา และวัตถุประสงค์ของงานวิจัย เมื่ออ่านจบ ท่านจะต้องทำการประเมินความรู้สึกของท่านต่อคำอธิบายโครงการวิจัย

<u>คำอธิบายเกี่ยวกับโครงการวิจัย</u>

โครงการวิจัยนี้เกี่ยวกับการศึกษาเรื่องการรับรู้และความจำ มีวัตถุประสงค์เพื่อทดสอบความสามารถด้านการรับรู้ การสังเกต และการจดจำ เพื่อเปรียบเทียบความแตกต่างระหว่างกลุ่มตัวอย่างเพศชายและหญิง ผู้เข้าร่วมงานวิจัยจะต้องตอบคำถามทั้งหมด 3 ชุด

ชุดที่ 1 การประเมินตนเอง
ชุดที่ 2 การทดสอบความจำระยะสั้น
ชุดที่ 3 การประเมินความจำระยะยาว

<u>ผลการศึกษาที่ผ่านมา</u>
จากงานวิจัยที่ผ่านมาพบความแตกต่างในความสามารถด้านการรับรู้และการจดจำระหว่างเพศชายและเพศหญิง จากการวิเคราะห์เพิ่มเติมพบว่า เพศชายมีสมาธิมากกว่าเพศหญิงในสถานการณ์กดดัน เนื่องจากสถานการณ์กดดันมักทำให้เพศหญิงเกิดอารมณ์อ่อนไหวได้ง่าย ดังนั้นจึงอาจไม่ยุติธรรมหากนำคะแนนของเพศหญิงและเพศชายมาเปรียบเทียบกัน

<u>ข้อเสนอแนะงานวิจัย</u>
ในกิจกรรมที่ต้องอาศัยความสามารถด้านการรับรู้และการจดจำ หรือหากมีการทดสอบความสามารถด้านการรับรู้และการจดจำ ควรมีเกณฑ์การให้คะแนนแยกสำหรับเพศหญิงและเพศชาย เพื่อให้เพศหญิงไม่เสียเปรียบเพศชายในกิจกรรมหรือการทดสอบดังกล่าว

<u>ผลสรุปของคะแนน</u>
เนื่องจากเกณฑ์ผ่านของเพศหญิงน้อยกว่าเพศชาย เพื่อให้เพศหญิงสามารถผ่านเกณฑ์ได้ จึงต้องคิดคะแนนแบบแยกเพศชายหญิง

**ในงานวิจัยนี้ จะคิดคะแนนแบบแยกเพศชายหญิงเนื่องจากมีเกณฑ์การประเมินที่แตกต่างกัน

Appendix F

ตัวอย่างแบบสอบถามเพื่อวัดการจัดกระทำตัวแปรการเหยียดเพศ

<u>คำชี้แจง</u> ให้ท่านอ่านข้อความต่อไปนี้ แล้วประเมินความรู้สึกของท่าน ว่าเมื่อได้อ่านคำอธิบายเกี่ยวกับโครงการวิจัย

ท่านเกิดความรู้สึกเช่นใด โปรดเลือกข้อความที่ตรงกับความรู้สึกของท่านมากที่สุด

	ข้อความ	ไม่เห็น ด้วย อย่างยิ่ง	ไม่เห็น ด้วย	ค่อนข้าง ไม่เห็น ด้วย	เห็นด้วย และไม่ เห็นด้วย พอๆกัน	ค่อนข้าง เห็นด้วย	เห็น ด้วย	เห็นด้วย อย่างยิ่ง
1.	คำอธิบายเกี่ยวกับโครงการวิจัยทำให้ฉัน รู้สึกโดนดูถูกในฐานะที่ฉันเป็นผู้หญิง	1	2	3	4	5	6	7
2.	คำอธิบายเกี่ยวกับโครงการวิจัยทำให้ฉัน รู้สึกว่าฉันถูกปฏิบัติอย่างไม่ยุติธรรม	1	2	3	4	5	6	7
3.	คำอธิบายเกี่ยวกับโครงการวิจัยทำให้ฉัน รู้สึกถูกเหยียดว่ามีความสามารถน้อย กว่าผู้ชาย	1	2	3	4	5	6	7
4.	เมื่ออ่านคำอธิบายโครงการวิจัยแล้ว ฉัน รู้สึกว่าการเป็นผู้หญิงทำให้ฉันได้รับการ เห็นอกเห็นใจ	1	2	3	4	5	6	7
5.	คำอธิบายเกี่ยวกับโครงการวิจัยทำให้ฉัน รู้สึกว่าที่ฉันได้รับสิทธิพิเศษจากการที่ ฉันเป็นผู้หญิง	1	2	3	4	5	6	7
6.	คำอธิบายเกี่ยวกับโครงการวิจัยทำให้ฉัน รู้สึกว่าฉันได้เปรียบจากการที่ฉันเป็น ผู้หญิง	1	2	3	4	5	6	7

Appendix G

ตัวอย่างข้อความที่ใช้จัดกระทำให้เกิดการตีความตัวตน

1. เงื่อนไขการตีความตัวตนแบบพึ่งพาตนเอง (independent self-construal condition)

"ภายใน 5 นาที ขอให้ท่านคิดถึงสิ่งที่ทำให้ท่านแตกต่างจากเพื่อนเพศเดียวกันกับท่าน และเขียนว่าท่านมีความคาดหวังอย่างไรกับตัวเองในการทำกิจกรรมทดสอบการรับรู้และความจำนี้"

เมื่อครบกำหนดเวลา 5 นาที ระบบจะทำการเปลี่ยนหน้าโดยอัตโนมัติ

"ขั้นตอนต่อไปจะเป็นชุดคำถามเพื่อทดสอบความจำระยะสั้น ขอให้ท่านนึกถึงความคาดหวังที่ท่านมีต่อตัวเองในการทำแบบทดสอบนี้ ตลอดการทำแบบทดสอบความจำระยะสั้น ขอให้ท่านคิดว่า ท่านทำแบบทดสอบนี้เพื่อตัวของท่านเอง เพราะท่านอยากให้ตนเองได้คะแนนสูงที่สุด"

2. เงื่อนไขการตีความตัวตนแบบพึ่งพากันและกัน (Interdependent self-construal condition)

"ภายใน 5 นาที ขอให้ท่านคิดถึงสิ่งที่เหมือนกันระหว่างท่านกับเพื่อนเพศเดียวกันของท่าน และเขียนว่าเพื่อนเหล่านั้นจะมีความคาดหวังอย่างไรกับท่านในการทำกิจกรรมทดสอบการรับรู้และความจำนี้"

เมื่อครบกำหนดเวลา 5 นาที ระบบจะทำการเปลี่ยนหน้าโดยอัตโนมัติ

"ขั้นตอนต่อไปจะเป็นชุดคำถามเพื่อทดสอบความจำระยะสั้น ขอให้ท่านนึกถึงความคาดหวังที่เพื่อนของท่านมีท่านในการทำแบบทดสอบนี้ ตลอดการทำแบบทดสอบความจำระยะสั้น ขอให้ท่านคิดว่า ท่านทำแบบทดสอบนี้เพื่อกลุ่มเพื่อนเพศเดียวกับท่าน เพราะท่านอยากให้กลุ่มเพศของท่านได้คะแนนสูงที่สุด"

3. เงื่อนไขควบคุม (control condition)

"ขอให้ท่านเขียนชื่อวิชา 2 วิชาที่ท่านเรียนในภาคการศึกษาก่อนหน้า และสรุปอย่างสั้นๆว่าวิชาเหล่านั้นมีบทเรียนหรือเนื้อหาเกี่ยวกับอะไร"

เมื่อครบกำหนดเวลา 5 นาที ระบบจะทำการเปลี่ยนหน้าโดยอัตโนมัติ

VITA

NAME   Natta Kambhu

DATE OF BIRTH   17 December 1989

PLACE OF BIRTH   Bangkok

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