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Mere Thought and Self-Monitoring: Individual Differences in Hiring Decisions

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MERE THOUGHT AND SELF-MONITORING: INDIVIDUAL DIFFERENCES IN HIRING DECISIONS

by

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Abstract

We believe that mere thought and self-monitoring may play a role in the thought processes that underscore hiring. We hypothesized that more thought would lead to a greater degree of attitude polarization and that this relationship will be mediated by belief confidence and belief consistency. We hypothesized that normative information would moderate the effects of thought on polarization for high self-monitors. We predicted that belief confidence and belief consistency would mediate the effect of thought on polarization for low self-monitors. To research these hypotheses, 163 undergraduates were surveyed. Participants were asked to rate potential candidates for a salesperson job. They were given normative information about how attitudes change during thought and asked to think about one candidate for 60 or 120 seconds. During thought, participants listed all thoughts they had on this one job candidate. Participants then rated this candidate again. Next, participants rated their belief confidence on a series of 5-point scales. Finally, participants completed the 25-item Self-Monitoring Scale. We used Hayes' PROCESS model to evaluate direct and indirect effects of thought. We found that more thought led to less polarization. Neither belief confidence nor belief consistency acted as mediators. When examining self-monitoring and normative information as moderators, we found that (a) more thought led to less polarization and (b) consistency acted as a mediator only when participants were low or moderate in self-monitoring and told more thought would lead to more polarization. These effects may be attributable to participants' poorly developed salesperson schemas. Conceptual limitations and future directions are discussed.

Mere Thought and Self-Monitoring: Individual Differences in Hiring Decisions

One of the most important aspects of running a business is hiring the best people for the job. An enormous amount of time and money is spent on training individuals who simply aren't cut out for the role. In order to save these resources, we believe that understanding the thought processes that underlie hiring is vital. As with all decisions, a great deal of cognitive and personality factors come into play when hiring. We believe that the mere thought effect and self-monitoring status may be two strong factors that interactively sway the decisions of hiring managers.

The Mere Thought Effect

Mere thought is the concept that attitudes polarize as a function of the amount of thought given to a particular attitude object (Tesser, 1978). Attitude polarization is defined as becoming more extreme in one's evaluations of an attitude object in the direction the attitudes initially leaned. Initially favorable attitudes become even more favorable, while initially negative attitudes become even more negative.

There is a linear relationship between the amount of thought given to an object and the amount of attitude polarization experienced. More thought opportunity leads to more attitude polarization (Tesser, Martin, & Mendolia, 1995), though there appears to be an upper limit for amount of thought before attitudes begins to depolarize (cf. Clarkson, Tormala, & Leone, 2011; Tesser & Conlee, 1975). Despite this time limit on individual instances of thought, attitudes can polarize over the course of weeks given thought on an attitude object (Tesser & Paulhus, 1976).

The mere thought effect has been observed across a large range of attitude objects (Tesser et al., 1995). Thought can produce changes in attitudes not only towards other people and their actions but to inanimate objects as well. For instance, mere thought has been shown to polarize

people's attitudes, art, photos, fashion, and feared objects (Tesser, 1976; Tesser & Conlee, 1975; Tesser & Johnson, 1974; Tesser & Leone, 1977).

The connection between mere thought and attitude polarization involves two mediating processes. The first mediating process is thought confidence. When people are confident in their thoughts, those thoughts become validated in their minds (Petty, Briñol, & Tormala, 2004). These validated thoughts have significantly higher impacts on people's attitudes than unvalidated thoughts (Brinol & Petty, 2009). Thought confidence can be experimentally manipulated resulting in strong effects on both attitude-consistent and attitude-inconsistent thought (Clarkson, Valente, Leone, & Tormala, 2013). Clarkson, Tormala, and Leone (2011) showed belief confidence as a mediating factor in the link between thought and attitude polarization. Belief confidence, as well as the next mediating factor belief consistency, was predicted by opportunity for thought and predicted participants' level of polarization.

The second mediating process is belief consistency. Attitudes are a function of a person's beliefs on an object (Tesser, 1978; Tesser et al., 1995). During thought, people make their beliefs about an attitude object more consistent. This effect is achieved by three microprocesses (Tesser, 1978). Thought leads people to (a) discount beliefs that oppose their own attitudes (Lord, Ross, & Lepper, 1979), (b) engage in biased generation of attitude consistent beliefs (Clarkson et al., 2011), and (c) reinterpret ambiguous beliefs into ones more consistent with their other thoughts (Chaiken & Yates, 1985; Tesser & Cowan, 1977). A higher proportion of consistent thoughts leads to significantly greater polarization (Tesser, 1978; Tesser et al., 1995).

The effects of thought on attitude polarization have been shown to be moderated by situational factors (Tesser, 1978; Tesser et al., 1995). Namely, moderation has been shown with

process constraints and reality constraints. The changes in thought that an individual undergoes while experiencing the mere thought effect are often illogical or unrealistic. When the attitude object that is being thought about is present, attitude polarization tends to be lessened compared to conditions in which the object is absent. In other words, the reality constraint of an object's presence lessens the degree unrealistic cognitions an individual experiences, thus lessening attitude change (Leone, 1984; Leone & Baldwin, 1983). Similar effects can be seen regarding process constraints. When individuals are made aware of the perhaps illogical basis of their thoughts, they tend to experience reduced attitude change compared to those who are allowed to think freely (Leone & Aronow, 2011; Tesser, Leone, & Clary, 1978). Reality and process constraints can even be used therapeutically. Experiencing the presence of a feared object and being aware of one's own thought processes regarding this feared object can help to reduce the fear one experiences regarding the object in question (Leone, 1984; Leone & Aronow, 2011; Leone & Baldwin, 1983). Other situational factors might also play a role in the mere thought effect. One of those factors – expectations created by norms – will be explored in this study.

A large range of individual differences have been shown to affect mere thought. For example, differences in levels of dogmatism have been shown to be related to the likelihood of attitude polarization. Compared to non-dogmatic people, dogmatic people are more likely to hold attitude consistent beliefs and less likely to hold attitude inconsistent beliefs (Leone, 1989; Leone, Taylor, & Adams, 1991). Therefore, dogmatic people are more likely than non-dogmatic people to experience attitude polarization. In addition, need for cognition has been studied to examine how it may interact with the mere thought effect. Individuals who are high in need for cognition tend to enjoy thinking and analyze their own beliefs more than do low need for cognition individuals; individuals who are low in need for cognition however avoid cognitive

effort (Cacioppo, Petty, Feinstein, & Jarvis, 1996; R. Petty, Brinol, Loersch, & McCaslin, 2009). Low need for cognition individuals tend to generate more consistent beliefs during thought than do high need for cognition individuals which leads to greater attitude polarization (Leone, 1994; Leone & Ensley, 1986). Self-monitoring status, which will be defined further in the next section, may also make a difference in an individual's likelihood to experience the mere thought effect such that low self-monitors may experience greater polarization than high self-monitors.

Dispositional Differences in Self-Monitoring

Self-monitoring status is a stable individual difference that refers to the motivation and ability to engage in impression management (Fuglestad & Snyder, 2009; Snyder, 1974). According to self-monitoring theory, there are two types of people: high self-monitors and low self-monitors (Fuglestad & Snyder, 2009; Snyder, 1974). The differences between high and low self-monitors can be illustrated using five dimensions: motivation, attention, ability, use of ability, and cross-situational consistency (Fuglestad & Snyder, 2009; Snyder, 1974).

Motivation in a self-monitoring context is the amount individuals are driven to present themselves in certain ways (Gangestad & Snyder, 2000). High self-monitors are driven to present themselves in ways that increase their social status in public situations. High self-monitors can gain status through getting along with others and being helpful while low self-monitors are motivated to invest in equal-status relationships. (Fuglestad & Snyder, 2010)

High self-monitors and low self-monitors differ in where they focus their attention. (Gangestad & Snyder, 2000). High self-monitors devote their attention to social cues to understand how best to act in a situation. Low self-monitors attend to internal states to determine how they should act. For example, when given the opportunity to observe a potential romantic partner, high self-monitors were better than low self-monitors at remembering details the

potential romantic partner and determining his or her disposition (Berscheid, Graziano, Monson, & Dermer, 1976).

Ability refers to how well individuals can change the ways they express themselves (Gangestad & Snyder, 2000). High self-monitors tend to be much better than low self-monitors at communicating emotion both physically and verbally (Snyder, 1974) High-self monitors, when asked to role-play as either an introvert or an extrovert, are better at putting on these personas than low self-monitors (Lippa, 1976).

The use of this ability changes depending on the situation (Gangestad & Snyder, 2000). High self-monitors are selective in how they present themselves. They may act to help people they dislike increase social standing (Flynn, Reagans, Amanatullah, & Ames, 2006). Low self-monitors simply attempt to be themselves in order to continue feeling self-congruent (Fuglestad & Snyder, 2009).

Finally, cross-situational consistency refers to behavior changes across situations (Gangestad & Snyder, 2000). High self-monitors find their behaviors changing in order to best fit into their roles in varying situations. High self-monitors' desire to maintain social status can inhibit less agreeable personality traits (Oh, Charlier, Mount, & Berry, 2014). Low self-monitors prefer to be themselves regardless of the situation and rarely change how they behave. For example, when asked to engage in either a public or private group discussion, high self-monitors changed their behaviors to fit the situation while low self-monitors were unaffected by the situational differences (Snyder & Monson, 1975).

Previous research has shown connections between self-monitoring and many attitude-related phenomena (Fuglestad & Snyder, 2009). The two attitude-related phenomena of interest to this study are cognitive dissonance and attitude-behavior consistency. Cognitive dissonance is

an aversive psychological state that occurs when individuals become aware of inconsistency (Festinger, 1957; Harmon-Jones & Mills, 1999). This inconsistency is usually between their ideas about themselves, their behavior, and the world around them. Because low self-monitors are more responsive to internal states than high self-monitors (Snyder & Cantor, 1980), they should also be more susceptible to cognitive dissonance – an effect that occurs in response to inconsistency. In keeping with this assertion, when low self-monitors are made to act in an attitude inconsistent fashion, they experience more cognitive dissonance than do high self-monitors (DeBono & Edmonds, 1989; Snyder & Tanke, 1976; Spangenberg & Sprott, 2006).

Attitude-behavior consistency is the degree to which an individual's behavior reflects his or her true attitudes (Fazio & Zanna, 1981). Because low self-monitors seem to base their current actions on their previous behaviors and attitudes, they tend to have high attitude-behavior consistency (Zanna, Olson, & Fazio, 1980) Alternatively, high self-monitors base much of their behavior on social cues and as such do not necessarily show consistency between what the feel and what they do (Ajzen, Timko, & White, 1982; Snyder & Monson, 1975) Indeed, high self-monitors experience greater attitude change after exposure to socially normative information than do low self-monitors (Debono, 1987).

Thus far, we have been referring to the univariate model of self-monitoring, but recent findings have led to increased interest in the bivariate model. In this model, self-monitoring status is divided into two indices: acquisitive and protective self-monitoring (Wilmot, Kostal, Stillwell, & Kosinski, 2017). These two forms of self-monitoring are correlated with some traits of the Five-Factor Model. Both acquisitive and protective self-monitoring have been shown to relate in different ways to extraversion and neuroticism (Wilmot, 2015; Wilmot et al., 2017). Acquisitive self-monitoring has been shown to correlate with the metatrait plasticity, which

combines elements of extraversion and openness (Wilmot, 2015). Protective self-monitoring has a positive relationship to neuroticism, but a negative relationship to stability (Wilmot, 2015). Given the recency of this new conceptualization, there is little literature on the connection between attitudinal phenomena and either acquisitive or protective self-monitoring These two forms of self-monitoring were examined in this study for exploratory purposes.

Hypotheses

The interaction between mere thought and self-monitoring will be examined. Participants will rate descriptions of potential salespeople and rate their appropriateness for the job. After that, they will be told normative information on what happens to attitudes when people think about them and were asked to list their thoughts on this applicant for 60 or 120 seconds. Finally, they will rerate the participant for appropriateness for a salesperson job. It was hypothesized that more thought will lead to a greater degree of attitude polarization. We predict that this relationship will be mediated by thought confidence and belief consistency such that increased opportunity for thought will lead to increases in thought confidence and belief consistency which will, in turn, lead to an increase in attitude polarization. It was further hypothesized that normative information would moderate the direct and indirect effects of thought on polarization, but only for high self-monitors. That is, we believe that when high self-monitors are told that most people polarize with thought, they will experience a greater degree of polarization than when told people become more ambivalent with thought. It was further hypothesized that thought confidence and belief consistency would mediate the effect of thought on polarization, but only for low self-monitors.

Method

Participants

A total of 163 participants were recruited from undergraduate psychology classes at the University of North Florida. Participants volunteered to take part in a study titled "Individual Differences in Hiring Decisions." Participants were awarded extra credit points towards course grades in exchange for participation.

This sample included 32 males and 117 females. Most of these participants (84.6%) were between the ages of 18 and 22. The majority of this sample (64%) was Caucasian. About half of the participants included in this sample (53.7%) were employed part time while only 8.7% were employed full time.

Of the 163 participants in this sample, only 149 were included in analyses. The 14 participants that were excluded did not provide either their initial attitudes or their post-thought attitudes on the candidate. Thus, we were unable to assess the degree of attitude polarization that they experienced. All participants signed an informed consent explaining that study participation was voluntary. Participants were randomly assigned to experimental groups.

Procedure

Participants were asked to role-play a hiring manager looking to hire a new salesperson. Participants read ten resumes from potential candidates. Participants were told that people hold different opinions and, therefore, we would like to gather some ideas about how students feel about an individual applicant. Participants rated each candidate's job appropriateness on a 11-point scale ranging from -5 – Very Inappropriate to 5 - Very Appropriate. Based on the results of our pilot study, each resume used three descriptive words that were appropriate for a salesperson and one word that was inappropriate for a salesperson. After these initial ratings, participants

were then asked to reread one specific resume and list as many thoughts on the applicant as they could until the computer told them to stop. Following thought, participants rated the same candidate once again on the same 11-point scale. Attitude polarization was assessed by comparing participants' initial ratings of the job candidate to their post-thought ratings of the candidate. For example, if initially favorable attitudes (e.g., +3) became more favorable (e.g., +5), then an index of polarization would be calculated (e.g., +2). Similarly, if initially unfavorable attitudes (e.g., -3) became less unfavorable (e.g., +2), then an index of depolarization would be calculated (e.g., -5).

Participants were told different descriptions of what would happen when they thought about the applicant depending on the version of normative information to which they were randomly assigned. In the polarization norm group, participants were told that people become more extreme in their opinions as they thought about them. In the depolarization norm group, participants were told that people become less extreme or more ambivalent in their beliefs as they thought about them.

Participants were then asked to list their thoughts about the candidate for 60 or 120 seconds depending on which opportunity for thought group they were randomly assigned to. Belief consistency was determined by two individual raters. Beliefs were considered consistent if they matched the valence of the participants' initial impression. If a participant had an initially favorable impression, then positive beliefs were considered consistent. If a participant had an initially unfavorable impression, then negative beliefs were considered consistent. Participants' consistency scores were generated by dividing the number of consistent beliefs listed by the participant by the total number of beliefs listed. Consistency scores in this study had a mean of 0.52 and a standard deviation of +0.28.

Participants read the belief confidence instructions as follows: “Sometimes we may feel more or less confident in the beliefs we have. To better evaluate how confident you feel in your thoughts, please read the following questions carefully and choose the answers that best describe your confidence. Please read each question carefully as they may seem similar but are in fact different questions” (adopted from Clarkson et al., 2013). Participants indicated their confidence using a 9-point Likert-type scale with answer options ranging from *1 = Not at All Confident* to *9 = Very Confident* and with *5* being *Neutral*. Participants indicated their confidence in, certainty in, validity of, satisfaction with, and liking for their beliefs about the applicant. Some sample items are: "Overall, how much confidence do you have in your beliefs about this applicant?" and “Overall, how certain are you of your beliefs about this applicant?” We created an overall index of belief confidence by summing the scores for response to all five items. Scores in our study had a mean of 24.84 and a standard deviation of 4.90.

In our study, we obtained a Cronbach’s alpha of .90 for scores on our measure of belief confidence. There were internal consistency coefficients reported on other thought confidence measures ranging from $\alpha = .81$ to .89 (Briñol & Petty, 2003; Briñol, Petty, & Barden, 2007; Briñol, Petty, & Tormala, 2004; Clarkson et al., 2011; R. E. Petty et al., 2002). Scores on measures of thought confidence have been found to be correlated with scores on measures of attitude change (Briñol & Petty, 2003). In addition, scores on measures of thought confidence have been found to mediate the connection between (a) the amount and valence of thought and (b) degree of persuasion (R. E. Petty et al., 2002). Amount of thought has been found to correlate with scores on attitude polarization (Clarkson et al., 2011).

Following the thought confidence measurement, we measured individual differences in self-monitoring using Snyder’s Self-Monitoring Scale (1974). This scale includes 25 self-

descriptive items to measure self-monitoring along five dimensions. Each dimension was made up of five items. Dimensions included attention (e.g., “When I am uncertain how to act in a social situation, I look to the behavior of others for cues.”), motivation (e.g., “I would not change my opinions or the way I do things in order to please someone else or win their favor.”), ability (e.g., “I have trouble changing my behavior to suit different people and different situations.”), use of ability (e.g., “I may deceive people by being friendly when I really dislike them.”), and behavioral consistency (e.g., “In different situations with different people, I often act like very different persons”). Participants responded to each statement using either *true* or *false.*

Of the 25 items in the Self-Monitoring Scale, 13 were positively worded, meaning that a response of *true* was indicative of high self-monitoring. The other 12 items were negatively worded, meaning that a response of *false* indicated high self-monitoring. Responses indicating high self-monitoring were given a score of 2 while responses indicating low self-monitoring were given a score of 1. Participants’ total scores were calculated by summing scores of responses to individual items. Self-monitoring scores in this study had a mean of 38.07 and a standard deviation of +3.92. Scores ranged from 28 to 47. Participants were also given a score for acquisitive and protective self-monitoring. These scores are generated from responses to questions in the 25-item Self-Monitoring Scale (Wilmot et al., 2017) and were calculated in the same fashion as the univariate index of self-monitoring. Acquisitive self-monitoring scores had a mean of 8.56 and a standard deviation of +1.85 while ranging from 6 to 12. Scores on protective self-monitoring had a mean of 10.62 and a standard deviation of +1.68 while ranging from 7 to 14.

Reliability of scores has been shown for the 25-item Self-Monitoring Scale (Snyder, 1974). Reliability is defined as the degree to which observed scores represent true variance (Furr,

2011). Snyder (1974) found a KR20 of .70 for scores on this scale. Oyamot, Fuglestad, and Snyder (2010) found a Cronbach's alpha of .67. We found a Cronbach's alpha of .67 for the univariate index of self-monitoring. We found an alpha of .70 for the acquisitive index and an alpha of .56 for the protective index of self-monitoring. Temporal reliability of scores for the 25-item Self-Monitoring Scale has also been shown. Snyder (1974) found a temporal reliability correlation of .83 with a period of one month between tests.

There is evidence of convergent validity in scores for the 25-item Self-Monitoring Scale. Convergent validity occurs when scores on multiple measures of the same construct are correlated with each other (Furr, 2011). Snyder (1974) told members of a fraternity to rate themselves and six brothers on his five dimensions of self-monitoring. These peer ratings were positively related to self-reported self-monitoring. Snyder and Gangestad (1986) assessed score similarity between Lennox and Wolfe's (1984) measure of self-monitoring and Snyder's (1974) Self-Monitoring Scale and found a correlation coefficient of .52. When corrected for attenuation due to unreliability of measures, this correlation rose to an estimated .72. Researchers on another study found a correlation between scores on the Self-Monitoring Scale and scores on Need for Social Status (Flynn et al., 2006). They found that high self-monitoring participants rated higher in need for social status than low self-monitors.

Researchers have found evidence of discriminant validity for scores on the 25-item Self-Monitoring Scale. Discriminant validity is the degree to which scores of a measure reflect one construct and only that construct (Furr, 2011). Snyder (1974) found no reliable correlations between scores on this scale and scores on measures of inner-other directedness (Kassarjian, 1962), Machiavellianism (Christie & Geis, 1970), or the Achievement Anxiety Test (Alpert-Haber, 1960). Snyder (1974) also found no reliable correlations between scores on his Self-

Monitoring Scale and scores on the Minnesota Multiphasic Personality Inventory Psychopathic Deviate scale (McKinley & Hathaway, 1944), Marlow-Crowne Social Desirability scale (Crowne & Marlow, 1964), and the *c* scale of Performance Style Test (Ring & Wallston, 1968). Graf and Harland (2005) found evidence of discriminant validity between scores on Snyder's Self-Monitoring Scale and scores on the Intercultural Sensitivity Scale as well as between Self-Monitoring Scale scores and scores on the Basic Assessment Scale for Intercultural Communication Effectiveness.

A manipulation check was used to determine if the participants perceived or responded to the manipulations presented in this study. Participants were asked if they had too little, too much, or just enough time to think about and list all their beliefs on the applicant.

Finally, participants were asked several demographic questions. Participants indicated their age in years, their race by choosing one of five options (*Caucasian, Hispanic, Black/African American, Asian*, or *Other*), and their sex (*Male, Female, Intersex*, or *prefer not to answer*). Finally, participants were asked "What is your employment status?" and were given possible options of *employed full-time, employed part-time,* and *unemployed/student.*

Results

Preliminary Analysis

Self-monitoring was measured rather than manipulated in this study. As such, there is a possibility that other variables may confound our results regarding self-monitoring. Sex has been shown to be a confound with self-monitoring status such that males typically score higher than women on the self-monitoring scale (for a meta-analysis, see Day, Schleicher, Unckless, & Hiller, 2002). We explored the possibility of sex differences in self-monitoring in our sample. We found that men (M=39.19, SD=4.80) and women (M=37.76, SD=3.60) scored similarly on

the self-monitoring scale, $t(147)=1.84$, $p = .068$. The same pattern was observed for protective self-monitoring; men ($M=10.81$, $SD=1.97$) scored similarly to women ($M=10.57$, $SD=1.61$), $t(147)=0.71$, $p = .068$. However, there was a significant difference between men and women in acquisitive self-monitoring status such that men ($M=9.47$, $SD=1.83$) scored significantly higher than did women ($M=8.43$, $SD=1.79$), $t(147)=2.89$, $p = .004$. Consequently, sex was included as a covariate in all analyses involving self-monitoring status.

We included a manipulation check to assess the appropriateness of the amount of time given to think in this study. At the end of the study, participants were asked if they felt as though they were given *Too little time to think, Just enough time to think,* or *Too much time to think.* The majority of participants who were given 60 seconds to think (56.58%) indicated that they had too little time. The majority of participants who were given 120 seconds to think (56.16%) indicated that they were given just enough time. More participants in the 120 second group (21.92%) indicated having too much time to think than in the 60 second group (6.58%).

Main Analysis

Mediation, moderation, and moderated mediation were evaluated using Hayes' PROCESS program (Hayes, 2013). We used 95% confidence intervals to determine the reliability of effects. If zero was not included by these intervals, then effects were considered reliable. These confidence intervals were calculated based on 10,000 bias-correcting bootstrap samples.

Direct and indirect effects of thought on attitude polarization. In the first round of analyses, we examined the direct and indirect effects of opportunity for thought on attitude polarization. Thought confidence and belief consistency were expected to mediate the connection

between thought and attitude polarization. We evaluated a parallel mediation model to test these hypotheses (see Figure 1).

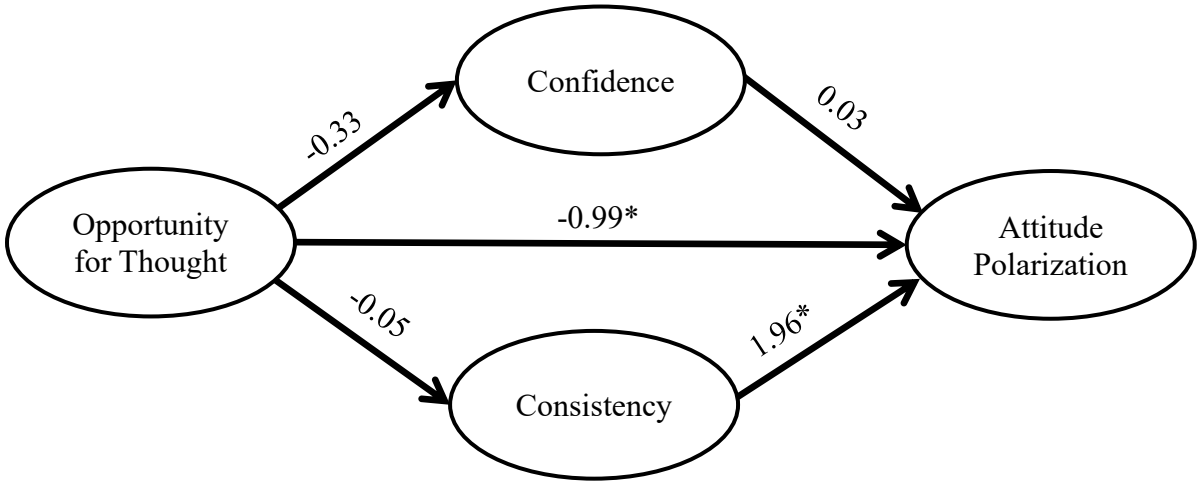

Figure 1. Direct and indirect effects of thought on attitude polarization.

Contrary to our hypotheses, more thought led to less attitude polarization (Table 1, Row 1). Also contrary to our hypotheses, neither thought confidence nor belief consistency acted as a mediating factor in the relationship between opportunity for thought and attitude polarization (Table 2, Rows 2-3). Belief consistency alone, however, did predict attitude polarization. Individuals who had higher belief consistency also tended to show greater polarization (See Table 1, Row 3).

Table 1

Main Effects on Attitude Polarization

	Attitude Polarization	
	Coefficient	95% CIs
Thought	-0.99	-1.60, -0.38
Confidence	+0.03	-0.03,+0.09
Consistency	+1.96	+0.85,+3.08

Table 2

Direct and Indirect Effects of Opportunity for Thought on Attitude Polarization

	Effect	Standard Error	95% CIs
Thought	-0.99	0.31	-1.60, -0.38
Confidence	-0.01	0.04	-0.15,+0.04
Consistency	-0.11	0.10	-0.34,+0.06
Total	-0.12	0.11	-0.36,+0.06

Moderated direct and indirect effects of thought on attitude polarization – Norms as moderator. In order to test the hypothesis that norms about attitude extremity might influence the relationship between opportunity for thought and attitude polarization, we performed a moderated mediation analysis (see Figure 2). In this model, we evaluated the conditional direct and conditional indirect effects thought on attitude polarization with norms about attitude extremity as a moderator.

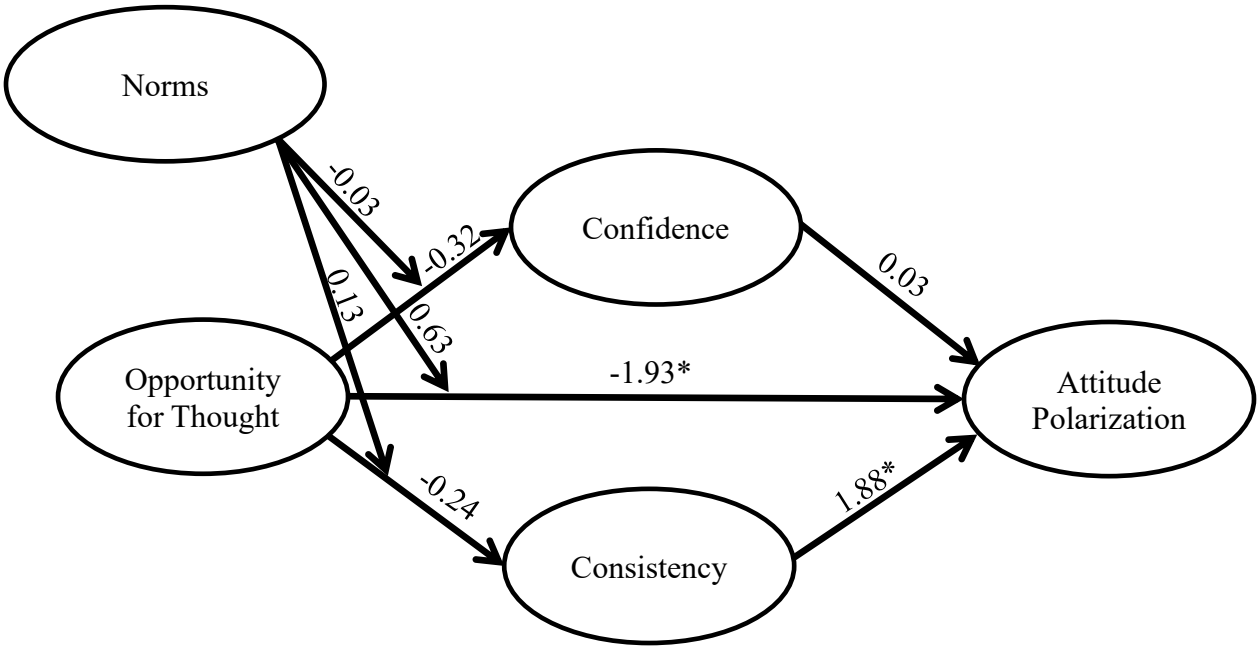

Figure 2. Moderated direct and indirect effects of thought on attitude polarization – Norms as moderator.

There was a moderating effect of norms on the thought - attitude polarization effect such that more thought led to less polarization, but only for those participants who were led to believe that people become more extreme in their attitudes given thought (Table 4, Row 1). We can also see from this analysis that there is an indirect effect of thought on polarization through consistency for those participants who were told that individuals tend to become more extreme in their attitudes when they think about their attitudes. This indirect effect was such that more thought led to less consistency and less consistency led to less polarization (Table 5, Row 3).

Table 3

Main Effects and Interactive Effects on Attitude Polarization

	Coefficient	Standard Error	95% CIs
Confidence	+0.03	0.03	-0.04, +0.09
Consistency	+1.88	0.57	+0.76,+3.00
Thought	-1.93	0.97	-3.83, -0.01
Norm	-0.62	0.97	-2.55, +1.30
Thought x Norm	+0.63	0.63	-0.59, +1.85

Table 4

Conditional Direct Effects of Opportunity for Thought on Attitude Polarization

	Effect	Standard Error	95% CIs
Polarization Norm	-1.31	0.43	-2.16, -0.45

Depolarization Norm	-0.68	0.44	-1.55,+0.20

Table 5

Conditional Indirect Effects of Opportunity for Thought on Attitude Polarization

	Norm	Effect	Standard Error	95% CIs
Confidence	Polarization	-0.01	0.05	-0.19,+0.06
Confidence	Depolarization	-0.01	0.05	-0.19,+0.05
Consistency	Polarization	-0.22	0.13	-0.56, -0.01
Consistency	Depolarization	+0.02	0.13	-0.24,+0.31

Moderated direct and indirect effects of thought on attitude polarization – Norms and self-monitoring differences as moderators. To refine this model even further, we then examined the effect that self-monitoring status could have on the ways that norms moderate the direct and indirect effects between thought and polarization (see Figure 3). From this moderated moderated-mediation standpoint, we can see two interesting effects. The first is that there was a negative conditional direct effect between thought and polarization. This effect occurs only for individuals who were low or moderate in self-monitoring status and were told that people get more extreme in their attitudes given thought (Table 7, Rows 1-2). The second is a negative indirect effect of thought on polarization through consistency. This effect only occurred for people who were given the polarization norm and were moderate in self-monitoring status (Table 8, Row 8).

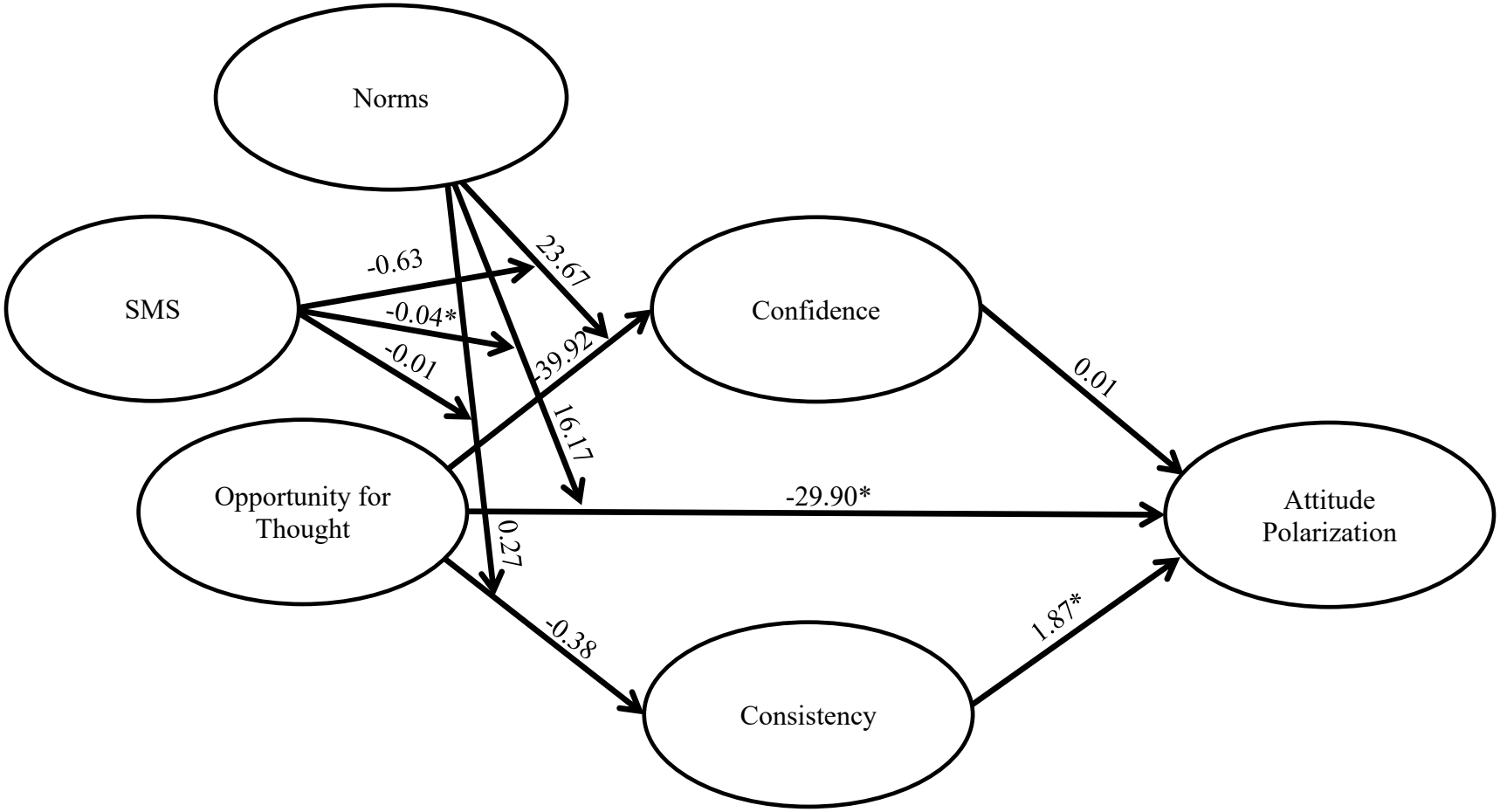

Figure 3. Moderated direct and indirect effects of thought on attitude polarization – Norms and self-monitoring differences as moderators.

Table 6

Main Effects and Interactive Effects on Attitude Polarization

	Coefficient	Standard Error	95% CIs
Confidence	+0.01	0.03	-0.05,+0.08
Consistency	+1.87	0.56	+0.76,+2.98
Thought	-29.90	9.79	-49.26,-10.55
Manipulation	-21.43	9.58	-40.38, -2.48
SMS	-1.02	0.39	-1.79, -0.26
Thought x Norm	+16.17	6.25	+3.82,+ 28.52
Thought x SMS	+0.75	0.26	+0.24,+1.26
Norm x SMS	+0.55	0.25	+0.06,+1.05
Thought x Norm x SMS	-0.04	0.16	-0.74,-0.09

Table 7

Conditional Direct Effects of Opportunity for Thought on Attitude Polarization

Norm	SMS	Effect	Standard Error	95% CIs
Polarization	34.15	-2.30	0.56	-3.41,-1.20
Polarization	38.07	-0.98	0.45	-1.89,-0.09
Polarization	41.98	+0.32	0.72	-1.10,+1.74
Depolarization	34.15	-0.30	0.69	-1.67,+1.02
Depolarization	38.07	-0.61	0.45	-1.50,+0.27
Depolarization	41.98	-0.93	0.57	-2.05,+0.20

Table 8
Conditional Indirect Effects of Opportunity for Thought on Attitude Polarization

	Norm	SMS	Effect	Standard Error	95% CIs
Confidence	Polarization	34.15	-0.02	0.09	-0.32,+0.09
Confidence	Polarization	38.07	+0.01	0.05	-0.11,+0.11
Confidence	Polarization	41.98	+0.02	0.10	-0.10,+0.36
Confidence	Depolarization	34.15	+0.01	0.06	-0.08,+0.23
Confidence	Depolarization	38.07	-0.01	0.04	-0.13,+0.05
Confidence	Depolarization	41.98	-0.01	0.07	-0.26,+0.06
Consistency	Polarization	34.15	-0.23	0.16	-0.63,+0.01
Consistency	Polarization	38.07	-0.23	0.14	-0.59, -0.02
Consistency	Polarization	41.98	-0.23	0.21	-0.73,+0.09
Consistency	Depolarization	34.15	+0.06	0.22	-0.36,+0.55
Consistency	Depolarization	38.07	+0.04	0.14	-0.20,+0.38
Consistency	Depolarization	41.98	+0.02	0.15	-0.26,+0.35

Moderated direct and indirect effects of thought on attitude polarization – Norms and acquisitive self-monitoring differences as moderators. In the previous model, we used an index of self-monitoring based on the univariate model. In the next two analyses, we utilized indices based on the bivariate model of self-monitoring status (Wilmot et al., 2017). In one analysis, we analyzed the direct and indirect effects of acquisitive self-monitoring status (see Figure 4). The same pattern of conditional direct effects see in the conventional model of self-monitoring status is apparent when examining acquisitive self-monitoring status as well. More thought led to less polarization for those individuals who were told that people get more extreme in their attitudes given thought; this effect was observed, however, only in individuals who were low or moderate on acquisitive self-monitoring (Table 10, Rows 1-2). The only indirect effect of thought on polarization in this model was mediated by consistency. This effect occurred only for individuals who (a) were told that people get more extreme in their attitudes given thought and (b) were moderate in acquisitive self-monitoring. (Table 11, Row 8)

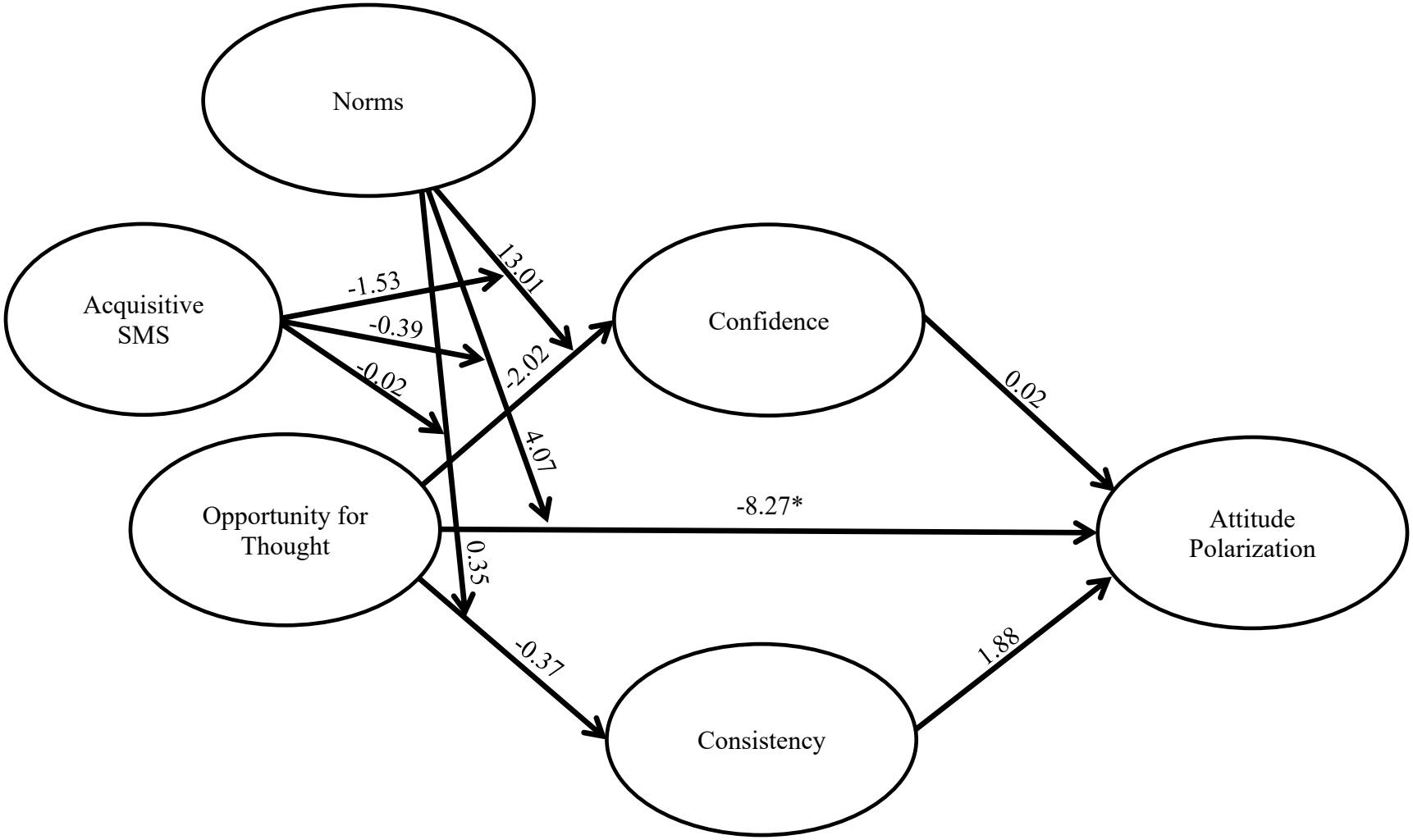

Figure 4. Moderated direct and indirect effects of thought on attitude polarization – Norms and acquisitive self-monitoring differences as moderators.

Table 9

Main Effects and Interactive Effects on Attitude Polarization

	Coefficient	Standard Error	95% CIs
Confidence	+0.02	0.03	-2.36,+36.67
Consistency	+1.88	0.57	-0.05,+0.08
Thought	-8.27	4.58	+0.75,+3.01
Norm	-6.58	4.75	-17.32,+0.79
Acquisitive SMS	-1.39	0.81	-2.30,+0.22
Thought x Norm	+4.07	3.06	-1.98,+10.11
Thought x Acq. SMS	+0.73	0.53	-0.31,+1.77
Norm x Acq. SMS	+0.69	0.54	-0.38,+1.76
Thought x Norm x Acq. SMS	-0.15	0.39	-1.08,+0.29

Table 10

Conditional Direct Effects of Opportunity for Thought on Attitude Polarization

Norm	Acq. SMS	Effect	Standard Error	95% CIs
Polarization	6.80	-1.92	0.57	-3.05, -0.79
Polarization	8.65	-1.30	0.44	-2.17. -0.43
Polarization	10.50	-0.68	0.64	-1.95.+0.59
Depolarization	6.80	-0.53	0.69	-1.90.+0.84
Depolarization	8.65	-0.63	0.45	-1.53,+0.26
Depolarization	10.50	-0.74	0.62	-1.97,+0.49

Table 11

Conditional Indirect Effects of Opportunity for Thought on Attitude Polarization

	Norm	Acq. SMS	Effect	Standard Error	95% CIs
Confidence	Polarization	6.80	-0.03	0.09	-0.33,+0.09
Confidence	Polarization	8.65	-0.01	0.05	-0.13,+0.08
Confidence	Polarization	10.50	+0.03	0.10	-0.09,+0.36
Confidence	Depolarization	6.80	+0.01	0.07	-0.07,+0.25
Confidence	Depolarization	8.65	-0.01	0.04	-0.15,+0.05
Confidence	Depolarization	10.50	-0.02	0.08	-0.30,+0.07
Consistency	Polarization	6.80	-0.19	0.16	-0.57,+0.07
Consistency	Polarization	8.65	-0.23	0.14	-0.59, -0.01
Consistency	Polarization	10.50	-0.27	0.21	-0.77,+0.06
Consistency	Depolarization	6.80	+0.19	0.18	-0.11,+0.64
Consistency	Depolarization	8.65	+0.08	0.13	-0.15,+0.39
Consistency	Depolarization	10.50	-0.04	-.20	-0.43,+0.38

Moderated direct and indirect effects of thought on attitude polarization – Norms and protective self-monitoring differences as moderators. In another analysis, we analyzed the direct and indirect effects of protective self-monitoring status (see Figure 5).

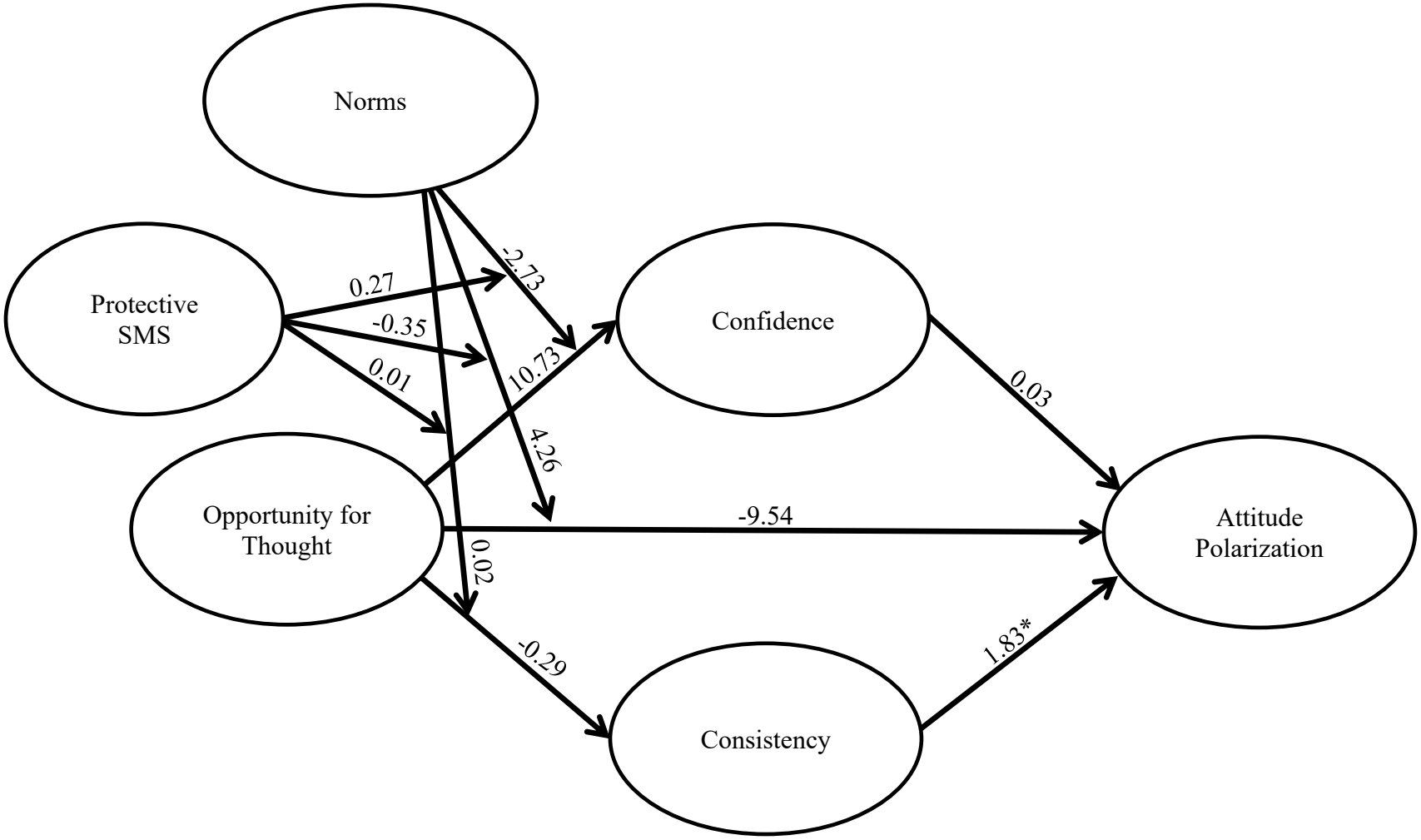

Figure 5. Moderated direct and indirect effects of thought on attitude polarization – Norms and protective self-monitoring differences as moderators

When examining protective self-monitoring status, we can see that more thought led to less polarization. This effect only occurred for individuals who (a) were told that people get more extreme in their attitudes given thought and (b) were low or moderate in protective self-monitoring (Table 13, Row 1-2). This effect mirrors those shown for both univariate and acquisitive forms of self-monitoring. An indirect effect of thought on polarization was mediated by consistency for those individuals who were told that people get more extreme in their attitudes given thought and were low or moderate in protective self-monitoring (Table 14, Rows 7-8).

Table 12

Main Effects and Interactive Effects on Attitude Polarization

	Coefficient	Standard Error	95% CIs
Confidence	+0.03	0.03	-0.03,+0.10
Consistency	+1.83	0.58	+0.69,+2.97
Thought	-9.54	6.37	-22.15,3.06
Norm	-5.45	6.25	-17.80, 6.91
Protective SMS	-0.88	0.87	-2.61, 0.85
Thought x Norm	+4.26	4.07	-3.78, 12.30
Thought x Prot. SMS	+0.73	0.60	-0.45, 1.91
Norm x Prot. SMS	+0.46	0.58	-0.69, 1.60
Thought x Norm x Prot. SMS	-0.35	0.38	-0.78, 0.75

Table 13

Conditional Direct Effects of Opportunity for Thought on Attitude Polarization

Norm	Prot. SMS	Effect	Standard Error	95% CIs
Polarization	8.93	-1.89	0.62	-3.11, -0.67
Polarization	10.62	-1.24	0.44	-2.12, -0.36
Polarization	12.32	-0.60	0.65	-1.87,+0.68
Depolarization	8.93	-0.73	0.64	-2.00,+0.54
Depolarization	10.62	-0.67	0.45	-1.56,+0.21
Depolarization	12.32	-0.62	0.65	-1.90,+0.67

Table 14

Conditional Indirect Effects of Opportunity for Thought on Attitude Polarization

	Norm	Prot. SMS	Effect	Standard Error	95% CIs
Confidence	Polarization	8.93	+0.03	0.10	-0.08,+0.37
Confidence	Polarization	10.62	-0.02	0.06	-0.22,+0.06
Confidence	Polarization	12.32	-0.07	0.10	-0.41,+0.07
Confidence	Depolarization	8.93	+0.02	0.07	-0.07,+0.24
Confidence	Depolarization	10.62	-0.01	0.05	-0.19,+0.05
Confidence	Depolarization	12.32	-0.05	0.09	-0.36.+0.05
Consistency	Polarization	8.93	-0.27	0.17	-0.69.-0.02
Consistency	Polarization	10.62	-0.23	0.14	-0.58,-0.02
Consistency	Polarization	12.32	-0.18	0.18	-0.62,+0.12
Consistency	Depolarization	8.93	-0.05	0.22	-0.54,+0.36
Consistency	Depolarization	10.62	+0.04	0.13	-0.20,+0.33
Consistency	Depolarization	12.32	+0.12	0.16	-0.16,+0.51

Discussion

This study provided valuable, if unexpected, insight into the mere thought effect. We had hypothesized that more thought would lead to a greater degree of attitude polarization. We also predicted that this relationship would be mediated by thought confidence and belief consistency. In addition, we predicted moderating effects of normative information and self-monitoring status. Specifically, we expected high self-monitors to experience more extreme attitudes when told that people tend to become more extreme with thought than when told people tend to become more ambivalent. Finally, we expected the mediating effects of thought confidence and belief consistency to be more pronounced for low self-monitors than high self-monitors.

The Mere Thought Effect

The basis of the mere thought effect is that more thought leads to more attitude polarization (Tesser, 1978; Tesser et al., 1995). For this reason, it was hypothesized that participants who were given more opportunity to think about a hypothetical job candidate would experience more polarized attitudes than did those participants given less opportunity to think. What we found, however, was the opposite effect: greater opportunity for thought led to less attitude polarization than did a lower opportunity for thought. Past research has shown that when given too much time to think, the effects of mere thought begin to reverse and attitudes begin to depolarize (Clarkson et al., 2011). It is possible that the longer opportunity for thought group in this study was given too much time. This idea is supported by our manipulation check data. Participants were more likely to respond that they were given too much time to think if they were given 120 seconds to think than if they were given 60 seconds. If too much time was indeed given, then these participants' attitudes would be expected to depolarize.

Given that the sample used in this study was largely comprised of undergraduate psychology students, it is likely that few participants had an in-depth knowledge of the attributes that would make for an ideal or less than ideal candidate for a salesperson job. In other words, our participants may have had poorly developed schemas for our attitude object (i.e., salespeople). These poorly developed schemas may have resulted in participants no longer being able to generate attitude-consistent thoughts. That is, participants may have experienced "thought saturation." (Clarkson et al., 2011; Tormala, Petty, & Briñol, 2002).

Schemas have been shown to have a large impact on the mere thought effect. People tend to have better defined schemas for the actions of an individuals than those of a group (Leone & Ensley, 1985; Tesser & Leone, 1977). In addition, men tend to have better defined schemas for football plays than do women. Women, on the other hand, tend to have better defined schemas for fashion. Better defined schemas tend to lead to a greater degree of attitude polarization (Millar & Tesser, 1986).

In order to further understand the link between opportunity for thought and attitude polarization, we examined the possibility of mediation through thought confidence and belief consistency. It has been shown that more thought leads to greater thought confidence which, in turn, leads to greater attitude polarization (Clarkson et al., 2011). In this study, however, we found no such effect. Thought did not predict confidence and confidence did not predict polarization. Thought has also been shown to increase belief consistency which then increased attitude polarization (Briñol & Petty, 2003; Clarkson et al., 2011; R. E. Petty et al., 2002). In the present study, however, thought did not predict consistency, but greater consistency did lead to greater attitude polarization. Perhaps our participants' salesperson schemas were so poorly developed that our participants simply did not experience any impact on either their confidence

regarding their salesperson beliefs. If our participants had no strong beliefs about salespeople to begin with, then it is no surprise that those beliefs did not change with thought.

We were also interested to know how perceived normative information could impact the link between thought and attitude polarization. To this end, participants were either told that people become more extreme in their attitudes when they think about that attitude or that people become less extreme in their attitudes when they think about that attitude. We hypothesized that when participants were given more time to think and were told that people tended to become more extreme with thought, they would experience a greater degree of attitude polarization. What we found, however, was the opposite. When individuals were told that people tend to hold more extreme attitudes following thought, participants were more likely to have depolarized attitudes as they increasingly engaged in thought.

One explanation for this counterintuitive finding might be evident in belief consistency. Participants who were given ample opportunity for thought had less consistent beliefs when these individuals were led to believe that most people have more polarized attitudes following thought. Given that belief consistency is a mediator of the mere thought effect (Tesser, 1978; Tesser et al., 1995), depolarization could be expected when individuals' beliefs are becoming inconsistent. Perhaps participants' perception of their own inconsistency during thought led to a greater degree of uncertainty as they were told that people were supposed to get more consistent with thought. In addition, those participants who were given ample time to think and were told that people get more extreme in their attitudes given thought reported less belief consistency which, in turn, led to less attitude polarization.

Finally, we conducted analyses to better understand how the univariate, acquisitive, and protective forms of self-monitoring may interact with mere thought and norms about how people

polarize. Given low self-monitors' concern with consistency (Zanna et al., 1980), we expected belief consistency to mediate the thought–attitude polarization effect for low self-monitors rather than high self-monitors. Recall that for our participants, increased thought led to less polarization. This effect was most evident when (a) participants were led to believe that thought produces more extreme attitudes and (b) those participants were relatively low in self-monitoring.

We found that more thought led to less belief consistency. This lessened belief consistency led to lessened attitude polarization. This effect was most evident when (a) participants were led to believe that thought produces more extreme attitudes and (b) those participants were low or moderate in self-monitoring status. This finding runs counter to our hypothesis that low self-monitors' belief consistency would increase with thought. It is possible that the low self-monitors in this study were just beginning to form their opinions on what makes a candidate appropriate for a salesperson job. As such, they may not have had any pre-existing internal states to guide their behavior, leading to highly inconsistent beliefs.

We hypothesized that given high self-monitors' attention to social comparison information (Ajzen, Timko, & White, 1982; Snyder & Monson, 1975), high self-monitors would experience a greater impact of normative information about whether people get more or less extreme with thought than would low self-monitors (Debono, 1987).

There were no apparent effects of normative information on high self-monitors. This lack of effect was found regardless of how self-monitoring was assessed (bivariate, acquisitive, or protective). Given that low self-monitors counterintuitively experienced less polarization when told people tend to polarize with thought, it is possible that this lessened polarization was also present in high self-monitors. This reduction in polarization may have counteracted the expected

effects of normative information on high self-monitors (being told that people tend to polarize leading to disproportionately greater polarization in high self-monitors). This unexpected reduction in polarization and expected increase in polarization may have acted in a compensatory nature, resulting in no overall effect.

Limitations

Self-monitoring differences were measured rather than manipulated in this study. As such, it is not possible to make any causal claims regarding these differences. There are two main problems with making causal inferences in this case.

The first is the issue of directionality (Shadish, Cook, & Campbell, 2002).Without experimental control, we cannot know which variables occurred first. Self-monitoring differences are present as early as the first grade (Graziano, Leone, Musser, & Lautenschlager, 1987; Musser & Browne, 1991), long before people are likely to develop attitudes about groups such as salespeople. As such, we assume that self-monitoring differences lead to attitude change given thought. It is possible, however, that how a person's attitudes change during thought may influence that person's perceived self-monitoring propensity.

The second factor that that potentially becomes problematic for making causal inferences in this study is the possibility of third variables acting as confounds (Shadish et al., 2002). Variables that were not measured in this study may serve as an alternate explanation for the effects that we did or did not see. Take, for example, self-consciousness (Fenigstein, Scheier, & Buss, 1975). Self-monitoring and self-consciousness are known to be related (Jones, Rhodewalt, Berglas, & Skelton, 1981; Turner, Carver, Scheier, Turner, & Carver, 2010). Any effects of high self-monitoring could, therefore, be the byproduct of differences in self-consciousness. Another possible third variable is preference for consistency (Cialdini, Trost, & Newsom, 1995). Low

self-monitors have been shown to have a tendency towards consistent behavior (Zanna et al., 1980). Thus, any effects of low self-monitoring in this study may be differences in participants' preference for consistency.

There may also have been a threat to statistical validity in this study. We used G*Power to calculate that about 390 participants were required to take part in this study in order to have a sufficient amount of power (Faul, Erdfelder, Buchner, & Lang, 2009). This participant count was obtained by assuming a small effect size with 5 predictors. This prediction is supported by Cohen's (1992) findings that the sample size needed to detect interactions at a small effect size is 398. Although 163 participants were surveyed, missing data led to only 149 participants being included in our results. This low sample size may have affected our results in unknown ways.

Future Directions

Future research on self-monitoring should include measurements of both public self-consciousness and preference for consistency, as they are two likely confounds with self-monitoring. Measuring these variables would help us understand the role they play in the models analyzed in this study. The sample size should also be increased to at least 170 given the same number of parameters (Faul et al., 2009).

In addition, it would be beneficial to investigate possible reasons behind our findings that more thought led to less polarization. To do so, we should test for effects of thought saturation. In this study, participants who were given 120 seconds to think reported having too much time more often than did the participants who were given 60 seconds. This would suggest that participants were hitting the point of "thought saturation" (Clarkson et al., 2011; Tormala et al., 2002; but see also Tesser & Conlee, 1975). Several levels of opportunity for thought should be used in future modifications of the design used in the present study.

Another option to address these counterintuitive findings would be to investigate the effects of varying schema complexity. Researchers have shown that better developed schemas result in more attitude polarization than do less developed schemas given thought (Britton & Tesser, 1982; Leone & Ensley, 1985; Tesser & Leone, 1977). Perhaps a sample with a more defined salesperson schema would have experienced the expected positive relationship between thought and attitude polarization. It has been shown that people tend to have better developed schemas when thinking about individuals rather than groups (Tesser & Leone, 1977). Thus, it may be possible to manipulate salesperson schema complexity by having one group of participants think about characteristics of a single salesperson and one group of participants think about the ideal characteristics for salespeople as a whole.

Conclusion

Research has shown time and time again that with more thought comes more polarized attitudes. In this study, however, participants who thought for longer periods of time ended up experiencing less polarization than those participants who were given less time to think. These results lead us to believe that the sample used simply did not have well-enough developed salesperson schemas to maintain polarization across the timeframe given. The information gained from this study adds valuable insight into both the methodological limitations involved in studying attitude change as well as the ways that socially normative information and self-monitoring can come into play with the mere thought effect.

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