The Antecedents of Self-Concept Clarity, and the Factors that Maintain It

DISSERTATION

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Abstract

The present research examines information search and processing as key mechanisms underlying the development and maintenance of self-concept clarity. Two studies show that individuals with higher, versus lower, self-concept clarity are more likely to use biased information searches when determining whether they have a novel personality and, in turn, these biases lead to higher subsequent clarity. An experiment then examines directly the influence of underlying motives, showing that participants manipulated to have accuracy goals engage in less biased information search than those given directional goals.

Two final experiments explored the relationship between self-concept clarity and processing of self-relevant feedback. The results illustrate that people with higher self-concept clarity are more likely to use available cognitive resources to reject self-relevant feedback that is vague and generic, thus preserving their high clarity. A final experiment manipulated whether feedback was consistent with or discrepant with participants' actual self-concepts. Participants with higher, versus lower, self-concept clarity were more likely to endorse a consistent profile. Moreover, endorsing consistent feedback or rejecting discrepant feedback predicted the highest levels of subsequent self-concept clarity. The present results provide new insight into the influence of biased processes on both the development and maintenance of self-concept clarity.

Dedicated to my family

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I owe a great deal of thanks to my advisor, Robert Arkin, for his endless support and guidance throughout my tenure at Ohio State. The present work is a reflection of all he has taught me in his efforts to make me a scholar. I would also like to thank Patrick Carroll for his invaluable advice and encouragement throughout this research process.

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Vita

Publications

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Fields of Study

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Chapter 1: Introduction

One of the most compelling questions in the field of psychology is how people come to know the self, and what the consequences are for the processes people use to form their self-concepts. There is no denying that people, whether they be academic researchers or not, are interested in understanding how individuals determine who they are and form their self-concepts. Part of this interest results from the assumption that how people form their self-concepts influences the content of the self-concept. Extensive research on the distinction between self-enhancement and self-verification motives points to how strongly a person's goals for self-evaluation can influence the content that becomes a part of the self-concept (Sedikides & Strube, 1997; Swann, 1987). Information that supports positive self-views can lead to a much different, more desirable self-concept than information that confirms a person's self-views, especially for those with more average or lower self-esteem (Shrauger, 1975; Swann, 1987; Swann, Pelham, & Krull, 1989). People also determine aspects of their self-concepts by engaging in social comparisons, comparing themselves to others to assess their own standing on various attributes (Festinger, 1954). Importantly, the target of such social comparison can have dramatic influences on the subsequent conclusions about the self (Wood, 1989). In addition, researchers have examined how promotion-oriented versus protection-oriented self-presentation can lead to differences in the social feedback people receive

about the self, which then influences the content that comprises the self-concept (Arkin &

Shepperd, 1990). Individual differences in how people search for and interpret self-

relevant information to define and revise their self-concepts can have important

implications for the content that ultimately constitutes the self-concept.

The present research extends this literature, though, by hypothesizing that these

individual differences can also influence self-concept organization, including the

development and maintenance of self-concept clarity. Swann and Hill (1982) provide

some support for this hypothesis, showing that people engage in behaviors that would

undermine self-discrepant feedback to promote stable self-views. While this research

was in the form of reacting to social feedback about one's self-concept, the process

should extend to general self-concept formation. Directed development of the self-

concept, for instance by using biased search and interpretation of self-relevant

information, should lead to more consistent and stable self-concepts whether that

information comes from social feedback or some other source.

Furthermore, efforts to define the self-concept that lead to greater consistency or

stability of the content are likely to encourage feelings of confidence and clarity about the

self. Indeed, prior research has shown a positive correlation ($r = .51$) between people's

certainty in and the consistency of the evidence for self-views (Pelham, 1991). These

participants' most certain self-views also exhibited greater stability over time, providing

further evidence for a relationship between stability, consistency, and confidence

regarding a person's self-concept. Finally, such content should also be easier to organize,

in much the same way it is easier to organize a pile of shirts that are of similar, rather than varied, type and color.

<div align="center">Self-concept clarity</div>

Self-concept clarity is defined as the extent to which one's self-concept is clearly and confidently defined, internally consistent, and temporally stable (Campbell, Trapnell, Heine, Katz, Lavallee, Lehman, 1996), and reflects the underlying structure of a person's self-concept (Campbell, Assanand, & Paula, 2003). Relative to less clear individuals, people with higher clarity are assumed to have self-concepts with an organized and structured framework that promotes consistency, stability, and confidence in the content of the self. Indeed, people with higher self-concept clarity are less likely to indicate that two opposite traits (e.g., timid and bold) are self-descriptive and exhibit less change in their ratings of the self-descriptiveness of adjectives over time than their lower clarity counterparts (Campbell et al., 1996). Moreover, greater consistency in the endorsement of traits as self-descriptive is also associated with more confident self-views, faster reaction times for determining whether trait words are self-descriptive, and greater agreement between a person's self-ratings and perceptions of their later behavior and even later memory of that behavior (Campbell, 1990).

An important caveat, though, is that self-concept clarity does not address the accuracy of one's self-concept and does not necessarily reflect actual self-knowledge (Campbell et al., 1996). Clarity expresses a subjective belief about how one's self-concept is organized and structured, and those beliefs need not correspond to actual behavior, even if they are related to perceptions of one's own behavior (Campbell, 1990).

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The relationship between self-concept clarity and accurate self-knowledge and self-insight seems somewhat complicated, consistent with the notion that clarity is not equivalent to knowing the self beyond the perception that one does. Prior work shows a negative correlation between self-concept clarity and chronic self-analysis despite a positive correlation with internal state awareness on the private self-consciousness scale (Fenigstein, Scheier, & Buss, 1975; Campbell et al., 1996). Individuals with lower self-concept clarity seem to show a tendency to engage in more self-reflection, but that self-reflection does not promote greater perceived understanding of their internal states (moods, feelings, and thoughts) and, in fact, may even undermine such insight.

In addition, prior research (Guerrettaz & Arkin, 2015) has illustrated that self-concept clarity may not be a reflection of a deeply understood self-concept at all. Quite the opposite, self-concept clarity may reflect a more superficial understanding and knowledge of the self that is grounded in metacognitive certainty rather than thoughtful self-analysis. Guerrettaz and Arkin (2015) had participants complete an ease of retrieval task (Schwartz, et al., 1991) regarding their self-knowledge. They found that participants with higher self-concept clarity measured prior to the retrieval task were more susceptible to the ease of retrieval effects than those with lower clarity. Specifically, only those participants with higher chronic clarity reported decreases in self-esteem following a difficult retrieval task relative to an easier one. The results suggested that higher levels of self-concept clarity may be more reflective of a subjective belief that a person knows the self rather than any accurate insight or awareness of the self-concept or its underlying structure.

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The relationship between self-concept clarity and public self-consciousness (Fenigstein, Scheier, & Buss, 1975) provides further support for this distinction between subjective self-concept clarity and self-concept structure. Higher levels of self-concept clarity are associated with less public self-consciousness, suggesting that clearer individuals are less concerned with their status as social objects (Campbell, et al., 1996). In contrast, those individuals who are more attuned to their public selves, and presumably are more attentive to social feedback, are also more likely to experience lower levels of self-concept clarity. People who engage in more self-analysis, are more attentive to their roles as social beings, but experience less awareness of their internal states are also the people who report having less self-concept clarity. Taken together, this suggests that prolonged efforts to understand the self, both through personal self-reflection and consideration of social feedback, may undermine rather than enhance any feelings of self-knowledge and understanding. Higher self-concept clarity may be a consequence of minimal self-reflection and attention to the variety of social feedback people encounter, which creates a subjective sense of clarity independent of any accurate self-knowledge or structural organization of the self-concept.

Viewing clarity from this perspective suggests that self-concept clarity can be both a trait and a state variable. Historically, self-concept clarity has been considered a trait variable, reflecting a relatively stable and enduring aspect of the self-concept. The underlying structure and organization of a person's self-concept is expected to be a chronic attribute that changes slowly if at all. However, the proposed subjective component of self-concept clarity would be more state-like, exhibiting changes relatively

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quickly in response to transient information in a person's environment. From this perspective, the conversation about the antecedents of self-concept clarity can expand to include social cognitive factors such as metacognition, motivated reasoning, and variations in both the search for and processing of self-relevant information. The present research introduces a wholly new approach to the study of self-concept clarity, proposing that how an individual interacts with self-feedback to both define and revise her self-concept can have meaningful implications for whether or not she ultimately feels clear in that self-concept.

<div align="center">Motivated reasoning</div>

Certainty in one's self-beliefs is not always a consequence of the amount and consistency of information about the self (Pelham, 1991). Certainty can also result from biased interpretation of self-relevant information that affirms existing self-views. People often rely on biased information searches when assessing both others and the self, looking for supportive, consonant information over opposing, dissonant information (Festinger, 1957). Individuals engage in confirmatory hypothesis testing, seeking out and reporting information that supports a hypothesis rather than a balanced set of information (Snyder & Cantor, 1979; Snyder & Swann, 1978). And a wealth of research on motivated reasoning shows that people commonly use biased search, recall, and processing of information to arrive at desired conclusions, including conclusions about the self (e.g., Ditto & Lopez, 1992; Kunda, 1987; Kunda, 1990; Sanitioso, Kunda, & Fong, 1990; Swann, 1987).

A key contributor to the use of motivated reasoning and the associated biases is the underlying goal guiding the person's efforts to arrive at various conclusions (Kunda, 1990). When people are motivated to arrive at accurate conclusions, they are much less likely to rely on bias (e.g., Kruglanski & Freund, 1983). Rather, a motive to be accurate leads individuals to expend cognitive effort in pursuit of the true, or correct, conclusion during the reasoning process. In contrast, when individuals are motivated to arrive at a specific conclusion, often because something about that conclusion makes it more desirable, they are more likely to incorporate bias into their reasoning process (e.g., Ditto & Lopez, 1992; Hastorf & Cantril, 1954). Such directional goals lead people to engage in biased searches for and interpretation of information to lead them to the preferred conclusion, so long as they have the ability to construct plausible support for the desired conclusion (Kunda, 1990; Pyszczynski & Greenberg, 1987). Importantly, however, there are also situations in which an individual's goal to be accurate can lead to more bias than directional goals. For instance, if a person lacks the necessary ability to engage in appropriate reasoning—perhaps due to limited knowledge about the reasoning domain— an accuracy goal could lead to greater use of flawed reasoning that produces more bias (Kunda, 1990). It seems unlikely, though, that people would be unable to apply accuracy reasoning to the central domain of self-relevant information processing under most circumstances.

Incorporation of biased information search and directional motivated reasoning, processes marked by confirmatory and verifying strategies, in the continued development of the self-concept should lead to self-concept content that is inherently consistent and

stable. The more coherent and congruent a person's self-beliefs, the more likely that person will view him or herself consistently over time because the content comprising the self-concept all points to the same general self-belief. In turn, such consistency and stability would promote confidence and, ultimately, clarity given the reinforcement of the person's self-beliefs by both the quantity of coherent self-beliefs and repeated acknowledgment of those beliefs over time. Of course, confidence can also lead to more consistency and stability. For example, confidence may narrow a person's focus on information that verifies the self-beliefs held with the greatest confidence. It is likely that each marker of self-concept clarity, namely confidence, internal consistency, and temporal stability, can contribute to the others. The present research, however, focuses on the implications for acquiring an inherently consistent self-concept on the development of stability and confidence, and clarity more generally.

The reliability and pervasiveness of processes such as confirmation bias illustrate just how motivated people often are to arrive at desired conclusions and feel certain about those conclusions (Nickerson, 1998; also Trope & Ben-Yair, 1982). Moreover, there is ample evidence that this motivation extends to self-views (Campbell, 1990; Butzer & Kuiper, 2006) and self-concept clarity (Campbell & Lavallee, 1993; Csank & Conway, 2004; Landau, Greenberg, Sullivan, Routledge, & Arndt, 2009). The directional goal to conclude that one knows the self is likely to promote greater self-concept clarity by precipitating the use of biased processes when initially forming and later updating the self-concept. As a result, there may be a general association between the strength of goals related to self-knowledge, biased efforts to construct that self-knowledge, and

clarity. However, this association may dissipate in the presence of factors that undermine

or override the directional goal to acquire and maintain self-concept clarity. A less

biased approach guided by a motive to be accurate in one's self-knowledge is likely to

result in exposure to a variety of information about the self that would lack coherence,

stability, and confidence. Thus, the goal to accurately know the self should, ironically,

undermine the development of self-concept clarity.

<div align="center">Beyond motivation: Ability</div>

The goal to arrive at the conclusion that one knows the self, however, is not

sufficient for a person to incorporate the biased reasoning proposed to lead to higher self-

concept clarity. In addition to this goal, the individual also needs to be able to construct a

justification for his or her clarity (Kunda, 1990; Norton, Vandello, & Darley, 2004;

Pyszczynski & Greenberg, 1987). Both individual differences and situational factors are

likely to contribute to a person's ability to defend his or her clarity-related beliefs about

the self-concept. Of particular relevance to the current research, individuals with greater

clarity should be better equipped to determine whether additional self-relevant

information is consistent with their existing self-knowledge (Markus, 1977). Indeed,

individuals with higher clarity are faster to determine whether traits are self-descriptive

during a me/not me task (Campbell, 1990). By virtue of having a consistent, stable, and

confidently held self-concept, clear individuals are better prepared to identify, avoid, or

dismiss contradictory self-information to maintain their high level of clarity. In fact, such

conflicting information would be more threatening and potentially dissonance-inducing

for those with greater clarity, thereby increasing the motivation to dismiss it (Cooper &

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Fazio, 1984; Festinger & Carlsmith, 1959). In contrast, those with lower clarity may be in a chronic state of dissonance and believe more information will clarify who they are. For this reason, unclear individuals may be both less motivated to avoid and less able to identify and dismiss conflicting self-relevant information, thus reinforcing their unclarity.

The proposed increased ability to engage in motivated reasoning among those with higher levels of self-concept clarity should also depend on the situation. Existing research has illustrated that situational cues can influence the goals an individual has, and different cues can lead to stronger accuracy or directional goals (Freund, Kruglanski, & Shpitzajzen, 1985; Kruglanski & Freund, 1983; Tetlock, 1983). Situational cues can strengthen a person's accuracy motives through a variety of methods, but a common approach is to make the conclusion more public and thus more open to scrutiny from others. In contrast, one way to strengthen directional motives to arrive at specific conclusions is by making that conclusion appear more desirable.

In addition to such cues that strengthen these motives, the situation should also be important for determining one's ability to pursue more directional or accuracy goals. An important component of motivated reasoning is that both directional and accuracy goals can involve more or less cognitive processing of information (Kunda, 1990). Kunda articulates that the degree of processing is not necessarily what determines whether someone is motivated by directional or accuracy goals. Rather, it is how people process information and what types of information they consider. While accuracy goals require cognitive resources to consider information in a balanced manner, directional goals require cognitive resources to construct a justification for one's reasoning. If features of

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the situation interfere with the person's ability to think about the information being processed and construct a justification for a biased interpretation, even the higher clarity individual would presumably show a reduction of bias in the reasoning process.

Evidence for the role of bias in self-concept clarity

This is not the first program of research to suggest bias may serve as an important antecedent to self-concept clarity. Campbell and Lavallee (1993) noted that the development of clarity is a social process, and that self-concept clear individuals may have acquired their clarity by paying more selective attention to positive social cues about the self. Other research has also pointed to the importance of biased processes for self-concept clarity about traits that are particularly amenable to such influence (Stinson, Wood, & Doxey, 2008). Traits that are less observable, more ambiguous in how they can be interpreted, and more controllable (e.g., kindness) are held with higher clarity than traits that are more observable, less ambiguous, and less controllable (e.g., social status). The former type of trait is more difficult for people to assess in others, making it easier for an individual to elicit desired feedback about their standing on such traits. The ability to engage in motivated reasoning when constructing the self-concept, both when seeking self-relevant information as well as when interpreting self-relevant feedback, should promote both the development and maintenance of higher levels of self-concept clarity. Still, despite evidence supporting this notion, research has not directly examined these processes and how they can promote clarity. Thus, the present research aims to extend past work by directly examining these processes and articulating their relationship with self-concept clarity.

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Self-concept clarity and self-esteem

Given the robust relationship between self-concept clarity and self-esteem, both historically and empirically (e.g., Baumgardner, 1990; Campbell, 1990; Usborne & Taylor, 2010), it is worth considering whether the variables are in fact distinct. Individuals with higher self-concept clarity consistently report higher self-esteem as well (Campbell et al., 1996; Campbell, 1990). In addition, daily positive and negative events significantly impact state fluctuations in self-concept clarity through their effects on negative affect and self-esteem (Nezlek & Plesko, 2001). However, just as there is considerable evidence of the association between the variables, there is also evidence that they are not interchangeable. At a theoretical level, self-esteem relates to the evaluation of the self as good or bad while self-concept clarity reflects the underlying structure and organization of the self-concept (Campbell, Assanand, & Paula, 2003; Campbell et al., 1996).

Supporting this theoretical distinction, research has provided empirical evidence for the separation of the constructs. Specifically, DeMarree and Rios (2014) have recently shown that the strong positive association between clarity and esteem only occurs when people desire high self-esteem. A desire for high self-esteem creates a discrepancy in low self-esteem people between their ideal and actual levels of positive self-regard that contributes to lower clarity. However, when there is no such desire for high self-regard, the relationship between self-esteem and self-concept clarity no longer exists.

Even early work on self-concept clarity has illustrated instances when clarity and self-esteem are not so strongly tied together. When both are measured via self-reports the typical high correlation between self-concept clarity and self-esteem emerges (Campbell et al., 1996). However, when clarity is measured through less obtrusive measures that more directly assess the consistency, stability, and confidence of a person's self-concept the correlation between clarity and esteem becomes much more modest (Campbell, 1990). The relationship between self-concept clarity and self-esteem may be in part a consequence of a desire to see the self as both desirable and clear. However, personal attributes (a lower desire for self-esteem) or methodology that circumvents the influence of this desire on self-esteem scores may better illustrate the independence of the structure and the content of the self-concept. For the present purposes, self-esteem will be measured throughout the research and included in analyses to better determine the unique relationship between biased processes when defining and revising the self-concept and self-concept clarity.

Empirical Overview and Studies

The present research examines the antecedents of self-concept clarity as well as the factors that help an individual maintain either high or low levels of clarity. This research first investigates the association between the use of biased information search and biased processing of self-relevant feedback and levels of self-concept clarity. This relationship is hypothesized to exist at two important phases in the cycle of clarity— formation and maintenance. Individuals who use more biased processing to determine who they are are expected to experience more self-concept clarity as a result. Second,

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individuals who already have higher levels of clarity are predicted to be more likely to use biased processes to define and revise their self-concepts, promoting the maintenance of self-concept clarity and allowing clarity to endure. Thus, it is proposed that biased processes can lead to the development of clarity (formation), which then contributes to additional use of biased processes when encountering information about the self, helping the individual maintain his or her clarity (maintenance). The present research will focus on two specific forms of bias that are proposed to influence self-concept clarity. The first three studies examine the relationship between levels of self-concept clarity, biased information search, and selective exposure to information when assessing the self-descriptiveness of an entirely novel personality trait. The last two studies extend these initial results by illustrating the role of both motivation and ability to be skeptical of new self-relevant information in order to maintain one's current self-concept content and, thus, clarity. In addition, the last study illustrates an additional component of the process that maintains self-concept clarity: accurate identification of consistent and discrepant feedback about the self.

Chapter 2: Studies 1a and 1b

Study 1a

Method

Participants. Eighty-eight participants (56 women, 32 men; M_{age} = 18.74, SD = 1.47) completed the self-concept clarity scale (Campbell et al., 1996; see Appendix A) and the Rosenberg self-esteem scale (Rosenberg, 1965; see Appendix B) during prescreening prior to the lab session.

Procedure. Upon arrival to the lab, participants were seated at computers and presented with a cover story for the study. Participants were told that the researchers were developing a new personality dimension called ethosienism, and needed participants to determine whether they were ethosien. In reality, "ethosien" and "ethosienism" were both invented for the purposes of this study, and are neither real personality traits nor real words. Participants were informed that they would be presented with several pieces of information about ethosienism that they could choose to read. They were told that some of the information would describe people who tend to be ethosien, while other pieces of information would describe people who are likely not to be ethosien. Participants then completed the information search task. For each choice, participants were presented with the images of two cards. One card had the word "Ethosien" printed on it, while the other had the words "Not Ethosien" printed on it. These instructions were intentionally vague

regarding the nature of ethosienism. Thus, the trait was not presented as positive or

negative, desirable or undesirable, or familiar. The only information participants were

given about ethosienism was in the form of the information they read after each choice

during the task. Participants were instructed to choose one of the two cards to "flip over"

and read. All participants made at least three such choices, and were given the option to

make up to six.

   After each choice, participants were presented with a piece of information

ostensibly related to being ethosien or related to not being ethosien. All pieces of

information were actually Barnum statements (see Appendix C).[1] The importance of

using Barnum statements lies in the fact that they are designed, and shown, to be

perceived as true of everyone (Forer, 1949). By using such statements in conjunction

with a novel personality trait, this method recreates the experience of forming and

revising one's self-concept in the face of new information about the self.[2] After making

their last choice, participants completed the self-concept clarity scale again as a post

measure of clarity.

<div align="center">Results</div>

   Correlations among the questionnaires are presented in Table 1. The first

hypothesis was that greater use of biased processes when forming the self-concept will

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[1] The original set of Barnum statements (Forer, 1949) included 13 statements. However, the researchers chose to exclude one statement relevant to sexuality ("Your sexual adjustment has presented problems for you") due to concerns that it would make participants uncomfortable and distract them from the task.
[2] In study 1a, the Barnum statement presented depended on which card participants chose. The statements were not strategically or intentionally matched to either type of card, but it is an issue addressed in study 1b.

lead to higher self-concept clarity. Thus, participants who focused on one coherent type

of information and engaged in more selective exposure, as evidenced by making fewer

switches between the types of information about ethosienism, should report higher clarity

following the task (PostSCC) than those who made more switches and relied less on

selective exposure.

Table 1. Means, Standard Deviations, and Correlations of Study 1a Variables

	Mean (*SD*)	(1)	(2)	(3)
(1) PreSCC	37.42 (9.67)	---		
(2) PreSE	47.90 (8.81)	.68**	---	
(3) PostSCC	37.94 (9.26)	.86**	.65**	---

Note. SCC: Self-Concept Clarity Scale. *SE*: Rosenberg Self-Esteem Scale. "*Pre*" refers to measures completed during prescreening; "*Post*" refers to measures completed at the end of the study. **$p < .01$, *$p < .05$

The second hypothesis was that individuals with higher levels of self-concept

clarity will be more likely to use biased processes such as selective exposure in the

continued formation of their self-concepts. In regards to this hypothesis, participants

with higher clarity measured during prescreening (PreSCC) were expected to engage in

more selective exposure during the information search task, as evidenced by making

fewer switches between the "ethosien" and "not ethosien" information and opting to seek

out primarily consistent and verifying rather than a mix of information. In contrast, those

with lower PreSCC were expected to engage in less selective exposure, choosing to

switch back and forth between the two types of information to accumulate a greater

diversity of knowledge about ethosienism. It was further predicted that individuals with lower PreSCC would choose more pieces of information to read overall than those with higher PreSCC, reflecting both a desire for more information as well as difficulty arriving with confidence at a decision about the self and who they are.

The above hypotheses were assessed using regression. Any time a participant chose a card that was different from the previous choice was coded as a switch. For example, the set of choices "ethosien", "ethosien", "not ethosien", "ethosien" would be calculated as two switches. The set of choices "ethosien", "not ethosien", "ethosien", "not ethosien" would be coded as three switches. The choices "not ethosien", "not ethosien", "not ethosien", "ethosien", "ethosien", "ethosien" would be calculated as one switch, and so on. Consistent with the first hypothesis, participants who made fewer switches during the information search task reported higher PostSCC, $b = -3.06$, $SE = .82$, $t(86) = -3.74$, $p < .001$. This effect remained significant when PreSCC scores were included in the model, $b = -1.13$, $SE = .45$, $t(85) = -2.50$, $p < .05$ as well as when both PreSCC and self-esteem scores from prescreening (PreSE) were included in the model, $b = -1.06$, $SE = .46$, $t(84) = -2.31$, $p < .05$.

Consistent with the second hypothesis, individuals with higher PreSCC did indeed make fewer switches during the trait determination task than those with lower self-concept clarity, $b = -.03$, $SE = .01$, $t(86) = -2.78$, $p < .01$. However, this effect did not remain significant when PreSE was also included in the model, $b = -.02$, $SE = .02$, $t(85) = -1.11$, $p = .27$. When both PreSCC and PreSE were included in the model, neither

variable was significantly related to the number of switches participants made during the task.

Contrary to predictions, though, there was no relationship between participants' PreSCC and the total number of pieces of information they chose to read during the task, $b = .01$, $SE = .01$, $t(86) = .51$, $p = .62$. It is possible that any such effect was minimized because there were only three optional choices to make, a small number that may not have allowed for enough variability to appropriately test this hypothesis. This possibility is addressed in study 1b.

<center>Study 1b</center>

<center>Method</center>

Participants. Seventy-eight participants (44 women, 34 men; $M_{age} = 18.71$, $SD = 1.41$) completed the self-concept clarity scale (Campbell et al., 1996) and Rosenberg self-esteem scale (Rosenberg, 1965) during a mass prescreening prior to the lab session.

Procedure. The methods for study 1b were identical to those in study 1a, except for three important differences. First, participants received the same Barnum statement regardless of which card they chose, addressing this methodological issue from study 1a. This also allowed for more choices during the task, so all participants made at least four choices and had the option to choose up to twelve pieces of information in total to read. Second, participants rated each statement for its accuracy on a 7-point Likert scale ("How true is this statement of you?", 1 = *Not at all like me*, 7 = *Just like me*). These ratings were provided immediately after the presentation of each statement following the choice of either an "ethosien" or "not ethosien" card. Finally, after completing the information

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search task, all participants rated how ethosien they were on a 5-point Likert scale (1 = *Not at all ethosien*, 5 = *Extremely ethosien*) prior to completing the self-concept clarity scale at the end.

Results

Correlations among the questionnaires are presented in Table 2. Consistent with study 1a, participants who made fewer switches during the task once again reported higher PostSCC, $b = -1.31$, $SE = .64$, $t(76) = -2.06$, $p < .05$. However, this effect was no longer significant when PreSCC was included in the model, $b = .03$, $SE = .53$, $t(74) = .05$, $p = .96$, or when both PreSCC and PreSE were included, $b = .03$, $SE = .54$, $t(73) = .06$, $p = .95$. In addition, individuals with higher PreSCC again made fewer switches during the task than those with lower PreSCC, $b = -.07$, $SE = .02$, $t(75) = -3.25$, $p < .01$. This effect did remain significant when PreSE scores were also included in the model, $b = -.06$, $SE = .03$, $t(74) = -2.04$, $p < .05$. Despite the increase in the number of available pieces of information, there was again no evidence of an effect of PreSCC on the number of pieces of information participants chose to read, $b = .04$, $SE = .03$, $t(75) = 1.39$, $p = .17$.

Table 2. Means, Standard Deviations, and Correlations f of Study 1b Variables

	Mean (*SD*)	(1)	(2)	(3)	(4)	(5)
(1) PreSCC	36.92 (8.54)	---				
(2) PreSE	47.74 (8.57)	.71**	---			
(3) PostSCC	37.91 (9.17)	.66**	.48**	---		
(4) Accuracy	4.75 (.93)	-.31**	-.29**	-.54**	---	
(5) Ethosien	2.97 (.93)	-.27*	-.21	-.25*	.56*	---

Note. *SCC*: Self-Concept Clarity Scale. *SE*: Rosenberg Self-Esteem Scale. *Accuracy*: Summed ratings of self-descriptiveness of Barnum statements. *Ethosien*: Self-rating of ethosienism. "*Pre*" refers to measures completed during prescreening; "*Post*" refers to measures completed at the end of the study. **$p < .01$, *$p < .05$

Participants' ratings of the accuracy of each Barnum statement were summed across all items. In addition to the above findings, a main effect emerged showing that individuals with higher PreSCC rated themselves as less ethosien, $b = -.03$, $SE = .01$, $t(75) = -2.38$, $p < .05$, and rated the Barnum statements as less accurate, $b = -.03$, $SE = .01$, $t(75) = -2.85$, $p < .01$. However, these effects were not significant when PreSE was included in the models, $b = -.03$, $SE = .02$, $t(74) = -1.45$, $p = .15$ and $b = -.02$, $SE = .02$, $t(74) = -1.35$, $p = .18$, respectively.

Importantly, a mediation analysis using PROCESS (Hayes, 2012) and bootstrapping methods with 5,000 resamples (Preacher & Hayes, 2008) showed that the effect of PreSCC on ethosien ratings was mediated by participants' accuracy ratings, indirect effect $b = -.02$, BootSE $= .01$, 95% BootCI [-.038, -.003] (see Figure 1). Individuals with higher PreSCC reported that the Barnum information they read was less true of them than those with lower PreSCC, which then led high PreSCC participants to

rate themselves as less ethosien overall.   However, this effect was again not significant when PreSE was included as a covariate, indirect effect $b = -.01$, BootSE $= .01$, 95% BootCI [-.036, .008].
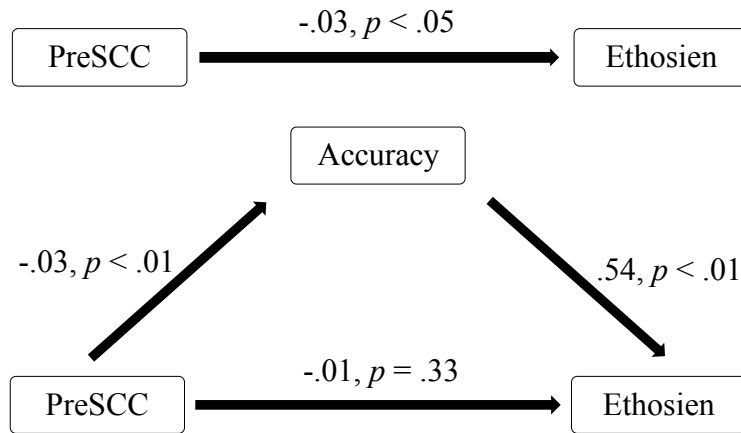
Figure 1. Indirect effect of chronic self-concept clarity (PreSCC) on Ethosien ratings through ratings of how self-descriptive the Barnum statements were (Accuracy).

Studies 1a and 1b Discussion

Given the influence of self-esteem on the results, appropriate caution is needed when drawing conclusions from studies 1a and 1b. The consistency of the direction of the effects, though, across both studies lends support to the following conclusions and gives us greater confidence in the results. When considered together, the studies offer new insight into the nature of self-concept clarity and the importance of the process by which an individual attempts to define and update his or her self-concept for the development of self-concept clarity. People who rely more heavily on biased searches for consistent and confirming information acquire self-relevant information that promotes

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a clear, confident, stable, and consistent self-concept. Furthermore, individuals with higher self-concept clarity are also more likely to engage in these behaviors and seek out such consistent and confirming information about who they are. By relying on these biased processes, clear individuals reinforce their already high clarity, which then perpetuates these processes. In contrast, those with low clarity are less likely to use a biased information search to define their self-concepts, instead choosing to seek out a variety of information that is inconsistent, incoherent, and unstable. This approach then reinforces their already low self-concept clarity.

Chapter 3: Study 2

Thus far, the present research has highlighted the association between higher levels of self-concept clarity and the use of bias when defining one's self-concept. Moreover, a desire to form and maintain the feeling that one has clarity is proposed as a driving force behind these effects. Still, despite this evidence that those with higher clarity are more likely to rely on processes such as biased information search and motivated reasoning, it has not been directly shown that these behaviors are driven by a motivation to believe that one's self-concept is confident, clear, consistent, and stable. Study 2 uses a between-subjects design with a manipulation of reasoning goals to examine the hypothesis that higher levels of self-concept clarity are more strongly associated with directional goals when pursuing self-knowledge, while lower levels of clarity are more strongly associated with accuracy goals.

The results of the previous two studies show that people with greater self-concept clarity rely on more biased processes when forming and revising their self-concepts than those with less clarity. This suggests that higher clarity individuals may be generally acting on directional goals, whereas low clarity individuals may be more motivated by accuracy goals in general. Because accuracy goals usually lead people to be less biased in their cognitive processes and behaviors relative to directional goals, the first hypothesis is that there will be a main effect of the type of reasoning goal on participants'

reliance on biased information search, as reflected by the number of switches they make during the information search task. Participants in the directional goals condition are predicted to make fewer switches than those in the accuracy goals condition.

An additional hypothesis is that a main effect on levels of clarity following the information search task will emerge. Participants who complete the information search task while acting under accuracy goals are expected to report lower post self-concept clarity than those acting under directional goals. Importantly, it is predicted that this relationship between goals and self-concept clarity will be mediated by the number of switches participants make during the information search task. Participants in the directional goals condition should make fewer switches during the information search task, reflecting greater reliance on selective exposure to consistent information. This greater use of selective exposure should in turn lead to higher levels of self-concept clarity by allowing the individual to accumulate information about the self that is more coherent, consistent, and would provide more stability in self-beliefs. In contrast, those in the accuracy goals condition should make more switches during the task, which will then lead to lower levels of clarity. Seeking out a variety of information would lead to the accrual of self-information that is necessarily less coherent, less consistent, and would undermine stability in self-beliefs.

A final prediction builds on the results from Study 1b in which accuracy ratings mediated the relationship between chronic levels of self-concept clarity and ethosien self-ratings. Within the accuracy goals condition, this result should be replicated such that participants with higher levels of chronic self-concept clarity rate the Barnum statements

as less self-descriptive, which leads them to rate themselves as less ethosien. However, in the directional goals condition participants with higher clarity are hypothesized to rate themselves as more ethosien regardless of how accurate they deem the Barnum statements because ethosienism is presented as a desirable quality. Such results would reflect the flexibility individuals with higher self-concept clarity can use when processing and interpreting information about the self to maintain their self-concept clarity and accompanying positive self-regard.

Method

Participants. Seventy-seven participants (50 women, 27 men; M_{age} = 18.71, SD = 1.76) completed the study. Of those, 42 participants (29 women, 13 men; M_{age} = 18.79, SD = 2.24) had also completed the self-concept clarity scale (Campbell et al., 1996) and Rosenberg self-esteem scale (Rosenberg, 1965) during a mass prescreening prior to the lab session.

Procedure. Participants completed the same information search task used in studies 1a and 1b, but with the addition of a manipulation of their reasoning goals. Those in the accuracy goals condition were told that at the end of the information search task they would have to tell the researcher whether or not they are ethosien and explain why, thus defending their self-rating. Such methods have been used in previous research to encourage people to have stronger goals to provide accurate judgments (e.g., Freund, Kruglanski, & Shpitzajzen, 1985; Kruglanski & Freund, 1983; McAllister, Mitchell, & Beach, 1979; Tetlock, 1983). In addition, participants in the accuracy goals condition were told that their conclusion about whether they are ethosien or not is very important

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for both this research study as well as future research aimed at developing this new personality dimension. Emphasizing the importance of the decision has also been used previously to induce an accuracy motivation in people (e.g., Kassin & Hochreich, 1977).

Participants in the directional-goals condition were given a reason to want to conclude they are ethosien. In this condition, the instructions for participants to use the cards to determine whether or not they are ethosien included a statement that initial research has suggested that people who are ethosien also tend to be well-liked by others and successful in their work. Thus, participants in the directional-goals condition should view ethosienism as a desirable trait and approach the information search task with the goal to determine they are ethosien.

Participants were presented with the same instructions and procedures used in study 1b, but with the addition of either the accuracy or directional goals manipulation. They were told that they are to determine whether they have the personality trait "ethosienism" by choosing between two different cards containing information related to the trait. The goals manipulation was added to the end of these instructions. As in the first two studies, for each choice one card contained information about people who tend to be ethosien, while the other card had information about people who tend not to be ethosien. As in study 1b, the information participants read was the same regardless of which card they chose. Participants were required to make at least 4 choices and were able to read up to 12 pieces of information regarding ethosienism. Using the same scales used in study 1b, participants then rated each statement for its accuracy and rated how

ethosien they are. Finally, participants completed the self-concept clarity scale and

Rosenberg self-esteem scales at the end, providing a post measure of clarity.

<p align="center">Results</p>

Main Effects. Correlations among the questionnaires are presented in Table 3. To

test the hypotheses for Study 2, a series of analyses of variance (ANOVAs) were

conducted. Consistent with the hypotheses, participants in the accuracy goals condition

($M = 5.08$, $SD = 1.87$) made significantly more switches during the information search

task than those in the directional goals condition ($M = 4.29$, $SD = 1.54$), $F(1,75) = 4.06$, p

$< .05$. This effect remained significant when controlling for self-esteem scores, $F(1,74) =$

4.00, $p < .05$. In addition, there was some evidence that participants in the accuracy goals

condition ($M = 34.74$, $SD = 7.94$) reported somewhat lower levels of self-concept clarity

than those in directional goals condition ($M = 37.03$, $SD = 8.72$) following the task,

although this difference was not statistically significant, $F(1,75) = 1.44$, $p = .23$.

Including self-esteem in the model did not change this effect, $F(1,74) = 1.77$, $p = .19$ (see

Figure 2).

Table 3. Means, Standard Deviations, and Correlations of Study 2 Variables

	Mean (SD)	(1)	(2)	(3)	(4)	(5)	(6)
(1) PreSCC	35.33 (7.68)	---					
(2) PreSE	42.33 (10.70)	.40**	---				
(3) PostSCC	35.87 (8.36)	.79**	.47**	---			
(4) PostSE	42.86 (8.75)	.39**	.86**	.48**	---		
(5) Accuracy	4.81 (.69)	-.34*	-.40**	-.43**	-.41**	---	
(6) Ethosien	2.95 (.83)	.12	.07	.03	-.01	.48**	---

Note. SCC: Self-Concept Clarity Scale. *SE*: Rosenberg Self-Esteem Scale. *Accuracy*: Summed ratings of self-descriptiveness of Barnum statements. *Ethosien*: Self-rating of ethosienism. "*Pre*" refers to measures completed during prescreening; "*Post*" refers to measures completed at the end of the study. **$p < .01$, *$p < .05$
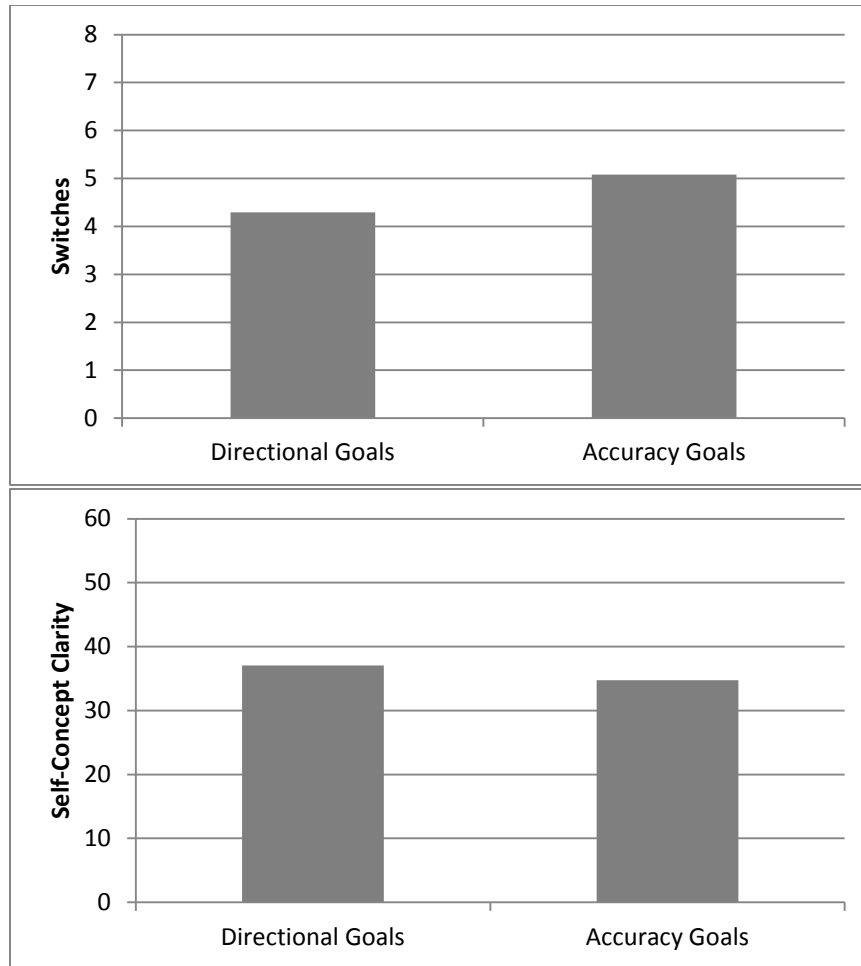
Figure 2. Main effect of reasoning goals manipulation on number of switches made during information search task and subsequent levels of self-concept clarity.

Mediation. In addition to the above main effects of reasoning goals condition, the relationship between reasoning goals and self-concept clarity was predicted to be mediated by the number of switches participants made during the information search task. Participants in the directional goals condition were expected to make fewer switches during the information search task, reflecting greater reliance on selective exposure to consistent information. This greater use of selective exposure should then

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lead to higher levels of self-concept clarity. In contrast, those in the accuracy goals

condition were expected to make more switches during the task, which would then lead

to lower levels of clarity. A mediational analysis using PROCESS (Hayes, 2012) and

Bootstrapping methods with 5,000 resamples (Preacher & Hayes, 2008) did not reach

statistical significance, indirect effect b = -.59, BootSE = .72, 95% BootCI [-2.71, .12].

However, it is worth noting that the direction of the effects for the various pathways in

the mediation model are consistent with the hypothesized mediation model (see Figure

3). These effects did not change when self-esteem was included as a covariate in the

analysis.
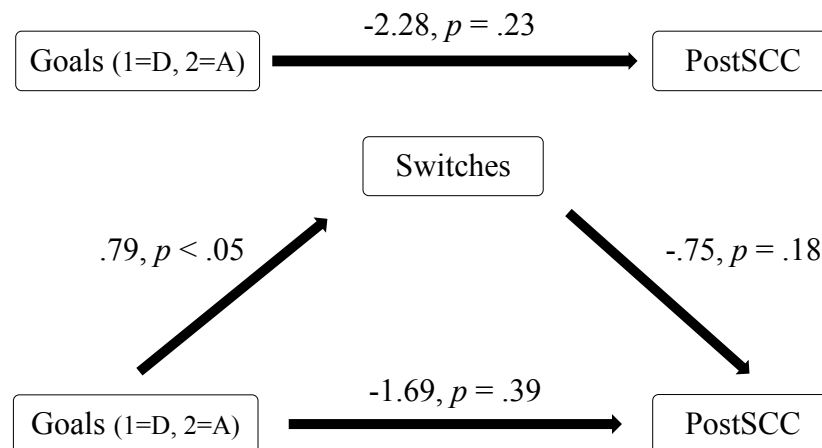
Figure 3. Indirect effect of reasoning goals manipulation (Goals; 1=Directional, 2=Accuracy) on self-concept clarity at the end of the study (PostSCC) through number of switches made during information search task (Switches).

Using those participants who had also completed measures of self-concept clarity

(PreSCC) and self-esteem (PreSE) during prescreening, the relationship between baseline

levels of self-concept clarity and endorsement of the statements participants read during

the information search task as well as their self-ratings of ethosienism was examined. Participants' ratings of the accuracy of each Barnum statement were summed across all items to create an overall accuracy score. Regression analyses showed that participants with higher PreSCC rated the Barnum statements as less accurate, $b = -.03$, $SE = .01$, $t(40) = -2.25$, $p < .05$. There was no relationship between PreSCC and the degree to which participants rated themselves as ethosien, $b = .01$, $SE = .02$, $t(40) = .75$, $p = .46$. When PreSE was included in these analyses, the effect of PreSCC on accuracy ratings became non-significant but still in the same direction, $b = -.02$, $SE = .01$, $t(39) = -1.31$, $p = .20$, while the effect of PreSCC on ethosien ratings was unchanged.

It is highly probable that the present results do not replicate the main effect of PreSCC on ethosien ratings found in Study 1b because of the manipulation of reasoning goals. Participants in the directional goals condition had a different motive when trying to determine whether they were ethosien than those in the accuracy goals condition, and this difference should influence their subsequent self-ratings on this trait. To address this possibility, a conditional process analysis (Hayes, 2012) tested whether the relationship between PreSCC and accuracy ratings predicted ethosien ratings indirectly even if PreSCC did not predict ethosien ratings directly, and further whether this indirect effect differed based on the reasoning goals condition. The model allowed reasoning goals condition to interact with PreSCC to predict both accuracy ratings and ethosien ratings (see Figure 4). Bootstrapping methods with 10,000 resamples (Preacher & Hayes, 2008) showed that the indirect effect for the highest order interaction was not statistically significant, $b = -.02$, BootSE = .02, 95%CI [-.07, .02]. However, while the overall model

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was not significant, there was evidence of significant mediation within the accuracy goals condition, indirect effect b = -.03, BootSE = .02, 95%CI [-.07, -.01], but not within the directional goals condition, indirect effect b = -.01, BootSE = .01, 95%CI [-.04, .01] (see Figure 4). These effects were unchanged when PreSE was included as a covariate.
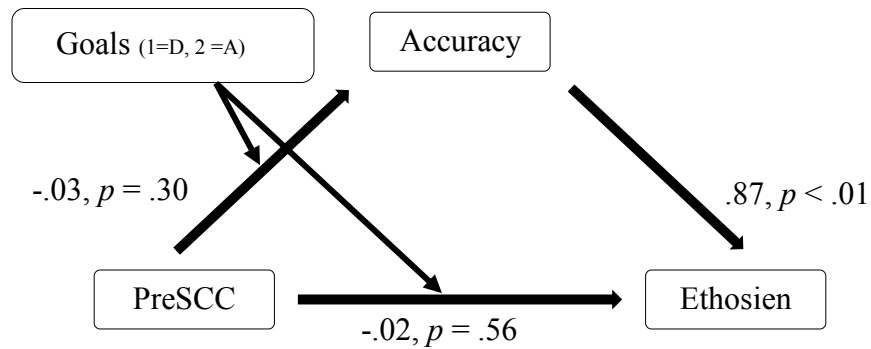
Conditional Direct Effects: Directional b = .04, p < .05; Accuracy b = .03, p = .29
Conditional Indirect Effects: Directional b = -.01, [-.04, .01]; Accuracy b = -.03, [-.07, -.01]

Figure 4. Conditional indirect effect of chronic self-concept clarity (PreSCC) on Ethosien ratings through ratings of how self-descriptive the Barnum statements were (Accuracy) and reasoning goals condition (Goals; 1=Directional, 2=Accuracy).

The conditional indirect effects above suggest that within the directional goals condition, participants' endorsement of the Barnum statements and the degree to which they believe the statements do not mediate the relationship between their chronic levels of self-concept clarity and their subsequent ethosien ratings. In this condition, only the direct effect that people with higher levels of chronic clarity rate themselves as more ethosien is significant. In contrast, in the accuracy condition the ratings of the Barnum statements are essential to understanding participants' ethosien ratings. People with

higher levels of chronic clarity are less likely to believe the Barnum feedback is self-descriptive, which leads them to rate themselves as less ethosien.

Discussion

The results of study 2 provide initial evidence for the importance of the underlying motives for the ways in which those with higher and lower self-concept clarity approach the task of defining their self-concepts. The conclusions drawn from this study must be considered cautiously given the weak and marginal results. Nonetheless, the main effect of reasoning goals on the amount of selective exposure used to determine whether a novel trait is self-descriptive shows that individuals acting on directional goals during an information search task incorporate more bias than those acting on accuracy goals. The results of studies 1a and 1b also showed that individuals with higher self-concept clarity incorporate more bias, in the form of selective exposure, in their searches for information to determine who they are than do their low clarity counterparts. Those studies revealed a negative relationship between levels of clarity and the number of switches between different types of information made during an information search task. While the present research cannot show explicitly that chronic levels of self-concept clarity influence the reasoning goals people adopt when searching for information about the self, taken together they do suggest that those with higher clarity may be more likely to act on directional goals, while those with lower clarity are more inclined to be motivated by a desire to be accurate in their conclusions about their self-concepts.

Adding some support, albeit limited, to this supposition, is the trend towards directional goals leading to higher levels of self-concept clarity following the information

search task compared to accuracy goals. While this result did not reach statistical significance, the direction of the effect is consistent with other evidence from the present research that greater use of bias when defining one's self-concept promotes the development of self-concept clarity. Moreover, such use of bias may be partially driven by different motives for defining and understanding the self. Together the results of these three studies suggest that individuals with higher self-concept clarity are more likely to be driven by directional goals and those with lower clarity are more strongly motivated by accuracy goals. These goals then influence the information search behaviors both groups engage in and their subsequent levels of self-concept clarity.

Moreover, the results of the mediation analyses from studies 1b and 2 illustrate that higher clarity individuals may be more discerning of self-relevant feedback, at least when that feedback is vague and may threaten the confidence with which they hold their self-concepts. The conditional process analysis in study 2 replicated the indirect effect found in study 1b within the accuracy condition. Thus, although the overall model was not significant, the key predicted indirect effect in the accuracy condition was significant and extends the results from study 1b to provide further support for the conditional process model. The tendency to be less accepting of feedback about their self-concepts would further contribute to higher clarity people's willingness and ability to be selective in the information they expose themselves to when answering the question "Who am I?" This highlights an important element of the process by which individuals maintain their levels of clarity. Greater skepticism when encountering new self-relevant information

would allow individuals with higher clarity to avoid or dismiss information that might disrupt the organization of their self-concepts.

However, the mediation results of study 2 also suggest that when people have a strong reason to arrive at a particular conclusion, this motive can override even the skepticism shown by higher clarity individuals. When participants were told that being ethosien was related to good outcomes, the low endorsement of the Barnum statements seen among those with higher clarity did not translate into lower self-ratings of ethosienism. This suggests that people with higher levels of clarity can be very flexible in how they interact with self-relevant feedback in order to protect their self-concept clarity while also seeing the self in a positive way. Study 3 explicitly examines the hypothesis that such skepticism, an additional marker of bias, contributes to the maintenance of high clarity for those who already have a clear, confident, consistent, and stable self-concept. In addition, study 3 incorporates a cognitive load manipulation to illustrate the importance of both motivation and ability to use bias and skepticism to maintain self-concept clarity. While high clarity individuals may be motivated to use bias, they should only be able to when they possess the necessary cognitive resources for evaluating self-relevant information.

Chapter 4: Study 3

As suggested by the mediational analyses of studies 1b and 2, one way individuals may maintain their clarity is through biased processing and skepticism of new information. Possessing a clear, internally consistent, and stable self-concept should allow people to easily and efficiently determine whether additional self-relevant information is consonant with their existing self-concepts. Their clear self-concepts arm these individuals with coherent and stable self-images to counter-argue and dismiss any conflicting information. Additionally, self-concept clear individuals may be particularly motivated to reject or dismiss potentially conflicting self-relevant information to avoid or reduce cognitive dissonance (Cooper & Fazio, 1984; Festinger, 1957; Festinger & Carlsmith, 1959; Frey, 1986).

It was thus predicted that under normal circumstances participants with higher levels of self-concept clarity would be more discerning of self-relevant feedback, reflecting a motivation to maintain their existing self-concepts. However, under conditions that usurped mental resources, participants were expected to show no differences in their acceptance of such feedback based on levels of self-concept clarity.

Method

Participants. Fifty-nine participants (35 women, 24 men; M_{age} = 19.25, *SD* =

2.88) completed the self-concept clarity scale (Campbell et al., 1996) and Rosenberg self-

esteem scale (Rosenberg, 1965) during prescreening at the beginning of the semester.

Procedure. Participants were emailed a link to complete the study online, and

were told that they were invited to participate because of instruments they completed

during prescreening. Participants were told that the researchers had created

individualized personality profiles for them based on these prescreening responses, and

that they needed to read their profile and rate its accuracy. In actuality, all of the profiles

were identical and consisted of twelve Barnum statements. Half of the participants were

then given a cognitive load manipulation that consisted of remembering a nine-digit

number they would report at the end of the study. The remaining participants received no

such cognitive load task.

Participants read the personality profile and rated how effective ("How effective

are the prescreening scales in revealing your personality?"; 1 = *Poor*, 5 = *Perfect*) and

revealing ("How much does the personality description reveal basic characteristics of

your personality?"; 1 = *None*, 5 = *Completely*) the profile was overall. They also rated

each individual statement for accuracy ("We would now like you to rate how true each

individual statement is from your personality sketch"; 1 = *Not at all like me*, 5 = *Just like

me*). These ratings were summed to create a total true of me score for each participant.

Those in the cognitive load condition then reported the nine-digit number.

Results

Correlations among the questionnaires are presented in Table 4. Analysis of

variance (ANOVA) revealed no main effects of cognitive load condition on participants'

ratings of how effective, revealing, or true the personality profiles were, all F's < 1

(effective: $F(1, 57) = .05$, $p = .83$; revealing: $F(1, 57) = .72$, $p = .40$; true: $F(1, 57) = .21$,

$p = .65$). Moreover, ANCOVA showed that these results were not different when self-

esteem was included in the model (effective: $F(1, 56) = .00$, $p = .95$; revealing: $F(1, 56) =$

$.86$, $p = .36$; true: $F(1, 56) = .04$, $p = .84$).

Table 4. Means, Standard Deviations, and Correlations of Study 3 Variables

	Mean (*SD*)	(1)	(2)	(3)	(4)	(5)
(1) PreSCC	32.83 (7.83)	---				
(2) PreSE	42.75 (8.99)	.60**	---			
(3) Effective	3.44 (.93)	-.21	-.13	---		
(4) Revealing	3.29 (.81)	-.10	-.07	.79**	---	
(5) True	46.27 (6.12)	-.37**	-.24	.67**	.69**	---

Note. SCC: Self-Concept Clarity Scale. SE: Rosenberg Self-Esteem Scale. *Effective*: Rating of effectiveness of personality profile. *Revealing*: Rating of how revealing personality profile was. *True*: Summed ratings of self-descriptiveness of personality profile statements. "*Pre*" refers to measures completed during prescreening. **$p < .01$, *$p < .05$

Regression analyses revealed a marginal effect of SCC on ratings of how effective

the personality profile was, $b = -.03$, $SE = .02$, $t(57) = -1.61$, $p = .11$, and a significant

effect on ratings of how true the statements were, $b = -.29$, $SE = .10$, $t(57) = -2.98$, $p <$

$.01$. There was no effect of SCC on ratings of how revealing the personality profile was,

$b = -.01$, $SE = .01$, $t(57) = -.77$, $p = .45$. When self-esteem was included in the model only the effect of clarity on the ratings of how true the statements were remained significant, $b = -.28$, $SE = .12$, $t(56) = -2.28$, $p < .05$ (effective: $b = -.02$, $SE = .02$, $t(56) = -1.23$, $p = .23$; revealing: $b = -.01$, $SE = .02$, $t(56) = -.58$, $p = .57$).

To examine the primary study hypothesis, cognitive load condition, self-concept clarity, and the interaction term were regressed onto each of the three personality profile ratings. Consistent with predictions, there was a significant interaction of clarity and cognitive load condition on both how effective, $b = .08$, $SE = .03$, $t(55) = 2.44$, $p < .05$, and how revealing, $b = .06$, $SE = .03$, $t(55) = 2.10$, $p < .05$, participants rated the personality profile, as well as a marginal interaction on how true of them participants rated the profile, $b = .37$, $SE = .21$, $t(55) = 1.73$, $p = .09$ (see Figure 5). These effects were unchanged when self-esteem was included as a covariate in the analyses (effective: $b = .08$, $SE = .03$, $t(54) = 2.42$, $p < .05$; revealing: $b = .06$, $SE = .03$, $t(54) = 2.08$, $p < .05$; true: $b = .37$, $SE = .21$, $t(54) = 1.72$, $p = .09$).

Across all three interactions, individuals with higher self-concept clarity rated the personality profiles as less effective, $b = -.08$, $SE = .03$, $t(55) = -2.96$, $p < .01$, less revealing, $b = -.06$, $SE = .02$, $t(55) = -2.35$, $p < .05$, and less true of them, $b = -.55$, $SE = .17$, $t(55) = -3.13$, $p < .01$, than those with lower self-concept clarity. However, this effect was only present when participants had the cognitive capacity to think about and consider the personality profile. When participants were under a cognitive load there were no differences in these ratings based on self-concept clarity (effective: $b = .00$, $SE =$

.02, $t(55) = .02$, $p = .98$; revealing: $b = .01$, $SE = .02$, $t(55) = .30$, $p = .76$; true: $b = -.18$,
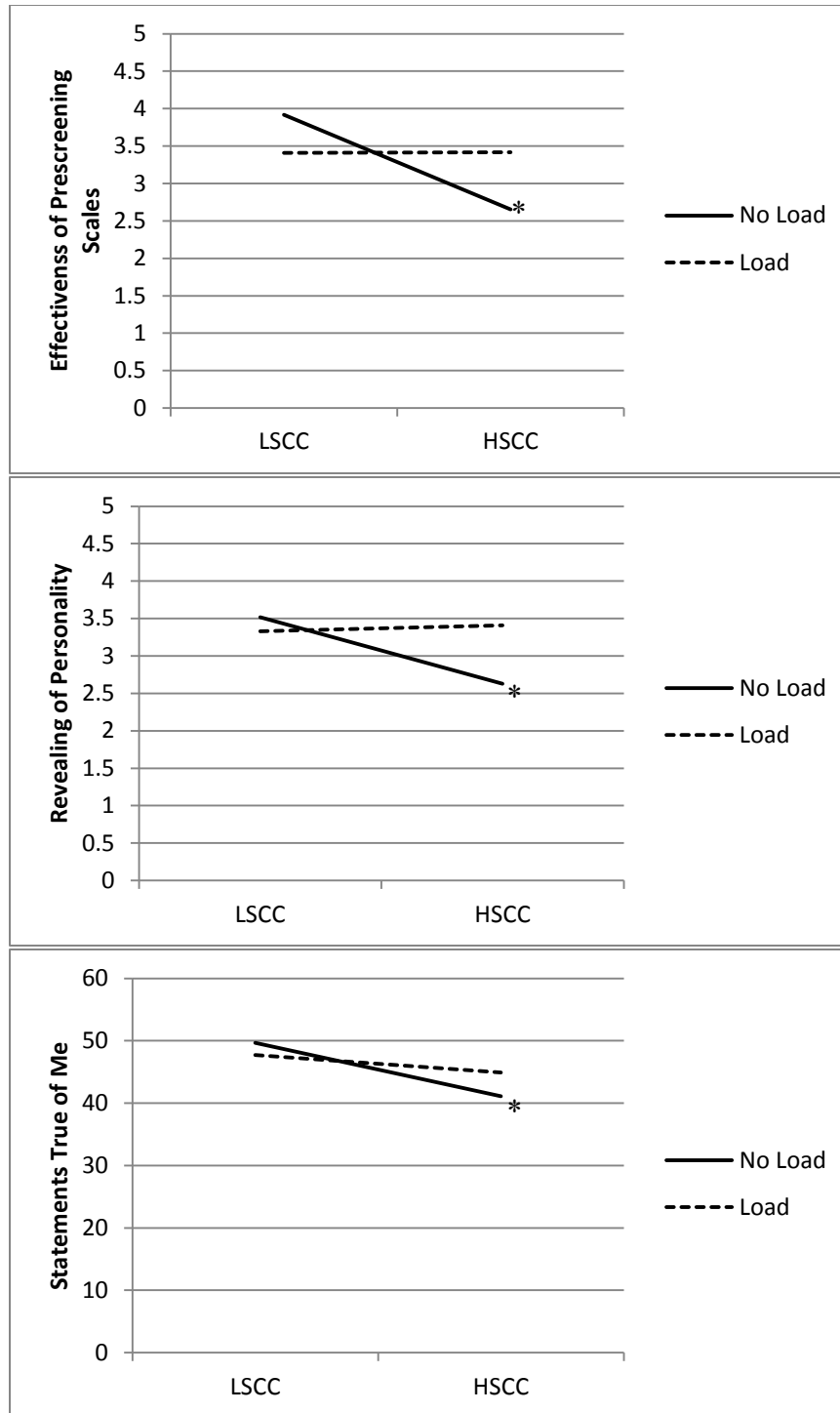
$SE = .12$, $t(55) = -1.47$, $p = .15$.

Figure 5. Personality profile ratings as a function of chronic self-concept clarity measured during prescreening and cognitive load condition. *p < .05

Discussion

Individuals with clearer self-concepts are more discerning and skeptical of new information regarding their self-concepts. When presented with a personality profile comprised of Barnum statements, individuals with higher self-concept clarity viewed the profiles as less revealing of their personalities and less true of who they are than those with lower clarity. However, this was only the case when they had the cognitive resources that would be necessary to reject the feedback and construct a plausible reason for this rejection.

The ability to strategically dismiss new information and feedback about the self is one means through which individuals with already high self-concept clarity can maintain their clear, confident, consistent, and stable sense of self. Choosing to accept only verifying and coherent information and incorporate it into one's self-concept allows the high clarity individual to ensure that his or her self-concept continues to have the markers of self-concept clarity. Importantly, though, motivation alone is not sufficient to help someone maintain a clear self-concept; the individual must also have the cognitive capacity to evaluate the information and justify the rejection of any dissonant information.

Those with already low self-concept clarity, though, are more accepting of self-relevant feedback regardless of their cognitive capacity. This illustrates one of the difficulties of developing self-concept clarity if a person already has lower clarity. It appears that individuals with already lower clarity, which can be a result of less reliance on biased information search and stronger accuracy motives, struggle to improve their

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standing on this construct. Rather than be selective in the information they accept as self-descriptive in order to develop some coherence and certainty regarding their self-concepts, low clarity individuals endorse too much feedback about the self and are thus left with a variety of self-relevant information that is likely to contain contradictions and lead to less confidence and certainty in who they are.

Chapter 5: Study 4

Study 3 showed the importance of both motivation and ability for the process of using skepticism of new information to maintain self-concept clarity. However, a limitation of this study is that the personality profiles presented to participants do not actually reflect anything unique about the participants' self-concepts. This raises the question of what feedback high clarity participants are rejecting, a particularly important question given the universal nature of Barnum statements (Forer, 1949). Study 4 addresses this issue by presenting individuals with profiles containing feedback that confirms or contradicts actual measures of their existing self-concepts taken at an earlier time point.

The previous study showed that individuals with higher self-concept clarity were less accepting of a personality profile than those with lower clarity when they had full use of their cognitive resources. Arguably, this skepticism of self-relevant feedback allows those with higher clarity to maintain their confident, consistent, and stable sense of self. A significant interaction was thus predicted between chronic levels of self-concept clarity and profile condition on participants' ratings of the personality profiles. Specifically, high clarity participants in the current study were expected to be less accepting of the personality profile than their low clarity counterparts, but only when the information in the profile contradicted their existing self-concepts. When the information within the

personality profile was consistent with their existing self-concepts, high and low clarity participants were expected to be equally likely to endorse the profiles as effective and revealing of their personalities, as well as true of who they are.

Moreover, participants with higher self-concept clarity were expected to rate the discrepant profiles as less effective, revealing, and accurate than the profiles that were consistent with their existing self-concepts. In contrast, participants with low self-concept clarity were expected to show no significant difference in their ratings of how effective, revealing, and accurate the personality profiles were based on whether they were discrepant or consistent with their existing self-concepts.

<center>Method</center>

Participants. The present study consisted of two sessions. 102 participants (82 women, 16 men, 4 not indicated; M_{age} = 18.99, SD = 2.18) completed the first session of the study, and 71 (57 women, 13 men, 1 not indicated; M_{age} = 19.10, SD = 2.52) completed both sessions of the study.

Procedure. Participants completed this study in two sessions two to three weeks apart. In the first session, participants completed the self-concept clarity scale (PreSCC) and the Rosenberg self-esteem scale. They then provided self-ratings of their standing on several personality traits. Specifically, participants were presented with 30 bipolar trait pairings (e.g., outgoing-shy, selfless-selfish, reliable-unreliable, warm-cold, original-ordinary) and asked to provide self-ratings on each pair of personality traits on a 6-point scale ranging from *Extremely [outgoing]* to *Extremely [shy]* (see Appendix D). These trait ratings provided both a snapshot of each participant's current self-views as well as

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an indication of the extremity of those self-views. The response options for the trait-

ratings were designed such that participants would have to choose one of the bipolar traits

as more self-descriptive than the other; there was intentionally no midpoint on the scale.

As a result, participants could all be categorized as either *outgoing* or *shy*. In addition,

because these self-ratings were provided on a scale with multiple response options as

opposed to a forced-choice between two options, the responses include information about

the extremity of participants' self-views on these traits.

At least two weeks later participants completed the second session of the study.

During this session, participants first read a personality profile created from their session

1 self-ratings (see Appendix E). Importantly, these profiles were manipulated to be either

consistent with the session 1 self-ratings, or discrepant with the session 1 ratings.

Participants in the consistent condition read a profile that affirmed all of the ratings they

had previously provided. For example, a participant who rated herself as outgoing,

selfish, and reliable received a personality profile indicating that she was outgoing,

selfish, and reliable. In contrast, those in the discrepant condition read a profile that

contradicted each of the ratings they had provided during session 1. Thus, a participant

in the discrepant condition who rated herself as outgoing, selfish, and reliable received a

personality profile indicating that she was shy, selfless, and unreliable.

The personality profiles were written in the same form as those provided in Study

4. Rather than present a list of single trait-words, the profiles contained 14 sentences that

reflected the participant's individual self-ratings. In order to avoid overwhelming

participants with too much feedback, and to avoid having the session 2 personality

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profiles too directly reflect the session 1 bipolar traits, a subset of 18 traits was chosen to comprise the personality profiles. 14 of these traits were chosen because they were the traits with the greatest balance of participants choosing between the two bipolar traits. The remaining 4 traits were chosen based on experimenter judgment regarding what traits could be presented in session 2 in a way that would minimize the potential for reactance from participants, as well as what traits best leant themselves to appropriate phrasing for the personality profile.

After reading the profiles, all participants were asked to rate the profiles for how effective and revealing they were overall, as well as how accurate each individual statement in the profile was. Participants provided these ratings using the same items and anchors used in study 3. All participants then completed the self-concept clarity scale a second time to provide a post measure (PostSCC). Finally, participants were asked to recall as much of the personality profile as possible by listing any statements they could remember.

<div align="center">Results</div>

Preliminary Analyses. First, a correlational analysis was conducted on the variables of interest measured during the both sessions (Table 5). Extremity ratings were calculated by recoding participants' scale responses to indicate deviation from the midpoints of the scale. The scale used to assess participants' self-ratings on traits was a 6-point scale, ranging from 1 (*Extremely [outgoing]*) to 6 (*Extremely [shy]*). Values of 1 and 6 were recoded as a value of 2, values of 2 and 5 were recoded as a value of 1, and values of 3 and 4 were recoded as a value of 0. These new extremity values for each trait

rating were then summed to create an overall extremity score for each participant, with

higher values indicating more extreme responses.

Table 5. Means, Standard Deviations, and Correlations of Study 4 Variables

	Mean (SD)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) PreSCC	36.20 (9.05)	---										
(2) PreSE	44.36 (8.29)	.70**	---									
(3) PostSCC	37.29 (9.83)	.65**	.42**	---								
(4) PostSE	44.69 (8.05)	.62**	.83**	.54**	---							
(5) Extreme	23.58 (12.45)	.32**	.45**	.25*	.50*	---						
(6) Effective	2.82 (1.30)	.14	-.05	.12	-.01	-.04	---					
(7) Reveal	2.82 (1.13)	.08	-.06	.10	-.03	-.10	.89**	---				
(8) Accuracy	46.53 (13.07)	.03	-.08	.04	-.02	-.03	.84**	.83**	---			
(9) Cor. Rec.	4.55 (2.85)	-.13	-.06	-.07	.11	-.03	.12	.18	.31*	---		
(10) Inc. Rec.	.10 (.30)	.03	-.11	.08	-.04	.03	-.10	-.16	-.15	-.30	---	
(11) Irr. Rec.	.46 (.67)	-.16	-.24*	-.05	-.20	-.03	-.09	-.06	-.04	-.14	.47**	---

Note. SCC: Self-Concept Clarity Scale. *SE*: Rosenberg Self-Esteem Scale. *Extreme*: Extremity scores of bipolar-trait ratings. *Effective*: Rating of effectiveness of personality profile. *Reveal*: Rating of how revealing personality profile was. *Accuracy*: Summed ratings of self-descriptiveness of personality profile statements. *Cor. Rec.*: Number of correct recalls from personality profile. *Inc. Rec.*: Number of incorrect recalls from personality profile. *Irr. Rec.*: Number of Irrelevant recalls from personality profile. "*Pre*" refers to measures completed during session 1; "*Post*" refers to measures completed during session 2. **$p < .01$, *$p < .05$

Primary Analyses. Analysis of variance (ANOVA) revealed significant main effects of feedback condition on participants' ratings of how effective, $F(1, 66) = 78.27$, $p < .001$, revealing, $F(1, 66) = 69.87$, $p < .001$, and true, $F(1, 66) = 95.88$, $p < .001$, the personality profiles were. Moreover, ANCOVA showed that these results remained significant when self-esteem was included in the model (effective: $F(1, 65) = 76.77$, $p < .001$; revealing: $F(1, 65) = 68.44$, $p < .001$; true: $F(1, 65) = 95.95$, $p < .001$). When

participants read a consistent personality profile that affirmed their existing self-concepts, they rated the profile as more effective ($M = 3.72$ vs. 1.81), revealing ($M = 3.58$ vs. 1.97), and true of who they were ($M = 55.94$ vs. 35.94) than participants who read a discrepant profile that contradicted their self-concepts. ANOVA showed no significant main effect of feedback condition on participants' levels of post self-concept clarity, $F(1, 66) = .08$, $p = .78$ (ANCOVA with self-esteem: $F(1, 65) = .27$, $p = .61$).

Regression analyses yielded no main effects of PreSCC on ratings of how effective, revealing, or true the statements in the personality profiles were (effective: $b = .02$, $SE = .02$, $t(66) = 1.15$, $p = .25$; revealing: $b = .01$, $SE = .02$, $t(66) = .63$, $p = .53$; true: $b = .04$, $SE = .18$, $t(66) = .24$, $p = .81$). When self-esteem was included in the model, the effect of self-concept clarity scores on ratings of effectiveness did become significant, $b = .05$, $SE = .02$, $t(65) = 1.96$, $p = .05$. Neither of the other effects were changed by the inclusion of self-esteem (revealing: $b = .03$, $SE = .02$, $t(65) = 1.31$, $p = .20$; true: $b = .23$, $SE = .25$, $t(65) = .95$, $p = .34$).

To examine the primary study hypothesis, feedback condition, session 1self-concept clarity, and the interaction term were regressed onto each of the three personality profile ratings. Contrary to predictions, there was no significant interaction on how effective, $b = -.03$, $SE = .02$, $t(64) = -1.12$, $p = .27$, participants rated the personality profile. However, the interactions did reach marginal significance for ratings of how revealing, $b = -.04$, $SE = .02$, $t(64) = -1.79$, $p = .08$, and how true the profiles were, $b = -.39$, $SE = .24$, $t(64) = -1.63$, $p = .11$ (see Figure 6). These effects were unchanged when self-esteem was included as a covariate in the analyses (effective: $b = -.03$, $SE = .02$,

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$t(63) = -1.15$, $p = .26$; revealing: $b = -.04$, $SE = .02$, $t(63) = -1.80$, $p = .08$; true: $b = -.39$, $SE = .24$, $t(63) = -1.64$, $p = .11$).

Across all three interactions, individuals with higher self-concept clarity rated the consistent personality profiles as more effective, $b = .03$, $SE = .02$, $t(64) = 2.29$, $p < .05$, more revealing, $b = .03$, $SE = .01$, $t(64) = 2.04$, $p < .05$, and marginally more true of them, $b = .22$, $SE = .14$, $t(64) = 1.55$, $p = .13$, than those with lower self-concept clarity. There were no such differences in these ratings based on self-concept clarity among participants who read discrepant profiles (effective: $b = .01$, $SE = .02$, $t(64) = .34$, $p = .74$; revealing: $b = -.01$, $SE = .02$, $t(64) = -.70$, $p = .49$; true: $b = -.17$, $SE = .19$, $t(64) = -.87$, $p = .39$. When self-esteem was included as a covariate in these analyses, the marginal simple effect of SCC on ratings of how true the consistent profiles were became significant, $b = .36$, $SE = .18$, $t(63) = 2.05$, $p < .05$. None of the other simple effects were changed by the inclusion of the covariate.
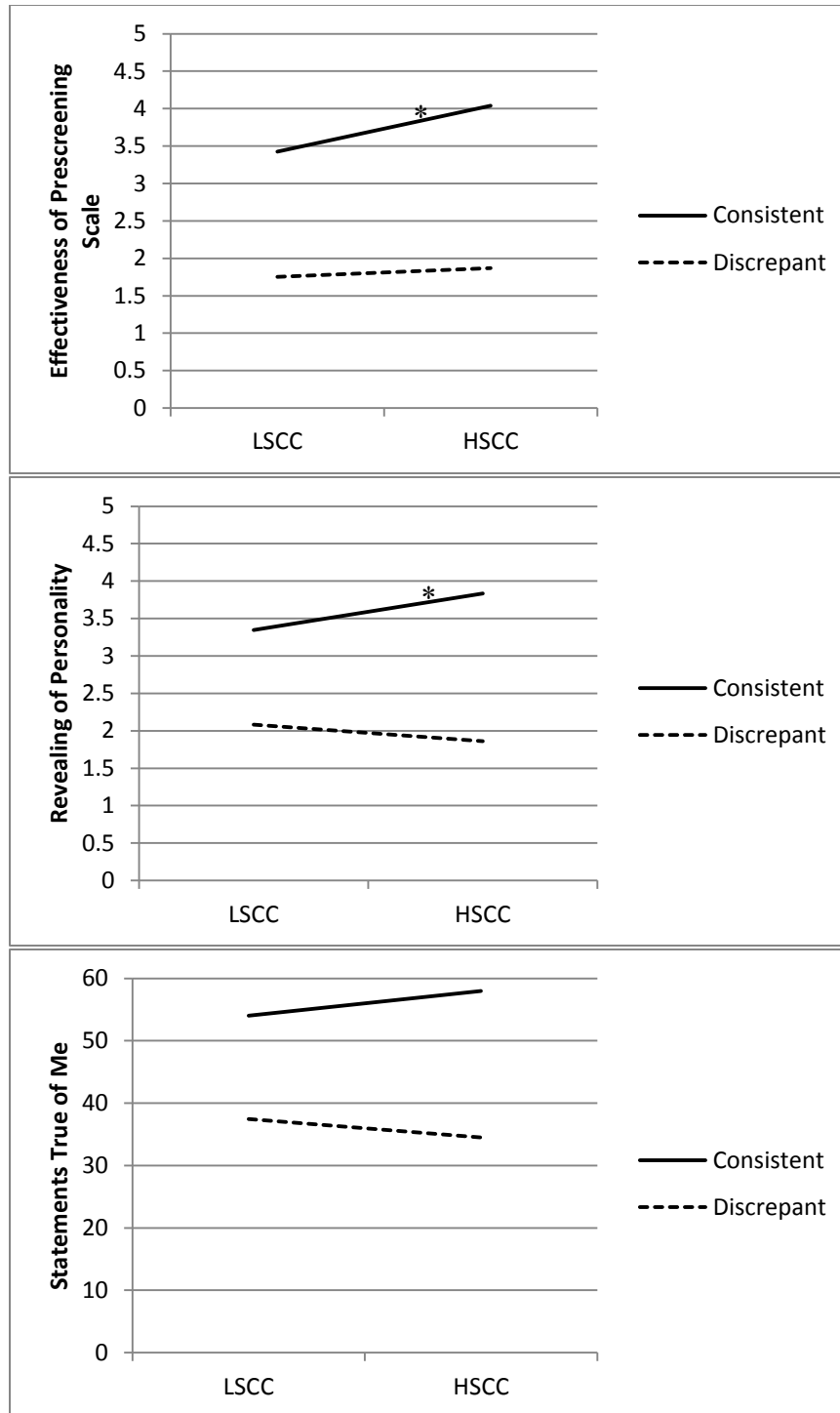
Figure 6. Personality profile ratings as a function of chronic self-concept clarity measured during prescreening and feedback type condition. *p < .05

Secondary Analyses. In addition to the above effects, analyses examined how the degree to which individuals endorsed the personality profiles influenced subsequent levels of self-concept clarity. Participants who rated a consistent profile as more effective, revealing, and true or a discrepant profile as less effective, revealing, and true were expected to report the highest levels of self-concept clarity at the end of the study. In contrast, those who rated a consistent profile as less effective, revealing, and true or a discrepant profile as more so were expected to report lower levels of clarity.

Three analyses were conducted, regressing each of the profile ratings (effective, revealing, true), the feedback condition, and their interaction terms on self-concept clarity scores measured at the end of the study. Significant interactions emerged for all three rating variables, effective: $b = -5.64$, $SE = 2.69$, $t(64) = -2.10$, $p < .05$ (with PreSE: $b = -3.62$, $SE = 1.67$, $t(63) = -1.41$, $p = .16$); revealing: $b = -9.29$, $SE = 3.01$, $t(64) = -3.09$, $p < .01$; true: $b = -.93$, $SE = .27$, $t(64) = -3.41$, $p < .01$ (see Figure 7). Participants who rated a consistent profile as more effective, more revealing, or more true reported higher clarity than those who rated a consistent profile as less effective ($b = 4.01$, $SE = 1.78$, $t(64) = 2.25$, $p < .05$), less revealing ($b = 4.68$, $SE = 1.80$, $t(64) = 2.60$, $p < .05$), or less true ($b = .44$, $SE = .18$, $t(64) = 2.38$, $p < .05$). In addition, those who rated a discrepant profile as less revealing or less true reported higher clarity than individuals who rated a discrepant profile as more revealing ($b = -4.61$, $SE = 2.41$, $t(64) = -1.91$, $p = .06$; with PreSE: $b = -2.66$, $SE = 2.37$, $t(63) = -1.12$, $p = .27$) or more true ($b = -.49$, $SE = .20$, $t(64) = -2.44$, $p < .05$; with PreSE: $b = -.34$, $SE = .20$, $t(63) = -1.74$, $p = .09$). While the direction of the simple effects for ratings of how effective the discrepant profile was were consistent with

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the other ratings, they did not reach statistical significance ($b = -1.63$, $SE = 2.01$, $t(64) = -.81$, $p = .42$). Including self-esteem as a covariate did reduce some of these effects to non-significant or marginally significant. The statistics for those effects are included following the statistics for the effect without the covariate.
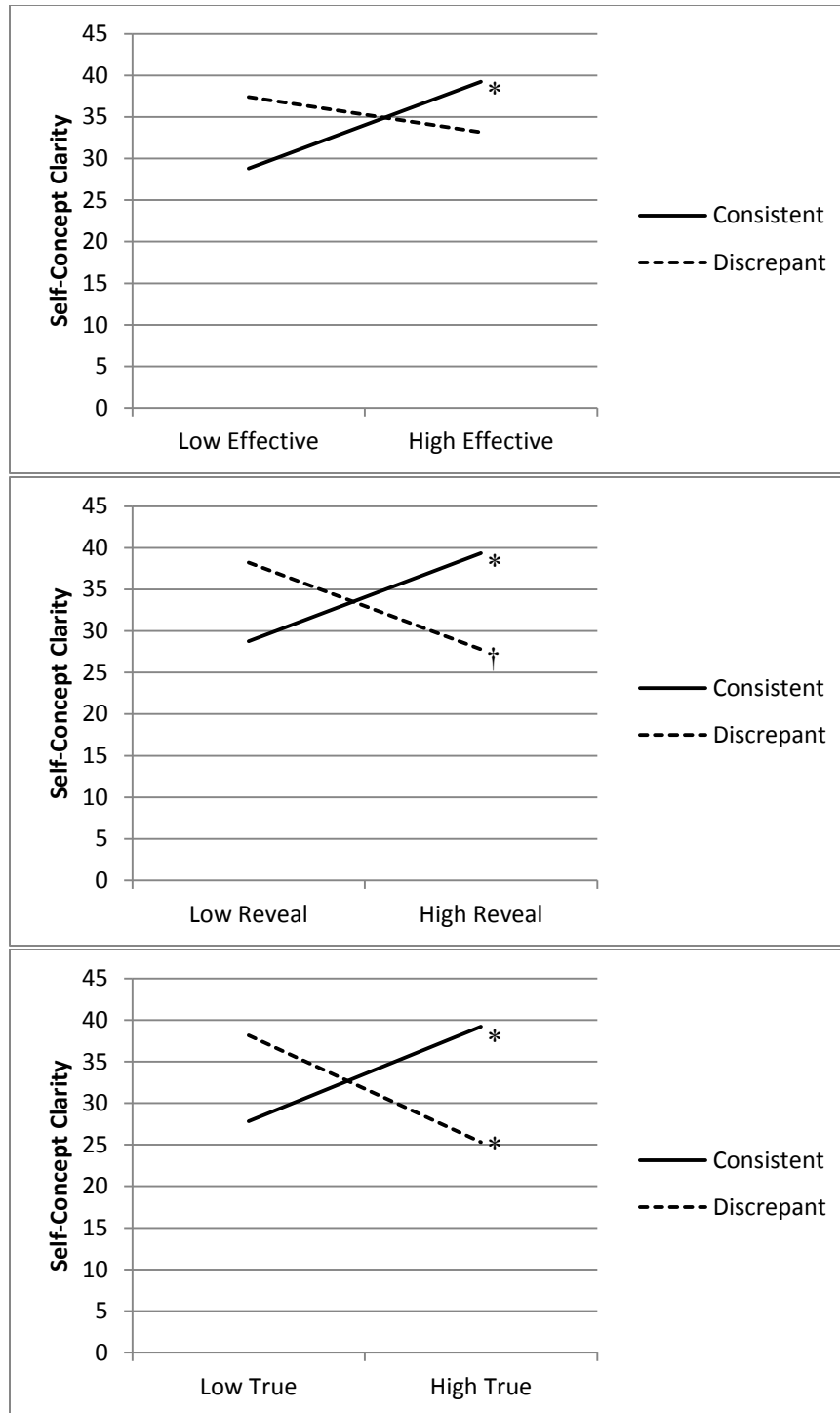
Figure 7. Self-concept clarity measured at the end of the study as a function of personality profile ratings and feedback type condition. *p < .05, †p < .10

Lastly, the information participants recalled from their personality profiles was examined. Because this analysis was exploratory, there were not strong predictions for the results. It did seem possible, though, that participants who received a consistent profile would recall more information than those who received a discrepant profile, especially if they were higher in chronic self-concept clarity. This would be consistent with the general proposition that higher levels of self-concept clarity are associated with greater use of bias and motivated reasoning, which can include motivated attention to information that verifies existing self-beliefs (Sanitioso, Kunda, & Fong, 1990; Shrauger, 1975). To analyze the recall data, the information participants recalled was compared to that contained in their personality profiles. This resulted in three categories for the recalled information: (1) Correct recalls (information recalled that was in the personality profile); (2) Incorrect recalls (information recalled that was the opposite of what was in the personality profile); and (3) Irrelevant recalls (information recalled that was not in the personality profile).

Overall, paired-samples t-tests showed there were far more correct recalls ($M = 4.55$, $SD = 2.84$) than either incorrect recalls ($M = .10$, $SD = .30$; $t(70) = 12.71$, $p < .01$) or irrelevant recalls ($M = .46$, $SD = .67$; $t(70) = 11.42$, $p < .01$). When comparing across feedback conditions, participants who read a consistent personality profile ($M = 5.19$, $SD = 2.59$) provided more correct recalls that those who read a discrepant profile ($M = 3.89$, $SD = 2.98$), $F(1, 69) = 3.90$, $p = .05$. There was some trend toward participants in the discrepant profile condition listing more incorrect recalls ($M = .14$, $SD = .36$) than those in the consistent profile condition ($M = .06$, $SD = .23$), but this difference was not

significant, $F(1, 69) = 1.51$, $p = .22$. Based on the means, however, there is reason to believe a floor effect may have made it impossible to uncover any statistically significant differences in the number of incorrect recalls. There was no significant difference in the number of irrelevant recalls based on feedback condition ($M = .38$, $SD = .55$ vs. $M = .54$, $SD = .78$ for consistent and discrepant profiles, respectively), $F(1, 69) = .93$, $p = .34$. There were no significant interactions of chronic levels of self-concept clarity and feedback condition predicting participants' recalls.

Discussion

The results of study 4 provide further insight into how individuals with high and low levels of self-concept clarity process new self-relevant information. In particular, these results show that high clarity individuals do not maintain their clarity by simply being skeptical of new feedback. Instead, those with more clarity in their self-concepts willingly accept self-relevant feedback, but only when that feedback is consistent with their existing self-views and affirms their self-concepts. In contrast, individuals with lower self-concept clarity are less endorsing of personality feedback that actually supports their self-concepts than those with higher clarity. By accepting new information that verifies what they already believe to be true, feedback that is consonant with their existing self-images, high clarity people are able to reinforce their self-concepts. On the other hand, the way in which low clarity individuals process new information concerning the self, particularly by hesitating to accept self-verifying feedback, perpetuates their already confused and unclear self-concepts. People with lower clarity seem to be less

able to identify consistent feedback about the self that would provide them with the basis for developing greater clarity in who they are.

However, the present results provide no evidence that individuals with higher clarity are more skeptical of discrepant information that directly contradicts their self-concepts than those with lower clarity. All participants were equally likely to rate the discrepant profile as ineffective at revealing and not at all descriptive of who they are, regardless of levels of chronic self-concept clarity. While this is inconsistent with the predictions, the effects that did emerge are still consistent with the overall process proposed as a means of maintaining a person's self-concept clarity. Specifically, there was a difference in the degree to which low and high clarity individuals endorsed self-consistent feedback over discrepant feedback. While those with lower clarity may have been just as rejecting of discrepant feedback as those with higher clarity, they were less inclined to accept information that would confirm their self-concepts. By failing to recognize and incorporate self-concept consistent feedback, people with lower clarity are missing an opportunity to verify their self-concepts and build their self-concept clarity.

This missed opportunity becomes particularly meaningful and consequential when considered in conjunction with the results illustrating downstream consequences for later levels of clarity. The secondary analyses show that individuals who are able to accurately identify and endorse consistent and reject discrepant self-relevant feedback report the highest levels of clarity. Thus, by being less accepting of the consistent feedback, individuals with lower clarity interfere with their development of self-concept clarity and the positive well-being associated with the construct (e.g., Bigler, Neimeyer,

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& Brown, 2001; Campbell et al., 1996; Campbell, Assanand, & Paula, 2003; Constantino, Wilson, Horowitz, & Pinel, 2006; Guerrettaz, Chang, von Hippel, Carroll, & Arkin, 2014; Lewandowski, Nardone, & Raines, 2009).

Additional secondary analyses also provided evidence that all participants were quite accurate in their recalling of the information included in their personality profiles. Participants recalled more correct than incorrect or irrelevant information, regardless of levels of clarity or whether the feedback received was consistent or discrepant with their self-concepts. There was some evidence suggesting that, despite this primarily accurate recall, participants were also motivated in their recall to some degree. Participants accurately recalled more information that actually was presented in their personality profiles when those profiles were consistent with, rather than discrepant with, their self-concepts. Moreover, there was a non-significant trend for participants to recall more information that was directly opposite of that provided in their profiles if those profiles included information discrepant with, rather than consistent with, their actual self-concepts. Taken together, this suggests that participants will try to encode and remember information that confirms and avoid and forget information that contradicts their self-concepts.

When comparing the results of studies 3 and 4, the relationship between chronic levels of clarity and the endorsement or rejection of feedback about one's personality seems to depend on the nature of the feedback. In study 3, the feedback consisted of vague, generic statements that are explicitly designed to apply to anyone, and everyone. In contrast, the feedback provided to participants in study 4 was very specific to each

participant. Moreover, the feedback in the present study was very direct and unambiguous. These differences and the results of both studies suggest that lower clarity individuals are only less skeptical of feedback when it is ambiguous and may (or may not) apply to the self. When feedback clearly and unambiguously contradicts one's self-concept, those with relatively unclear self-concepts are able to reject it to the same degree as those with clearer self-concepts. It is possible that individuals with higher self-concept clarity are only willing to endorse feedback that directly and unambiguously affirms their existing self-views. Any feedback that is contradictory or vague, and thus not explicitly verifying, may pose a threat to these individuals' already clear self-concepts, and thus lead to less endorsement. Those with lower clarity, on the other hand, appear to accept most feedback about the self as self-descriptive, unless that feedback is so obviously and strongly contradictory that it contains no semblance of their actual self-concepts.

Chapter 6: General Discussion

The present research offers insight into the processes that support the development and maintenance of self-concept clarity. The first three studies provide compelling evidence of a strong, and perhaps cyclical, relationship between the use of biased information search procedures, motivated reasoning, directional goals, and greater clarity in one's self-concept. Across all three studies there is support for the hypothesis that biased search for coherent self-relevant information can contribute to higher self-concept clarity, and that individuals with higher clarity are in turn more likely to incorporate such bias when defining their self-concepts.

Given the vague description of the novel trait used in the first two studies, it is reasonable to suggest that high clarity individuals were motivated to conclude they were not ethosien in order to avoid having to revise their self-concepts, an act that may threaten their clarity (Pelham, 1991; McGregor, Zanna, Holmes, & Spencer, 2001). The results of study 2 support this interpretation, showing that even when higher clarity participants were encouraged by accuracy motives during their information search, they were less willing to endorse the feedback about ethosienism as self-descriptive. However, when ethosienism was explicitly presented as a desirable trait, participants with higher clarity did view themselves as more ethosien. These results suggest that people with higher levels of self-concept clarity will approach new feedback about the self with

skepticism and unwillingness to revise their self-concepts unless that feedback includes information that is highly desirable and would reflect only positively on the self. In contrast, those with lower clarity do not rely on such motivated reasoning when seeking out and processing feedback about who they are. Rather, studies 1a and 1b show that lower clarity individuals seem to consistently approach information search tasks with greater balance, which study 2 suggests can contribute to further low self-concept clarity. Together, these results provide evidence that motivated, biased reasoning plays an important role in how people arrive at and sustain different levels of self-concept clarity.

Studies 3 and 4 extend these results, building on the initial evidence that people with greater clarity are more skeptical of new self-relevant information, choosing carefully what they attend to and incorporate into their self-concepts. Study 3 offers a conceptual replication of this finding, while also addressing the importance of ability to carry out the motivation to preserve one's self-concept and self-concept clarity. Participants with greater clarity rated a personality profile as less effective and revealing of their personalities as well as less true of them compared to those with lower clarity. Importantly, this effect occurred only under conditions that permitted participants to carefully consider, and likely discount and counter argue, the feedback. Under cognitive load conditions, clear and unclear participants were equally likely to rate the personality profile as effective, revealing, and true of who they are. Clear individuals are hesitant to revise their self-concepts, and will avoid doing so when their ability to dismiss new information is intact. In contrast, those with lower clarity are less discerning of feedback about who they are and are more accepting of new information, regardless of available

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cognitive resources. As a result, clear individuals reinforce their clear self-concepts, while unclear individuals reinforce their unclear self-concepts.

Importantly, the skepticism of feedback concerning the self seen among those with higher clarity only occurs when the feedback does not explicitly verify their existing self-beliefs. In study 4 high clarity individuals were only dismissive of discrepant information. In fact, both low and high clarity participants were more accepting of self-concept consistent information than discrepant feedback. Still, the ability to distinguish between consistent and discrepant feedback appeared to be somewhat stronger among those with higher clarity. Participants with higher clarity were more likely to endorse a self-concept consistent profile as self-descriptive than those with lower clarity. Study 4 also clearly demonstrated that people who are able to accurately recognize whether feedback about the self confirms or contradicts their self-concepts experience the highest levels of self-concept clarity. It seems that one process reinforcing a person's high self-concept clarity is the ability to distinguish between feedback that affirms versus contradicts the self-concept, and to reject any feedback that is not clearly and unambiguously consistent.

Implications

The present research has important implications for the self-concept clarity literature as it offers a much needed insight into at least one source of self-concept clarity. Considerable research has investigated the consequences of self-concept clarity, particularly for intrapsychic and interpersonal well-being. Self-concept clarity is associated with lower levels of depression, anxiety, perceived stress, loneliness, and

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rumination (Bigler, Niemeyer, & Brown, 2001; Campbell et al., 1996; Constantino, Wilson, Horowitz, & Pinel, 2006; Valkenburg & Peter, 2008), greater contentment and sense of purpose in life (Bigler, Niemeyer, & Brown, 2001), and higher levels and stability of self-esteem (Campbell et al., 1996; De Cremer & Sedikides, 2005). In addition, individuals with higher levels of clarity tend to have better romantic relationships (Lewandowski, Nardone, & Raines, 2009) and report experiencing less aggression, anger, and hostility towards others (von Collani & Werner, 2005). Higher levels of self-concept clarity can also promote the persistence of high self-regard when negative aspects of the self-concept are made salient (Guerrettaz, Chang, von Hippel, Carroll, & Arkin, 2014).

Despite the benefits of self-concept clarity, however, surprisingly little is known about its antecedents. It has been suggested that the development of clarity is a social process, and selective attention to primarily positive social cues in the environment contributes to higher self-concept clarity (Campbell & Lavallee, 1993). Unfortunately, the difficulty with this path to clarity is that it conflates self-concept clarity and self-esteem. Other research, though, has provided somewhat more direct evidence for the influence of social factors on levels of clarity. Social rejection, both in general for those who are highly rejection sensitive (Ayduk, Gyurak, & Luerssen, 2009) and in the form of a romantic breakup (Slotter, Gardner, & Finkel, 2010), leads to decreases in self-concept clarity. Holding opinions that are less popular, and thus more informative of a person's unique characteristics, also contributes to higher levels of clarity (Morrison & Wheeler, 2010). Together the current literature suggests that self-concept clarity follows from

selective attention to positive self-feedback, social belonging and relationship stability, and experiences that highlight one's uniqueness.

The results of the present research, however, extend our understanding of the sources of clarity by considering the consequences of how people search for and process self-relevant information more generally. The studies included here present participants with opportunities to define their self-concepts with regard to a novel trait lacking any known valence, and to re-evaluate their current self-concepts based on feedback that combines both more and less desirable qualities. Thus, the results offer a first step toward understanding how the processes people use to construct and revise their self-concepts can lead to, and help maintain, higher or lower levels of clarity more independent of the valence of the feedback. This contribution is particularly important given the concerns in the field about the overlap between self-esteem and self-concept clarity.

Limitations and Future Directions

A notable limitation of the present research is the susceptibility of some effects to the inclusion of self-esteem as a covariate in the analyses. Illustrating the effects related to self-concept clarity above and beyond the association between clarity and self-esteem is necessary to determine the nature of clarity independent of self-esteem. The present results that depend on the inclusion (or not) of self-esteem in the analyses should be interpreted with appropriate caution. It is possible that the present studies were underpowered, a consequence of recruiting only participants who had completed prescreening measures. This requirement for participation slows down data collection,

limiting the number of participants that can complete any given study in a single semester. Nonetheless, because this research presents a relatively unexplored approach to understanding the factors that contribute to self-concept clarity, there is value in taking seriously the present results. Moreover, this may prove less of a challenge in the future now that methods and paradigms have been established to address the research questions of interest.

Moreover, this limitation points to the importance of further research examining the relationship between different means of information search and information processing and self-concept clarity. The hypothesis that various forms of motivation and bias when seeking out and responding to self-relevant information can promote higher levels of self-concept clarity is not only reflected in the data herein, but is also consistent with arguments already found in the literature (e.g, Butzer & Kuiper, 2006; Campbell & Lavallee, 1993; Csank & Conway, 2004; Markus, 1977; Stinson, Wood, & Doxey, 2008). Future research may continue to articulate and refine this hypothesis, especially by including less obtrusive measures of self-concept clarity that do not rely on self-report measures. The present research was designed with the intention of assessing the antecedents of self-concept clarity beyond the influence of positive and negative self-knowledge. Research illustrating that the correlation between self-esteem and self-concept clarity is weaker when clarity is measured using non-self-report methods (Campbell, 1990) suggests future investigations should include tasks that directly capture the confidence, consistency, and stability components of clarity. Methods that attempt to examine the actual structure of the self-concept, such as me/not me tasks which have

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already been used in the literature, may provide a more complete understanding of how bias influences the organization of the self-concept independent of the content.

An additional limitation of the present research is simply that this research reflects the beginning stages of a program intended to examine the antecedents of self-concept clarity. As a result, there is ample room for future investigation. The present methods are interesting because they tap into the ongoing process whereby individuals seek out information relevant to their self-concepts. Specifically, this method uses the number of switches participants make to capture their information search behaviors. This does not, however, directly speak to what prompts people to make switches. The current discussion proposes that lower clarity participants make more switches because they are seeking a more extensive amount of information in order to better understand who they are, while those with higher clarity make fewer switches in order to protect their existing self-concept coherence. Future research could address this by manipulating the feedback participants receive during the information search task, and analyzing whether different feedback content predicts switches for high and low clarity individuals.

For instance, a design in which each type of feedback (ethosien and non-ethosien) is internally consistent may replicate the current results. Those with higher clarity would continue to make fewer switches in order to expose themselves to primarily consistent self-relevant feedback. Those with lower clarity, in contrast, would make more switches in an effort to make a more accurate determination about their self-concepts. However, presenting participants with feedback that is internally inconsistent might lead to the opposite pattern of results. Under such circumstances, those with higher clarity should

make more switches as they attempt to find coherent feedback. Individuals with lower clarity should, conversely, make fewer switches because the inconsistency of the information matches their underlying information search goals. Such methods would allow a further test of the proposed mechanism, showing that the information search behaviors are a result of a desire for particular arrays of information rather than simply a behavioral tendency to switch or not.

One of the key conclusions from the present research is that an important component of self-concept clarity is the metacognitive belief that a person knows the self, and how this belief is created through motivated reasoning and the means by which a person defines and revises the self-concept. Self-concept clarity need not reflect a self-concept that is well-understood, articulated, and formed through thoughtful self-reflection. Rather, clear self-concepts may often be those that are understood and articulated in a more superficial sense, with attention only to those self-concept aspects that can be developed and maintained with confidence, consistency, and stability (e.g., Guerrettaz & Arkin, 2015). It would be very useful for future research to examine the underlying self-concept organization of those with different levels of self-concept clarity. Are the self-concepts of those with higher clarity more organized, but also more limited in the content than those with lower self-concept clarity, suggesting that self-concept clarity exists at the structural as well as the metacognitive level? Or, are there no discernible differences in the how the self-concepts are organized based on levels of clarity, suggesting that the metacognitive aspects of clarity are relatively independent of the underlying structure? Such research would extend the literature both by examining

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the relationship between these metacognitive and structural components of self-concept clarity, as well as providing new methods to assess self-concept clarity that would complement the existing self-report measure.

Conclusion

The different approaches to self-concept definition and revision exhibited by high and low clarity individuals across the present studies have important implications for what it means to have clarity in and know one's self. In particular, the results suggest that individuals can acquire clarity via selective and biased information search for coherent information about the self. They can then maintain clarity through further biased information search and motivated reasoning, and skepticism in the face of new self-relevant information. Those with lower clarity, on the other hand, appear to rely on an equal-opportunity information search and seek out a variety of self-relevant information. These individuals are also less likely to dismiss new feedback when that feedback is vague and ambiguous, exposing themselves to additional varying information that would further disrupt the development of a clear, confident, and coherent self-concept. Ironically, but consistent with earlier findings that clarity is negatively correlated with the self-reflection subscale of the Private Self-Consciousness Scale (Campbell et al. 1996), unclear people are exactly the group that makes the greatest effort to know who they are and may in fact have a more complete and complex self-concept. In contrast, higher self-concept clarity reflects a biased search for self-knowledge and skepticism of new self-relevant information rather than a fully understood self.

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Appendix A: Self-concept Clarity Scale (SCC)

1. My beliefs about myself often conflict with one another. (R)

2. On one day I might have one opinion of myself and on another day I might have a different opinion. (R)

3. I spend a lot of time wondering about what kind of person I really am. (R)

4. Sometimes I feel that I am not the person that I appear to be. (R)

5. When I think about the kind of person I have been in the past, I'm not sure what I was really like. (R)

6. I seldom experience conflict between the different aspects of my personality.

7. Sometimes I think I know other people better than I know myself. (R)

8. My beliefs about myself seem to change very frequently. (R)

9. If I were asked to describe my personality, my description might end up being different from one day to another day. (R)

10. Even if I wanted to, I don't think I could tell someone what I'm really like. (R)

11. In general, I have a clear sense of who I am and what I am.

12. It is often hard for me to make up my mind about things because I really don't know what I want. (R)

Appendix B: Rosenberg Self-esteem Scale (SE)

1. I feel that I am a person of worth, at least on an equal basis with others.

2. I feel that I have a number of good qualities.

3. All in all, I am inclined to feel that I am a failure. (R)

4. I am able to do things as well as most other people.

5. I feel that I do not have much to be proud of. (R)

6. I take a positive attitude toward myself.

7. On the whole, I am satisfied with myself.

8. I wish I could have more respect for myself. (R)

9. I certainly feel useless at times. (R)

10. At times I think that I am no good at all. (R)

Appendix C: Barnum Statements

1. You have a great need for other people to like and admire you.

2. You have a tendency to be critical of yourself.

3. You have a great deal of unused capacity which you have not turned to your advantage.

4. While you have some personality weaknesses, you are generally able to compensate for them.

5. Disciplined and self-controlled outside, you tend to be worrisome and insecure inside.

6. At times you have serious doubts as to whether you have made the right decision or done the right thing.

7. You prefer a certain amount of change and variety and become dissatisfied when hemmed in by restrictions and limitations.

8. You pride yourself as an independent thinker and do not accept others' statements without satisfactory proof.

9. You have found it unwise to be too frank in revealing yourself to others.

10. At times you are extroverted, affable, sociable, while at other times you are introverted, wary, reserved.

11. Some of your aspirations tend to be pretty unrealistic.

12. Security is one of your major goals in life.

Appendix D: Bipolar-Trait Ratings

For each set of traits below indicate which better describes and reflects who you are in general.
If the trait on the left-hand side best describes you, choose one of the first three bubbles closest to the left.
If the trait on the right-hand side best describes you, choose one of the last three bubbles closest to the right.

If you think the trait describes you extremely well, choose a bubble on the edge, right next to the trait.
If you think the trait describes you only slightly, choose a bubble closer to the middle.

1.   Extremely Sad – Extremely Happy
2.   Extremely Dissatisfied – Extremely Satisfied
3.   Extremely Hopeless – Extremely Hopeful
4.   Extremely Pessimistic – Extremely Optimistic
5.   Extremely Calm – Extremely Excited
6.   Extremely Relaxed – Extremely Energetic
7.   Extremely Boastful – Extremely Humble
8.   Extremely Selfish – Extremely Selfless
9.   Extremely Angry – Extremely Calm
10.   Extremely Thankless – Extremely Thankful
11.   Extremely Shamed – Extremely Proud
12.   Extremely Incompetent – Extremely Competent
13.   Extremely Doubtful – Extremely Confident
14.   Extremely Unsafe – Extremely Safe
15.   Extremely Insecure – Extremely Secure
16.   Extremely Worried – Extremely Carefree
17.   Extremely Fearful – Extremely Fearless
18.   Extremely Shy – Extremely Outgoing
19.   Extremely Unreliable – Extremely Reliable
20.   Extremely Cold – Extremely Warm
21.   Extremely Ordinary – Extremely Original
22.   Extremely Cautious – Extremely Daring
23.   Extremely Dull – Extremely Imaginative

24.   Extremely Careless – Extremely Careful
25.   Extremely Unsocial – Extremely Social
26.   Extremely Passive – Extremely Active
27.   Extremely Unforgiving – Extremely Forgiving
28.   Extremely Callous – Extremely Sympathetic
29.   Extremely Anxious – Extremely Relaxed
30.   Extremely Uncomfortable – Extremely Comfortable

Appendix E: Sample Personality Profiles (Study 4)

Sample 1

Based on your earlier responses from Part 1 of this study, we have created the following personality profile for you:

You tend to view the world with optimism.
Others often see you as a relaxed and calm person.
You tend to be more concerned with the needs of others than your own.
You are generally more of a carefree person.
You find it easy to stay calm in situations and are slow to become angry.
You tend to see yourself as a secure person.
You are the kind of person who is generally reliable.
In most situations you are a confident person who is relaxed.
Overall, you are fairly original.
You prefer to be daring in life.
In most situations you are quite social and outgoing.
In general, you are a sympathetic person who is forgiving of others.
You are an imaginative type of person who usually prefers new experiences.
In general, you are a fearless person.

Sample 2

Based on your earlier responses from Part 1 of this study, we have created the following personality profile for you:

You tend to view the world with pessimism.
Others often see you as a relaxed and calm person.
You tend to be more concerned with your own needs than the needs of others.
You are generally more of a worried person.
You find it difficult to stay calm in situations and are quick to become angry.
You tend to see yourself as an insecure person.
You are the kind of person who is generally unreliable.
In most situations you are a doubtful person who is anxious.
Overall, you are fairly original.
You prefer to be cautious in life.
In most situations you are quite unsocial and shy.
In general, you are a callous person who is unforgiving of others.
You are an imaginative type of person who usually prefers new experiences.
In general, you are a fearful person.