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## When consistency is a virtue: effect of need for closure on preference for consistency

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## Abstract

Two studies were conducted to verify whether individuals who are high on need for cognitive closure (NFC) have a greater preference for consistency. NFC represents a personal aversion toward uncertainty that induces a desire for certain knowledge, order, and structure. As suggested by a recent theory and research on cognitive consistency, individuals who are high on NFC are uncomfortable with inconsistent information that can undermine their desire for certain knowledge. On the other hand, these individuals should prefer consistent information that can preserve epistemic certainty. Through two correlational studies, the present work confirms this assumption, identifying a high desire for consistency in individuals with high NFC.

**Keywords:** need for closure; epistemic motivation; cognitive consistency; preference for consistency

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## Introduction

The way people feel about consistent or inconsistent information can differ according to their desire for epistemic certainty. A recent model (Kruglanski, Jasko, Milyavsky, Chernikova, Webber, Pierro, & Di Santo, 2018a, 2018b) has suggested that consistency is not desired as such (e.g., Festinger, 1962), but that it can be under certain circumstances. For instance, if the inconsistent information (e.g., with prior expectations and knowledge) undermines certainty on a topic of interest, such information will be particularly disliked by specific people (i.e., those with a high desire for certainty). The desire for certainty is well captured by the Need for Closure construct (hereafter: NFC; Kruglanski, 1990). NFC has been defined as the desire for certain, secure and stable knowledge, as well as the aversion and discomfort in the face of ambiguity. A considerable amount of NFC-focused research (for a review, see Roets, Kruglanski, Kossowska, Pierro, & Hong, 2015) showed that NFC—as a chronic individual difference or an induced state variable—prompts activities and tendencies that affect information processing for knowledge formation. These “gatekeeping” tendencies serve to achieve closure and to escape its aversive absence, quickly seizing on information that promises to bring about closure (i.e., *seizing* activity) and maintaining closure by holding onto or freezing on the acquired knowledge (i.e., *freezing* activity). Importantly, high NFC people are likely to maintain their position and beliefs and are reluctant to change them, as NFC’s *freezing* activity strengthens the consolidation of prior knowledge and immunizes it against contradictory information (Roets et al., 2015).

In this vein, consistency between prior knowledge and new information would be particularly desirable among high NFC people as it can help preserve epistemic certainty. Relatedly, recent research (Di Santo, Chernikova, Kruglanski, & Pierro, 2020) found that people with low and high induced NFC presented different affective responses when they encountered an inconsistent outcome. People with high induced NFC appeared to be bothered by an inconsistent outcome regardless of whether its value was positive or negative, whereas people with low induced NFC had affective responses depending on the positive or negative value of the outcome. Such findings provide support to Kruglanski et al.’s (2018a) suggestions. People would not necessarily prefer consistency with their expectations, but it appears to be true for high NFC people. There is not yet empirical evidence, however, that chronic NFC is associated with a general desire for consistency. The present work seeks to provide further information on this aspect.

The desire for consistency with existing knowledge is captured by the Preference for Consistency construct (PFC; Cialdini, Trost, & Newsom, 1995), which was defined as the “desire to be consistent with one’s own responses, to appear consistent to others and that others be consistent” (p. 319). The PFC captures people’s desire for stability, predictability and reliability in themselves and others. Three domains are covered (i.e., internal consistency, public consistency, and others’ consistency) but a single index may be used given the high correlations among the subscales (Cialdini et al., 1995). As the authors themselves have argued, the tendency to be consistent which is captured by the PFC mainly refers to “existing information, not information of any sort” (p. 325).

Although it can be presumed that individuals with a high NFC generally want that new information is consistent with existing beliefs (e.g., previous knowledge), two studies were conducted to empirically verify this relationship. Study 1 aimed to investigate whether chronic NFC was associated with a greater preference for consistency. Study 2 aimed to conceptually replicate the findings from Study 1 controlling for possible effects of self-worth. Although previously no significant relationships have been found between self-esteem and PFC (Cialdini et al., 1995), extensive research on self-verification (e.g., Swann, 2012) has shown that self-esteem levels influence people’s responses to self-verifying information that is consistent or inconsistent with their self-view. Kruglanski and colleagues (2018a) also suggested that self-verification effects could be accounted for by the desire for certain knowledge (i.e., NFC) on a topic of high interest (i.e., self-concept). Indeed, self-relevant information that is consistent with one’s self-view is particularly desirable among people with high NFC (Vaughan-Johnston & Jacobson, 2020). Therefore, to verify that high NFC people have a general desire for consistent information unrelated to their self-esteem, the latter was controlled in Study 2.

## Study 1

### Method

*Participants & Design.* A *priori* power analysis was carried out with G\*Power 3.1 (Faul et al., 2009), which suggested a sample size of 176 participants, assuming a moderate effect size with a power of .95. Participants in this study were 205 (166 females) students at Sapienza University of Rome ( $M_{age} = 24.33$ ;  $SD_{age} = 3.84$ ). Participants responded to paper-and-pencil questionnaires. They were informed about the study and consented to the use of their anonymised data. The questionnaire included measures of need for closure and preference for consistency. Participants were also asked to indicate their gender and age.

*Need for closure.* Participants first responded to the Italian version of the Revised Need for Closure Scale (Pierro & Kruglanski, 2005), a monofactorial 14-item scale designed to assess stable individual differences in NFC incorporating both “seizing” (e.g., “In case of uncertainty, I prefer to make an immediate decision, whatever it may be”) and “freezing” (e.g., “Any solution to a problem is better than remaining in a state of uncertainty”) tendencies. Participants responded to the items on 6-point scales ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite NFC score was computed by averaging responses to each item. Previous studies have demonstrated that the Italian version of the NFC scale is valid and reliable (Pierro & Kruglanski, 2005). In the present sample, the scale’s reliability was adequate ( $\alpha = .70$ ).

*Preference for consistency.* After completing the NFC scale, participants filled out the 18-item Preference For Consistency (PFC) scale, that measures individuals’ desire to *be* consistent, to be *perceived* as consistent, and for *others* to be consistent (Cialdini et al., 1995) on 9-point scales ranging from 1 (*strongly disagree*) to 9 (*strongly agree*). The scale has been translated

into Italian using Back-Translation. A composite PFC score was computed by averaging responses to each item. Previous research has shown that the PFC scale has good psychometric properties (see Cialdini et al., 1995). In the present sample, reliability of the PFC scale was high ( $\alpha = .92$ ).

## Results

Data analysis was performed using the statistical software package SPSS version 24. Descriptive statistics and correlations between variables are presented on Table 1.

Tab. 1. Bivariate Correlations and Descriptive Statistics, Study 1

Variables	1	2	3	4	<i>M (SD)</i>
1. Gender	-				-
2. Age	-.114	-			24.33(3.84)
3. NFC	.043	.107	(.70)		3.02(0.56)
4. PFC	-.028	.000	.304***	(.92)	5.48(1.29)

Note: \*\*\* $p < .001$ . In bracket (Cronbach's alpha).  $N = 205$ . NFC = Need for Closure, PFC = Preference for Consistency

No significant correlations were found between control variables (i.e., gender and age) and the other variables. As expected, NFC was positively and significantly correlated with PFC (Table 1). Moreover, predictions regarding the effect of NFC on PFC was tested by means of a multiple regression analysis. In the multiple regression analysis, gender (coded as Male = 0 and Female = 1), age, and NFC were entered. Results are presented on Table 2. As can be seen, NFC had a positive and significant effect on PFC ( $\beta = .31$ ,  $p < .001$ ).

Tab. 2. PFC regressed on NFC and covariates, Study 1

	PFC				
	$\beta$	B	95 % CI	t	P
Gender	-.05	-.15	-.59, .29	-.676	.500
Age	-.04	-.01	-.06, .03	-.570	.569
NFC	.31	.72	.41, 1.03	4.582	<.001
	R <sup>2</sup> = .09				

Note:  $N = 205$ , (Gender code: Male = 0, Female = 1) NFC = Need for Closure

## Study 2

### Method

*Participants & Design.* A priori power analysis with G\*Power (Faul et al., 2009) suggested a sample size of 191 participants, assuming a moderate effect size with a power of .95. Participants in Study 2 were 235 (163 females) students at Sapienza University of Rome ( $M_{age} = 24.31$ ;  $SD_{age} = 2.63$ ). Participants were informed about the study and consented to

the use of their anonymised data. They responded to paper-and-pencil questionnaires with demographic questions and the same measures of Need for Closure ( $\alpha = .74$ ) and Preference for Consistency ( $\alpha = .92$ ) as in Study 1.

*Self-esteem.* The Rosenberg's (1965) 10-item scale was used to measure individuals' current levels of self-esteem. Participants had to respond to descriptive statements focused on self-worth and general self-satisfaction (e.g., "On the whole, I am satisfied with myself"; "I take a positive attitude toward myself"). The items were rated on a 6-point scale ranging from 1 (*it doesn't describe me at all*) to 6 (*it describes me perfectly*). Higher scores indicate greater self-esteem. The internal consistency of the scale in the present study was satisfactory ( $\alpha = .89$ ).

## Results

Descriptive statistics and correlations between variables are presented on Table 3.

Tab. 3. Bivariate Correlations and Descriptive Statistics, Study 2

Variables	1	2	3	4	5	<i>M (SD)</i>
1. Gender	-					-
2. Age	-.066	-				24.31(2.63)
3. Self esteem	-.001	.016	(.89)			4.59(0.84)
4. NFC	-.094	-.036	-.080	(.74)		3.16(0.61)
5. PFC	.135*	-.062	-.071	.400***	(.92)	5.55(1.33)

Note: \* $p < .05$  \*\*\* $p < .001$ . In bracket (Cronbach's alpha).  $N = 235$ . NFC = Need for Closure, PFC = Preference for Consistency

As in Study 1, NFC was positively correlated with PFC (Table 3). Gender was also moderately related to preference for consistency. Furthermore, the effect of NFC on PFC was tested by means of a multiple regression analysis. Results are summarized in Table 4. As can be seen, gender has a positive and significant effect on PFC ( $\beta = .17$ ,  $p = .004$ ), whereas self-esteem had no significant effect on PFC ( $\beta = -.04$ ,  $p = .527$ ). NFC confirmed to have a positive and significant effect on PFC ( $\beta = .41$ ,  $p < .001$ ), controlling for gender, age and self-esteem.

Tab. 4. PFC regressed on NFC and covariates, Study 2

	PFC				
	$\beta$	B	95 % CI	t	P
Gender	.17	.49	.16, .83	2.884	.004
Age	-.04	-.02	-.08, .04	-.600	.549
Self esteem	-.04	-.06	-.24, .13	-.633	.527
NFC	.41	.90	.64, 1.16	6.900	<.001
	R <sup>2</sup> = .19				

Note:  $N = 235$ , (Gender code: Male = 0, Female = 1) NFC = Need for Closure

## Discussion and Conclusion

Two studies have found that chronic NFC was associated with an increased preference for consistent and predictable information about themselves and the surrounding world. Study 2 also found that individuals' self-esteem had no effect, consistent with previous literature (Cialdini et al., 1995). In line with previous theory and research (Di Santo et al., 2020; Kruglanski et al., 2018a), individuals who crave certainty more than others (i.e., high NFC) want overall consistent knowledge, as long as it does not undermine the certain knowledge that they already have.

Furthermore, since high NFC people desire order and predictability in their lives, the preference for consistency could be supposed as part of the NFC construct. NFC has been defined as a *psychological mindset* (Roets et al., 2015, p. 224) determined by both temporary conditions and stable tendencies, that can be expressed through the desire for order, structure and predictability but also through expressions of discomfort with ambiguity, decisiveness, and close-mindedness; nevertheless, Pierro and Kruglanski's (2005) treatment of NFC prevalently focuses on the seizing and freezing tendencies which are more consistent with the former factors.

The main implication of this research is related to the desire to have consistent information that preserves one's certainty, even if such certainty concerns a negative state (Kruglanski et al., 2018a). For example, high NFC people are more likely to use stereotypes and other attitudes consistent with the *status quo*, resulting in inhibition of innovation and change (Jost, Kruglanski, & Simon, 1999). It is possible that people with high NFC prefer to maintain a stable and predictable state of affairs rather than engage in a change that can reduce their certainty—this may concern an individual matter, but also support for social and cultural change. They could select predictable information consistent with their previous knowledge (e.g., cultural norms) to be kept and transmitted across generations. Relatedly, groups composed of high NFC individuals exhibited greater cultural stability (Livi et al., 2015). On the other hand, effects are also visible when people are faced with inconsistency (Di Santo et al., 2020). For example, it was recently shown that high NFC individuals are sensitive to the inconsistency between gender stereotypes and prototypical leadership characteristics when faced with women leaders (Baldner & Pierro, 2019; Pica, Chernikova, Pierro, & Kruglanski, 2018; Pica, Pierro, Pellegrini, De Cristofaro, Giannini, & Kruglanski, 2018).

Some limitations should be noted. Firstly, the correlational design of the studies prevents us from making causal inferences. Although recent research (Di Santo et al., 2020) has obtained concordant results with manipulated NFC, the effect of chronic NFC in increasing preference for consistency could be profitably examined using a longitudinal design. Additionally, the present results were obtained with samples of Italian university students (predominantly women) and should be verified in other populations (i.e. non-student sample, more balanced gender, different cultures). Lastly, although a common measure of preference for consistency was used, Cialdini's scale is highly concerned with appearing consistent as well as being consistent. To overcome this limit, other measures of preference for consistency should be used, such as behavioral measures.

Likewise, further research could usefully examine whether the current results are confirmed with different types of consistent information and outcomes, as well as how consequences could differ across various domains. Moreover, although the present studies have shown that a stable NFC is associated with a general desire for consistency, there could be situational or chronic conditions in which this association is weakened or, rather, strengthened. Future studies on the current topic are therefore recommended.

## Compliance with Ethical Standards

### Conflict of interest

The author declares that he/she has no competing interests.

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### Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

### Informed Consent

Informed consent was obtained from all individual participants included in the study.

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