



## Article

# Epistemic Uncertainty, Social Dominance Orientation, and Prejudices toward Women in Leadership Roles: Mediation and Moderation Analyses

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**Abstract:** This research investigated the relation between the need for cognitive closure, social dominance orientation, and attitudes toward women as managers within a sample of Italian workers (N = 391) enrolled in a cross-sectional study. More specifically, we hypothesized and found that the association between need for cognitive closure and prejudice toward women managers was mediated by social dominance orientation. Notably, these results remained significant even after controlling for participants’ gender, education, age, and political orientation. Further, results from a moderation analysis revealed that the relationship between social dominance orientation and negative attitudes toward woman leaders was moderated by the need for cognitive closure. That is, the relationship between social dominance orientation and prejudice towards women managers was stronger for participants higher in need for cognitive closure—compared to those who were low. These results could shed light on new routes in practical intervention aimed at solving prejudice towards women in leadership roles.



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**Keywords:** need for cognitive closure; social dominance orientation; attitudes toward women as managers; leadership

## 1. Introduction

Examining criteria for the assessment of suitable individuals for occupying leadership positions in organizations is a pressing concern in current times—see, for instance, (Contu et al. 2023a; Gelfand and Lorente 2021). Within the domain of social psychology, a pervasive and consequential tradition has sought to grapple with this matter through the lens of stereotypes. Specifically, individuals have historically tended to select their leaders predicated upon stereotypically conventional attributes, as opposed to their actual competencies, cf. (Carton and Rosette 2011; Cook and Glass 2013; McDonald et al. 2018; Rosette and Livingston 2012). Notably, one of the pivotal outcomes of these stereotype-informed choices is the prevalent favoritism of men over women for leadership positions (Christopher and Wojda 2008; Elsesser 2016; Sidanius and Pratto 1999). This phenomenon underscores the prevailing perception of leadership as a masculine trait in both Western and non-Western cultures (Koenig et al. 2011; Javalgi et al. 2011).

A lot of factors contributing to the formation and the endorsement of these kinds of stereotypes have been identified. For example, women in leadership roles are generally evaluated as less effective than men (Elsesser 2016; Sidanius and Pratto 1999). Further research has shown that the concept of the superiority of men over women in leadership roles is also sustained by individual differences related to the abhorrence of uncertainty, i.e., the need for cognitive closure (Kruglanski 2004). Hence, the key concept of need for cognitive closure (NCC) seems to be fundamental in explaining why people support the stereotype entailing the superiority of men over women in leadership roles. As such, this

research aims to deepen the knowledge about the role of NCC in sustaining these kinds of stereotypes. More specifically, we inquired about the possibility that NCC motivates people to hold system justification theories (Jost and Hunyady 2005)—and more specifically what is outlined by Social Dominance Theory (SDT; Sidanius and Pratto 1999), which, in turn, would legitimize negative attitudes towards women as managers, e.g., (Christopher and Wojda 2008). Further, as better explained below, given that social dominance orientation clearly represents a specific kind of (social) knowledge and given that need for cognitive closure aims to “protect” certain (social) knowledge, we also expected that social dominance orientation would have had a stronger effect on negative attitudes towards women managers when the need for cognitive closure was simultaneously high rather than low.

### 1.1. NCC and System Justification Theories

The concept of “Need for Cognitive Closure” (NCC) as proposed by Kruglanski (1990) stands as a pivotal and foundational construct in the realm of social psychology. It pertains to the inherent inclination to evade situations marked by epistemic uncertainty (Kruglanski 1990). In essence, NCC can be characterized as a motivational drive directed towards reducing uncertainty (Kruglanski 2004), reflecting an urgent desire for swift and unequivocal answers (De Keersmaecker and Roets 2017). Significantly, NCC can manifest as a disposition or as a reaction to external pressures, such as time constraints or environmental disturbances (for an in-depth overview, see Roets et al. 2015). System justification theories, stemming from the seminal work of Lerner and Miller (1978), posit that individuals possess a fundamental need to believe that the world operates in a manner where people generally receive outcomes commensurate with their merits. In essence, these theories propose that individuals are often driven to rationalize and legitimize the existing state of affairs (Jost and Hunyady 2005). This is achieved through the endorsement of specific cognitions that affirm the belief that all individuals, and all groups within society, occupy the positions that they deserve.

Along this line, past research identified and labeled different ideologies as system-justifying, including Right-Wing Authoritarianism, Belief in a Just World, and social dominance orientation (Jost and Hunyady 2005). What all these ideologies have in common is that they are social attitudes that seem to respond well to individuals’ dispositional motivation to avoid epistemic uncertainty and obtain quick and clear answers. In other words, system justification theories are particularly appealing for individuals high in need for cognitive closure because they preserve the social status quo and allow people to maintain what is familiar while rejecting the uncertainty induced by social change (Jost and Hunyady 2005). Indeed, people who need to manage uncertainty are especially likely to embrace system-justifying ideologies (including social dominance orientation) (Jost and Hunyady 2005). In line with this notion, according to van der Toorn and Jost (2014), the dispositional need for cognitive closure is a fundamental motivating factor leading to the adoption of ideologies that justify existing systems. Aligned with this, numerous previous studies have empirically validated Jost and Hunyady’s (2005) claim that the need for cognitive closure (NFC) serves as the foundation for the endorsement of ideologies that legitimize and justify systems, such as Belief in a Just World (De Keersmaecker and Roets 2017), social dominance orientation (Roets et al. 2012), and Right-Wing Authoritarianism (De Keersmaecker and Roets 2017), see for an overview (Roets and Van Hiel 2011). To specify, the present research will focus on the key role of social dominance orientation (Pratto et al. 1994) as a system-justifying ideology associated with the need for cognitive closure in enhancing and legitimizing negative attitudes towards women managers. Intriguingly, the fact that social dominance orientation can be enhanced—or even induced—by the need for cognitive closure does not exclude, from a theoretical point of view, the possibility that the need for cognitive closure can moderate the association between social dominance orientation and prejudiced attitudes towards women managers. Indeed, if social dominance orientation is a social attitude that entails a precise knowledge about hierarchies within societies (Pratto et al. 1994), and if the need for cognitive closure influences social attitudes by making

individuals seize quickly on previously acquired knowledge and freezing (i.e., protecting) that specific knowledge (Kruglanski 1990), then it is reasonable to support the idea that the (social) knowledge entailed by a socially dominant orientation will be adopted and protected by individuals with a high need for cognitive closure. It means that if social dominance orientation entails the idea that men are superior to women (Sidanius and Pratto 1999), then individuals who had previously acquired this kind of social knowledge will utilize it in judging women as managers, especially when they have a simultaneously high need for cognitive closure. That is, social dominance orientation will produce more prejudiced attitudes towards women managers in a condition of high (vs. low) need for cognitive closure.

### 1.2. NCC and Negative Attitudes towards Women Managers

Important to us was an extensive and seminal line of research which investigated the role of need for cognitive closure regarding the endorsement of prejudiced attitudes, see Roets et al. (2015). For example, recent studies showed that need for cognitive closure bring people to experience immigrants as a threat, and that this relationship is mediated by the desire for strong cultural norms (Albarello et al. 2023a). Further, and even more interesting, the need for cognitive closure has been demonstrated to be associated with a general tendency towards prejudice (Albarello et al. 2023b). That is, people who were high in dispositional levels of need for cognitive closure showed simultaneously increased prejudiced attitudes towards more groups (e.g., homosexuals, people of different religions), without having a specific target of prejudice.

In the realm of “unfavorable perspectives towards women,” research carried out by Roets et al. (2012) exposed that individuals with an inherent inclination for cognitive closure demonstrated increased levels of unfavorable attitudes towards women, commonly known as sexism. Significantly for the current study, Baldner and Pierro (2009) validated these results regarding the particular association between the need for cognitive closure and negative opinions about women in leadership positions. Furthermore, they found that this correlation was influenced by binding moral foundations, encompassing a regard for the broader group and its recognized norms and standards (Graham et al. 2009). Intriguingly, a substantial body of research has identified other factors that mediate this process, including hostile sexism (Baldner et al. 2022) and benevolence towards men (Viola et al. 2023). However, research investigating the mediational role of social dominance orientation (i.e., a system-justifying ideology) remains scarce.

### 1.3. SDO and Negative Attitudes towards Women Managers

Social dominance orientation (SDO) (Pratto et al. 1994) evaluates people’s willingness toward the maintenance of hierarchical asymmetrical power relationships and also the support given to the hierarchical organization of work organizations (Tesi et al. 2019, 2020), as conceived by Social Dominance Theory. This is a theoretical framework which deepens how group-based hierarchies and inequalities are reproduced and preserved in societies (Koenig et al. 2011). As such, the SDO can be framed as a system of legitimizing ideology (Jost and Hunyady 2005; Roets et al. 2012), since it entails the idea that all social groups and categories “have their place in the society” (Pratto et al. 1994).

Regarding gender stereotypes, the SDT provides massive evidence for the existence of a “gender system” (Koenig et al. 2011; Pratto et al. 2006), which highlights that men hold a disproportionate amount of economic, political, social, and managerial resources compared to women, thereby perpetuating gender discrimination. Along this line, SDO has been linked to various stereotypes and prejudices against women, including hostile sexism (Austin and Jackson 2019; Sibley et al. 2007). People with a high SDO worldview can indeed support, legitimize, and reinforce intergroup disparities and prejudices toward women, perceiving them as more suited for subordinate roles in a variety of contexts and domains, including work settings (Koenig et al. 2011; Tesi et al. 2019, 2020; Lee et al. 2011). Additionally, they tend to view women as more suitable for jobs that align with traditional

gender roles, such as being a homemaker or engaging in caring activities (Christopher and Wojda 2008). Accordingly, individuals with a high SDO have a prejudiced mindset that frames women, compared to men, as less suited for leadership positions in male-dominated work settings, hindering women's career progressions in organizations (Pratto et al. 2006) and, likewise, contrasting the legitimizing of women in leadership roles (Christopher and Wojda 2008).

#### 1.4. The Present Research

Through a cross-sectional study conducted in Italy within a sample of workers, the present research aims to investigate the relation between the need for cognitive closure (i.e., a desire for epistemic certainty) and attitudes toward women as leaders. We anticipated that individuals, both men and women, exhibiting a predisposition for cognitive closure would be more receptive to stereotypes suggesting an incongruity between women and leadership roles, consequently expressing more unfavorable attitudes towards women in leadership positions. Moreover, our hypothesis posited that the positive association between the need for cognitive closure and negative attitudes towards women in leadership roles would be mediated by social dominance orientation. Additionally, we conjectured that the need for cognitive closure would moderate the relationship between social dominance orientation and attitudes towards women in leadership roles. In simpler terms, we expected that social dominance orientation would exert a more pronounced impact on negative attitudes towards women in leadership roles among participants with a high need for cognitive closure.

## 2. Method

### 2.1. Sample Size Determination

To ascertain the minimum sample size required for detecting the indirect effects in a simple mediation model, we employed the online tool "Monte Carlo Power Analysis for Indirect Effects" developed by Schoemann et al. (2017). Assuming medium effect sizes ( $r = 0.30$ ), a confidence level set at 95 percent, and a power level set at 0.80, the results of 5000 Monte Carlo simulations suggested that a minimum sample size of 154 participants was required to identify the indirect effect of the need for cognitive closure on negative attitudes towards women as leaders through the mediation of social dominance orientation.

### 2.2. Participants, Design, and Procedure

To test our hypotheses, we enrolled 391 Italian workers (50.4% males;  $M_{age} = 32.71$ ,  $SD_{age} = 10.29$ ) in a cross-sectional design. More specifically, 68.8% were private sector workers and 33.2% were public sector workers. Moreover, 77.0% reported having a superior, while 23.0% reported being freelance. With respect to the educational level 1.8% had a middle school education or lower, 38.4% had a high school education, 56.5% had a university degree, and 3.3% of participants had a Ph.D. Participants took part in the study, on a voluntary basis, through an online procedure provided by Google Forms. Once they gave their informed consent, participants filled out an online questionnaire aimed at assessing basic demographic information and the research measures of interest (as described below). Eventually, participants were carefully debriefed and thanked for their participation. The whole questionnaire was administered in Italian.

### 2.3. Measures

**Need for cognitive closure.** Participants responded to the Revised Need for Closure Scale (Rev NfCS; Pierro and Kruglanski 2005). This is a concise self-report tool consisting of 14 items, created to evaluate enduring personal variations in the inclination towards cognitive closure (e.g., "Any solution to a problem is better than remaining in a state of uncertainty"). Respondents provided their feedback on these statements using 6-point Likert scales, with options ranging from 1 (strongly disagree) to 6 (strongly agree). The reliability was satisfactory (Cronbach's  $\alpha = 0.73$ ).

**Social dominance orientation.** SDO was measured using the Italian adaptation (Aiello et al. 2019) of the English-language SDO Scale version 7 (Ho et al. 2015). The Italian scale is a self-report measure composed of 16 items to which responses are given using a 7-point Likert scale (0 = *strongly disagree* to 6 = *strongly agree*). A sample item is “Some groups of people must be kept in their place.” The reliability was good (Cronbach’s  $\alpha = 0.89$ ).

**Negative attitudes toward women as managers.** Participants rated their overall assessment of women as managers on a single item anchored to an 11-point scale (Bhatnagar and Swamy 1995). The scale ranged from  $-5$  through  $0$  to  $+5$ . The rating of  $-5$  indicated that participants believed men to be far superior to women as managers. The rating of  $0$  indicated that participants believed women to be as good managers as men. The rating of  $+5$  indicated that the participants believed women to be far superior to men as managers. We then reverse-coded the item. In so doing, positive values indicate that men were believed to be far superior to women as managers. Thus, positive values indicate more prejudice toward women in managerial positions. Importantly, Bhatnagar and Swamy (1995) attested the face validity of this overall assessment single measure of women as managers: the measure correlated  $0.62$  with a well-known attitudes toward women as managers scale (WAMS) developed by Peters (2000).

**Control variables.** Age, gender ( $-1$  = male;  $1$  = female), education, and political orientation were included as control variables. Participants indicated their political orientation on a 7-point Likert scale, where “ $1$ ” indicated an extremely left-wing orientation and “ $7$ ” indicated an extremely right-wing orientation.

### 3. Results

Descriptive statistics and bivariate correlations are presented in Table 1. NCC and SDO were positively and significantly correlated between them ( $r(390) = 0.120$ ;  $p = 0.018$ ), and, in turn, SDO was positively and significantly correlated with negative attitudes towards women as managers [SDO:  $r(390) = 0.277$ ;  $p < 0.001$ ]. Eventually, gender and political orientation were significantly associated with negative attitudes towards women as managers. That is, attitudes were more negative among men, as well as among participants with a right-wing political orientation.

**Table 1.** Descriptives and bivariate correlation.

	NCC	SDO	Prej	EDU	Age	Gender	Politic	M (SD)
NCC	(0.73)							3.47 (0.66)
SDO	0.120 *	(0.89)						1.24 (0.90)
Prej	0.080	0.227 ***	—					−0.52 (1.38)
EDU	−0.105 *	−0.041	−0.062	—				—
Age	0.052	−0.025	−0.103 *	0.023	—			32.71 (10.29)
Gender	0.083	−0.192 ***	−0.254 ***	0.105 *	−0.060	—		—
Politic	0.040	0.397 ***	0.190 ***	−0.200 ***	0.107 *	−0.192 ***	—	3.23 (1.51)

Note. \*  $p < 0.05$ . \*\*\*  $p < 0.001$ . Cronbach’s alpha is displayed in parentheses. NCC = need for cognitive closure; SDO = social dominance orientation; Prej = Prejudice towards women managers; EDU = educational level; Politic = political orientation (higher scores indicate a right-wing orientation); gender coded as  $-1$  = male;  $1$  = female.

#### 3.1. Analytical Strategy

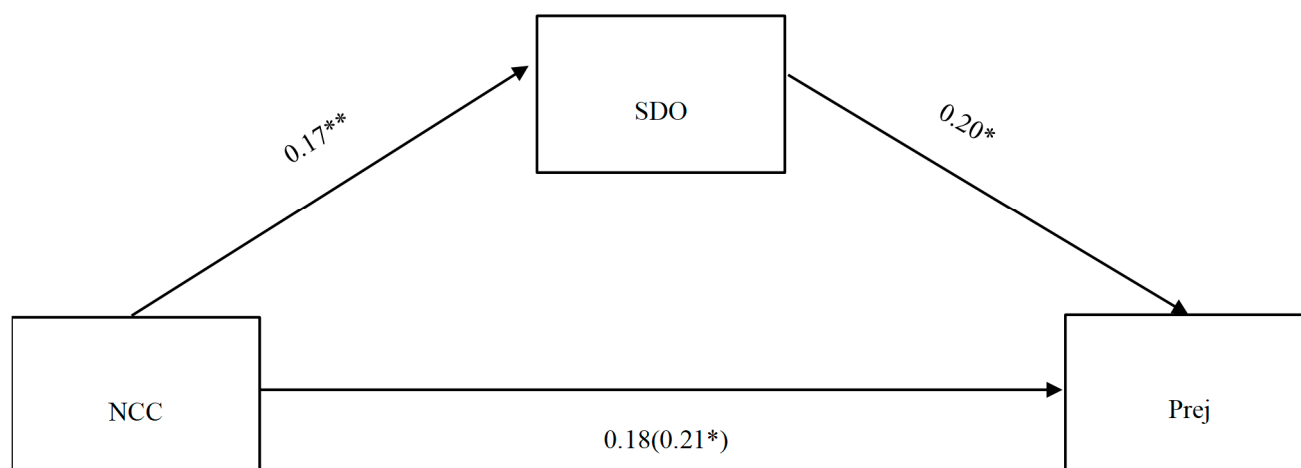
To test our hypothesis, we firstly tested a mediational model where NCC was the main predictor, SDO was the mediator, and negative attitudes towards women managers were the dependent variable. Subsequently, we tested a multiple regression model in which the predictors were NCC, SDO, and the interaction between NCC and SDO. Further, gender, age, education, and political orientation were included as covariates in both the models. The analysis was performed using the SPSS PROCESS macro (Model 4 and Model 1) (Hayes 2022). Ninety-five percent CIs were employed and 5000 bootstrapping resamples were run. The results obtained from the analysis are summarized in Table 2 and Figure 1.



**Table 2.** Regression table showing the effect of each covariate (i.e., gender, age, educational level, and political orientation) on social dominance orientation and the prejudice towards women managers.

Dep	Pred	<i>b</i>	SE	95% Confidence Intervals		<i>t</i>	<i>p</i>
				Lower	Upper		
SDO	Gender	−0.254	0.085	−0.421	−0.087	−2.994	0.003
SDO	Age	−0.007	0.004	−0.015	0.007	−1.791	0.074
SDO	EDU	0.103	0.073	−0.040	0.247	1.415	0.158
SDO	Politic	0.231	0.028	0.175	0.287	8.11	0.001
Prej	Gender	−0.615	0.137	−0.883	−0.346	−4.502	0.001
Prej	Age	−0.017	0.006	−0.030	−0.004	−2.661	0.008
Prej	EDU	0.001	0.116	−0.229	0.229	0.002	0.999
Prej	Politic	0.097	0.049	0.001	0.193	1.978	0.049

Note. SDO = social dominance orientation; Prej = prejudice towards women managers; EDU = educational level; Politic = political orientation (higher scores indicate a right-wing orientation); gender coded as −1 = male; 1 = female.



**Figure 1.** A simple mediation model showing the effects of need for cognitive closure on the prejudice towards women managers via social dominance orientation. Note. All coefficients are unstandardized. \*  $p < 0.05$ . \*\*  $p < 0.01$ . Total effect is displayed in parentheses. All effects were obtained by controlling for age, gender, educational level, and political orientation. Covariates are not included for the sake of clarity. NCC = need for cognitive closure; SDO = social dominance orientation; Prej = prejudice towards women managers).

### 3.2. NCC and Negative Attitudes toward Women as Managers: The Mediating Role of SDO

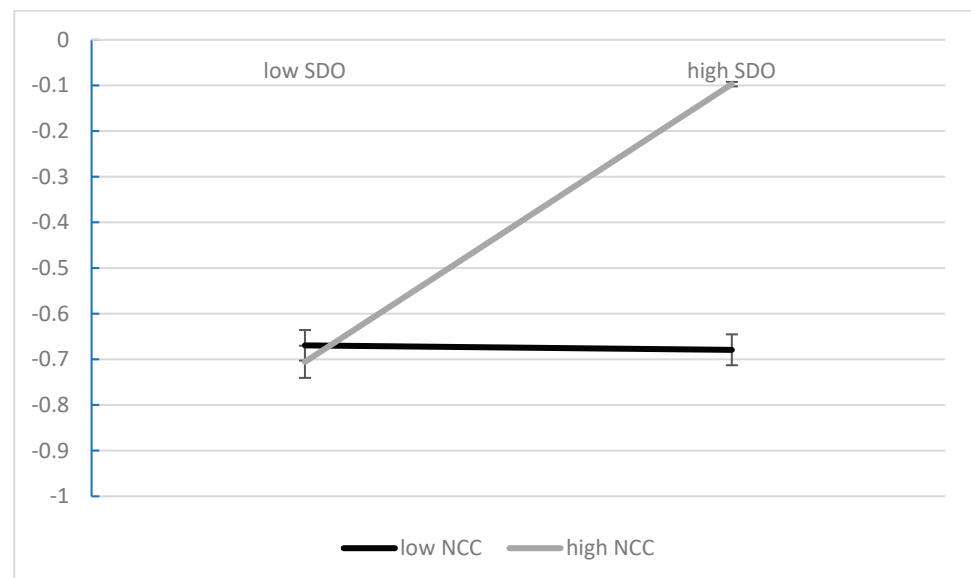
As can be seen, even while controlling for gender, education, age, and political orientation, the total effect of NCC on negative attitudes toward women as managers was significant and positive, attesting the belief of participants with higher need for closure that men are better than women as managers ( $b = 0.21$ ;  $SE = 0.1$ ;  $t = 2.10$ ;  $p = 0.036$  (95%CI = 0.01; 0.41)). Notably, the above-mentioned effect became non-significant when the mediator (i.e., SDO) was included in the model, thus indicating that the effect of NCC on negative attitudes toward women managers was totally mediated by SDO. Indeed, the direct effect of NCC on negative attitudes towards women as managers was non-significant ( $b = 0.18$ ;  $SE = 0.1$ ;  $t = 1.76$ ;  $p = 0.079$  (95%CI = −0.02; 0.38)). Moreover, NCC was significantly and positively associated with SDO ( $b = 0.17$ ;  $SE = 0.06$ ;  $t = 2.74$ ;  $p = 0.006$  (95%CI = 0.04; 0.30)), and SDO, for its part, positively and significantly predicted negative attitudes toward women as managers ( $b = 0.20$ ;  $SE = 0.08$ ;  $t = 2.41$ ;  $p = 0.016$ ; (95%CI = 0.03; 0.35)). Finally, and more importantly, the *indirect* effect of NCC through SDO was significant ( $b = 0.03$ ;  $SE = 0.02$  [95%CI = 0.004; 0.08]).

Given the nature of our research, we further tested the moderating impact of gender on the relations between our main variables. We thus ran a moderated mediation model

(Model 15) where, in addition to the paths estimated in the mediation model described above, we regressed the negative attitudes towards women managers on the interaction between mean-centered NCC and gender, and on the interaction between mean-centered SDO and gender. Age, education, and political orientation were included in the model as covariates. Results revealed non-significant effects of the interactions between gender and (a) NCC and (b) SDO on negative attitudes towards women managers.

### 3.3. SDO and Attitudes toward Women as Managers: The Moderating Role of NCC

When testing the moderating role of NCC within the relationship between SDO and negative attitudes towards women managers, the results revealed a significant and positive effect of the interaction between SDO and NCC on the negative attitudes towards women managers ( $b = 0.26$ ,  $SE = 0.12$ ,  $t = 2.23$ ,  $p = 0.026$ ,  $95\%CI = 0.03; 0.49$ ). That is, as can be seen in Figure 2, the association between SDO and negative attitudes towards women managers was positive and significant ( $b = 0.34$ ,  $SE = 0.10$ ,  $t = 3.29$ ,  $p = 0.001$ ,  $95\%CI = 0.13; 0.54$ ) only when the NCC was at high levels (+1 SD), but not when it was low ( $-1$  SD);  $p = 0.965$ ). Notably, also in this case, these results remained significant even after controlling for participants' gender, age, educational level, and political orientation. The results are presented in Table 3.



**Figure 2.** The NCC  $\times$  SDO interaction's effect on the prejudice towards women managers. *Note.* All effects were obtained by controlling for age, gender, educational level, and political orientation. NCC = need for cognitive closure; SDO = social dominance orientation. The dependent variable was the prejudice towards women managers.

**Table 3.** Regression table showing the regression parameters computed in the multiple regression model we tested.

Dep	Pred	<i>b</i>	SE	95% Confidence Intervals		<i>t</i>	<i>p</i>
				Lower	Upper		
Prej	NCC	0.208	0.103	0.006	0.409	2.025	0.044
Prej	SDO	0.166	0.082	0.005	0.326	2.023	0.044
Prej	SDO $\times$ NCC	0.260	0.116	0.006	0.490	2.235	0.026
Prej	Politic	0.101	0.049	0.005	0.197	2.079	0.038

Table 3. Cont.

Dep	Pred	b	SE	95% Confidence Intervals		t	p
				Lower	Upper		
Prej	Gender	−0.592	0.136	−0.860	−0.324	−4.347	0.001
Prej	Age	−0.018	0.006	−0.031	−0.005	−2.787	0.006
Prej	EDU	0.003	0.116	−0.225	0.231	0.029	0.976

Note. NCC = need for cognitive closure; SDO = social dominance orientation; Prej = prejudice towards women managers; EDU = educational level; Politic = political orientation (higher scores indicate a right-wing orientation); gender coded as −1 = male; 1 = female.

#### 4. Discussion

Drawing on past knowledge about the role of need for cognitive closure (Kruglanski 2004) in fueling prejudiced attitudes (Roets et al. 2015), the present research aimed at disentangling the path that brings people from experiencing the need for epistemic certainty to negative attitudes towards women managers. We proposed that need for cognitive closure can increase negative attitudes towards women managers when its effect surpasses the endorsement of system-justifying and -legitimizing ideologies (Jost and Hunyady 2005). Specific for the present research, we hypothesized that the need for cognitive closure enhanced people's social dominance orientation as a mindset of legitimizing ideologies (Roets et al. 2012), which, in turn, increased individuals' negative attitudes towards women managers. Also, we expected the need for cognitive closure to moderate the association between social dominance orientation and negative attitudes towards women managers. That is, we expected that social dominance orientation would fuel negative attitudes towards women managers, particularly when levels of need for cognitive closure were simultaneously high.

We tested our hypotheses through a cross-sectional study conducted in Italy among workers (N = 391) that volunteered for the study. After the analyses, the results confirmed our hypotheses by showing that need for cognitive closure was indirectly associated with negative attitudes towards women managers via social dominance orientation. Further, the hypothesis regarding the interaction between the need for cognitive closure and social dominance orientation in predicting negative attitudes towards women managers was confirmed. Namely, social dominance orientation was strongly associated with negative attitudes towards women managers when the need for cognitive closure was high. By contrast, SDO was not significantly associated with negative attitudes towards women managers when the need for cognitive closure was low.

These results are in accordance with an extensive body of literature that links both the need for cognitive closure and social dominance orientation to prejudiced attitudes in general and, specifically, to negative attitudes towards women managers (Austin and Jackson 2019; Baldner et al. 2022; Lee et al. 2011; Pratto et al. 2006; Sibley et al. 2007; Viola et al. 2023). As such, the results from the present research revealed that not only the need for cognitive closure is associated with prejudiced attitudes towards women managers via hostile sexism (Baldner et al. 2022) or benevolence towards men (Viola et al. 2023). Indeed, the present results unveiled another process that, aside from the need for cognitive closure, gives people an enhanced prejudice towards women managers. As we anticipated in the Introduction section, indeed, social dominance orientation mediated the association between the need for cognitive closure and negative attitudes towards women managers because it represents a system-justifying ideology that is able to—simultaneously—(a) satisfy the need for epistemic certainty and (b) endorse the existence of a gender system in which men are superior to women also (but not only) in covering leadership or managerial roles (Pratto et al. 2006; Sidanius and Pratto 1999). And this is only a part of the whole story. Indeed, the results from the moderation analysis revealed that not only is social dominance orientation able to satisfy the need for cognitive closure, but, instead, since social dominance orientation represents a certain knowledge about society's structure (Pratto et al. 1994), it has been protected and amplified by the need for cognitive closure.



In other words, individuals embracing the “gender system” entailed by social dominance orientation (Pratto et al. 2006; Sidanius and Pratto 1999) showed more negative attitudes towards women managers when that kind of knowledge was “selected” and “protected” by high (vs. low) need for cognitive closure. In this respect, and important to the aim of defusing such negative attitudes towards women leaders, recent research showed that the effects of both the need for cognitive closure (Viola et al. 2023) and social dominance orientation (Contu et al. 2023b) can be dissolved by a direct experience of having a woman leader within the workplace.

## 5. Limits and Conclusions

Obviously, the present study was not without limitations. Firstly, the cross-sectional design of the study limits the capability to make conclusions on the causal relationships among the variables we considered. Hence, longitudinal and experimental studies should be run in the future to address this limitation. Furthermore, we found that, on average, participants reported relatively low scores on SDO and negative attitudes toward women managers ( $M_{SDO} = 1.24$ ; scale range: 1–7;  $M_{PREJ} = 0.52$ ; scale range –5–5). Hence, the present results should be interpreted with some caution. Interestingly, these scores are in line with other studies that used analogue measures of SDO and prejudice (Asbrock et al. 2011; Kteily et al. 2017). Along this line, it could be reasonable to suppose that participants who reported higher scores on SDO and negative attitudes towards women managers in our sample were not distinctly socially dominant or prejudiced, but rather were more benevolent toward group-based hierarchies and prejudices concerning women in leadership positions compared to the rest of the sample. Also, the utilization of self-report scales for assessing prejudice and attitudes regarding discrimination may be susceptible to the influence of social desirability bias or may reflect values commonly encountered in hierarchy-attenuating organizational environments where egalitarian social norms and values are universally embraced. Consequently, such factors may hinder individuals from openly endorsing social dominance orientation (SDO) and associated attitudes (Tesi et al. 2019, 2020). To address this constraint, forthcoming studies should consider controlling for hierarchy-enhancing or hierarchy-attenuating work environments (Sidanius and Pratto 1999; Tesi et al. 2019; Viola et al. 2023) and/or employing implicit measures of attitudes as opposed to self-report instruments (Greenwald et al. 2009).

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**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** Data are available upon request to the corresponding author.

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