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# Ideological Mate-guarding: Sexual Jealousy and Mating Strategy Predict Support for Female Honor

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#### **Abstract**

Feminine honor dictates that women should cultivate a reputation for sexual purity via behaviors such as dressing modestly and maintaining virginity before marriage. The dominant explanation for people's support for feminine honor is that female infidelity threatens male partners' honor. Beyond this, the literature affords little understanding of the evolutionary and psychological origins of feminine honor. We propose that feminine honor functions as an ideological form of mate guarding that is shaped by sexual jealousy and mating strategy. Two correlational studies (N=892) revealed support for predictions derived from this ideological mate-guarding account. In Study I, dispositional jealousy and mating strategy (more monogamous orientation) predicted male participants' support for a mate's (especially a long-term mate's) feminine honor. Moving beyond mate preferences, in Study 2 male and female participants' dispositional jealousy and mating strategy predicted support for feminine honor of women in general. Results applied beyond masculine honor norms, religiosity, political conservativism, and age. These findings enhance the understanding of the origins and maintenance of feminine honor and related norms and ideologies that enable control over women's socio-sexual behavior.

#### **Keywords**

feminine honor norms, mate guarding, sexual jealousy, sociosexual orientation, mating strategy, ideology

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#### Introduction

Honor is a set of norms, beliefs and attitudes about the importance of maintaining a reputation for characteristics such as integrity, loyalty and honesty (Gul et al., 2021). Anthropologists and psychologists have documented that the requirements for a good reputation differ for men and women (Pitt-Rivers, 1974; Rodriguez Mosquera, 2011). To acquire and maintain masculine honor, men need a reputation for toughness, formidability, and aggressive retaliation in response to insults and threats (Vandello & Cohen, 2008). To maintain *feminine honor* women need a reputation for sexual purity, via behaviors such as wearing modest clothes and maintaining virginity before marriage (Rodriguez-Mosquera, 2016). Honor norms have existed for thousands of years and are believed to have predated and influenced sexual purity norms found in religious and secular codes today (e.g., Elakkary et al., 2014; Goldstein, 2002; Pitt-Rivers, 1974). Maintaining honor is particularly important in so-called "honor cultures" (e.g., societies in the Mediterranean, Middle East, Latin America, and Southern

US; Uskul et al., 2019). However, honor norms may be found, to some degree, in all cultures (Guerra et al., 2013) and, according to Rodriguez Mosquera (2011, p. 65) are "pancultural ideals of masculinity and femininity." The requirement to show sexual modesty places social and reproductive constraints on women (Kulczycki & Windle, 2011; Sev'er, 2005), and failure to maintain honor is seen as legitimate grounds for punishment, including intimate partner violence, forced suicide and honor killing (Chesler, 2009). But despite well-documented harmful consequences, research on the psychological origins of feminine honor is limited.

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One account given by social psychologists (e.g., Gul et al., 2021; Vandello & Cohen, 2003; Vandello et al., 2009) and other social scientists (e.g., Pitt-Rivers, 1974; Sev'er & Yurdakul, 2001) is that suppressing women's sexuality helps protect masculine and family honor because association with an immodest female damages the honor of her partner and his kin. Another account is that supporting traditional gender views, including feminine honor, helps legitimize men's privilege and keep women subservient to men (e.g., Arat, 2010; Glick et al., 2015).

We propose that feminine honor serves an ideological mateguarding function, and that support for feminine honor is motivated by sexual jealousy and mating strategy, beyond concerns about protecting masculine and family honor. Several previous authors have given mate-guarding accounts of related cultural phenomena, including adultery laws, monogamous marriages, female genital cutting, religious rules, and veiling (Daly et al., 1982; Dickemann, 1979; Goldstein, 2002; Grant & Montrose, 2018; Onyishi et al., 2016; Pazhoohi et al., 2017; Smuts, 1995; Strassmann et al., 2012; Van Slyke & Szocik, 2020). But these accounts have not addressed feminine honor specifically. Nor, surprisingly, has there been any empirical test of a key prediction of these mate-guarding accounts: that support will be motivated, at least in part, by sexual jealousy (Daly et al., 1982). Our ideological mate-guarding account derives from a synthesis of research and theory on mate guarding, sexual jealousy, mating strategies, and ideological control.

# Mate Guarding

The problem of paternity uncertainty has been a powerful selective force throughout the evolution of animals (Parker, 1970; Trivers, 1972), resulting in myriad morphological, physiological, and behavioral adaptations that increase males' ability to secure paternity (Birkhead & Møller, 1992). Although humans are usually socially monogamous, infidelity occurs across cultures (Schacht & Kramer, 2019) and extra-pair paternity has been documented in all human populations studied (Larmuseau et al., 2016), even in cultures with strictly enforced monogamy (Strassmann et al., 2012). Therefore, the threat of cuckoldry was likely an important adaptive challenge that lead to the evolution of mate-guarding behaviors (Daly et al., 1982; Symons, 1979). Although females of species with internal fertilization do not face the problem of cuckoldry, the threat of mate desertion imposes important fitness costs, especially in species, such as humans, in which paternal investment influences offspring survival (Gurven & Hill, 2009; Trivers, 1972). Women can also therefore be expected to engage in mate-guarding behaviors that increase the likelihood of retaining a mate (Buss & Shackelford, 1997). In humans, the emotion of sexual jealousy is regarded as the motivational component of mate guarding (Buss, 2013; Daly et al., 1982; Symons, 1979). Sexual jealousy is elicited by perceived threats of infidelity (Buss et al., 1992) and is associated with mate-guarding behaviors such as increased vigilance and

aggression toward rivals and mates (Burch & Gallup, 2020; Buss, 2002; Goetz et al., 2008). Accordingly, items measuring mate-guarding behaviors, such as checking a partner's phone or questioning them about where they have been, are often included in scales designed to measure jealousy (Pfeiffer & Wong, 1989).

## Mate Guarding is Costly

Although mate guarding can increase reproductive fitness by decreasing the likelihood of cuckoldry or mate desertion (Buss, 2002), it is costly. Direct forms of mate guarding, involving vigilance, intervention, and aggression, restrict males to one location and reduce time for activities such as feeding or pursuing additional mates (Alberts et al., 1996; Komdeur, 2001; Low, 2006). Aggressively repelling rivals can also lead to physical injury or death in nonhuman animals (Komdeur, 2001; Low, 2006). Among humans too, conflicts over women often result in injury or death (Daly & Wilson, 1988; Flinn, 1988). Additionally, unlike most other socially monogamous species, human females have concealed oestrus, so fertile periods are not easily identified (Strassmann, 1981). Ensuring paternity therefore requires extended periods of costly mate guarding (Buss, 2002). In summary, the costs of direct mate guarding are considerable. Indirect forms of mate guarding, however, such as ideological control, might have lower costs, and even operate in absentia.

### Ideological Control

From classical political thinkers to contemporary social psychologists, scholars have recognized that people can be controlled not only by force, but also indirectly, using ideology (e.g., Durkheim, 1895/1982; Jackman, 1994; Jost & Banaji, 1994; Mannheim, 1929/1960; Marx & Engels, 1846/1970; Sidanius et al., 2001; Weber, 1922/1968). The interconnected set of norms, values, and practices that constitute ideologies are particularly effective in controlling people when they have legitimacy, appear as self-apparent truths, and are widely consented to within a society (Sidanius et al., 2001). Even individuals who are objectively disadvantaged by an ideology may support it, because of its perceived moral righteousness, and to maintain their own reputation as a morally righteous individual (Tyler, 2006; Weber, 1968).

Whereas ideologies are typically viewed as benefitting their proponents through economic resources or political power (Jost, 2006), we suggest that feminine honor serves the reproductive interest of certain individuals or groups (e.g., men) by reducing the likelihood of cuckoldry or mate desertion. Like other ideologies, feminine honor is an interconnected set of norms, values, and practices (Pitt-Rivers, 1974; Rodriguez Mosquera, 2011) which is often seen as legitimate in society and is widely endorsed and enforced by third parties (Chesler, 2015; Goldstein, 2002; Sev'er & Yurdakul, 2001) and coalitions (Barbaro et al., 2015; Betzig, 1993; Boyer, 2018). Feminine honor serves as an indirect form of mate guarding

because an individual does not need to maintain vigilance or be ready to aggressively deter intrasexual rivals. Instead, the social milieu serves that function.

Hence, we propose, feminine honor is a culturally evolved ideology that enables indirect control over women's mating behavior, and reduced the risks of cuckoldry and mate desertion. Individuals' psychological mechanisms, including sexual jealousy, would have motivated the creation and transmission of the norms, values, and practices that constitute feminine honor. Social-ecological conditions that precluded direct mate guarding (e.g., large populations and mobility) or increased the demand for mate guarding (e.g., male rivals) would have favored the cultural evolution of feminine honor.

#### Women's Support for Feminine Honor Norms

Both sexes sometimes support norms that control women's sexuality (Baumeister & Twenge, 2002; Blaydes & Linzer, 2008; Glick et al., 2015; Muggleton et al., 2019). Women's support for feminine honor may arise from intrasexual competition, given that women perceive promiscuous rivals as more likely to poach a mate (Schmitt & Buss, 2001). Additionally, because men may select mates based on cues to sexual fidelity (Mogilski et al., 2014) and invest more in a mate when they have greater confidence in her sexual fidelity (Scelza et al., 2020), women who seek paternal investment may support feminine honor to signal a reputation for sexual modesty. For these reasons, we expect not only men but also women to support feminine honor norms.

# Mating Strategy, Jealousy, and Ideological Mate-Guarding

Individuals for whom mate guarding is of particular salience, such as those with high levels of jealousy, can be expected to show greater support for ideologies such as feminine honor. Several authors have suggested that the emotion of sexual jealousy should motivate support for cultural practices (such as laws against infidelity) that serve a mate-guarding function (e.g., Daly et al., 1982), yet, to our knowledge, no previous study has tested this prediction. Cuckoldry or desertion is potentially more costly for monogamously oriented individuals because they are more invested in a primary mate (Buss & Schmitt, 1993). In contrast, more promiscuously oriented individuals can benefit from easy access to multiple mates. Accordingly, research has shown that having a more restricted mating strategy is associated with more support for monogamypromoting norms and values such as religiosity (Moon et al., 2019; Weeden et al., 2008) and opposition to values and behaviors associated with promiscuity, such as the condemnation of gay rights (Pinsof & Haselton, 2016, 2017) and recreational drug use (Karinen et al., 2021; Kurzban et al., 2010). Similarly, individuals who have a relatively restricted mating strategy can be expected to show more support for ideologies such as feminine honor.

#### Current Research

In two correlational studies conducted with MTurk and Prolific samples, we tested predictions derived from the ideological mateguarding account of feminine honor. One source of support for feminine honor may be through men expecting their own mates to have a reputation for sexual modesty and loyalty. This preference for feminine honor should apply especially to a long-term mate, given that greater paternal investment increases the costs of cuckoldry (Buss & Schmitt, 1993). In Study 1 we therefore examined whether men's dispositional jealousy and sociosexual orientation (SOI; a measure of mating strategy) were associated with supporting a long-term versus short-term mate's adherence to feminine honor norms. Another way individuals (both men and women) may promote feminine honor is by expecting women in society as a whole, beyond own mates, to maintain a sexually modest reputation. In Study 2, we therefore tested whether male and female participants' dispositional jealousy and sociosexual orientation predicted support for feminine honor for women in general.

Because religiosity and social conservativism are common explanations given for endorsement of traditional gender ideologies, including honor norms (e.g., Glick et al., 2015), both studies measured religiosity and political conservativism (as well as age) to test whether sexual jealousy and mating strategy would predict support for feminine honor even after accounting for these variables. Materials and additional analyses are reported in the online Supplemental Materials.

Statistical analyses used SPSS (version 29) to examine descriptive statistics and bivariate correlations, and perform hierarchical multiple regression analyses. Data and analysis scripts are publicly available on the Open Science Framework (Link).

# Study I

The goal of Study 1 was to establish whether dispositional jealousy and sociosexual orientation were associated with men's support for feminine honor norms for short- and long-term mates, above and beyond age, religiosity and political conservativism.

#### Method

Participants. Initially, 307 heterosexual male participants from the US were recruited through MTurk. Excluding 13 participants who failed to pass attention check questions left a sample of 294 men for analyses (age range: 19–76,  $M_{\rm age} = 38.03$ ,  $SD_{\rm age} = 12.19$ ). Detailed demographics of participants are reported in Supplemental Material. A sensitivity power analysis for our sample size of 294, with an alpha of 0.05 and power of 0.80 revealed sufficient power to detect an effect size of r = .14 for a bivariate correlation model. In Study 1, the smallest effect size for jealousy's or SOI's association with feminine honor norms was r = .19, indicating the sample size was sufficient.

Measures and Procedure. Participants completed the following measures in a randomized order.

Socio-sexual orientation. To measure mating strategy, participants responded to the 3 items of the attitude subscale of

the Revised Sociosexual Orientation Inventory (Penke & Asendorpf, 2008) which measures individual differences in the tendency to accept casual, uncommitted sexual relationships (e.g., "I can imagine myself being comfortable and enjoying 'casual' sex with different partners";  $1 = strongly \ disagree$  to  $9 = strongly \ agree$ ; SOI:  $\alpha = .87$ ).

Dispositional jealousy. Dispositional jealousy was measured using the 16 cognitive and emotional jealousy items from the Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989). Participants answered with their current partner in mind, or, if single, with a past or imaginary partner in mind. The cognitive subscale measures frequency of thoughts such as "I worry that X (my partner) may be attracted to another man" ranging from 1 (never) to 7 (all the time). The emotional subscale measures emotional reactions to situations such as "X hugs and kisses another man" ranging from 1 (not bad at all) to 7 (extremely bad). A global jealousy score was obtained by averaging all 16 items ( $\alpha = 0.92$ ).

Support for feminine honor. Six items were adapted from the feminine honor subscale of the Honor Scale (Mosquera et al., 2002). We adjusted the original wording which asks participants about their own reputation (e.g., "How bad would you feel about yourself if you had sexual relations before marriage?") to measure participants' concerns about a mate's honor (e.g., "How bad would you feel if she had ...?"). To assess support for a long-term mate's feminine honor, participants indicated how bad they would feel if their wife/girlfriend had the reputation described in each item. To assess support for a short-term mate's feminine honor, participants were asked to imagine a woman who they are sexually attracted to and hoping to have an uncommitted one-night stand, without an interest in having her as a long-term partner.

The Honor Scale was developed based on research into Mediterranean cultures of honor. Although the items reflect various ways in which feminine honor values can be violated (e.g., "you had sexual relations before marriage"; "you wore provocative clothes"; "you were known as someone who has had many different sexual partners"), we devised four additional conceptually consistent items designed to be applicable to today's more gender-progressive cultures such as the US from which our sample was drawn ("was known as someone

flirtatious," "who cannot control her sexual desires," "who is not modest or discrete in her behavior," "who is not loyal to her man"). Responses were on 7-point scales ranging from 1 (not bad at all) to 7 (very bad). Items were averaged to form two composite scores (short-term mate:  $\alpha = 0.96$ ; long-term mate:  $\alpha = 0.93$ ).

Political orientation and religiosity. Following Crawford et al. (2017), participants reported their political orientation on social and economic issues (1 = very liberal, 7 = very conservative). These two items were averaged ( $r_s = .70$ ). We measured religiosity with one item (1 = not at all, 7 = extremely).

#### Results

Bivariate correlations and descriptive statistics are presented in Table 1. As expected, dispositional jealousy and monogamous mating strategy (i.e., lower SOI) were associated with men's support for both short- and long-term mates' feminine honor. Moreover, correlations with long-term mate's honor were significantly higher than correlations with short-term mate's honor (jealousy: z = 2.04, p = .021; SOI: z = 4.88, p < .001). Additionally, feminine honor was more important to men when they considered long-term mates than when they considered short-term mates, t(293) = 11.19, p < .001, d = 0.62.

Next, we conducted hierarchical regression analyses to test whether men's support for short-term and long-term mates' honor was associated with dispositional jealousy and mating strategy even after accounting for religiosity, political orientation, and age. We added the control variables in Step 1, dispositional jealousy in Step 2, and SOI in Step 3. As expected, both dispositional jealousy and more monogamous mating strategy (i.e., lower SOI) predicted higher support for feminine honor for both short- and long-term mates, above and beyond religiosity, political orientation, and age (see Tables 2a and 2b).

#### Study 2

Study 1 examined men's support for the feminine honor of their own mates. But if ideologies that control women's sexuality function as an indirect form of mate guarding, then sexual

**Table 1.** Study 1: Bivariate Correlations (N = 294 men).

	I.	2.	3.	4.	5.	6.	7.
I. Feminine honor (short-term mate)	_	.54**	19**	.23**	14*	.26**	.18**
2. Feminine honor (long-term mate)		_	30**	.48**	I <b>4</b> *	.36**	.35**
3. SOI			_	.06	09	<b>40</b> **	2 <b>9</b> **
4. Jealousy					33**	.07	.12*
5. Age					_	<b>0</b> I	04
6. Religiosity						_	.50**
7. Political orientation							_
М	2.77	3.75	5.72	3.10	38.03	2.73	3.76
SD	1.66	1.41	2.35	1.11	12.19	2.05	1.61

Notes. \* p < .05, \*\* p < .01.

jealousy and mating strategy might also be expected to contribute to support for feminine honor beyond men's own mates, for women in general. Study 1 only involved male participants, but women can also support ideologies that control women's reproductive behavior (Baumeister & Twenge, 2002) so Study 2 examined predictions among both male and female participants.

Study 2 also included measures of other types of honor (masculine, family, and integrity honor) to test whether support for feminine honor, specifically, rather than honor in general, is related to sexual jealousy and mating strategy. However, masculine honor, which prescribes men to maintain a reputation for toughness, formidability, and aggressive retaliation in response to insults and threats, may have partially evolved as a mate-guarding tactic to deter rival males and mate poachers (Shackelford, 2005). And feminine honor may overlap with family and integrity honor, as these include moral virtues such as having a reputation as a loyal and honest person, and not betraying one's family (Rodriguez Mosquera, 2016). Therefore, sexual jealousy and mating strategy may also be associated with masculine,

family, and integrity honor, but we expected the association with feminine honor to be stronger.

Psychologists have argued that people support feminine honor in order to protect the male partner's or family's honor (Vandello & Cohen, 2003, 2008; Vandello et al., 2009). According to that account, masculine and family honor should predict support for feminine honor. Testing this alternative explanation was an additional reason for measuring other types of honor so that we could examine the associations between dispositional jealousy and sociosexual orientation and support for feminine honor beyond support for masculine, family, and integrity honor. A final modification was that in Study 2 the full jealousy and sociosexual orientation scales were used.

#### Method

**Participants.** In determining the sample size, we did not perform a power analysis but sought to recruit at least as many participants as in Study 1 (N = 294) from each

Table 2a. Study I: Hierarchical Regression Results on Men's Support for Short-Term Mate's Feminine Honor.

Steps		В	SE	β	t	Þ	95% CI
I	Age	-0.02	0.01	-0.14	-2.41	.017	-0.03, 0.00
	Religiosity	0.18	0.05	0.22	3.42	.001	0.08, 0.28
	Political orientation	0.07	0.07	0.07	1.03	.304	-0.06, 0.20
2	Age	-0.0 I	0.01	-0.07	-1.27	.206	-0.03, 0.01
	Religiosity	0.18	0.05	0.22	3.43	.001	0.08, 0.28
	Political orientation	0.05	0.07	0.05	0.75	.452	-0.08, 0.18
	Jealousy	0.29	0.09	0.19	3.24	.001	0.11, 0.46
3	Age	-0.01	0.01	-0.08	-1.45	.147	-0.03, 0.00
	Religiosity	0.14	0.05	0.17	2.61	.010	0.03, 0.25
	Political orientation	0.03	0.07	0.03	0.47	.636	-0.10, 0.16
	Jealousy	0.30	0.09	0.20	3.41	.001	0.13, 0.47
	soi ,	-0.10	0.04	-0.14	-2.24	.026	-0.18, -0.01

Notes. Bold indicates statistical significance, p < .05.

Table 2b. Study I: Hierarchical Regression Results on Men's Support for Long-Term Mate's Feminine Honor.

Steps		В	SE	β	t	Þ	95% CI
Ī	Age	-0.02	0.01	-0.13	-2.47	.014	-0.03, 0.00
	Religiosity	0.18	0.04	0.26	4.20	.000	0.09, 0.26
	Political orientation	0.19	0.05	0.21	3.48	.001	0.08, 0.29
2	Age	0.00	0.01	0.01	0.28	.779	-0.01, 0.01
	Religiosity	0.17	0.04	0.25	4.62	.000	0.10, 0.25
	Political orientation	0.15	0.05	0.17	3.11	.002	0.05, 0.24
	Jealousy	0.57	0.06	0.45	8.98	.000	0.45, 0.70
3	Age	0.00	0.01	0.00	-0.06	.951	-0.01, 0.01
	Religiosity	0.12	0.04	0.18	3.22	.001	0.05, 0.20
	Political orientation	0.12	0.05	0.14	2.64	.009	0.03, 0.22
	Jealousy	0.59	0.06	0.46	9.54	.000	0.47, 0.71
	Sociosexual orientation (SOI)	-0.13	0.03	-0.22	-4.29	.000	-0.19, -0.07

Notes. Bold indicates statistical significance, p < .05.

gender. Initially, 638 participants (318 men and 320 women) were recruited from the US through Prolific. Excluding 14 participants who were not heterosexual, and 26 participants who failed to pass attention checks left 598 participants for analyses (300 men, 298 women; age range: 18–82,  $M_{\rm age} = 38.74$ ,  $SD_{\rm age} = 13.78$ ). Detailed demographics of participants are reported in the Supplemental Material. A sensitivity power analysis for a sample size of 298 and 300, with an alpha of 0.05 and power of 0.80 revealed sufficient power to detect an effect size of r = .14 for a bivariate correlation model. All effect sizes of interest were larger in magnitude than those of the sensitivity analysis, indicating that our sample size was sufficient.

Measures and Procedure. Participants completed the following measures presented in a randomized order.

Socio-sexual orientation. We used the full 9-item Revised Sociosexual Orientation Inventory (Penke & Asendorpf, 2008), which includes items corresponding to attitudes as measured in Study 1, as well as desire (e.g., "How often do you experience sexual arousal when you are in contact with someone with whom you do not have a committed romantic relationship?"; 1 = never to 9 = at least once a day), and behavior (e.g., "With how many different partners have you had sexual intercourse on one and only one occasion?"; 1 = zero to 9 = twenty or more). A global sociosexual orientation score was obtained by computing the mean of all nine items (SOI-Total:  $\alpha_{men}/\alpha_{women} = 84/.83$ ). Lower scores indicate more monogamous orientation.

Dispositional jealousy. In addition to the cognitive and emotional jealousy items used in Study 1, participants responded to the behavioral items (e.g., "I question X about his/her telephone calls."; 1 = never to 7 = all the time) of the Multidimensional Jealousy Scale (Pfeiffer & Wong, 1989). A global jealousy score was obtained by averaging all the 24 items ( $\alpha_{men}/\alpha_{women} = 0.94/0.93$ ).

Support for feminine, masculine, family, and integrity honor norms. Support for feminine honor was measured with the same 10 items as in Study 1. The 7-item masculine (e.g., "How bad/wrong is it for a man if he lacks authority over his own family?"), 7-item integrity (e.g., "How bad/wrong is it for a person if he/she betrays other people?"), and 4-item family honor (e.g., "How bad/wrong is it for a person if his/her family has a bad reputation?") subscales of the Honor Scale (Mosquera et al., 2002) were also used.

Research into the honor culture of the American South indicates that masculine honor is especially rooted in the belief that a man is responsible for protecting himself from insults and should have qualities such as self-sufficiency and physical toughness (Barnes et al., 2012; Saucier et al., 2016). We therefore included five extra conceptually relevant items to measure support for masculine honor norms ("...he lets other people push him around?", "...he is known as someone who cannot take care of himself?", "...he backs down from a fight?", "... he is seen as weak in the eyes of his peers?", and "...he is known as someone sissy?"). Responses were on 7-point

scales ranging from 1 (not bad/wrong at all) to 7 (very bad/wrong).

When all the honor items were entered into a principal-axis factor analysis with oblique rotation, the scree plot suggested a four or five-factor solution (eigenvalues = 12.53, 4.29, 3.07, 1.50, 1.16). We then excluded one feminine honor item ("How bad/wrong is it for a woman if she is known as someone who is not loyal to her man?"), and two masculine honor items ("How bad/wrong is it for a man if he has the reputation of being someone without sexual experience?", and "he has not yet had a sexual relationship?") that did not load on their expected factors. After setting the number of factors extracted to four, the items formed interpretable groups, which were consistent with the expected four-factor structure. Loadings for the first factor (9 feminine honor items) ranged between 0.75 and 0.93, for the second factor (7 integrity honor items) between 0.61 and 0.81, for the third factor (10 masculine honor items) between -0.51and -0.84, and for the fourth factor (4 family honor items) between -0.48 and -0.84. All had cross-loadings below 0.31. The same four-factor structure appeared when the factor analysis was conducted separately for men and women. Items for each subscale were averaged (feminine honor:  $\alpha_{\text{men}}/\alpha_{\text{women}} = 0.95$ ; masculine honor:  $\alpha_{\text{men}}/\alpha_{\text{women}} = 0.93$ ; family honor:  $\alpha_{\text{men}}/\alpha_{\text{women}} =$ 0.89/0.85; integrity honor:  $\alpha_{\text{men}}/\alpha_{\text{women}} = 0.90$ ).

Political orientation and religiosity. Political orientation was measured with the same items as in Study 1 ( $r_{s-men}/r_s$ ) -women = .79/.73). Following Kurzban et al. (2010) and Price et al. (2014), we measured religiosity with five items, measuring the level of religiosity, level of spirituality (1 = not at all, 7 = very), frequency of private prayer (1 = never of almost never, 7 = several times a day), frequency of current attendance to religious services, and expected future frequency of attendance to religious services (1 = never or almost never, 5 = more than once a week). Because responses to items were not on the same scales, we calculated the religiosity variable with standardized items ( $\alpha_{men}/\alpha_{women}$  = .94/.90).

#### Results

Bivariate correlations and descriptive statistics for male and female participants separately are shown in Tables 3a and 3b. As expected, dispositional jealousy and monogamous mating strategy (i.e., lower SOI) positively related to both men's and women's support for feminine honor. Support for masculine and family honor norms were also positively related to dispositional jealousy and monogamous mating strategy, for both men and women.

Next, we conducted hierarchical regression analyses to test whether dispositional jealousy and mating strategy (SOI) were associated with men's and women's support for feminine honor, even after controlling for age, religiosity, political orientation, and other honor norms (masculine, family, integrity). We added age, religiosity, and political orientation in Step 1, other honor norms in Step 2, dispositional jealousy in Step 3, and SOI in Step 4.

**Table 3a.** Study 2: Bivariate Correlations for Male Participants (N = 300).

	I.	2.	3.	4.	5.	6.	7.	8.	9.
I. Feminine honor	_	.56**	.57**	.25**	53**	.32**	03	.56**	.38**
2. Masculine honor			.71**	.36**	<b>15</b> *	.20**	<b>0</b> I	.40**	.31**
3. Family honor			_	.53**	23**	.16**	.01	.38**	.25**
4. Integrity honor				_	06	.01	06	.16**	.03
5. Sociosexual orientation (SOI)						1 <b>8</b> **	.13*	3 <b>9</b> **	16**
6. Jealousy						_	23**	.20**	.08
7. Age							_	.06	.14*
8. Religiosity								_	.37**
9. Political orientation									_
М	3.22	3.79	4.22	5.67	3.92	2.61	38.24	$-0.03^{a}$	3.62
SD	1.66	1.38	1.51	1.04	1.60	0.97	13.41	0.93	1.68

Notes. <sup>a</sup>Mean religiosity is based on standardizes scores \* p < .05, \*\* p < .01.

**Table 3b.** Study 2: Bivariate Correlations for Female Participants (N = 298).

	1.	2.	3.	4.	5.	6.	7.	8.	9.
I. Feminine honor	_	.53**	.46**	.21**	53**	.26**	.14*	.54**	.50**
2. Masculine honor		_	.51**	.23**	I2*	.44**	07	.28**	.33**
3. Family honor			_	.50**	1 <b>7</b> **	.24**	.05	.27**	.21**
4. Integrity honor				_	09	.10	.07	.21**	.00
5. Sociosexual orientation (SOI)						.02	09	<b>42</b> **	2 <b>9</b> **
6. Jealousy							12*	.14*	.09
7. Age							_	.14*	.16**
8. Religiosity								_	.37**
9. Political orientation									_
М	2.98	3.51	4.30	5.82	3.00	2.87	39.25	0.03 <sup>a</sup>	3.22
SD	1.59	1.34	1.44	0.97	1.39	0.98	14.14	18.0	1.61

Notes. <sup>a</sup>Mean religiosity is based on standardizes scores \* p < .05, \*\* p < .01.

As expected, among male participants, dispositional jealousy and monogamous mating strategy (i.e., lower SOI) predicted higher support for feminine honor norms, above and beyond age, religiosity, political orientation, and other honor norms (Table 4). Among female participants, monogamous mating strategy, but not dispositional jealousy, predicted higher support for feminine honor norms above and beyond these control variables.

Similar hierarchical regression analyseswere conducted on support for masculine, family, and integrity honor norms (see Tables S1–S3 in Supplemental Material). Men's and women's support for masculine honor norms, and women's (not men's) support for family honor norms were predicted by dispositional jealousy. For men, these associations were not as strong as with feminine honor, but for women these associations were stronger than with feminine honor. Mating strategy did not predict support for masculine, family, or integrity honor norms for either sex.

#### **General Discussion**

Synthesizing research and theory on mate guarding, sexual jealousy, mating strategies, and ideological control, we

proposed that support for feminine honor serves as an ideological form of mate guarding. Across two correlational studies, we found support for predictions derived from this account. In Study 1, men's tendency to experience sexual jealousy and men's (more monogamous) mating strategy were associated with more concern about their own mates' feminine honor. Associations were stronger when men considered long-term mates compared to short-term mates, consistent with the argument that mate guarding is more important in long-term mating because of the higher probability of parental investment (Buss, 2002; Shackelford et al., 2006). Study 2 showed that sexual jealousy and monogamous mating strategy were associated with support for women in general having feminine honor. These associations held even after accounting for concerns about protecting other forms of honor (family, masculine, and integrity), and for other variables (religiosity, political orientation, and age) that are commonly argued as explanation for people's support for traditional gender ideologies, including honor norms (e.g., Glick et al., 2015; Vandello & Cohen, 2003). Among female participants, however, the association between sexual jealousy and feminine honor was nonsignificant after including these additional variables in a regression analysis. One explanation for finding stronger

Table 4. Study 2: Hierarchical regression results on support for feminine honor norms.

Sex	Steps		В	SE	β	t	Þ	95% CI
Men	I	Age	-0.01	0.01	-0.08	-1.78	.077	-0.02, 0.00
		Religiosity	0.89	0.09	0.49	9.65	.000	0.71, 1.07
		Political orientation	0.21	0.05	0.21	4.15	.000	0.11, 0.31
	2	Age	-0.01	0.01	-0.07	-1.61	.110	-0.02, 0.00
		Religiosity	0.59	0.08	0.33	7.01	.000	0.43, 0.76
		Political orientation	0.13	0.05	0.13	2.93	.004	0.04, 0.22
		Masculine honor	0.21	0.07	0.18	2.93	.004	0.07, 0.36
		Family honor	0.34	0.07	0.31	4.82	.000	0.20, 0.48
		Integrity honor	-0.07	0.08	-0.04	-0.84	.401	-0.22, 0.09
	3	Age	-0.00	0.01	-0.03	-0.65	.517	-0.01, 0.01
		Religiosity	0.55	0.08	0.31	6.59	.000	0.39, 0.71
		Political orientation	0.13	0.04	0.13	2.95	.003	0.04, 0.22
		Masculine honor	0.19	0.07	0.16	2.67	.008	0.05, 0.33
		Family honor	0.33	0.07	0.30	4.72	.000	0.19, 0.47
		Integrity honor	-0.04	0.08	-0.02	-0.49	.624	-0.19, 0.11
		Jealousy	0.28	0.07	0.16	3.82	.000	0.14, 0.42
	4	Age	0.00	0.01	0.02	0.58	.565	-0.01, 0.01
	•	Religiosity	0.33	0.08	0.19	4.15	.000	0.18, 0.49
		Political orientation	0.12	0.04	0.12	2.97	.003	0.04, 0.20
		Masculine honor	0.25	0.07	0.21	3.90	.000	0.13, 0.38
		Family honor	0.25	0.06	0.23	3.85	.000	0.12, 0.37
		Integrity honor	0.00	0.07	0.00	0.03	.980	-0.14, 0.14
		Jealousy	0.25	0.07	0.14	3.68	.000	0.11, 0.38
		Sociosexual orientation (SOI)	-0.34	0.04	-0.33	<b>-7.99</b>	.000	-0.42, -0.26
Women	ı	Age	0.00	0.01	0.03	0.62	.534	-0.01, 0.01
		Religiosity	0.82	0.10	0.42	8.49	.000	0.63, 1.01
		Political orientation	0.34	0.05	0.34	6.88	.000	0.24, 0.43
	2	Age	0.01	0.01	0.07	1.67	.097	-0.00, 0.02
		Religiosity	0.64	0.09	0.33	7.22	.000	0.47, 0.82
		Political orientation	0.23	0.05	0.24	5.13	.000	0.14, 0.32
		Masculine honor	0.32	0.06	0.27	5.42	.000	0.20, 0.43
		Family honor	0.22	0.06	0.20	3.80	.000	0.11, 0.34
		Integrity honor	-0.05	0.08	-0.03	-0.60	.548	-0.20, 0.11
	3	Age	0.01	0.01	0.073	1.75	.082	-0.00, 0.02
		Religiosity	0.64	0.09	0.323	7.16	.000	0.46, 0.81
		Political orientation	0.24	0.05	0.238	5.18	.000	0.15, 0.33
		Masculine honor	0.30	0.06	0.249	4.71	.000	0.17, 0.42
		Family honor	0.22	0.06	0.199	3.76	.000	0.11, 0.34
		Integrity honor	-0.05	0.08	-0.028	-0.59	.559	-0.20, 0.11
		Jealousy	0.07	0.07	0.044	0.98	.329	-0.07, 0.22
	4	Age	0.01	0.004	0.07	1.93	.055	0.00, 0.02
		Religiosity	0.41	0.09	0.21	4.72	.000	0.24, 0.57
		Political orientation	0.19	0.04	0.19	4.47	.000	0.11, 0.27
		Masculine honor	0.31	0.06	0.26	5.42	.000	0.20, 0.42
		Family honor	0.19	0.05	0.17	3.51	.001	0.08, 0.29
		Integrity honor	-0.04	0.07	-0.02	-0.50	.616	-0.18, 0.10
		Jealousy	0.12	0.07	0.07	1.79	.075	-0.01, 0.25
		SOI	-0.37	0.05	-0.33	<b>-7.95</b>	.000	-0.46, -0.28

Notes. Bold indicates statistical significance, p < .05.

associations among male than female participants is that due to paternity uncertainty, men risk higher fitness costs from infidelity, and have correspondingly stronger concerns about a partner's sexual fidelity (Buss et al., 1992), so men may be more inclined than women to support ideologies that enable the suppression of female sexuality.

As with men, women who were more oriented towards a monogamous mating strategy were more likely to support feminine honor norms (Study 2). Notably, the effect size for this association was similar in men ( $\beta = -0.34$ ) and women ( $\beta = -0.37$ ). There are several potential explanations. One is that reported support for feminine honor reflects strategic signaling

of a preference for sexual modesty by women with relatively monogamous mating strategies. Such signaling may function to increase male mates' paternity confidence and thereby increase chances of paternal investment, given that men invest more when they are more certain of their mate's sexual fidelity (Apicella & Marlowe, 2004; Scelza et al., 2020). Alternatively, by supporting and spreading feminine honor norms, women may be strategically enforcing a monogamous mating strategy, which may reduce the risk of mate poaching by intrasexual rivals.

Study 2 results showed that dispositional jealousy was associated with men's and women's support for masculine and family honor norms (reported in the Supplemental Material), in addition to the association with feminine honor norms. One possible explanation is that masculine honor enables mate guarding by increasing men's ability to deter potential rivals and mate poachers (Shackelford, 2005), and family honor promotes the family's role in mate guarding, by encouraging female kin's sexual chastity, and by encouraging male kin's formidability and bravery (Daly et al., 1982; Goldstein, 2002).

Our finding that individuals with a relatively monogamous mating strategy show more support for feminine honor is consistent with multiple previous findings showing links between mating strategy and socially conservative ideologies and practices related to sexuality. Individuals with a relatively monogamous (vs. promiscuous) mating strategy report higher religiosity (Weeden & Kurzban, 2013) and religious attendance (Weeden et al., 2008), and report lower approval of atheists (Moon et al., 2020), gay rights (Pinsof & Haselton, 2017), and recreational drug use (Kurzban et al., 2010). The current findings also raise the possibility that such phenomena could serve a mate-guarding function, and be additionally influenced by sexual jealousy. Indeed, theoretical accounts have argued that mate guarding should be a particular concern for individuals pursuing a more monogamous mating strategy (Buss & Schmitt, 1993; Gangestad & Simpson, 2000), and data shows that more monogamous orientation is associated with higher jealousy (Kupfer et al., 2022).

Although we have primarily considered individuals' concerns about their mates' fidelity, multiple other factors likely contribute to shaping feminine honor norms. Relatives also have fitness interests that can be served by controlling female sexual behavior. For example, parents with more sons have fitness influenced by their sons' paternity certainty and may therefore contribute to mate guarding by supporting ideologies that suppress female sexuality (Blake et al., 2018). Similarly, relatives can benefit from discouraging female kin's involvement with potential mates, particularly ones that are low mate value or unlikely to invest. Relatives may therefore engage in direct "daughter guarding" behavior (Perilloux et al., 2008), which could extend to endorsing sexuality-suppressing ideologies such as feminine honor.

Motives not directly related to mate guarding or mating strategy might also contribute to support for feminine honor. In some cultures, male and family honor can be contingent on a woman maintaining her feminine honor (Vandello & Cohen, 2003), suggesting that motives to acquire status and reputation likely enhance efforts to promote feminine honor. Feminist perspectives emphasize that men's support for feminine honor arises from men's pursuit of control and dominance over women as a group (e.g., Glick et al., 2015; Lerner 1986; Sev'er, 2005). And according to some cultural evolutionary perspectives, groups that controlled sexual behavior and enforced monogamy were more successful because of lower within-group competition and conflict (Henrich et al., 2012). Ideologies such as feminine honor may thus have proliferated along with the success of such cultural groups.

#### Limitations and Future Directions

Given the correlational nature of our design, the direction of causation is uncertain. Experimental evidence is needed to test whether there is a casual effect of jealousy and mating strategy on support for feminine honor norms. Additionally, unmeasured variables may have influenced associations. Although we took account of several plausible variables—including age, religiosity, political conservativism, and concern for male, family, and integrity honor—we may have overlooked others. Social dominance orientation, reputation sensitivity, or perceived threats to community values could also play a role in support for feminine honor norms.

Studies investigating the individual-level causes and consequences of honor norms have almost exclusively been conducted with US participants, which has mixed honor and dignity values (e.g., Gul et al., 2021; Foster et al., 2022; McLean et al., 2018; Saucier et al., 2016). The current research also used participants from the US, which is sufficient for an initial test of an association hypothesized to be species-typical. However, understanding how sexual jealousy and mating strategy influences feminine honor across different cultures is an important goal for future research. Research would also be enriched by examining whether ideological mate guarding and sexual jealousy, are at the core of "harmful traditional practices" including sequestering, honor-based violence, and female genital mutilation. The psychological mechanisms (sexual jealousy and mating strategy) underpinning ideological mate guarding may also be found to interact with socio-ecological conditions (e.g., sex ratio; actual or perceived number of same-sex rivals) to explain cross-cultural and regional variation in the strength of feminine honor norms.

The current research did not investigate precisely how sexual jealousy and mating strategy shape feminine honor, beyond self-reported support for women's and mate's feminine honor. Support for feminine honor could be enacted in various ways: People may collectively punish women who fail to protect their honor (Chesler, 2015); ostracize or ridicule men who fail to protect female kin's honor or fail to punish a dishonorable woman (Boyer, 2018; Vandello et al. 2009); condone wife beating (Eisner & Ghuneim, 2013); transmit normative feminine honor information (Caffaro et al., 2016); and approve of women who stay with their husbands even after facing honor-based partner aggression (Vandello & Cohen, 2003). Future

research should investigate the various cultural transmission mechanisms through which sexual jealousy leads to the cultural evolution and maintenance of feminine honor norms.

#### Conclusion

According to the ideological mate-guarding account of feminine honor we have described here, feminine honor culturally evolved due to the pressures of paternity uncertainty and intrasexual competition. Previous scholars have given mateguarding accounts of other cultural phenomena that enable the control of female sexuality (e.g., Daly et al., 1982; Smuts, 1995), but here we provided an account of the origins of feminine honor specifically. Moreover, although prior scholars anticipated an association (e.g., Daly et al., 1982), the current findings provide, to the best of our knowledge, the first empirical evidence that sexual jealousy is associated with ideologies that serve to control female sexuality.

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#### Supplemental Material

Supplemental material for this article is available online.

#### Note

 To assess the normality of our data, following Kim (2013) we used visual inspection alongside absolute values for skewness (<2) and of kurtosis (<7). Variables followed a symmetric normal distribution except for feminine honor for short-term mates and religiosity in Study 1, and jealousy (of male participants), integrity honor, and religiosity in Study 2.

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