

**Effects of Interviewer Gender and *Hijab* on Gender-Related Survey Responses:
Findings from a Nationally-Representative Field Experiment in Morocco**

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ABSTRACT

Despite the recent expansion of surveying in the Muslim world, few published studies have addressed methodological questions, including how observable interviewer characteristics affect responses and data quality. Although there are a limited number of studies on interviewer dress effects, none examine interviewer gender. This study asks whether and why gender and religious dress affect responses to gender-related questions. Drawing upon original data from a nationally-representative, partially-randomized survey of 800 Moroccans conducted in 2007, the study finds strong evidence that gender and dress affect responses and item non-response. The paper argues that because *hijab* implies multiple personal, religious, and political dimensions of identity nested within gender identity, interviewer gender and dress must be considered as intersecting categories. For questions pertaining to women's role in the public sphere, responses were affected by interviewer dress; respondents reported more progressive attitudes and were more likely to refuse to respond to female interviewers not wearing *hijab* than to veiled female interviewers and male interviewers. For support for gender equality in family law, results were affected by interviewer gender; respondents reported more liberal views and were more likely to fail to respond to female interviewers with both dress styles than male interviewers. Interviewer characteristics affected responses to more than half of the 174 questions included in the survey, including support for democracy and religiosity. Researchers conducting surveys should code and control for interviewer characteristics in order to reduce total survey error and better understand the social processes which generate public opinion in this crucial region.

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Introduction

For several decades, scholars in the United States and, to a limited extent in non-western countries, have examined how the interviewer affects survey responses, and, ultimately, conclusions about how social processes operate. One area of research examines the impact of interviewer gender on attitudes toward gender-relevant issues. While not all studies find an effect, many find that female gender is associated with more progressive responses. For example, male respondents in the United States expressed more egalitarian views to female interviewers on items related to gender equality in employment and female respondents expressed more feminist views to female interviewers on issues related to collective action (Kane and Macaulay 1993). Although many studies find evidence that women receive more egalitarian answers than do male interviewers (Lueptow, Moser, and Pendleton 1990; Walker 1992; Huddy et al. 1997), other studies find little evidence of an effect (Johnson and Delamater 1976), and, in rare cases, an effect in the opposite direction than expected (Landis, Sullivan, and Sheley 1973).

Many researchers also examine interaction effects, considering whether the effect of gender depends on a second interviewer characteristic, such as race or age, or, whether the size or presence of the effect depends on a respondent trait (Johnson and Moore 1993). Huddy et al. (1997) found that gender-of-interviewer effects were more pronounced among younger and less well-educated individuals, but little compelling evidence for an interaction between interviewer and respondent gender.

Finally, many studies investigate whether the size of effect varies across sub-issues or locations. Generally speaking, these studies find that effects are more likely for politicized issues (Huddy et al. 1997) and in places in which the issue is most salient (Sudman and Bradburn 1974; Lueptow, Moser, and Pendleton 1990). A study of interviewer effects in Mexico found that

female interviewers elicited more progressive responses to gender-related questions, but only for male respondents in Mexico City, where the issue was most salient (Flores-Macias and Lawson 2008).

Survey researchers in the Arab and Muslim worlds are also interested in measuring attitudes toward controversial issues, including attitudes about gender equality. Women's rights activism has a long precedence in the Muslim world (Moghadam 1994, 2003; Sadiqi 2008), but particularly in the last two decades, discussion of gender relations have enlivened debate in protest spaces, on the Internet, and in parliaments, suggesting that interviewer gender may affect responses to questions about women's rights. Yet, while interviewers are thought to contribute a major source of total survey error, few published studies have addressed interviewer effects in the Muslim world; none have explicitly examined gender-of-interviewer effects or whether and how interviewer traits impact responses to questions about women's equality.

There are two reasons for the dearth in survey methodology research in the Arab world and for the lack of studies examining gender-of-interviewer effects. First, social and political surveys have only recently been conducted regularly. The World Values Survey was not fielded in the Arab world until the 1999-2004 wave (Tessler) and, although the Arab Democracy Barometer and many other surveys are conducted, the field of political attitudes research has not had time to look extensively at methodological questions (Tessler and Jamal).² Second, survey research in the Arab world frequently employs same-gendered interviewing, making the study gender-of-interviewer effects impossible.³ Consequently, the nascent body of scholarship on

² Corstange finds that the presence of an interviewer leads to underreporting of socially-undesirable attitudes and significantly biases multivariate results (Corstange 2009-2011).

³ Same-gendered interviewing is used widely throughout the region and is based on the belief that mixed-gendered interviewing is inconsistent with social norms and/or will bias data.

interviewer effects in the Muslim world focuses on interviewer dress effects, but has yet to examine interviewer gender.

Two studies using same gendered interviewing have examined the impact of interviewer religious dress on reported religiosity in the Muslim world. In a field experiment of 150 men and women conducted by male and female interviewers in the center of three cities in Turkey, Islamist and secularist symbols worn by interviewers affected reports of personal and social religiosity (Koker 2009). In a randomized survey of 1200 ever-married female respondents conducted by female interviewers in Greater Cairo, female interviewers who wore *hijab* elicited higher levels of reported religiosity, forced sex with their husbands, and female circumcision. The effect of *hijab* greater for Muslim respondents than for Coptic Christians than for Muslims (Blaydes and Gillum 2010).

While these studies are important steps toward a better understanding of how religious symbols mediate social interaction they do not (or, due to subject matter, cannot) untangle the effects of interviewer gender and dress. This paper extends this literature by examining whether and how interviewer gender and religious dress affect survey responses and item non-response for gender-related. It argues that because women are more likely to don religious dress than are men, interviewer gender and dress cannot be treated as single analytical categories. While female interviewer gender is associated with more progressive attitudes in most world regions, the effect of female gender on survey responses is likely to depend on dress, their effects likely to be intersectional.⁴

This paper is motivated by two related sets of questions, the first substantive and the second methodological. Because survey interviewing is a form of social interaction (Bateman

⁴ Intersectionality “is a paradigm for theory and research offering new ways of understanding the complex causality that characterizes social phenomena”(Cole 2009) p. 179.

and Mawby 2004), not a ruler, analysis of interviewer effects can elucidate the social meaning of *hijab* and how it mediates social interaction (Zaller and Feldman 1992). Is *hijab* regarded primarily a religio-political symbol, or does it signal multiple aspects of identity? Is *hijab* perceived as an indicator of one's position vis-à-vis two idealized groups in Moroccan society, traditionalists and modernists, or are gender relations more complex?

The paper seeks to contribute to knowledge on reducing total survey error in social surveys in the Muslim world. Interviewer effects, whether random or systematic, affect the accuracy of the descriptive and causal inferences drawn from the data and may change substantive conclusions about how support for equality develops. To what extent do interviewer traits affect responses and data quality? Are inferences likely to be biased if interviewer characteristics are not randomized or controlled for?

In order to investigate these questions, the paper draws upon data from a nationally-representative survey of 800 Moroccans conducted by the author in 2007.⁵ The study was implemented by the same team which conducted the 2007 wave of the Arab Democracy Barometer and, therefore, the results are informative for nationally-representative survey and polls in Morocco. Critically, interviewers were randomly assigned to pairs and then to housing listings at the level of the primary sampling unit; mixed-gender interviewing was used for the first time in Morocco. Data on the gender and dress of interviewers, along with their own survey responses, were recorded and linked to each survey by interviewer number and their effects evaluated.

The results revealed that interviewer characteristics affected survey responses and item-missing data on survey questions about gender equity in both the public and private spheres. Critically, the magnitude of coefficients on several independent variables changed when

⁵ In collaboration with Ellen Lust.

interviewer gender and dress were controlled for, affecting substantive interpretation of factors explaining gender-related attitudes. Non-gender-related survey questions, including those measuring support for democracy and personal religiosity, were also affected by interviewer gender and dress.

Data and Methodology

The analysis draws upon a face-to-face survey of 800 residents of Morocco, 18 years and older, conducted in Arabic in 2007. The survey had approximately 174 questions covering a range of social and political attitudes, and took approximately 60 minutes to complete. The response rate was 42.9 percent.⁶

The survey was conducted in two-stages. In the first stage, a random stratified sample of twelve of the 91 electoral districts (the primary sampling units, PSUs) were selected along two strata, region and district magnitude. The number of interviewers in each district was proportional to the population. One selected district was located in the north, four in the center, two in the east, four in the south, and one in the disputed Sahara.

In the second stage, systematic methods were used to select housing units from supplemented lists provided by the National Statistics Office. Quota sampling was used to select the respondents within the household, with housing type, age, education, and gender as the strata. The quotas corresponded with demographic data.

The design followed the basic intuition of the interpenetrated design in a large geographical area, first developed by Mahalanobis (1944) and elaborated by Raj (1968) (Groves 1989; Mahalanobis 1944; Raj 1968). The logic of this design is to assign independent sub-samples to different interviewers within a given sampling area, in this case the PSU. In the

⁶ AAPOR response rate 1.

present study, interviewers were randomly assigned to pairs (a male and a female interviewer) and, to the extent possible, these pairs were randomly assigned to housing lists at the level of the PSU. Within the selected housing lists, each pair of interviewers worked separately to fill identical quotas. Any selected unit could be approached by a male or female interviewer and a male or female respondent could participate until the interviewer's quota was reached.

Chi-squared tests of interviewer gender and each of the independent variables showed that the randomization was only partially successful. There were three reasons for this. First, there was one outlying district for which only one interviewer, in this case a male, was suitable to conduct all interviews. Second, social norms appear to have led female interviewers to conduct more interviews with female respondents than their male counterparts. Finally, within-household selection was conducted on the basis of quotas, a common practice with nationally-representative surveys conducted in the region, not random assignment. Because sub-samples of respondents were not identical across the interviewer pairs, multivariate analysis will be used to control for systematic factors which may have affected the assignment of respondents to interviewer conditions.

Interviewer Conditions: The Independent Variable

Men's and women's dress style varies in the Muslim world. Whereas most Omani men wear a *dishdash* and the *mussar* (turban), men in Morocco generally wear western-style clothing. Men who identify with movements seeking Islamic social and political reform may wear a beard or a garment with a shorter pant length or hemline, associated with spurning worldly fashion; these differences are rare in Morocco and unlikely in a pool of ten male interviewers.⁷

⁷ Moroccan men sometimes wear a traditional *djellaba* (cloak) in rural areas, but these styles are unlikely among interviewers.

The data in Table 1 show that, characteristic of Moroccan society more generally, none of the ten male interviewers had a beard or wore clothing that distinguished them in terms of perceived religiosity. The male interviewers' dress would not necessarily communicate lack of religiosity. Rather, the religious or political views of male respondents would be not obvious to the respondent.

Data from the interviewer survey suggested that the male interviewers varied from one another in their reported religiosity, if not their dress style. Nine of the ten male interviewers answered the following questions on their interviewer questionnaire: How important are religious considerations in your dress choice? The data presented in Table 2 show that, although none said it was highly important, six answered that it was somewhat important, and three answered that it was not very important. Thus, the male interview condition encompasses both more and less religious men wearing western dress; a potential fourth condition is largely irrelevant in Morocco.

[Table 1]

Women's dress style also varies in the Muslim world.⁸ Westerners are familiar with the Afghan *burqa*, but less, if at all, with the decorative and colorful dress of Kabyle, a sizeable indigenous *Amazigh* group in Algeria, traditionally worn without a headscarf.⁹ Many women don the traditional Moroccan *djellaba* and headscarf (*hijab*), as a university student said she

⁸ *Hijab* is an Arabic word meaning "covering". The term for the headscarf in Qur'an is *khimar*, whereas *hijab* is used for a curtain in the Qur'an and expanded later refer to women's dress (Ahmed 1992; Mernissi 1991).

⁹ In contemporary usage, *hijab* refers to the headscarf and to modest clothing, traditional or western. I use *hijab*, headscarf, and veiling interchangeably to refer to a headscarf. Although veiling refers specifically to the face veil, it is frequently used synonymously with *hijab*, including a headscarf worn alone.

always wore when in her Moroccan hometown, or, a more comfortable two-piece outfit, with a skirt or pants and long blouse, at university in Rabat. Some younger Moroccan women wear more modest styles of the headscarf and it is typically the headscarf, not the face veil that is associated with religious conservatism or piety. The face veil is a traditional form of dress in Morocco and most likely to be worn out of tradition or habit by the older generation of women (Hessini 1994). Many Moroccan women do not wear a headscarf and their dress is similar to that of most women in the West.

[Table 2]

The data in Table 2 show that only two of the interviewers wore a headscarf. Based on the interviewers' reported religious orientations, it is clear that *hijab* is not a perfect measure of religiosity. Both of the female interviewers who wore *hijab* said that religious considerations were very important in their choice of dress. However, two women who did not wear a headscarf also said that religious considerations were very important in their choice of dress.¹⁰

The primary analysis tests the effect of three observable interviewer conditions: male (404 surveys); female not wearing *hijab* (331 surveys); and, female wearing *hijab* (65 surveys). An informed observer suggested that respondents might be able to tell how religious an interviewer is regardless of dress style. In order to test whether this is the case, the interviewers were divided into categories of low, moderate, and highly religiosity based on their responses to the questionnaire. From these data, four non-observable conditions were created, but there was no evidence that unobservable interviewer religiosity affected survey responses or data quality.

¹⁰ Other measures of interviewer religiosity are not reported due to confidentiality.

The Veil: Signal of What?

The conventional wisdom is that “new *hijab*” is primarily a religio-political symbol, a “...microcosm of a much broader dilemma – should Arab countries in North Africa turn towards secular democracies or to more traditional Islamist countries for their guidance and inspiration?” (Hamilton 2006; Heyat 2008). Yet, although primarily a symbol of piety, dignity, and respect, the veil may be a signal of multiple dimensions of identity and be associated with advantages and constraints. According to informal discussions, some women wear *hijab* as a symbol of Arab identity and femininity, arising from their sense of appreciation for tolerance and diversity.

Hijab is probably best understood as a symbol of piety--of being a believing Muslim who seeks to follow the true path of Islam (Essers and Benschop 2009). However, as a symbol of interiority, it provides a means to leave the private space of the home and fulfill new roles in the public space without disrupting social cohesion or family stability. *Hijab* offers a greater degree of mobility while maintaining socially valuable characteristics of modesty and chastity in settings in which personal networks are critical to survival and success (Blaydes and Gillum 2010; Heyat 2008; Singerman 1997; Newcomb 2007).

Increasingly, the veil has acquired social meaning as a religio-political symbol (Afshar 2008). Unlike in some national contexts where failure to veil may lead to harassment or social ostracism, in Morocco, Tunisia, Egypt, and Turkey, women who wear *hijab* may face discrimination (Chalabi 2010). Fadir (2009) writes: “Most of the time, the job announcement state that women should be ‘good looking and present herself well’ which automatically makes *hijab* unacceptable.”¹¹ Pictures of veiled women and girls were recently removed from school textbooks, a Moroccan government official stating that *hijab* is a political symbol which represents only one political faction (Hamilton 2006). These identity politics should be

¹¹ p. 84

understood in the context of political liberalization in which the incumbent regime seeks to improve political participation without the opposition challenging the status quo. The politicization of the veil is a consequence of both the entrenchment of political authoritarianism after the wave of democratic experiments in the late 1980s and of the rise of political Islam as the only viable opposition to incumbent regimes.

Social desirability theory suggests that respondents adapt their views to the perceived norms and values of the enumerator based on socially-stereotyped inferences (Heeb and Gmel 2001), in this case, the gender and, for women, religiosity of the interviewer. To the extent that *hijab* is essentialized as a religio-political symbol, the veil will be associated with more conservative responses, on average, reported to female interviewers who veil, compared to unveiled female interviewers and male interviewers. To the extent that the veil is identified with multiple and complex dimensions of identity, female interviewer gender will be associated with more progressive responses than will male interviewer gender.

The Moroccan Case

The context of two politicized gender reforms, Morocco is a particularly appropriate case in which to examine interviewer effects on gender-related survey items.¹² Following decades of women's organizing, Morocco's political parties signed a "gentleman's agreement" in 2002, reserving 30 of the 325 seats in the Chamber of Representatives for female candidates (Brand

¹² My distinction between women's equality in the public and private spheres and Sadiqi's between women's demands for full citizenship and emancipation connect analytically with Walby's development of public and private patriarchy (Walby 1990). For Sadiqi, the public dimension relates to the achievement of full citizenship for women--equal civil and political rights--as guaranteed by the constitution. The private dimension relates to reforming family law and the emancipation of women from laws which grant them unequal status in the family.

1998; Dris-Aït-Hamadouche 2007; Ross 2008; Sadiqi and Ennaji 2006).¹³ However, the heart of the women's rights struggle was always the reform of the country's Personal Status Code (*Mudawanna*) (Sadiqi 2008). Promulgated in 1957-8 and based on a traditional interpretation of Maliki Islam, the *Mudawanna* made women minors throughout their lives and granted them unequal rights in marriage, divorce, and inheritance. In 2004, female parliamentarians participated in passing the new family law which brought significant reform and established the second most liberal family law in the Arab world after Tunisia (Dris-Aït-Hamadouche 2007; Charrad 2000).

Gender Equality in the Public Sphere

The enactment of conservative family law in 1957 threatened the gains that women had achieved through the reformist neo-*salafia* movement (1920s) and the independence movement (1940s-1950s) by enforcing traditional division of labor. Husbands were to support their families financially and wives were to care for their children, respect their husband's family, and remain outside public space (Moghadam 2003). Apart from their activities in women's section of political parties, women were largely sidelined from formal office through the country's long period of political closure, which began with the succession of King Hassan II in 1961 and continued through the failed coup attempts of the 1970s.

However, women joined the paid labor force in small, but significant numbers, many benefitting from working in factories and taking up positions as business women, athletes, professors, policewomen, doctors, and judges (Waltz and Benstead 2006; Ross 2008). Although gender disparities in literacy and unemployment rates exist, by 2003, Moroccan women

¹³ The 1996 constitution grants men and women equal political rights (Article 8) and equal rights to education and employment (Article 13), but equal rights in other domains are not mentioned. Woman gained the right to vote and stand for office in 1959 (Afifi and Msefer 1994).

comprised 41.9 percent of the paid workforce, 30 percent of doctors, and 25 percent of university professors (Skalli 2001; Dris-Aït-Hamadouche 2007; UNDP 2010; Ennaji 2008; Bettachy et al. 2009).

The death of King Hassan II in 1999 and the ascension of 38-year old King Mohammed VI brought a new era of openness. Along with changes in human rights, the question of women's status was central to palace policy. The king declared women to be the victims of marginalization, injustice, and indignity, and, among his first acts in 2000, made two high-level female political appointments in 2000 (Sadiqi 2008; Griffiths 1996).

In 2002, women's formal representation expanded significantly when women's rights activists succeeded in brokering an agreement to reserve 30 seats on a national list for women in elections to the upper house of Parliament (Malesky and Schuler 2010). With this quota in place, women won two seats in the regular geographical constituencies and thirty on national lists, bringing their representation to 9.8 percent of the Chamber, one of the highest levels in the region. The agreement had a lasting effect on women's access to formal politics. After the quota was abolished in 2007, 34 women were elected, in part because the socialist USFP committed to fielding women for at least 20 percent of its candidate slots (IDEA 2010).

The quota agreement and the actions of the king to promote women's in public life enlivened debate about quotas. Although many Moroccans were supportive of women's participation, the use of quotas was controversial. Many ordinary people viewed quotas as demeaning because they "led to the election of women on the basis of gender, not merit" (Benstead 2007). Others opposed quotas because they helped only wealthy, well-connected women get elected and offered limited hope for political reform. Those who supported quotas

argued that although imperfect, they were a necessary means to reverse the effects of decades of discrimination.

This wide range of opinions was reflected in responses to seven survey questions concerning women's involvement in public sphere (See Appendix). The first asked whether women should work outside the home, while the six others asked whether women make good political leaders and representatives and whether the government should use quotas as a means to increase the number of women in politics. An index was created by scaling the seven indicators from 0 to 1 and taking the mean of all non-missing items. The scale had an inter-item reliability of .86, indicating that they measure a single construct and ranged from .32-1.¹⁴

Gender Equality in the Private Sphere

The adoption of the quota agreement in 2002 proved to be a harbinger of more change. For the first five decades after independence, women's rights were significantly inferior to those of men.¹⁵ Under the first *Mudawwana*, women could not obtain a passport, enter the workforce, or conclude most contracts, including their marriage contract, without the ascent of a male guardian (*wali*) (Charrad 2000; Maddy-Weitzman 2005; Keddie 2007; Charrad 2001). Child and forced marriage were possible because girls could marry at 15 years of age without their consent (Griffiths 1996). Men enjoyed the right to polygamy and divorce through repudiation without the need for court proceedings, while women could not initiate divorce, except in specific circumstances such as abuse. Women retained custody of children after divorce only while still

¹⁴ The seven indicators load onto a single factor, with an eigenvalue of 3.70 for the first factor and .89 for the second and subsequent factors. The scale is approximately normally distributed, with a mean of .70.

¹⁵ Unlike in Tunisia, a presidential republic in which the Bourghiba regime sought to weaken kin-based allegiances by enacting a liberal family law, King Mohammed V favored a family law which maintained the power of the patriarchal tribe (Charrad 2001), assuring their allegiance and strengthening his power vis-à-vis the *Istiqal* Party and the UNFP (Maghraoui 2002).

unmarried and residing in the same city as the husband (Keddie 2007). Women's inheritance was half that of a man; husbands were the heads of their households and wives were legally required to obey their husbands (Waltz and Benstead 2006; Mernissi 1978).

In the late 1980s, women's rights organizations began to lobby more vigorously for change (Brand 1998).¹⁶ In 1989, King Hassan II appointed the first opposition Prime Minister, socialist Abderrahmane Youssoufi, whose government proposed a reform plan to include changes to the *Mudawwana*. In the face of death threats from conservative Islamists who argued that questioning the *Shari'a* is a capital offence and opposition of their own party leaders, women's groups led by the Democratic Association of Moroccan Women assembled a list of more than one million signatures in 1992, appealing for seven changes to family law in order to bring it in line with international standards (Dris-Aït-Hamadouche 2008; Keddie 2007; Maddy-Weitzman 2005). While minor reforms were enacted in 1993, the results fell well short of feminists' demands (Ennaji 2006; Waltz and Benstead 2006; Brand 1998).

The emergence of the international women's rights regime played an important role in the success of Moroccan women's rights organizations to reform the *Mudawanna*. The 1995 United Nations' Beijing conference on women's rights gave activists access to networks and sources of legitimacy they had not enjoyed before (Waltz and Benstead 2006; Gränzer 1999). But it was the accession of King Mohammed VI in 1999 that played a decisive role. The government released a development plan in 2000 which included new imperatives for eliminating legal obstacles to equal rights for women. Some 40,000-50,000 women's rights activists demonstrated in March 2000 in Rabat in support of the government's plan, but were upstaged by 150,000 opponents of the reforms, many of them women, who counter-demonstrated in Casablanca in events organized mainly by Islamist groups (Maddy-Weitzman

¹⁶ The husband's right to unilateral repudiation was abolished in the late 1980s.

2005). In 2003, King Mohammed VI convened a royal commission to advise him on the country's family law. Members of the commission—conservative *'ulema* and secular feminists--were at loggerheads until the 2003 Casablanca bombings provided a window of opportunity for the young king to achieve his desired reforms (Waltz and Benstead 2006).

Given the decades of stagnation, many were pessimistic in early 2003 about reform (Benstead 2003). However, King Mohammed VI proposed a new family law, approved by his state-sanctioned legal scholars and passed down to Parliament that radically altered women's status. The new code raised the minimum age of marriage for girls to 18, in line with that of boys, made wives equal partners with their husbands, gave women the right to divorce in court, eliminated the guardian system, and all-but outlawed polygamy except in limited cases allowed by a judge and with the consent of the first wife (Waltz and Benstead 2006). While the King presented the new law as *ijtihad* (reinterpretation), the only substantial traditional elements of *Shari'a* law that it maintained were the injunction that male children receive two times the inheritance of female children and limited provisions for polygamy. In the final analysis, the Commander of the Faithful was sovereign and even the Islamist Party of Justice and Development finally acquiesced in Parliament when the law was debated and ultimately passed.

The two demonstrations in Rabat and Casablanca illustrate divergent opinions about whether family law should reflect international or *Shari'a* law. According to the survey, most Moroccans, 454 (65.3 percent), believe that the laws concerning the status of women should reflect some aspects of *Shari'a*, while 131 (18.9 percent) believe that *Shari'a* should be eliminated. A slightly smaller group, 110 (15.8 percent), believe that *Shari'a* should be the only source (n=695). Views about women's participation in the public space do not correlate highly with their views toward women's equality in the family $r = .08$ (n=691).

Women's Rights: Gender or Religio-Political Conflict?

Images of women clad in black *abayas* protesting reform reflect the conventional wisdom that Moroccan society is divided into two groups, modernists and traditionalists, with the veil as a symbol of this religio-political divide (Maddy-Weitzman 2005; Dris-Aït-Hamadouche 2008; Freeman 2004). As evidenced by the inability of secular feminists and advocates of a *Shari'a* state to develop a common platform at the Beijing Global women's conference in 1995, religio-political orientations play a role in gender relations in Moroccan society (Stowasser 1994; Wadud 2006). Religious traditionalists see male and female roles as divinely inspired and the preservation of the traditional family law as a key to following the path of Islam and the revitalization of society. Liberal, secular feminists view existing inequalities as rooted in Islam and regard secular democracy as the means to achieve gender equality. Yet, a third group, Islamic feminists, seeks women's equality through *ijtihad* and a return to a pure form of Islam (Tamanna 2008). They see women as active in community affairs from the inception of Islam and as participants in the transmission of the revelations (Wadud 2003, 1999; Moghadam 2003). Because they believe that Islamic law was not properly protected from influences of other cultural traditions, they propose replacing a literal reading of the Qur'an and Sunnah with "*maqasid Shari'a*", contextualization of the rules in the modern world (Sadiqi 2008). Liberal feminists and Islamic feminists disagree on many points, but have been able to find some common ground with which to work for the advancement of women's rights. Analysis of how interviewer gender and religious dress should shed light on whether "the modern/traditional and secular/Islamist binaries . . . undermine the complex multiplicity of positions on women's

rights—and in so doing, limit both our understanding of these societies and the possibility for dialogue among positions” (Freeman 2004).¹⁷

Results and Discussion

With this background in mind, I use bivariate and multivariate analysis to test the effect of interviewer characteristics on gender-related survey responses and item non-response. The bivariate analysis presented in Table 3 shows that there are systematic differences in mean responses reported to interviewers with different characteristics. On a scale of support for gender equality in the public sphere, female interviewers who are perceived to be more secular received more progressive responses (.75) than did female interviewers wearing *hijab* (.66) or male interviewers (.66). The responses reported to male interviewers and female interviewers wearing a headscarf were not significantly different from one another, but significantly less progressive than those received by female interviewers not wearing *hijab* ($p < .000$).

[Table 3]

The same pattern is reflected in the bivariate analysis of item non-response. Although none of the 400 cases are missing on the seven-item scale of support for women’s equality in the public space, 103 (25.8 percent) respondents answered “Don’t know” or refused for at least one of the seven items. Male interviewers and female interviewers who did not wear a headscarf recorded at least one of the seven items as missing in about 25 percent of their interviews, while female interviewers who wore *hijab* received item-missing data in 43.5 percent of interviews. As

¹⁷ p. 19

with survey responses, perceived secular orientation, not gender, is significantly related to respondent willingness to answer the question ($p < .000$).

On questions relating to gender equality in the private sphere, survey responses and item-non response are significantly related to interviewer gender, not dress. The most conservative response, “*Shari’a* only”, was reported in 71.8 percent interviews conducted by male interviewers, compared to 51.3 percent in interviews conducted by female interviewers not wearing a headscarf and 52.9 percent of interviews by female interviews wearing *hijab*. The more progressive responses, “some *Shari’a*” and “no *Shari’a*”, were reported in about 49 percent of interviews conducted by female interviewers, irrespective of dress, compared to less than 30 percent of interviews conducted by men. These differences are statistically significant ($p < .000$).

The bivariate analysis of item-missing data on the question pertaining to gender equality in the private sphere suggests that the groups vary from one another in their propensity to elicit non-response. Respondents failed to provide a response to male interviewers in only 5.9 percent of the interviews they conducted, compared to 10.8 percent of interviews for female interviewers wearing a headscarf and 22.4 percent for women not wearing *hijab*. The first two groups (5.9 and 10.8 percent) are not significantly different from one another ($p < .133$), but they are different from the third (22.4) ($p < .000$).

I use ordinary least squares regression to test the independent effect of the interviewer characteristics on survey responses toward women’s equality in public life and ordered logit to predict attitudes pertaining to women’s equality in family relationships. I include control variables to control for the possibility of non-random factors affecting the assignment of cases to interviewers: respondent gender, rural residence, economic satisfaction, level of education,

religiosity, marital status, and, in the model of attitudes in the public sphere only, political interest (See Appendix).

The results of the multivariate analysis presented in Table 4 suggest that interviewer characteristics affected responses even when controlling for confounding factors. Perceived religiosity explains differences in reported attitudes toward gender equality in the public sphere and gender accounts for differences in attitudes toward gender equality in the private sphere. On survey items pertaining to women's equality in the public sphere, both male and female respondents were more likely to report more conservative viewpoints to female interviewers wearing *hijab* than to male interviewers and female interviewers not wearing a headscarf. Responses on a scale of support for women's equality in the public sphere reported to female interviewers who wear *hijab* were .08 units higher, on average, than those reported to male interviewers or unveiled female interviewers. The size of the effect of the veil is nearly as great as the effect of respondent gender, where female respondents responded, on average, with a score .10 units higher than that of male respondents.

[Table 4]

On survey items relating to women's equality in the family, respondents are more likely to report more progressive responses to female interviewers, irrespective of dress. The likelihood of reporting that family law should be guided by "*shar'ia* only" decreased by 7 percent for a married, Arabic-speaking respondent living in an urban area with an average age, economic satisfaction, education level, and religiosity level when the interviewer was a woman wearing either clothing style, compared to when the interviewer was male. The likelihood of reporting

that family law should not be guided by *shari'a* “at all” increased by 11 percent if the interviewer was an unveiled woman and 14 percent if the interviewer is a veiled woman. The coefficients on the female interviewers were not significantly different from one another (Wald test, $p \leq .8517$).¹⁸

I use a probit model to test the effect of interviewer characteristics on the probability of item-missing data. The results are presented in Table 5. The models are the same as the general models, but the dependent variable is replaced by a dummy variable, where 1 is equal to item-missing data. For the first indicator, the dependent variable is equal to 1 if any of the seven indicators making up the scale is missing. For the second indicator, the dependent variable is equal to one if the single-item indicator is missing.

[Table 5]

The results provide strong evidence that interviewer gender and dress both affect the probability of item-missing data for both outcome variables and that the effects are similar to the survey responses effects. For attitudes toward gender equality in the public space, the likelihood that at least one of the seven items included in the scale is missing increases by 26 percent if the interviewer is a female not wearing a headscarf than when the interviewer is male or female and wearing *hijab*. For attitudes toward gender equality in the private sphere, the likelihood that the respondent reports that he or she does not know or refuses to answer increases by 18 percent for unveiled female interviewers and 17 percent for veiled female interviewers. As in the models of

¹⁸ There was little evidence of an interaction between interviewer gender or religiosity and respondent gender or religiosity. The size of the effects of interviewer characteristics on survey responses may be larger for female respondents than for male respondents, but the difference was not statistically significant, though consistent across multiple specifications.

survey responses, interviewer dress affects item non-response for questions about gender equality in the public domain, while interviewer gender affects item non-response in the private sphere.

To assess the potential for bias when interviewer characteristics are not randomized or controlled for, I examine whether failing to control for interviewer gender and dress affects estimates of the relationship between the control variables. The data presented in Table 6 indicate that controlling for observable interviewer characteristics improves the fit of both models and changes substantive conclusions for the second model. Whereas four control variables were statistically significant in the full model, only one is statistically significant once interviewer dress and gender were omitted.

[Table 6]

Conclusions and Directions for Future Research

Interviewer characteristics affected responses and item non-response to survey questions about women's right in the public and private spheres. Critically, the magnitude of coefficients on several independent variables changed when interviewer gender and dress were controlled for, sometimes affecting substantive interpretation of models of support for gender equality. More than half of the 174 questions in the survey were affected by interviewer gender and dress, illustrating the complex and intersectional effects of interviewer gender and dress on survey responses.

These results suggest that Moroccans do not essentialize the veil as merely a political symbol or regard the cleavage between traditionalists and modernists as the sole basis of social

conflict over gender relations to the exclusion of its gender-based dimension. While there is significant polarization between secularist and Islamist orientations, the conventional wisdom that the politics of women's rights is reducible to a conflict between two idealized groups belies the multi-dimensional meaning of the veil and the complex nature of gender relations.

There are several means by which survey researchers can address non-trivial bias introduced by interviewer characteristics as well as to make sure of studies of interviewer effects to better understand the context which generates data. The most straight forward is to code and control for interviewer gender and dress. With an anonymous list of interviewer ids and gender and dress information, researchers can include this information in the dataset.

A second solution is to randomize selected housing tracks to interviewers and to introduce a random method of within household selection such as the next birthday method. Although observable interviewer characteristics will likely still affect responses, the effects should be random and, therefore, generate inefficiency, but not bias. In certain instances, multi-level modeling may also be used, offering a means to control for the random effects of the interviewers on the data (Heeb and Gmel 2001).

The field of methodological research in the Muslim world is virtually uncharted and there are a few obvious areas for future research. First, future studies could explore the extent to which the results of this paper generalize to other national contexts. More specifically, studies conducted elsewhere could test whether men's dress affects responses in the same way as women's dress when it also varies. Second, research should explore whether other observable characteristics relevant to the Muslim world also affect survey responses and data quality. These interviewer characteristics could include ethnicity, family or tribe, maternal language, or personal relationships between interviewers and respondents on responses. Third, future studies

could explore whether self-administered modes, such those administered through paper-and-pencil, computer, or headset, reduce the impact of interviewer characteristics on responses to controversial issues.

These are among the host of interviewer-related methodological questions, to which one could add sampling and non-coverage, non-response error, and measurement-related issues, which need to be addressed in order to advance knowledge of political and social attitudes in the Muslim world. Investigating these topics will improve the validity of inferences and understanding of the processes underlying important social and political dynamics in this critical region.

TABLES

Table 1. Three Observable Interviewers Conditions: Gender and Dress Choice

	Number of Interviewers	Number of Surveys
Interviewer Gender and Religious Dress		
Female		
Wearing <i>Hijab</i> (FNH)	2	65
Not wearing <i>Hijab</i> (FH)	8	331
<i>Total</i>	10	393
Male		
Wearing a Beard or Islamic Dress (--)	0	0
Not Wearing a Beard or Islamic Dress (M)	10	404
<i>Total</i>	10	404
Grand Total	20	800

Table 2. Interviewer Gender and Reported Importance of Religious Considerations in Dress Choice

	Number of Interviewers	Number Wearing Religious Dress
<i>Female</i>		
Religion very important in dress choice	4	2
Religion somewhat important in dress choice	4	0
Religion not very important in dress choice	1	0
<i>Total</i>	9 ¹	2
<i>Male</i>		
Religion very important in dress choice	0	0
Religion somewhat important in dress choice	6	0
Religion not very important in dress choice	3	0
<i>Total</i>	9 ¹	0
Grand Total	18	0

¹ One male and one female interviewer did not respond to this question.

Table 3. Responses to Gender-Related Survey Questions by Interviewer Type

	Male Interviewer	Female Interviewer (No <i>Hijab</i>)	Female Interviewer (<i>Hijab</i>)	Total
Gender Equality in the Public Sphere (Scale, .32-1)				
Mean (SD)	.66 (.17)	.75 (.16)	.66 (.12)	.70 (.17)
N	213	164	23	400
		$\chi^2 (182) = 257.19 / .000$		
Missing N (Percent)	52 (24.4%)	41 (25.0%)	10 (43.5%)	103 ¹
		$\chi^2 (2) = 4.03 / .000$		
Gender Equality in Family Law				
	N (%)	N (%)	N (%)	N (%)
<i>Shari'a</i> Only (1)	79 (71.8%)	233 (51.3%)	68 (51.9%)	131 (18.8%)
Some <i>Shari'a</i> (2)	21 (19.1%)	189 (41.6%)	47 (35.9%)	454 (65.3%)
No <i>Shari'a</i> (3)	10 (9.1%)	32 (7.1%)	16 (12.2%)	110 (15.8%)
Mean (SD)	1.97 (.62)	2.10 (.51)	2.10 (.67)	695 (100.0%)
N	380	257	58	
		$\chi^2 (4) = 22.58 / .000$		
Missing N (Percent)	24 (5.9%)	74 (22.4%)	7 (10.8%)	105 ²
		$\chi^2 (1) = 36.95 / .000$		

¹For 103 (25.8%) of the 400 cases, at least one item in the scale is missing. There are no missing observations on the scale.

²105 (13.1%) of the 800 cases are missing.

Table 4. Effects of Interviewer Gender and Religious Dress on Responses to Gender-Related Questions

Model Estimated	Women in Public Roles	Role of <i>Shari'a</i> in Family Law			
<i>Independent Variables</i>	Ordinary Least Squares Coefficients	Ordered Logit Coefficients	Marginal Effects ² (Change in the Probability of the Predicted Outcome)		
			<i>Shari'a</i> Only	Some <i>Shari'a</i>	No <i>Shari'a</i>
<i>Interviewer Type</i>					
Female Interviewer not Wearing <i>Hijab</i> (FNH) ¹	.08 (.02)***	.69 (.19)***	-.07 (.02)***	-.04 (.02)*	.11 (.03)***
Female Interviewer Wearing <i>Hijab</i> (FH) ¹	-.02 (.04)	.75 (.34)*	-.07 (.02)**	-.07 (.05)	.14 (.07)*
<i>Control Variables</i>					
Female	.10 (.02)***	-.39 (.17)*	.04 (.02)*	.02 (.01) [†]	-.06 (.03)*
Higher Age	-.00 (.01)	.02 (.11)	-.00 (.01)	-.00 (.00)	.00 (.02)
Rural Residence	-.03 (.02)	-.64 (.22)**	.09 (.04)**	-.01 (.02)	-.08 (.02)***
Higher Economic Status	-.00 (.01)	-.23 (.10)*	.03 (.01)*	.01 (.01) [†]	-.04 (.02)*
Higher Education	.01 (.01)	-.09 (.09)	.01 (.01)	.00 (.00)	-.01 (.01)
More Secular	.03 (.01)**	-.19 (.10)*	.02 (.01)*	.01 (.01)	-.03 (.02)*
<i>Orientation</i>					
Amazigh	.07 (.02)***	.07 (.19)	-.01 (.02)	-.00 (.01)	.01 (.03)
Married	-.02 (.02)	-.42 (.22) [†]	.05 (.02) [†]	.02 (.01)	-.07 (.04) [†]
Higher Interest in Politics	-.01 (.00)				
Constant	.55 (.05)***				
N	325	622			
F / χ^2	8.50	44.27			
Prob. > F / χ^2	.0000	.0000			
Adjusted R ² / Pseudo R ²	.2028	.0400			
Test of Linear Hypotheses H ₀ = b _{FNH} - b _{FH} = 0	F (1, 313) = 6.57 / .0108		χ^2 (1) = .03 / .8517		

¹ Male interviewer is the reference group. Cut points omitted.

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ two-tailed test. Standard errors are in parentheses

² $\partial y / \partial x$ change in y for a one unit change in x, discrete change of dummy variable from 0 to 1; All other continuous variables are held at their means and all dummy variables are set at 0, where the comparison group is an married, Arabic-speaking respondent living in an urban area with an average age, economic satisfaction, education level, and religiosity level.

Table 5. Effects of Interviewer Gender and Religious Dress on the Probability of Missing Data

Model Estimated	Women in Public Roles (One or more indicator in scale missing)		Role of <i>Shari'a</i> in Family Law	
<i>Independent Variables</i>	Probit Coefficients	Marginal Effects ² (Change in the Probability of the Predicted Outcome)	Probit Coefficients	Marginal Effects ² (Change in the Probability of the Predicted Outcome)
<i>Interviewer Group</i>				
Female Interviewer not Wearing <i>Hijab</i> (FNH) ¹	.01 (.19)	.00 (.05)	.94 (.16)***	.18 (.03)***
Female Interviewer Wearing <i>Hijab</i> (FH) ¹	.75 (.35)*	.26 (.14) [†]	.72 (.27)**	.17 (.08)*
<i>Control Variables</i>				
Female	-.55 (.18)**	-.15 (.05)**	-.03 (.15)	-.01 (.02)
Higher Age	-.16 (.11)	-.04 (.03)	-.14 (.09) [†]	-.02 (.02) [†]
Rural Residence	-.05 (.21)	-.01 (.06)	-.04 (.18)	-.01 (.03)
Higher Economic Status	-.08 (.10)	-.02 (.03)	-.09 (.09)	-.01 (.01)
Higher Education	-.05 (.09)	-.01 (.02)	-.29 (.08)***	-.05 (.01)*
More Secular Orientation	-.22 (.10)*	-.06 (.03)*	-.03 (.09)	-.00 (.01)
Amazigh	.01 (.22)	.00 (.06)	-.42 (.19)*	-.05 (.02)*
Married	.38 (.24) [†]	.10 (.06) [†]	.45 (.19)*	.07 (.03)*
Higher Interest in Politics	.04 (.04)	.01 (.01)	.10 (.40)**	
Constant	.49 (.44)			
N	325		699	
χ^2 / Prob. > χ^2	24.61 / .0104		71.53 / .0000	
Pseudo R ²	.0727		.1475	
Test of Linear Hypotheses				
H ₀ = b _{FNH} - b _{FH} = 0	χ^2 (1) = 4.39 / .0362		χ^2 (1) = .76 / .3844	

¹ Male interviewer is the reference group

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ two-tailed test. Standard errors are in parentheses

² $\partial y / \partial x$ change in y for a one unit change in x, discrete change of dummy variable from 0 to 1; All other continuous variables are held at their means and all dummy variables are set at 0, where the comparison group is an married, Arabic-speaking respondent living in an urban area with an average age, economic satisfaction, education level, religiosity level and interest in politics.

Table 6. Effects of Interviewer Gender and Religious Dress on Responses to Gender-Related Questions: Missing Variable Bias

Model Estimated	Women in Public Roles	Role of <i>Shari'a</i> in Family Law			
<i>Independent Variables</i>	Ordinary Least Squares Coefficients	Ordered Logit Coefficients	Marginal Effects ² (Change in the Probability of the Predicted Outcome)		
			<i>Shari'a</i> Only	Some <i>Shari'a</i>	No <i>Shari'a</i>
<i>Control Variables</i>					
Female	.12 (.02)***	-.26 (.17)	.03 (.02)	.01 (.01)	-.04 (.03)
Higher Age	-.00 (.01)	.02 (.11)	-.00 (.01)	-.00 (.01)	.00 (.02)
Rural Residence	-.04 (.02) [†]	-.75 (.21)***	.11 (.04)**	-.01 (.02)	-.10 (.02)***
Higher Economic Status	-.00 (.01)	-.18 (.10) [†]	.02 (.01) [†]	.01 (.01)	-.03 (.02) [†]
Higher Education	.02 (.01)*	-.02 (.09)	.00 (.01)	.00 (.00)	-.00 (.01)
More Secular Orientation	.03 (.01)**	-.19 (.10) [†]	.02 (.01) [†]	.01 (.01) [†]	-.03 (.02) [†]
Amazigh	.07 (.02)***	-.00 (.19)	.00 (.02)	.00 (.01)	-.00 (.03)
Married	-.02 (.02)	-.39 (.22) [†]	.04 (.02) [†]	.02 (.02)	-.07 (.04) [†]
Higher Interest in Politics	-.00 (.00)	-	-	-	-
Constant	.55 (.05)***	-	-	-	-
N	325	622			
F / χ^2	7.76	29.62			
Prob. > F / χ^2	.0000	.0002			
Adjusted R ² / Pseudo R ²	.1556	.0268			

¹ Male interviewer is the reference group. Cut points omitted.

[†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ two-tailed test. Standard errors are in parentheses

² $\partial y / \partial x$ change in y for a one unit change in x, discrete change of dummy variable from 0 to 1; All other continuous variables are held at their means and all dummy variables are set at 0, where the comparison group is an married, Arabic-speaking respondent living in an urban area with an average age, economic satisfaction, education level, and religiosity level.

APPENDIX: QUESTION WORDING AND DESCRIPTIVE STATISTICS

Dependent Variables

Dependent Variable 1:

Women's Public Roles: Support for Gender Equality in the Labor Force and Formal Politics (Scale of Seven Items)

1. Which of the following statements is closest to your opinion? (P179)

1. Society would be better off if men and women adhered to traditional gender roles, or,
2. Society would be better off if more women worked outside the home and men shared tasks such as housework and childcare.

2. The participation of women in political life has not yet reached a satisfying level. (P180)
 4. Agree strongly
 3. Agree
 2. Disagree
 1. Disagree strongly
3. In general, social and economic problems would improve if there were more women in politics. (P181)
 4. Agree strongly
 3. Agree
 2. Disagree
 1. Disagree strongly
4. The government should take care to make sure they accede to top political positions in our country, up to and including Ministers. (P182)
 4. Agree strongly
 3. Agree
 2. Disagree
 1. Disagree strongly
5. In general, would you have more confidence in a man or a woman to represent your interests in Parliament, or, would you say there is no difference? (P183)
 3. More confidence in a woman
 2. No difference
 1. More confidence in a man
6. As you may know, there are presently 35 women elected to the Chamber of Representatives. In your opinion, would it be best if this level were to decrease, increase, or stay about the same? (P184a)
 1. Decrease
 2. Stay the same
 3. Increase
7. Support for Gender Quotas in Parliament: 1=Opposed to a quota, 2=Supportive of a 25 percent quota, and 3=Supportive of a 50 percent quota (Based on P184b and P184c).

P184b. Would you support or oppose a quota requiring fifty percent of the Chamber of Representatives to be women?

2. Support
1. Oppose

P184c. Would you support or oppose a quota requiring twenty-five percent of the Chamber of Representatives to be women?

2. Support
1. Oppose

Dependent Variable 2:

Women's Familial Roles: Role of International Norms and Shari'a in Family Law (Single-Item)

1. Would you say that the family code should reflect *Shari'a* law only, should reflect some but not all aspects of *Shari'a*, or that they should not reflect *Shari'a* law at all? (P185)
 1. *Shari'a* Only
 2. Some *Shari'a*
 3. Not Reflect *Shari'a*

Control Variables

Table 7. Descriptive Statistics: Control Variables

<i>Independent Variables</i>	N	Mean	Standard Deviation	Range
Female	400	.53	.50	0-1
Higher Age	400	2.57	1.09	1-4
Rural Residence	400	.22	.41	0-1
Higher Economic Status	398	2.49	.86	1-4
Higher Education	400	1.25	1.21	0-3
More Secular Orientation	358	2.42	.85	1-4
Amazigh	373	.18	.29	0-1
Married	400	.61	.49	0-1
Higher Interest in Politics	383	3.30	2.14	1-7

Higher Age: Age in years, where 1=18-24 years; 2=25-44 years; 3=45-59 years; and 4=60 or more years.

Rural: F1. (Interviewer question) Indicate housing type: 1. Apartment, 2. rural housing, 3. Moroccan home, 4. bidonville, 5. Villa, where 1=Rural; 0= Apartment, Moroccan house, bidonville, and villa.

Higher Economic Status: P4. How satisfied are you with the present financial situation of your household? 4. Very satisfied
3. Somewhat satisfied 2. Somewhat dissatisfied 1. Very dissatisfied

Higher Education: F4. What is the highest level of education you have attained? 0=No schooling through 16=Doctorate, where 0=no schooling; 1=grade 1-9, 2; 2=grade 10-high school diploma; and, 3=baccalaureate-doctorate

More Secular: S152. Religious leaders should have not influence on the decisions of the government: 1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree

Amazigh Maternal Language: D205. What is your maternal language? 1. Arabic 2. Berber 3. French 4. Spanish 5. Arabic and Berber, where Arabic (1), 1=All others

Higher Interest in Politics: S115. On scale of 1 to 7, where 1 is that you do not care at all and 7 is that you care very much, how much would you say you personally care about the outcome of parliamentary elections in this district? 1 (Not at all interested) through 7 (Very Interested)

Married: D194. What is your marital status? 1=Married, engaged, divorced, separated, or widowed and 0=Single never married.

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