Special Issue: Beyond the binary: new approaches to measuring gender in political science research

## RESEARCH

# Political identity, gender identity or both? The political effects of sexual orientation and gender identity items in survey research 

Dan Cassino,dcassino@fdu.edu<br>Fairleigh Dickinson University, USA<br>Yasemin Besen-Cassino,beseny@mail.montclair.edu<br>Montclair State University, USA


#### Abstract

Issues arising from the measurement of gender identity on surveys have received scant attention from survey methodologists. We make use of three studies (two in the US and one in Mexico) to look at the effects of asking about gender identity on downstream measurements of political party affiliation. In all three studies, we show a significant impact of priming respondents to think about gender identity on expressed political identity. In two of the studies, we also find conditional effects based on the predispositions of respondents, and we find throughout that these effects are much stronger for men than for women.


Key words gender identity $\bullet$ masculinity $\bullet$ threat $\bullet$ political party $\boldsymbol{\bullet}$ survey methodology

- priming


## Key messages

- Asking about their gender identity leads to significant shifts in men's reported partisanship.
- In the US, saying that they are more masculine leads men to say that they are more Republican.
- While they are needed to bring our analyses in line with our theories, researchers need to be careful about how they use sexual orientation and gender identity items in surveys.

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## Introduction

Survey research has finally started to use items that better reflect the diversity of populations in terms of gender, sex and sexuality (Westbrook and Saperstein, 2015; Bittner and Goodyear-Grant, 2017a). In doing so, researchers have found that not only
is a broader understanding of sexual orientation and gender identity (SOGI) inclusive, but it helps to explain variance in the policy views of individuals (McDermott, 2016). However, these items may also prove problematic to some respondents, who may change their responses to political items asked afterwards in an effort to compensate for the perceived threat posed by non-binary conceptualisations of gender.

Until recently, surveys used in research in political science, sociology and related fields have generally conflated sex and gender, providing measures that are at odds with the much more sophisticated understanding of gender present in the theories that often drive the empirical work of surveys. For instance, scholars commonly speak about a 'gender gap' in votes or attitudes, which may be better described as a 'sex gap' (Bittner and Goodyear-Grant, 2017b). Even if gender identity and sex are strongly related for most respondents, the difference between gender identity and sex may lead to different conclusions were they measured independently. In telephone surveys, sex is often ascertained simply by asking the interviewer to guess, based on the voice of the respondent. ${ }^{1}$ The issues at play are twofold, though highly interrelated: first, there are questions over how to best address measures of SOGI; and, second, there are questions over how these measurement choices may affect survey research on political identities, especially partisanship.
Progress with regard to the first issue has been slow; however, recent efforts show great promise. In the last few years, researchers have developed tools to allow them to better measure the sex and gender of respondents. Westbrook and Saperstein (2015), for instance, suggest that survey researchers make use of spectrums to allow respondents to state a non-binary gender identity between masculine and feminine, in addition to a set of questions asking respondents to state their biological sex at birth, as well as the gender that they currently identify with. This reflects warnings by scholars against using sex and gender interchangeably on surveys (Lovenduski, 1998; Bittner and Goodyear-Grant, 2017a).
Yet, simply including better items does not resolve all potential concerns. Despite the clear need for better measures of SOGI, as we know from research on survey methodology, the inclusion of new items and their placement within a survey can have major implications for the overall responses in the survey itself (Fink, 2002). For instance, in US survey research, asking respondents about race or religion leads these identities to be more heavily considered in responses to later items on the survey. In particular, by explicitly requiring respondents to reflect upon their SOGI in more nuanced ways, the inclusion of these items may differentially affect responses in other relevant domains. Given the politically charged debates that often surround questions of SOGI, the inclusion of such items may change the way in which male respondents answer later items on surveys as they adopt certain political identities as a way of compensating for a threatened political identity (Cassino, 2018). While gender identity is an issue for both men and women, men's gender identities are generally more fragile than those of women (Connell, 1995; Beneke, 1997), so men may be more likely to change their expression of political identity as a compensatory tactic.
To avoid such effects, survey researchers typically wait until the end of the survey to ask for demographic information (Fink, 2002). However, this is not always possible. Researchers interested in studying specific SOGI minorities may need to use items identifying them as part of a screening process, or they may be included as part of an omnibus study in which the order of questions is randomly or semi-randomly determined.

Table 1: Summary of studies

| Study | Modality | Context | Threat condition | Outcome variable |
| :--- | :--- | :--- | :--- | :--- |
| Study One | Online | US | Gender identity and sexuality <br> scales | Party identification |
| Study Two | Online | US | Transgender items | Party identification |
| Study Three | Laboratory | Mexico | Masculine identity threat items | Party identification |

All of these concerns have ramifications not just for survey design, but for findings about the correlation between gender and political attitudes as asking about one may lead to changes in the other. To address questions regarding the effect of the inclusion and placement of SOGI items in survey research, we make use of three studies (two in the US and one in Mexico) to isolate the effects of non-binary SOGI items on men's expressed political identities on surveys, and the extent to which these items cause change in political identity by inducing gender identity threat among men. We find not only that men change their expressed political identity in response to the presence of these items, but also that such changes tend to be conditional on the men's pre-existing attitudes, often leading to polarisation, rather than a shift towards one side or the other.

## Political identity and the survey response

Political identity, most frequently measured through partisanship, is one of the most important concepts in political behaviour research, though is most commonly used as a predictor, rather than as a dependent variable. After all, partisanship shapes nearly every political attitude and behaviour (a finding that goes back to Campbell et al [1960]), so treating it as an outcome would severely limit the ability to model other outcomes.
However, scholars have come to the understanding that while there may be some stable underlying psychological construct of partisanship, it is also expressive (Huddy and Bankert, 2017). In this view, partisanship is a social identity, which frequently overlaps with other social identities like race and religion, as well as sexuality and gender.
As such, when respondents answer questions about their political party affiliation, it makes sense that their responses would be impacted by items, like SOGI items, that make their gender identity more salient in the moment. In Zaller and Feldman's (1992) formulation, respondents participating in social surveys do not reveal stable internal states so much as construct responses to survey questions in the moment. Party affiliation questions, whether asked of respondents in the US or elsewhere, are no different: changing the context of the question by putting it after SOGI items is likely to change the considerations used in the construction of the responses, and thus the responses themselves.

## Conceptualising gender and sex

In survey research, gender is typically treated as a binary measure, reflecting the conflation of gender and sex. To the extent that people are seen as having two possible sexes - female and male - coterminous with separate social interests, roles and experiences, variation in both concepts is ignored (Karkazis, 2019). Neither
sex nor gender is binary, essential or fixed. This is a primary reason for developing improved measures of SOGI but also serves to highlight difficulties in developing a shared vocabulary. Survey research often takes a respondent's identification as being a woman/man and male/female as interchangeable, and labels each as either gender or sex. In this study, we label a respondent's self-placement as a woman or a man as their 'sex' and our other, more nuanced measures of femininity and masculinity as 'gender'.
This understanding of sex and gender also drives the way in which we measure respondents' gender identity. As Magliozzi, Saperstein and Westbrook (2016) argue, no single set of closed-ended responses can accurately reflect the range of expressed gender identities, especially given the constant flux in relation to how these terms are used. This may sound like a case for open-ended items but such measures generally result in small populations being excluded or clustered together in less precise groupings. As such, continuous scales are the best way to allow respondents to fully express their gender identity. Sumerau (2020) argues that gender and sex might be best understood as the confluence of three separate spectra (sex, sex to gender and gender identity), suggesting an even more multidimensional measurement strategy (for a full review of these debates, see Lindqvist et al, 2020).
Of course, any measurement technique has problems. The use of a continuous measure for gender in the absence of a non-continuous measure of sex could lead to confusion among cis-gendered respondents, who are unused to having to express their gender identity in such a way, and might even breed resentment among trans individuals, who may be invested in expressing their sex on a categorical scale. While the surveys used here rely on a combination of categorical sex and continuous gender measures, it is something that researchers may want to be careful of in other datacollection efforts.

## SOGI items and masculine gender identity threat

The foregoing may seem to suggest that any SOGI item placement effects would be expressed in the same way for those who identify with the social categories of 'man' and 'woman'. The assumed connection between men/maleness and masculinity, and women/femaleness and femininity, may be changing in society; however, for men, masculinity has often been linked to rewards and power for those men who successfully meet those expectations (Connell and Wood, 2005), as well as a fear of marginalisation and punishment for those men who do not (Pascoe, 2005). Given this, in studies focusing on men's gender identities, the loss or the threat of loss of masculinity looms large (Vandello et al, 2008), leading us to believe that the placement of SOGI items may disproportionately impact men by leading them to feel that their gender identity is threatened.
Rather than being fixed, masculine gender identity can be threatened, or even lost (Levant, 2011), leading men and boys to find ways to reassert their masculinity in response to threats. Connell (1995) refers to these as alternative or marginal masculinities: attempts to construct a gender identity by men who cannot meet the standards of hegemonic masculinity. Faced with threat to their gender identities, men search for ways to demonstrate their masculinity to themselves and others. This can take all sorts of forms, from overt declarations of heterosexuality (Bosson et al, 2005) and the rejection of transgender rights (Harrison and Michelson, 2019), to gun purchases (Cassino and Besen-Cassino, 2020). Some of these responses may

Table 2: Self-reported femininity and masculinity scores by reported sex

|  | Masculinity scale |  | Femininity scale |  | Combined scale |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Percentile | Men | Women | Men | Women | Men | Women | Overall |
| 10th | 69 | 3 | 0 | 62 | 70.5 | 61 | 66 |
| 25th | 74 | 9 | 5.5 | 73 | 74.2 | 73 | 73.5 |
| 50th | 87 | 19 | 14 | 82 | 85.3 | 81.5 | 85 |
| 75th | 93.5 | 29 | 22 | 92 | 95.2 | 91.5 | 91.5 |
| 90th | 100 | 40 | 30 | 97 | 100 | 96.5 | 100 |
| Mean | 83.8 | 19.9 | 15.5 | 81.6 | 84.2 | 80.9 | 82.6 |
| Std dev | 13.3 | 15.1 | 12.3 | 14.0 | 12.4 | 14.3 | 13.4 |

even be socially desirable, as when men double down on being engaged fathers or caregivers (Park and Banchefsky, 2018).
These compensatory efforts often involve political views. Cassino (2018) finds that when men faced the threat of losing their breadwinner status, they became less likely to support a female candidate in the 2016 US presidential election, and less likely to support racially egalitarian social programmes. Weaver and Vescio (2015) find that threatened masculinity leads men to adopt a host of attitudes that justify the unequal treatment of women and SOGI minorities.
In the minds of men in Western cultures (see, for instance, Connell, 2016; Kosakowska-Berezecka et al, 2016), masculinity is inherently political and can be asserted through political stances. Threat to men's gender identities is therefore likely to have political consequences as men rush to assert their masculinity in the face of the threat. While asking about non-binary sexual and gender identities is generally not intended to threaten the gender identities of male respondents, it may well serve as such a trigger. Prusaczyz and Hodson (2020) argue that beliefs about the binary nature of gender identity are an important foundational myth that allows for the continuing justification of social hierarchies. Calling such a belief into question through survey items that assert the non-binary nature of gender identities could thus be seen as a threat.
This last point - that some respondents are expected to be more sensitive to gender identity threat than others - means that these effects should be conditional. As Bittner and Goodyear-Grant (2017b) argue, the salience of gender is not equally distributed, so we should not expect the effects of gender identity on behaviour to be equally distributed either. In general, the effects of threat should be mitigated by the underlying salience of gender identity among men, measured either directly through items relating to gender and sex relations, or indirectly through measures like political predispositions (which have been shown to correlate strongly with hostile sexism measures [see Valentino et al, 2018]).
While there is no reason to believe that the general mechanism of compensatory behaviours is limited to any particular group of men, the social nature of these compensatory behaviours means that they likely vary between groups. In much of the data used to measure gender identity, a lack of non-population samples means that researchers cannot differentiate between effects pertaining to men from different racial groups, socio-economic groups or SOGI minorities, though they may well compensate in different ways. Unfortunately, much of what we know about men's gender identities is shaped by research on the experiences of cis-gendered white men, and more work on other groups is needed.

## Overview of studies

In the following studies, we make use of intentional and serendipitous randomisations to show experimentally the impact of SOGI items on political identity items found later in the questionnaire. In each case, the content of the SOGI items and the political identity items vary, allowing for a conceptual replication of the hypotheses in different contexts, as well as in different operationalisations. Study One and Study Three, which were carried out by the authors, make use of dual scales to measure masculinity and femininity. In Study One, the appearance of these scales is used as the randomly assigned threat prime. In Study Two, using data initially collected by Westbrook and Saperstein, a two-step sexual identity item is used as the threat prime. Both Study One and Study Two make use of online samples in the US. In Study Three, which is a laboratory study conducted in Mexico, respondents were randomly assigned to a separate threat item, allowing us to manipulate the degree to which gender identity was salient to political identity items. While this means that this is not an exact replication of the other two studies in a different political context, it does provide additional support for the conceptual argument that the relationship between expressed gender identity and expressed political identity is being driven by perceived threat to men's gender identities. As such, a gender identity threat manipulation (in this case, one previously used in the US [see Cassino, 2018]) should push expressed political identity to be more in line with expressed gender identity. This increases the internal validity of the argument by bringing in threat as a factor outside of the gender identity measurement itself, rather than endogenous to it, as in the other studies.

## Expectations

Past research on gender identity threat and political identity leads us to two hypotheses to be tested across the three studies. First, asking SOGI items prior to items about political identity should shift the responses to the political identity items towards political identities perceived to be more in line with their expressed gender identity. That is, individuals who express greater masculinity should express political identities more in line with what they perceive to be masculinity (in the US context, we would expect this to lead to greater identification with Republican or conservative political identities), while those who express more feminine gender identities should be less likely to express political identities perceived to be aligned with masculinity.
Second, we expect the impact of gender identity threat to be conditional on the respondent's self-identified sex (man/woman), as well as the salience of gender identity. Men should react more to the threat than women, as should individuals for whom gender identity is more salient, with both groups moving their political identities to be more in line with their expressed gender identity. This means that when gender identity is primed (as in Study Three) - artificially inducing this conditionality - we expect that it should increase the salience of gender identity on reported political identity, pushing, for instance, the political identity of those who identify as more masculine towards the political identity perceived as such. These expectations reflect the idea that individuals will be more or less responsive to gender identity depending on the extent to which they perceive their gender identity to be under threat.

## Study One

## Data

The analyses conducted here were carried out on a non-probability MTurk ${ }^{2}$ sample of 125 Americans (residence confirmed by provider). The respondents were paid US $\$ 1$ for their time, and spent an average of 5.8 minutes on the survey, for an hourly equivalent rate of US $\$ 10.34$. The sample was 51 per cent male-identified, and skewed younger and better educated than the overall population. A total of 93 per cent of the sample was white. These characteristics are in line with past analyses of MTurk samples.
Samples such as this are much more representative and diverse than traditional convenience samples (Casler et al, 2013), as well as more attentive to instructions and unexpected tasks (Hauser and Schwarz, 2016). Recommended steps (higher pay and less filtering of the eligibility of respondents) were taken to try and increase the representativeness of the sample (Peer et al, 2014; Silberman et al, 2018). While we recognise that the sample does not provide the same representative generalisability as a simple random sample of the US population, it is superior to sampling techniques that have been widely accepted for decades, and is appropriate for the research questions at hand.

Categorising respondents as woman/female or man/male was done through a demographic battery, asking about sex (separate from the measurement of gender role and sexuality, which was asked elsewhere), as well as church attendance, marital

Figure 1: Femininity/masculinity and sexuality items


#### Abstract

Everyone has a gender identity, which may or may not correspond to physical traits. Rightly or wrongly, society defines certain psychological, emotional or behavioral traits as being masculine, and others as being feminine. How these traits are viewed has also shifted enormously over time, so traits that were feminine in the past might be considered masculine today. Because of this, most men have some traits that are considered feminine, and most women have some traits that would be considered masculine. The two traits can co-exist: someone can have many feminine qualities and many masculine qualities. How about you? How would place yourself on these scales? | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Masculine




Feminine

Some people are sexually attracted only to men, and other people are attracted only to women, but most people are somewhere in-between, even if they would only consider having a sexual partner of one gender or the other. How about you? Are you exclusively attracted to people of your own gender, exclusively attracted to people of the opposite gender, or somewhere in-between?

| Only opposite gender |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |

Figure 2: Scores on the combined scale

status, age, education, race and ethnicity. To move beyond a binary approach, all participants were asked to rate themselves on both femininity and masculinity using sliders, anchored by 0 and 100 . The sliders were initially positioned in the middle of the scale. The text accompanying the sliders was designed to make respondents feel more comfortable with expressing non-binary femininity and masculinity, and was the result of pre-testing on a similar sample. ${ }^{3}$ The item is presented in Figure 1.
This attempt at creating more variance in responses does seem to have paid off. Men (identified through self-report of sex) identified as, on average, 84 on the masculinity scale and 14 on the femininity scale. Women, on average, placed themselves at 82 on the femininity scale and 19 on the masculinity scale (complete summary statistics are found in Table 2).
The fact that gender identity measures are clustered towards the ends of the distributions could raise concerns that these scales are replicating the results of binary sex scales. However, the categorical gender identity measure allows for variance within the categories that is impossible with binary measures, and more accurately categorises the minority of respondents for whom gender identity does not line up with a binary sex measure. Of course, this method's use of sex binaries could be problematic in surveys of individuals with minority gender identities.
These measures of masculinity and femininity were then combined into a single score:

$$
\text { Combined scale }=\frac{\text { Rating }_{\text {Identuty matching sex }}+\left(100-\text { Rating }_{\text {Identity opposite sex }}\right)}{2} .
$$

Individuals who scored high on the gender scale matching their self-reported sex, and low on the other scale, scored high on the combined scale. On the whole, femininity and masculinity scores were strongly negatively correlated ( $r=-0.98$ ),

Table 3: Ordered logit regression for expressed party identification

| Predictor | Coef | Std error | Z |
| :--- | :---: | :---: | :---: |
| Condition | -4.90 | 3.15 | -1.56 |
| Combined scale | -0.05 | 0.02 | -2.50 |
| Sex | -4.79 | 2.50 | -1.92 |
| Condition $x$ scale | 0.07 | 0.04 | 1.76 |
| Condition $x$ sex | 7.61 | 4.30 | 1.81 |
| Scale $\times$ sex | 0.06 | 0.03 | 2.12 |
| Condition $x$ scale $\times$ sex | -0.10 | 0.05 | -1.99 |

Note: Pseudo R2 $=0.02$.
meaning that scores on the combined scale are very similar to scores on the masculinity and femininity scales. ${ }^{4}$ Essentially, the combined scale (see Figure 2) reproduces the masculinity and femininity scales in a single measure applicable to both sexes, though the analyses would not be substantially different if we were to make use of the reported femininity or masculinity of the participant.
All participants filled out a consent form before being assigned to one of three experimental conditions. In the first condition, participants were given a battery of items about their political identities - asking about party identification (using a standard contingency item design, resulting in a seven-point party identification scale) and other political items like ideology and vote preference - and were asked about their masculinity, femininity and sexuality only afterwards. The second group was asked about femininity, masculinity and sexuality ${ }^{5}$ before being asked for their party identification, and a series of filler items about water use. The third group was given the party identification item, then the water items (to ask as a distracter) and then the masculinity, femininity and sexuality scales.

## Analysis

On average, men in the political identity first condition placed themselves at 5.0 on the party identification scale (running from 1 to 7 , with a value of 1 being a strong Republican and a value of 7 being a strong Democrat, with all points between anchored). Men who answered the gender identity items first placed themselves at 4.4 (slightly more to the Republican side on average). Among women, the difference between the two groups was smaller: 4.7 in the political identity first condition and 5.0 in the gender identity first condition.

For a more complete look at the effects of the gender identity first condition, ordered logit ${ }^{6}$ analysis was used, with the participants' self-placement on the sevenpoint party identification scale as the dependent variable. Predictors in the analysis were the experimental condition, the participant's score on the combined masculinity/ femininity scale, the participant's reported sex ( $1=$ male; $2=$ female $)$ and all of the interactions between the three.
The results of the regression (presented in Table 3) show that the experimental condition has a significant effect on expressed party identification, though only in concert with other factors. To understand how these effects play out, it is useful to make use of predicted values: in this case, the expected probability that participants will say that they are strong Democrats and strong Republicans by the experimental condition and expressed sex.

Figure 3: Expected percentage identifying as strong Democrat by condition and score on combined scale (men)


## Results

Among men in the gender identity first condition, higher scores on the combined masculinity/femininity scale corresponded with a greater likelihood of identifying as a strong Republican (as shown in Figure 3) and a reduced likelihood of identifying as a strong Democrat (see Figure 4). Men in the gender identity first condition who gave themselves as 100 on the combined scale (about 10 per cent of men did so) had a 24 per cent chance of identifying as a strong Republican. However, if the same man were in the party identity first condition, he had only a 5 per cent chance of doing so. Conversely, high scores on the combined scale were related to a lowered likelihood of identifying as a strong Democrat, though only in the gender identity first condition. Men scoring 100 on the combined scale had a 38 per cent chance of being a strong Democrat in the party identity first condition but only a 10 per cent chance of doing the same in the gender identity first condition. This relationship is weaker or non-existent among women.
These findings provide support for both of our overarching hypotheses. Not only did asking SOGI items before the party identity items push male respondents towards the expression of Republican political identities, but the effects are much stronger among men. While the relatively small $n$ of this study - initially designed as a pilot study - limits our ability to carry out conditional analyses of how these results impact various subpopulations, as well our ability to draw any conclusions about SOGI minority groups who are simply not present, the findings are certainly suggestive. The studies that follow, with their larger sample sizes, should help to ameliorate any concerns arising from the small sample.

Figure 4: Expected percentage identifying as strong Republican by condition and score on combined scale (men)


## Study Two

## Data

The second study makes use of data originally collected by Saperstein and Westbrook through Time-Sharing Experiments for the Social Sciences (TESS) from November 2015 through February 2016. Using TESS's probability-based online panel, their study tested a multi-step measure of transgender identity.
However, their question module was only a small portion of the survey that respondents were asked to complete. Another module in the survey (TESS 175) included a seven-point measure of party identification (coded as in the previous study: mean of 4.1, 13 per cent strong Republican, 18 per cent strong Democrat). The modules were randomly ordered, such that half of the respondents ( $n=1,072$ ) received the party identification module before being asked about their current sex and sex at birth (the SOGI items), and half ( $n=1,072$ ) were asked about party identification afterwards. This group was split between those who received the module with SOGI items just before the module with party identification included ( 556 respondents), and those who had an additional module in-between the two (516 respondents). This allows for a partial replication of Study One, with a larger, more representative sample, as we can examine the effect of asking potentially threatening SOGI items on reported party identification.

Table 4: Ordered logit model for party identification, using TESS data

| Predictor | Coef | Std error | Z |
| :--- | :---: | :---: | :---: |
| Model 1: Only respondents who received SOGI <br> item module just before party identification <br> module |  |  |  |
| SOGI first | -0.18195 | 0.0866 | -2.1 |
| Model 2: All respondents who received SOGI item <br> module before party identification module |  |  |  |
| SOGI first | -0.18126 | 0.07591 | -2.39 |
| Model 3: All respondents who received SOGI <br> item module before party identification module, <br> with conditional gender effects |  |  |  |
| SOGI first | -0.19255 | 0.1068 | -1.8 |
| Male | -0.305826 | 0.10719 | -2.85 |
| SOGI first x male | 0.01608 | 0.15166 | 0.11 |

## Analysis

To measure any effect of the module placement on reported party identification, we make use of an ordered logit regression, with reported party identification as the dependent variable, and the experimental condition as the independent variable. We tested two versions of the priming variable. In Model 1, the priming variable includes individuals who received the module with the SOGI items immediately before the module with the party identification variable. In Model 2, the priming variable includes all respondents who received the SOGI items before the party identification question, including those who received an extra module between them. Model 3 adds conditional effects by sex. All models are found in Table 4.

## Results

As the regression results show, both versions of the experimental condition variable had significant effects on the respondent's reported party identification in the expected direction. In both, individuals in the SOGI first condition reported a lower party identification score, indicating a response shifting towards the Republican side. Predicted probabilities to estimate the size of these effects (all based on Model 2) are shown in Figure 5.
The results show a modest effect of the priming on reported party identification. Respondents who were randomly assigned to get the SOGI items first were 2.0 points more likely to say that they were strong Republicans, and 2.7 points less likely to say that they were strong Democrats. All told, respondents in the SOGI first condition were 3.5 points more likely to say that they were Republicans (not including leaners), and 3.5 points less likely to say that they were Democrats.
However, unlike in Study One, there was no sign of conditional effects by gender (see Model 3). That is, it seems that these particular SOGI items made all respondents, both male and female, about equally likely to report a more Republican-leaning party identification, failing to provide support for the second hypothesis.

Figure 5: Expected party identification by condition, using TESS data


## Study Three

## Data

While the results of the previous studies are promising, any claim to a general relationship should be tested outside of the US. In addition, it is necessary to show that the relationship between expressed gender identity and expressed political identity is driven by gender identity threat among male respondents. To do so, we need to manipulate the level of the threat by using a threat other than the gender identity item itself. To this end, we embedded a study in a survey administered by the Social Science Experimentation Unit (UECS) of the Centro de Investigación y Docencia Económicas (CIDE) in Mexico City to a diverse, though non-representative, sample in a laboratory setting. The study included 1,015 respondents ( 55 per cent male, mean age of 26 and mean monthly income of 13,900 pesos).
The survey included the same masculinity and femininity items, translated into Spanish, as well as questions about the importance of various roles associated with masculinity, a hostile sexism scale and an item about political affiliation. Rather than priming respondents with items about sexuality or gender, they were instead experimentally exposed to a gender role threat prime used in previous studies of masculinity and political behaviour (Cassino, 2018). In the experimental condition, participants were randomly assigned to get an item which noted that in an increasing number of Mexican households, women were earning more than their husbands, and then asked about their own household. Only respondents who were married or in a marriage-type relationship were included. Half of the participants ( 44 per cent) received this item at the beginning of the segment containing the gender items; the other half received it afterwards. As breadwinner status has been shown to be an

Table 5: Logit regression results for MORENA affiliation, using Mexican data

| Predictor | Coef | Std error | Z |
| :--- | :---: | :---: | :---: |
| Combined score | 0.01 | 0.015 | 0.66 |
| Treatment | $\mathbf{2 . 9 5}$ | $\mathbf{1 . 2 5 6}$ | $\mathbf{2 . 3 5}$ |
| Male | 1.795 | 1.248 | 1.44 |
| Interactions |  |  |  |
| Treatment x combined score | -0.034 | 0.018 | -1.94 |
| Male x combined score | -0.012 | 0.016 | -0.74 |
| Treatment x male | $\mathbf{- 3 . 2 9 9}$ | $\mathbf{1 . 5 3 8}$ | $\mathbf{- 2 . 1 5}$ |
| Treatment x male x combined score | $\mathbf{0 . 0 4 6}$ | $\mathbf{0 . 0 2 1}$ | $\mathbf{2 . 2}$ |
| Constant | -2.749 | $\mathbf{1 . 1 3 6}$ | $\mathbf{- 2 . 4 2}$ |

important aspect of masculinity in various Latin American cultures (see, for example, Domínguez, 2000; Broughton, 2008; Montes, 2013), we expect that this question should induce gender identity threat in men, leading them to shift their political affiliation. This manipulation takes the place of the experimental placement of the SOGI items in the previous studies, that is, rather than use SOGI items as a threat mechanism, in this study, the masculinity threat is used to experimentally increase the salience of gender identity in men.
Gender identity was measured through a translated version of the gender scale presented earlier, using the same $0-100$ dual masculinity and femininity scales. Men placed themselves, at the mean, at 82 on the masculinity scale and 12 on the femininity scale; the mean woman placed herself at 81 on the femininity scale and 24 on the masculinity scale. The same combined scale used in Study One was also used here, with a mean value of 82 for men and 70 for women.
Party affiliation was measured through an item asking respondents which political party they felt closest to on a list of the major Mexican political parties of the last few years. ${ }^{7}$ With the fracturing of the traditional party system in Mexico (Vidal et al, 2010; Friedenberg and Aparicio, 2016) and the rise of Movimiento Regeneración Nacional (MORENA), a recently organised party tied to Mexican President Andrés Manuel López Obrador (AMLO) (see Toledo and Vela, 2016), fewer Mexicans overall are affiliating with a party. This is evident in our sample, in which the majority of respondents said that they did not affiliate with any of the parties, and only two - MORENA (18 per cent) and Partido Acción Nacional (PAN) (9 per cent) - had substantial numbers of adherents.

It seems likely that this approach means that our measure of partisan affiliation includes only the strongest identifiers with a political party as there are many respondents who are likely to identify to some extent with the party but would not say that they felt particularly close to it (Bankert et al, 2017). The measurement of partisanship in multiparty systems is often a fraught exercise and, in this case, we have erred on the side of less, rather than more, inclusion.
We expect that MORENA would fill much of the role of the Republican Party in the previous studies. While this may seem odd - MORENA is a centre-left party, as opposed to the centre-right Republican Party - the similarities between the leaders of the parties at the time of the analyses, especially in their issue focuses and rhetorical styles (Bruhn, 2012), are striking. AMLO's rhetoric and willingness to break historic norms has been likened to populist leaders in the US and Europe. Similarities can be found in his exhortations to remove corrupt and out-of-touch politicians in the capital, criticisms of media outlets that he accuses of bias against him, push for

Figure 6: Expected percentage identifying as MORENA by experimental condition and gender conformity (men)

tax cuts, and promises to create middle-class jobs and reform the North American Free Trade Agreement (NAFTA). Aside from the policies, both Trump and AMLO cultivate similar claims of dominance and strength, which may well appeal to voters looking to assert masculinity through ties with a political identity.

## Analyses

To measure the link between gender identity and political identity in the Mexican context, we replicate the analysis from Study One but now using the prime as a treatment to induce gender identity threat, contingent on the gender identity ratings. The gender role threat condition is used to make gender considerations more salient to male respondents, so we expect that men exposed to it should display a greater link between gender identity and partisanship. Regression results are shown in Table 5.
Men with higher combined scores show a marked increase in affiliation with MORENA in the gender identity primed condition but not the control condition. Those with the highest level of gender conformity show an 11-point increase in their likelihood of affiliating with MORENA in the primed condition but there is no significant change in men with lower combined scores (combined score of 50, marked as 'low' in Figure 6). Interestingly, there is no significant effect of the priming on the likelihood that respondents will affiliate with PAN or any of the minor political parties listed.

## Results

As in the US-based studies, priming respondents to think about gender identity - in this case, through a gender identity threat prime - led to an increased connection between partisanship and self-identified gender identity. Not only do SOGI items have an impact on reported party affiliation, but the connection is highly contingent on
gender, much as in Study One. As such, it provides support for both the polarisation and conditionality hypotheses.
The study also provides an interesting contrast in that higher levels of masculinity and gender conformity in the Mexican sample pushed respondents towards MORENA, rather than towards a centre-right party, as in the US results. This suggests that on a global basis, there is not an association between gender identities and preferred policy outcomes; rather, what drives men rightwards in one state may drive them leftwards in another. The appeal may be less about particular policies and more about the way in which those policies are packaged, or even the rhetorical style of individual politicians.
Most importantly, though, the connections worked in much the same way as in the US samples, though the specifics were necessarily very different as the Mexican party system is very different from the US system. The fact that it worked at all, though, bodes well for the idea that we are looking at a general rule about how gender interacts with political systems, rather than a specific finding about the vagaries of the US political system.

## Summary of results

Across the three studies, we find strong support for our hypothesis on the effects of SOGI items on political identity, and mixed support for the other hypothesis. It seems possible that the difference in results - like the differential effects of the prime, based on expressed gender identity in Studies One and Three, but not in Study Two - may be driven by the efficacy of the threat prime. Perhaps items asking about transgender status have a greater impact on women than questions about femininity and masculinity do. More research on such items, especially as they become more widespread, is needed.
The most obvious implications of these results are for researchers measuring the gender identity of participants in the context of survey research. In general, demographic items like partisanship and gender are kept at the end of a survey to avoid contaminating the results of other items asked later. However, the extent to which political identity and gender identity are linked together means that even such a conservative approach is creating contamination. For men, at least, a masculine political identity is linked with a particular political party, even if the views of the party may vary widely between states. Moreover, our results from Mexico show that this relationship is driven by gender identity threat, with men displaying greater alignment between expressed gender identity and expressed political identity under the threat prime condition.
While researchers might like to think that items asking about core concepts like gender and partisanship are getting at deep-seated identities, our results show how flexible they are. Asking people about their gender identity changes the way that they think about their political identity, and likely all sorts of other questions in a survey. The conditional nature of these effects - in which men are impacted much more than women, and men who are sensitive to threats to their gender identity are impacted more than other men - means that the effect may not be obvious in most studies, but it could lead to serious biases nonetheless.

## Conclusion

The expression of a political identity carries with it a gender identity. That is theoretically interesting, of course, but in terms of measurement, it is a real problem. Our results indicate that we simply cannot independently measure political identity
and gender identity as both variables have strong downstream effects: asking about gender identity leads to gender identity threat and biases some men's responses to questions about their political identity; while asking about political identity may well bias men's responses to questions about their gender identity.
At the very least, researchers working with items like this should be conscious of the problem and try to separate out partisanship and gender identity items with enough unrelated items to minimise the degree of contamination. Doing this within the demographics section of a survey may be challenging but the dangers of contamination seen here are serious enough to make it necessary.
There are, of course, plenty of ways that men could choose to compensate for the gender identity threat posed by non-binary gender and sex items. We might well see a similar contamination of responses to items about guns or views on homosexuality. However, the ubiquity of partisanship measures, as well as their critical role in political and social research, makes any factor that shifts them one of great import to researchers in the field.

Other work has pointed to the fact that political attitudes are less polarised by sex than they are by gender roles: men who rate themselves as less masculine have political attitudes similar to those of women; and women who rate themselves as less feminine have political attitudes similar to those of men (McDermott, 2016; Bittner and Goodyear-Grant, 2017b). However, our results imply that this may be because gender identity is itself politicised. While political views are tied to sex through gender identity, it may not be accurate to say that it is gender identity driving political views; rather, both are expressions of the same underlying factors, with one or the other in the driver's seat, depending on which identity is most accessible at the moment.
The results from the study carried out in Mexico highlight the importance of introducing more comparative work in this area. Researchers in this field have tended to be clustered in the US, Canada and Western Europe but it may well be that the political effects of gender identity threat are contingent on local context. This has ramifications for how we understand the psychology underlying men's behavioural responses, as well as potentially opening up a new way to categorise and understand political appeals across national borders.
It is also important to note the extent to which discussions of gender identity and politics may really be about masculinity. Our results show a strong asymmetry between the political aspects of the gender identities of men and women. This fits in well with work on masculinity, which has been shown to have links with many of American men's political and social behaviours (Cassino, 2018). Saying that results like this are really about gender identity makes it seem like they apply equally to men and women; however, there is little evidence that women's political and social behaviours are motivated by threats to their gender identities. Therefore, while we may all agree that gender identity matters, if it matters mostly to men, it may be better to conceptualise the issue as one of masculinity, rather than gender identity in general.

## Notes

${ }^{1}$ The apparent ignorance of modern conceptions of gender among quantitative researchers has been glaring enough that some feminist scholars have dismissed them as tools able to understand the experience of women and SOGI minorities (Sprague, 2005; Undurraga, 2010). As such, some scholars have focused on rehabilitating the
survey methodology in order to make it more feminist (Oakley, 1998; Williams, 2006) but, until recently, have not worked on the measurement of sex and gender.
${ }^{2}$ MTurk is an online platform run through Amazon that allows for the short-term hiring of workers online, which has been widely used for surveys and experiments in social science over the past several years.
${ }^{3}$ In addition, respondents were asked to place their sexuality on a similar scale, running from same-sex to opposite-sex attraction. This scale did not create a great deal of variance in responses, with respondents clustering very strongly at the edges of the scale. As such, we have not included the analysis of the sexuality scale in the main text of the article, nor would it add to the reported results in a significant way. While it is possible that there was some priming effect of the sexuality measure, the strong conditional effects of the gender identity scale, as well as the replication of that scale in the studies presented later, make this seem rather less likely.
${ }^{4}$ Unlike some other samples, we have a very small number of respondents who might reasonably be described as undifferentiated (low on both gender scales) or androgynous (high on both scales).The presence of significant numbers of people from these groups would likely lead to a different measurement strategy, as in McDermott (2016).
${ }^{5}$ The sexuality measure, which used a single-dimension continuous scale running between same-sex and opposite-sex attraction, picked up very little variance and was not used in any of the further analyses.
${ }^{6}$ As a check on the results, Ordinary Least Squares (OLS) regression was also used with the same variables, and provided very similar results, with slightly smaller standard errors and minor variation in the size of the coefficients. Using OLS would lead to the same conclusions about the significance and direction of effects as presented in the main text. This same check was used on the other logit regressions found in the other studies, with similar results.
${ }^{7}$ Partido Acción Nacional (PAN), Partido de la Revolución Democrática (PRD), Movimiento Ciudadano (MC), Partido Revolucionario Institucional (PRI), Partido Verde Ecologista de México (PVEM), Movimiento Regeneración Nacional (MORENA), Partido Encuentro Social (PES) and Partido del Trabajo (PT).

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## Author biographies

Dan Cassino is a Professor of Government and Politics at Fairleigh Dickinson University, USA. He is also the Director of Experimental Research for the Fairleigh Dickinson University Poll.
Yasemin Besen-Cassino is a Professor and Chair of Sociology at Montclair State University, USA.

## Conflict of interest

The authors declare that there is no conflict of interest.

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