

Polarising or unifying?

The impact of priming on attitudes towards women empowerment in Tunisia

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1 Introduction

Gender parity is one of the sustainable development goals and women empowering a major way to achieve this goal. In addition, empirical evidence suggests empowering women contributes to economic development through e.g. increased human capital accumulation and improved intra-household bargaining positions (Duflo, 2000; Duflo and Udry, 2004; Ashraf et al., 2010; Duflo 2012).

Likewise, economic development can facilitate empowerment: reducing (extreme) poverty and improving educational and employment opportunities may be conducive to changing gender norms and facilitate a stronger position of women in society (Cuberes and Teignier, 2014).

However, in many parts of the world, especially the MENA region, significant parts of society are unsupportive of women empowerment, as the role of women in society is defined by religious norms and traditions with pervasive stereotypes towards women's ability to take decisions (Duflo 2012; Klasen and Lamanna, 2009).

Tunisia is one such country where legal achievements to strengthen the position of women are not necessarily reflected in the public opinion. Specifically, while the country is one of the most advanced in the region in terms of women rights, there is also a deep social and political divide, on whether this is a desired evolution. For example in 2012 the constitution declared women equal to men, but in only reaction to violent mass demonstrations resulting from conservative parties' attempts to have a constitutional amendment that would render women 'complementary' to men. This is only one example of a polarized society caught between more progressive versus more conservative ideologies.

Following the recent surge in policies and interventions promoting women empowerment, women activist and political groups undertake information campaigns to raise awareness and inform about the role of women in society and about their legal rights which may help change attitudes in favor of women empowerment. The question we are interested in is whether such

awareness raising campaigns are successful, particularly in a context like Tunisia, where increased emphasis on women empowerment may be ineffective or even induce a backlash against female empowerment by strengthening conservative attitudes and behavior within households, and hence promote polarization instead.

We use two novel approaches to test our ideas. First, development interventions increasingly use tailored video content to induce attitudinal and behavioral change. A review by Bernard et al. (2015) generally demonstrates the effectiveness of video interventions, and their wide applicability across topics and countries (varying from targeted information on e.g. adopting new agricultural practices; fertility decisions; children's education; health, reconciliation in the aftermath of violence and women empowerment). We use a 2-minute video, developed by Jeune Afrique for '13 August Tunisia Women's Day' (<http://dai.ly/x5wnrqo>), featuring all legal achievements on women rights in Tunisia starting from 1956, when the Code du Statut Personnel was established by Habib Bourghiba¹, to 'prime' a randomly selected subsample of individuals on issues related women empowerment.

Second, in addition to a standardized set of survey questions on self-reported attitudes towards empowerment we use an Implicit Association Test (IAT) to measure the (implicit) strength of association between male and female names and concepts of empowerment.

Due to the sensitive and potentially polarizing nature of the topic we may expect outcomes in the treatment group to follow a (stronger) bimodal distribution. More precisely we would expect individuals with a positive attitude towards women empowerment may be 'encouraged' by being primed about the accumulation of rights and legal achievements over the years as emphasized in the treatment movie, whereas those opposing women empowerment may feel threatened by legal achievements. The former (latter) may thus exhibit much stronger positive (negative) reactions towards women empowerment than individuals in the control condition who are shown a neutral movie about Tunisia's world heritage sites.

Our study will thus provide evidence whether video treatments, used in campaigns and awareness rising interventions, have 'average' effects, conform to the intentions of their design, or 'polarizing' effects, when the intended attitudinal and potential behavioral change is subject to strong controversy and sensitivity inspired by social and religious norms.

2. Data and design

2.1 Data

¹ The achievements highlighted in the movie include the abolishment of polygamy and repudiation of women; contraceptive and abortion rights, gender equality in the constitution, as

The study is part of a larger research project on women empowerment in Tunisia, where we develop a survey instrument to measure women and youth empowerment in Tunisia.² The survey is conducted on a nationwide representative sample of 1000 households (about 3000 adult individuals) and carried out in October – November 2017.

Households are selected based on a stratified random sampling methodology, where stratification is done at the level of governorates, delegations and sectors. Sectors are the smallest administrative unit in Tunisia. A total of 100 sectors are selected, 33 of which are rural, with 10 households per sector being interviewed.

In each household we interview the household head, his spouse, and up to two young adults (aged 18-30), living in the household, either children of the primary or secondary respondent, or other household members. If more than two young adults live in the household, two of them are randomly selected to participate in the survey and experiments. We have two surveys: a household survey that includes the household roster, questions on assets and shocks and is only answered by the household head; and an individual survey that is answered by each selected member of the household. The individual survey includes modules on intra-household decision-making, employment, asset ownership, access to finance, migration, group membership, use of social media, skills, socio-psychological assessments, attitudes towards empowerment, violent extremism and domestic violence and time allocation.

2.2 *Treatment randomization and IAT*

Within each sector we randomly assign five households to see one of the two movies described above. Thus, in each sector two or three households were randomly selected to see the empowerment movie, while the other two or three would see the placebo movie showing Tunisia's tourist potential presenting UNESCO World Heritage Sites. We randomized the movie selection at the household level, to avoid confusion or suspicion among respondents and simplify the protocol for enumerators.

To measure 'attitudes' towards women empowerment, we however do not merely rely on survey questions. Sensitive topics are typically underreported when respondents are probed directly. In addition, respondents may be unable to accurately assess their beliefs and attitudes. As a result, implicit association tests (IAT) have been used in social psychology, neuroscience and, more recently in development economics to measure implicit attitudes towards race, religion and sexual orientation (see Greenwald, MsGhee & Schwartz, 1998; Greenwald and Nosek, 2003; McConnell and Leibold, 2001; Beaman et al., 2012; Vogt et al., 2017). Implicit association tests measure the strength of association between a concept (e.g. homosexuality/heterosexuality) and

² The survey measures core dimensions of empowerment, including production, resources, income, time allocation, leadership, which allow establishing the absolute empowerment level of the individual as well as the relative empowerment level in the household, in line with the methodology of the Women Empowerment in Agriculture index developed by IFPRI.

an evaluation (bad, good) or stereotype (feminine, masculine) by measuring the reaction time it takes a respondent, on average, to categorize words (reflecting the concepts and evaluations/stereotypes) using only two response keys on a computer. For example, people with an implicit preference for heterosexuality, would be faster to categorize all words if “heterosexuality” and “good” share the same response key and “homosexuality” and “bad” share the other key, than if the reverse applied (i.e. “homosexuality” and “good” sharing a key).

We follow Greenwald and Nosek (2003) in developing an IAT with seven blocks. Given that the concept of empowerment was difficult to capture in pictures, we decided against using audio and visual IATs but have all words appear on-screen instead.³ This has implications for the external validity of our sample as we can only include respondents that are literate. Yet given that literacy rates in Tunisia in 2015 were close to 90% for men and just below 75% for women (CIA World Factbook, 2016) we consider this not so problematic. Also, limiting the sample to literate people arguably reduces the possible problem of measuring people’s capability to deal with the task at hand instead of measuring their attitudes towards empowerment.

During each of IAT block the respondent observes a laptop screen and is asked to correctly categorize a series of stimuli (target and attribute stimuli). In case of a mistake a large red X would appear on the screen Target stimuli were female and male names. Attribute stimuli were words 6 of them associated with “dependent” and another 6 associated with “independent”. Tables 1A and 1B present the English names and words (on-screen they would all appear in Arabic as well as the instructions to the respondent). The test was programmed in Tunisian Arabic using Inquisit 5.0 software.

Table 1A: IAT Target stimuli

Female name	Male name
Saida	Mehdi
Nour	Walid
Sarah	Nizar
Hela	Karim
Sonia	Sami
Mariem	Khaled

Table 1B: IAT Attribute stimuli

Dependent	Independent
Weak	Strong
Obedient	Lead
Follower	Decide
Incapable	Influence
Submission	Capable
Oppressed	Succeed

³ Testing audio- and visual IATs also revealed that (literate) people found the test much more difficult and often considered the pictures to be ambiguous.

Respondents are invited to read the introductory screen that provides instructions in Arabic about the tasks. After reading the instructions the respondents click the ‘spacebar’ to start the first test block. Table 2 presents the sequence of trial blocks used in the IAT.

Table 2: Sequence of trial blocks in the Women empowerment IAT

Block	No. of trials	Function	Items assigned to left-key response	Items assigned to right-key response
1	20	Practice	Female names	Male names
2	20	Practice	Words associated with ‘dependent’	Words associated with ‘independent’
3	20	Practice	Female names and ‘dependent’ words	Male names and ‘independent’ words
4	40	Test	Female names and ‘dependent’ words	Male names and ‘independent’ words
5	20	Practice	Male names	Female names
6	20	Practice	Male names and ‘dependent’ words	Female names and ‘independent’ words
7	40	Test	Male names and ‘dependent’ words	Female names and ‘independent’ words

3. Empirical strategy

The IAT test score – the measured reaction time to sort words into the right categories – is our dependent variable Y that we relate to the random treatment and control variables in the following way:

$$Y_{jc} = \alpha_c + \beta T_{jc} + \gamma X_{jc} + \varepsilon_{jc}$$

Where:

Y_{jc} is our IAT D-score, α_c is a community fixed effect, T_{jc} is a dummy equal to 1 for those who received the women empowerment video treatment and 0 for those who received the placebo treatment.

X_{jc} is a set of other observed characteristics of the individual influencing attitudes towards women empowerment such as gender, socio-economic background, employment status, education, psychological traits, networks and social norms. Finally, e_{jc} is an error term reflecting unobserved characteristics that also affect, which is allowed to correlate within the household.

In addition, we will investigate impact heterogeneity to see if any of the control variables trigger a different effect of the priming on individual's attitudes towards women empowerment. For example we may expect women to respond differently to the video than men, as well as old versus young people.

The variables for socio-economic background include household wealth, measured by disposable income and assets; individual's income from work and migration background. The (past) employment status is captured by binary variables for being self-employed, in wage employment, unemployed, the reference category being inactive. Educational attainment is also captured by a set of binary variables. Relevant psychological traits include the individual's self-efficacy or confidence in the own ability to achieve intended results, measured by the individual's score on a General Self-Efficacy Scale; and his/her life satisfaction; and self-esteem. Networks and social norms are measured on the basis of activity on social media (Facebook, Twitter, Instagram, LinkedIn), group membership and the individual's perception regarding freedom their peers have to own make choices in a variety of settings.

We first estimate the effect of the treatment by OLS, focusing on the impact of the treatment on the attitudes towards women empowerment. However, regression analysis typically estimates how the mean of the (conditional) distribution of Y_{ijc} changes systematically with the co-variates. Moreover, the classical regression studies assume that deviations from the mean of the conditional distribution are distributed in the same way, whatever the values of the co-variates. As emphasized by Koenker and Hallock (2001), the classical regression approach boils down to a location shift model, assuming that the co-variates affect only the location of the conditional distribution of Y_{ijc} , and not the scale or shape of it (Koenker 2005).

This paper makes less restrictive assumptions in analyzing the complete conditional distribution of Y_{ijc} . By using quantile regression models we will investigate to what extent certain co-variates, in particular T_{jc} , may affect the conditional distribution of Y_{ijc} more fundamentally, by changing its location, scale and shape (Koenker and Bassett 1978, Buchinsky 1998, Koenker 2005). We are not only interested in the factors that systematically increase the 'mean' attitude towards women empowerment, but also in those factors which tend to stretch the tails of the conditional distribution of Y_{ijc} ; in other words, those factors that tend to polarize attitudes towards women empowerment. We hypothesize in particular that our priming movie may have such polarizing effect.

4 Results

The data collection is on-going and is expected to be finished towards the end of November 2017. We expect our first set of results to be available in January 2018.

The data will enable testing our two core hypotheses:

H1. Priming individuals using a video based intervention on the achievement of women rights has a significant impact on attitudes towards women empowerment

H2. The impact of priming is larger at the extreme tails of the conditional distributions of the dependent: attitudes towards women empowerment

Our data will generate insights on the conditions and personal characteristics that influence attitudes, and how they interact with priming.

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