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A Political Economy of Social Discrimination[*]

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Abstract

This paper studies the causes and consequences of social discrimination. We consider a labor market in which payoff-irrelevant identity traits serve as a focal point in hiring decisions. We show that social expectations about behavior can sustain a fully segregated labor markets in which workers with minority traits experience higher unemployment, longer unemployment spells, and lower wages and minority-owned firms are less productive than their majority counterparts. We also consider under which conditions social discrimination arises in equilibrium as the outcomes of electoral competition via the implementation of symbolic policies, such as burqa ban and minaret ban, which raises the saliency of certain social traits. We further highlight that the implementation of symbolic policies is always associated with less redistribution and lower taxation. We discuss several policy recommendations to limit the possibility of social discrimination arising.

"Do you know how many lawyers, doctors, and engineers have come out of these blocks? I see so many people studying, trying to become part of this country, but suddenly we are not good enough because we don't eat pork."

Mina, 30, about Agervang a Muslim dominated housing estate from news article "Denmark swings right on immigration — and Muslims feel besieged" (Guardian, 10 June 2018)

"Ever since this government has come in, I feel like people look at me and see a Muslim for the first time."

An Indian butcher referring to the beef ban from news article "Why a crackdown on Indian cattle trade is seen as anti-muslim" (Independent, 31st July 2018).

"Discrimination consists of actions, practices, or policies that are—in some appropriate sense—based on the (perceived) social group to which those discriminated against belong and that the relevant groups must be socially salient in that they structure interactions in important social contexts" (Altman, 2011). This definition from the Stanford Encyclopaedia of Philosophy might lack the clarity of the economic approach to discrimination ("discrimination arises that two individuals with similar economic characteristics experience unequal (economic, social, or political) outcomes as a result one individual's non-economic factors"). Yet, it has a distinct advantage in that it reminds us that discrimination is always a social phenomena. Beliefs are formed (for statistical discrimination to occur), preferences are acquired (for taste-based discrimination to arise), and discrimination can simply be sustained by norms. Witness castes in India formally analysed in Akerlof (1976). Or witness the history of the Cagots.

"[T]he Cagots [of French and Spanish Pyrenées] were for a millennium treated as pariahs, relegated to disfavoured districts, even forced to use separate doors in churches, where they received the Communion water at the end of a stick," Appiah (2018, p.28) recounts. The Cagots were more than ostracised socially, indirect physical contact was to be avoided at all cost. Appiah continues '[b]ecause contact with the Cagots was contaminating, they were severely punished for drinking from the same water basin as others, for farming, or even walking barefoot on the streets." Nobody knows why the Cagots were discriminated ("What distinguished them from others? Not their appearance. (That's why they were forced to identity themselves with badges pinned to their clothing...) No their family names. Not their language. Not their religion" *ibid.*. Nobody knows why, but discriminated they were.

In this paper, we investigate why a group may come to be discriminated against due to norms of behaviour and the consequences of this discrimination both for the targeted minority and the economy as a whole. To do so, we combine a canonical model of the labour market, with the exception that some actors have (payoff irrelevant) majority traits and others have (payoff irrelevant) minority traits, and a traditional model of electoral politics. We show that norm-based discrimination arises because it can benefit a majority of the population even though it shrinks the size of the whole economy.

We also look into insidious ways whereby discriminatory norms can come to the fore. Rather than considering policies that ban outright individuals belonging to the minority from some economic activities ("America [or French] first," or the ban of immigrants from certain professions, such as becoming doctors in France in the 1930s), we focus on symbolic policies that raise the saliency of certain social traits. This is, according the definition of Altman (2011) deployed above, the starting point of all discrimination. These policies can take several forms: imposing minority groups to adopt specific clothing (like the Cagots); placing restrictions on their practices (such as the prohibitions on Kosher and Halal slaughters in Austria, Denmark, and Netherlands); or forcing them to adapt to behaviour favoured by the majority (like the burkini or burqa bans imposed in many municipalities and countries across Europe, or the proposed head-scarf ban in the public sphere that became the most talked of policy in the recent French Presidential elections). Such policies focus on identity, stressing the otherness of targeted groups by marking them as different in the eyes of the majority. Importantly, when made salient, these highlighted differences are independent of attributes such as the human capital that minorities possess–as the quotes in our epigraph illustrate.

A key finding of our work is that social discrimination has redistributive effects on top of their economic consequences. Taxation is, in theory orthogonal to the implementation of symbolic policies. Identity politics is often seen as an alternative explanation to economic interest when explaining recent political and economic outcomes. We contest this view by showing that such policies can trigger norm-based discrimination that consequently skews labour market outcomes. The winner from social discrimination, which, we will show, are the workers from the majority group, are employed more often, taxes hurt them more and they are less in need of transfers. Candidates responding to these citizens' demands end up offering less redistribution as a result. Seen from this perspective, the support of native workers for far-right nationalistic parties whose platforms contain tax cuts, which has baffled many political economists, is unsurprising. Indeed it can be understood through the prism of social discrimination.

In order to develop and demonstrate these insights we study a dynamic model where politicians compete by choosing whether to introduce a "symbolic" policy alongside a proportional tax rate that is uniformly distributed to all workers. Once that policy environment is set, labor market interactions between workers and employers start. The two sides of the market are distinguished by their payoff irrelevant physical identity (such as first names or colour of skins) and can be part of the majority group or the minority group. In the labor market, unemployed workers and firms with unfilled positions are (randomly) matched. Then, a worker and a firm observe their joint productivity, which is match-specific and is unaffected by identity markers. Employment relations are voluntary: both firm and worker must agree to a match before productivity takes place. Our framework, by design, leaves no room for statistical discrimination: both groups are ex-ante equivalent and all relevant information is known prior to hiring decisions. Our set-up also excludes taste-based discrimination since majority members have no intrinsic dislike for interacting with their minority counterparts.. Discrimination can only be caused by social interactions and social expectations; in other words, it is always due to norms.

To render possible norm-based discrimination, we make two crucial assumptions regarding identity. First, market relations can be conditioned on identity only when a worker or employer's physical (minority or majority) traits are socially salient. This situation, we suppose, arises when the symbolic policy is implemented. Second, we build on earlier work by Peski and Szentes (2013) in assuming that identity traits are not just physically fixed, but also socially malleable; they can be transferred across groups so that a majority(minority) employer who hires a minority(majority) employee might take on their social identity and vice-versa. Equivalent results emerge were we to assume stigma (due to association) is attached to such hiring decisions.

Our first results determine the conditions for labor market discrimination to emerge when social identity is made salient by the implementation of symbolic policies. Labor market discrimination takes the form of a segregated market in our set-up. Majority employers only hire majority workers and majority workers only accept employment from majority employers, leaving minority workers and employers aside. These discriminatory strategies are mutual best responses when the relative proportion of majority workers to employers is neither too large or too small. When these conditions hold, minorities suffer. The level of minority unemployment and the duration of their unemployment spells are higher than those of their counterparts in the majority and than would be the case in a more benign environment. Furthermore, we show that workplace discrimination delivers a productivity gap between firms owned by majority employers and those owned by minority ones. As such, our paper highlights that

social discrimination affects both the demand and supply side of the labor market, reducing minorities' employment prospects and minority-owned firms' performance. Those patterns are not easily matched by models of statistical discrimination.

We use our labour market results to determine when symbolic policies are implemented. The key potential beneficiaries of such polices are majority workers that may find employment more easily in a loaded labour market than in a non-discriminatory one. These workers may demand the adoption of policies that highlight minority identity, such as those discussed here, and that trigger discriminatory norms, because they anticipate the labour market dividends that social discrimination entails.

We establish that symbolic policies pass democratically when the proportion of majority workers is neither too small or too large relative to the proportion of majority-owned firms (and other conditions, we detail in our analysis, are met). When it is too small, the majority workforce lacks the political clout to force politicians to deliver or for majority employers to comply with social discrimination. When it is too large then labor market discrimination offers insufficient benefits. Indeed, in a segregated labor market, majority workers are unable to take up employment in minority firms. The gain from discrimination (better employment prospects with majority employers) dominates the loss (no work relationship with minority employers) only if the proportion of minority owned firms is not too large. In particular, we show that the demand for symbolic policies and its associated social discrimination is positive only if the minority is poorly integrated: there are relatively more minority workers than minority firms.

Social discrimination also impacts the equilibrium tax rate proposed by both candidates. It does so via two distinct channels. First, labor market discrimination changes the fiscal landscape. The revenue from taxes on production are lower when feasible and productive working relations between majority and minority are impeded by the risk of social ostracism. Second, because majority workers face better employment prospects with discrimination than without it, the cost of taxation increases for this group, thereby reducing their demand for redistribution. Combining these two effects, tax rates decrease and redistribution is always lower with discrimination than without. As a result, minority workers take a double hit from symbolic policies: their employment prospects diminish because of social discrimination; and the redistributive transfers are reduced when they need them most. In an extension we show that allowing wages to adjust endogenously with social discrimination, introduces a triple whammy for those workers in the minority: they additionally receive lower salaries in expectation when employed.

Our results highlight that democracies are not immune from behaviour usually associated with ethnic conflict. As Fearon and Laitin (2000) remarks, "political elites use violence to construct antagonistic ethnic identities, which in turn favour more violence" with the masses following. We show that similar strategies are deployed in democracies where redistribution takes place via political competition rather than through conflict. Contra Fearon and Laitin, in democracies, a majority of citizens may demand the adoption of policies making identity salient with the candidates only following, a phenomenon sometimes observed in the case of religious riots (Roy, 1994).

The fact that social discrimination can emerge as an equilibrium phenomenon under democratic institutions relates to notions of systemic or institutional discrimination and racism: even in the absence of overt prejudice or prejudicial beliefs, discrimination arises as a structural phenomenon due to strategic interaction. If these institutions persist then, in the absence of corrective policies, so too will social discrimination and long after any animus or overt prejudice has disappeared. Moreover If these institutions sustain some form of social discrimination, there may be little political will to reform them. A further difficulty that we highlight is that in order to alleviate the negative welfare effects for minorities of discrimination, policies successful at combating one form of discrimination (e.g., social discrimination) can exacerbate another (e.g., taste-based discrimination).

Finally our paper argues that symbolic policies, like the burqa, headscarf, or burkini ban, can be very detrimental for the minority, like the Muslim community. They raise the salience of minority identity and may trigger (or, worse, in order to trigger) norm-based discrimination. Others disagree and see those efforts as a means of fighting radical islamism or facilitating the integration of Muslims into Western societies (a form of taxing identity, Saleh and Tirole, 2021). We note that the national-security arguments have often been (ab)used against minorities (Noiriel, 2007). It is also not obvious why laws directly affecting an extremely small proportion of the Muslim population are necessarily efficient to accomplish the goal of integration. Women wearing the burqa were estimated to be less than 200 in Austria and Denmark, less than 2,000 in France; in all countries, this represents less than 0.05% of their *Muslim* population (Ahmed, 2017). As a representative from the Austrian policy union puts it, after the country implemented a burqa ban in 2017, "if [the ban on full-face coverings] was intended as a contribution in the fight against conservative Islam, then I can only say: it's gone belly up."[1]. We also do not see a contradiction between making some members of the minority less visible (the tiny number of those who wore a burqa in the street or a veil in high school) and raising the salience of

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[1] "Austrian full-face veil ban condemned as a failure by police" (Guardian, 27th March 2018)

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minority traits of every other members of the group. Indeed, this possibility was raised by (moderate) Muslims themselves. "This is clearly an attack against the Muslim community in Switzerland. What is aimed here is to stigmatise and marginalise Muslims even more" asserted Ines Al Shikh, a member of a feminist Muslim organization, after the country passed a burqa ban.[2] There are always other means to identify minorities, their first name (Adida et al., 2016) or their skin colour (Muslims often come from the Balkans or Northern Africa). Eventually, whether these policies help or hurt the targeted minorities is an empirical question. If symbolic policies have the positive effect their defenders argue, the results we describe would be reversed and we should observe less labor market segregation and better outcomes for minorities. Existing evidence, albeit in the context of education, are not so optimistic, documenting less rather than more integration following the implementation of the hijab ban in French schools (**?**, which we describe in greater detail at the beginning of Section 4).

1   Literature review

Our paper relates to the economics literature on identity and its effect on discrimination and redistribution. Here we highlight some of these papers and our contribution to this literature.

Social scientists have long been interested in discrimination in the labour market. In economics, two perspectives have received most attention: taste-based discrimination (Becker, 2010), where discrimination occurs because of animus of some members of the community against others, and belief-based/statistical discrimination (Arrow et al., 1973; Phelps, 1972), where discrimination occurs when decision-makers (e.g., employers) believe that physical attributes are correlated with relevant attributes (e.g., level of human capital). Tremendous progress has been made and is still being made (e.g., Jarosch and Pilossoph, 2019; Bohren et al., 2019). Yet, there is a sense that "taste and statistical discrimination do not capture all the reasons behind different treatments by race" as Small and Pager (2020, p.51) note in a recent review. In this paper, we investigate a setting in which payoff-irrelevant identity traits serve as a focal point in labor market interactions so that discrimination arises from collective behavior rather than from the decisions of individuals, from norms rather than beliefs or tastes. This approach, as we detail below, generates labor market outcomes that are different from predictions arising from usual models of statistical or taste-based discrimination. It also allows us to explain (in terms of model

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[2]"Switzerland to ban wearing of burqa and niqab in public spaces" (Guardian, 7th March 2021)

primitives) a question often left unanswered: why does discrimination arise? (e.g., Fang and Moro, 2011).

We are not the first to investigate the role of identity markers in market or social interactions.[3] Starting with Akerlof's (1976) analysis of castes, a host of papers have shown how the fear of punishment by one's own group can create segregation in the labour market. In Bramoullé and Goyal (2016), fear of being ostracized by in-group members sustains favouritism whereby a firm always hires workers with the same identity trait as its owner even if more productive matches are available. Choy (2017) shows how identity can endogenously generate a social hierarchy, whereby some groups have superior outcomes and cooperate more than other groups. In his work, segregation is sustained because members of upper groups are judged less trustworthy than their peers if they interact with members from groups of lower standing. Discrimination can also be sustained as a form of self-fulfilling prophecy. In Harbaugh and To (2014), discrimination arises because minority consumers expect to be cheated by majority-owned firms and, therefore, refuse to invest in exploring (possibly) beneficial relationships. This insight is close in spirit to Eeckhout (2006) who shows that expectations of low levels of collaboration in mixed-race marriages can sustain higher level of cooperation in same-race relationships. Cavounidis and Lang (2015) describes a labor market equilibrium in which firms monitor more closely black workers, which decreases the average productivity of unemployed minority members (as less productive workers are screened and fired), and sustain the monitoring of employers in the first place. Kamphorst and Swank (2016) shows how discrimination can sustain higher average effort by employees. However, none of these papers investigate the full labor market consequences of using payoff-irrelevant traits as focal points.

In this sense, our paper is closely related to Mailath et al. (2000). There, firms seek to find skilled workers and can target the whole population of workers or only workers from one particular group (with the latter strategy exogenously increasing the match rate) while workers decide whether to acquire skills. Mailath et al. shows that there exist symmetric equilibria (in which all workers invest in skills at the same rate and firms target all possible workers) as well as asymmetric ones (in which only one group invests in skill acquisition and firms only target this group). Mailath et al. (2000), however, does not study conditions under which discrimination can arise nor the redistributive consequences of discrimination. Our paper also goes further in highlighting that skill acquisition is not necessary to sustain discrimination against one group; social interactions and norms will suffice.

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[3]Some recent contributions also analyze how individual discrimination and collective discrimination interact. For example, Basu (2005); Ramachandran and Rauh (2013) have shown how even if the vast majority of majority members are unbiased, the simple fear of meeting a biased member can lead to a complete breakdown of relationships between minority and majority.

To do so, we build upon work by Peski and Szentes (2013). They developed the notion that the perceived identity of a player changes as a result of her/his social interactions. In that paper, agents who are matched must decide whether or not to enter into a profitable relationship with each other. Each agent has a fixed physical identity and a malleable social one. Social color conveys information about who the agent has partnered with in her employment history. As in our paper, Peski and Szentes show that discrimination can arise spontaneously in equilibrium: Agents with the majority trait fear the consequences of social contamination that would leave them enjoying less opportunities should they interact with minority members. There are several technical and substantive differences between our approach and theirs. In Peski and Szentes (2013), an individual is randomly allocated to the role of employer or employee upon matching. Instead, we consider a more canonical labor market approach where the population is divided between firm owners and workers. This allows us to determine the full set of economic consequences of social discrimination which cannot be foreseen from Peski and Szentes's paper. In an extension, we also show how social discrimination affects the endogenous wages of minority and majority members, whereas Peski and Szentes (2013) only considers the case of exogenous wage. In addition, we embed our modified Peski and Szentes's framework in an institutional environment that encompasses a labour and a political market and we explore the demand and supply of social discrimination (in Peski and Szentes, 2013, there is no demand for discrimination as all agents lose when identity is salient). A further contribution is in exploring the labour market and fiscal consequences of discrimination. Finally, our model also suggests remedies to ameliorate the negative consequences on minority welfare.

In our set-up, individuals' labour market and political decisions are a function of identity and its salience. As such, our work connects with the large literature pioneered by Akerlof and Kranton (2000) (see also Akerlof and Kranton, 2010). Austen-Smith and Fryer Jr (2005) explore the "acting white" phenomena whereby human capital investments are stigmatised by peers. In their model agents face a trade-off in that signals that induce high wages (educational attainment) are also those that induce peer rejection. In Eguia (2017), investment in the majority group identity attributes from minority members is used as a screening device. Only minority members who show high levels of investment are assimilated and benefit from labor market opportunities available to majority members. These also happen to be the most productive minority members who have the most to gain from assimilation. Fang (2001) provides similar insights using investment in cultural activities rather than majority traits. In a related contribution, Schnakenberg (2013) highlights how individuals can use symbolic political behavior

(e.g., participation in protests) to signal the strength of their attachment to their identity. This signal improves their interactions with members of their own group, but comes at the cost of deteriorating relationships with out-group members. In Carvalho (2012), investment in identity attachment, in turn, serves as a self-commitment device to avoid yielding to temptation. In contrast, in our paper, identity is not so much an individual choice as a social and political construct. Identity becomes politically salient when politicians choose to make it so, anticipating that workers and employers will condition their behaviour on it.

Our paper studies the relationship between identity and redistribution and so relates to several papers in political economy with a similar focus. Levy (2004) develops a model with endogenous party formation showing that, when an identity dimension exists, party formation can lead to targeted redistribution to groups with a majority identity. Relatedly, Krasa and Polborn (2014) and Matakos and Xefteris (2017) show how a candidate's attributes (e.g., her/his race as in Matakos and Xefteris, 2020) and how these are viewed by the electorate can affect the politician's position on redistributive issues (see also Desai, 2020, who analyses how economic development encourages candidate to engage in identity politics). In these contributions, identity is fixed. Instead, Shayo (2009) analyzes agents identification with class or nation and its relationship to redistribution. In a similar setting, Grossman and Helpman (2018) study the effect of identity on the demand for protectionist trade policy. In the same vein, Bonomi et al. (2021) consider how agents who identify with a group may distort their beliefs accordingly. The authors show how economic shocks can trigger change in identification, valuing cultural issues more than economic issues and causing a decrease in the demand for redistribution. In turn, Penn (2008) look how institutions can shape identity choice, while Huber (2017) explores how the social structure of a society relates to the salience of class and ethnicity. Our contribution to this literature is twofold. We endogenize the dimensions of political competition by allowing politicians to choose the salience of identity politics and we microfound the effect of identity on taxation via social discrimination in the labour market, highlighting that the increased salience of identity does not have to reduce the salience of redistributive conflict to affect redistribution.

2   Set-Up

We consider a set-up with two candidates A and B and a population of mass 2 which incorporate a one-shot electoral competition stage followed by infinitely-repeated labour market stages. The population

is evenly divided between workers and employers. However, while all workers have the right to vote, only a mass f of employers are citizens, the remaining correspond to foreign-owned firms or public administration. The population is also characterized by its physical identity: actors exhibit either majority trait M or minority trait m. This identity is based on identifiable features, be it religious (e.g., Catholics v. Muslims), racial (e.g., White Europeans v. North Africans), or even first-names (e.g., native v. foreign-sounding). Physical identity is not always salient socially. Its importance depends on the policies in place in the country, which are a function of the electoral game we now describe.

Electoral competition

Competition takes place between two candidates A and B who are office-motivated. They receive a payoff normalized to 1 from being in office (without loss of generality) and 0 otherwise. The candidate obtaining the most votes wins office (ties are decided by a fair coin toss). In order to be elected, candidate $J \in \{A, B\}$ proposes a platform q_J. This contains two policies.

The first policy proposed by candidate J is a symbolic policy $d_J \in \{0, 1\}$ targeting the physical minority. As discussed in the introduction, examples of such policies include a ban on wearing the burqa in public places, on eating beef and so on (alternatively, it could also be understood as campaigning or not on identity issues such as Trump's comment on Mexican migrants being rapists). The effect of these policies is to make the physical identity, majority trait M or minority trait m, socially salient.

The second policy offered by candidate J is a proportional tax rate on income $\tau_J \in [0, 1]$. For an economy of size R, the revenues from taxation are simply $\tau \times R$. These revenues are transformed into transfers to the workers with some deadweight loss (to avoid full taxation). That is, we assume that transfers are equal to $T(\tau) = K(\tau)R$, with $K(\cdot)$ $\mathcal{C}^\infty$ on $\mathbb{R}$, strictly increasing and strictly concave. To facilitate the statement of some results, we use $K(\tau) = \tau - \frac{\tau^{1+\lambda}}{1+\lambda}$ (a version of our results holds for more general functional forms). Notice that we assume that transfers are uniformly redistributed to workers (supposing that all citizens receive transfer does not change our results). In particular, candidates cannot propose targeted transfers to workers according to their (majority or minority) identity.

After observing the platforms q_J, the mass $1+f$ of citizens casts a ballot for one of the two candidates. We assume that, when indifferent, citizens vote against a candidate proposing the symbolic policy (if his opponent is not) and when indifferent candidates do not propose the symbolic policy, possibly due to (negligible) costs of implementing such policy or (negligible) moral disutility costs from passing policies that could be viewed as discriminatory. This assumption also guarantees that the symbolic policy is

implemented only if it impacts the labor market. Let us stress from the onset that the results we present below do not require that the symbolic policy always changes labor relations. It is enough that it *increases* the probability that actors condition their labor market behavior on identity traits.

After the election is held and platforms are implemented, all workers and employers interact in the labour market and so we now describe these interactions.

Labour market

The labour market takes the form of an infinitely repeated game with discrete time periods denoted by $t \in \{1, 2, \dots \}$. Employers own a single firm with one position to fill (to simplify our analysis). In what follows we, thus, use interchangeably the terms 'firms' and 'employers'. If the position is filled in period t, the firm produces and the position remains filled the following period with probability $1 - \delta$, $\delta \in (0, 1)$. If the position is unfilled at t, then the firm is matched with a randomly drawn worker from the pool of unemployed.[4] After being matched, both the would-be employee and the potential employer must agree to enter a working relationship and, if they do so, the firm produces in period $t + 1$. If either does not agree then the position remains unfilled at $t + 1$.

A match produces a quantity $\theta \in [0, 1]$ sold at an exogenous price of 1. We interpret θ as the worker's and thus firm's productivity. Both the workers and the employers observe θ before agreeing whether to enter a working relationship. If they do so, then in the next period, the revenue $1 \times \theta$ is split between a fixed exogenous wage $w \in (0, 1)$ for the worker and the remainder to the employer (we consider the case of endogenous wage in Section 5). An unemployed worker earns 0 on the labour market as does an employer whose firm's opening is unfilled.

We assume that productivity is match-specific. Denote θ_k a worker's productivity in match k (whether there is a working relationship). We assume that θ_k is drawn i.i.d. from a uniform distribution on the interval $[0, 1]$ for ease of analysis.

Recall that transfers are uniformly redistributed to workers so the per-period payoff of an employer is:

$$U^F = \begin{cases} (1 - \tau)(\theta - w) & \text{if position filled} \\ 0 & \text{if position open} \end{cases}$$

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[4]In practice, if there are more firms with unfilled position than unemployed workers, then some firms may remain unmatched in a given period, and vice versa for workers. However, as we explain below, this never happens since there are as many firms as there are workers.

The per-period payoff of a worker assumes the following form:

$$U^W = \begin{cases} (1-\tau)w + T(\tau) & \text{if employed} \\ T(\tau) & \text{if unemployed} \end{cases}$$

Because we consider an infinitely-repeated labour market, we suppose that all players discount the future with discount factor $\beta \in (0,1)$ so that all continuation values are well-defined.

The per-period timing in the labour market is as follows.

Filled position	Open position
1. Production realized	1. No production
2. Working relationship breaks down with probability δ. If so, position becomes open; if not, it remains filled next period	2. Match occurs between available workers and employers. Matched worker and employer observe the match-specific θ and decide whether to enter in a working relationship. If so, position becomes filled; if not, it remains open next period
3. Payoffs realized, move to next period	3. Payoffs realized, move to next period

Our labor market model includes two forms of friction. First, matches are persistent. This is equivalent to assuming that labour laws make lay-offs difficult (e.g., require just cause). Second, production is delayed by one period after an employer and a worker agree to enter in a working relationship. Frictions are important to generate our results below. However, only one form of friction is necessary for discrimination to arise.

When describing the labour market subgame, note that we have made no mention of identity. Indeed, it is important to stress that a worker's productivity, that is known by her employer, does not depend on identity (neither her own or that of her employer). This rules out statistical discrimination in employment practice. Further, a worker or employer's per-period payoff is independent of the identity of whom they work with. Thus, in our framework, there is no room for taste-based discrimination either. Discrimination, should it arise, can only be a phenomenon related to our notion of social identity that we now detail.

Physical and social identity

We assume that physical identity becomes socially salient only if a discriminatory policy is implemented. More specifically, we follow Peski and Szentes (2013) and assume that each citizen is characterized by a two-dimensional type $(\phi, s) \in \{m, M\} \times \{\emptyset, m, M\}$.

The first coordinate (ϕ) corresponds to a citizen's physical identity that is fixed. We assume that there is a proportion $\alpha^W > 1/2$ of workers with physical majority trait and a proportion $\alpha^F > 1/2$ of employers with physical majority trait. The proportion of employers with physical majority trait is the same among citizens and non-citizens (to avoid carrying around too many parameters) though our results remain substantially unchanged were this not so.

The second coordinate (s) corresponds to a citizen's social identity which can vary with social interactions. Unlike Peski and Szentes, we assume that social identity is not always salient. Absent the implementation of symbolic policy, all citizens look the same and their social identity type is $s = \emptyset$. If, by contrast, the symbolic policy is implemented by the winning candidate then social identity becomes salient $s \in \{m, M\}$ (to the risk of repeating ourselves, it is simply enough for our results that the symbolic policy increases the likelihood that social identity becomes salient). In what follows, we sometimes refers to a type-M (type-m) worker/employer if her/his social identity is $s = M$ ($s = m$). Both the employer and the employee then observe their respective social identity before deciding whether to enter in a working relationship.

At the onset, a worker or employer's social identity is simply her physical identity. However, social identity can change as a result of social interactions, here work relations, as in Peski and Szentes (2013). Take an employer l working with worker h. Upon break down, employer l's social identity remains unchanged with probability $1 - \rho \in (0, 1)$. With probability, ρ, employer l acquires his employee's identity $s_k \in \{m, M\}$. In turn, worker h's social identity remains unchanged with probability $1 - \gamma \in (0, 1)$ and takes her employer's social identity with probability γ. Note that a labor market participants' identity changes only if their social identity differs from the social identity of those they interact with and that we allow for full identity swap (for simplicity).[5] Implicitly, our setting corresponds to close knit communities where all inhabitants have a long memory of social interaction. Implicitly as well, work also includes post-working hours interactions, such as the famous culture of Friday drinks in the United Kingdom or the common Christmas parties across the world. In other words, we take work as an important

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[5]For tractability reasons, we do not allow for reversal whereby an agent's social identity can return to her physical one, unlike Peski and Szentes (2013)

dimension of social interactions (we return to other applications of the model in the discussion section). The idea that social identity might change due to associations in the workplace is conceptually the same as the notion of stigma. Though we are neutral as to exactly *how* social identity changes the general idea is that the prospects for individual (firms, workers) depend upon their social interactions.

This approach allows us to define four different categories of citizens anticipating slightly our discrimination result. First, we have the pure majority with both physical and social majority traits $(\phi, s) = (M, M)$. Second, we have the tainted majority with social minority trait: $(\phi, s) = (M, m)$. These are the majority members referred to as 'jew-lovers,' 'n****r-lovers,' 'muslim-lovers,' or 'immigrationists' (Collective, 2019) depending on the circumstances. Third, we can define the assimilated minority as citizens with minority physical trait and majority social identity: $(\phi, s) = (m, M)$. Finally, we refer to the excluded minority when both traits are minority traits: $(\phi, s) = (m, m)$.

Equilibrium concept

The equilibrium concept is stationary Subgame Perfect Nash Equilibrium. This requires the labor market to be at the steady state. In a steady state, the mass of positions filled must be constant each period (possibly for the employers from the minority and majority groups separately), the mass of unemployed workers must be constant each period (possibly for each group of workers separately), all hiring/job acceptance decisions must be individually rational given employers' and workers' anticipations of future payoffs, all equilibrium quantities must be consistent with each other. We add an additional requirement in supposing that the labour market adjusts immediately. That is, workers and employees only consider their (ex-ante) expected payoff from the labour market steady state when making their electoral decision (this allows us to drop the time subscript).

3 Labour market analysis

We first consider outcomes in the labour market when social identity is not salient and so plays no role in hiring decisions. We do so for two reasons. First, it serves as a baseline to which we can compare the labor market outcomes when social discrimination is present. Second, it corresponds to the alternative options when voters decide whether to cast a ballot for a candidate proposing the symbolic policy.

Absent salient social identity, a worker has no incentive to decline a job offer since it entails a wage loss. Employers then have full power when deciding whether to fill their position. Hence, we

focus on employers' continuation value. Since social identity is not salient, the only differences between workers consist of the match-specific productivity. We denote $V^f(\theta)$ the firm's continuation value when the position is filled with a worker characterized by productivity θ. In turn, V^o corresponds to the continuation value of an employer when he has an opening.

In a period where the firm position is filled the employer obtains a net profit $(1 - \tau)(\theta - w)$. With probability $1 - \delta$ this profitable match persists and the employer obtains $V^f(\theta)$ tomorrow (discounted by β). If not (with probability δ), the match breaks and so the employer has an opening tomorrow and obtains V^o. Bringing these elements together we have:

$$
\begin{aligned}
V^f(\theta) &= (1 - \tau)(\theta - w) + (1 - \delta)\beta V^f(\theta) + \delta\beta V^o \\
\Leftrightarrow \quad V^f(\theta) &= \frac{(1 - \tau)(\theta - w) + \delta\beta V^o}{1 - \beta(1 - \delta)}
\end{aligned}
\tag{1}
$$

When a firm has an opening, it does not produce and its profit is zero in this period. It is then matched with an unemployed worker with productivity θ and must decide whether to hire him and so obtain a payoff next period of $V^f(\theta)$. If not, the position remains unfilled and the employer's continuation value is V^o. Of course, when the employer has an opening he does not know with which worker he will be matched. Further since the productivity is match-specific, the relevant distribution is the ex-ante distribution of productivity. Thus, when she has an opening, the employer's continuation value is

$$
V^o = 0 + \beta E_\theta \Big(\max \big\{ V^f(\theta), V^o \big\} \Big)
\tag{2}
$$

Obviously, employers never employ a worker with productivity less than w since it always leads to negative revenue. Less obvious is that frictions in the labour market might lead to an employer foregoing profit. Specifically, she faces a trade-off between enjoying profit $\theta - w > 0$ today and missing out on a more productive worker $(\theta' > \theta)$ tomorrow. If a worker's productivity is too close to w, the loss in term of future opportunity dominates that from the immediate profit that would be lost. Hence, an employer hires a worker if and only if his productivity θ is above a hiring threshold θ^{ND}, strictly greater than the wage w.[6]

---

[6] We note that even if matches are not persistent, employers still only hire workers who generate a strictly positive profit (in formal terms, $\lim_{\delta \to 1} \theta^{ND} > w$). This is due to the timing of labour market interactions. If a hire takes place in period t, production only starts in period $t+1$. Hence, even if matches break after the producing period $t+1$, there is an opportunity cost to hire a low productivity worker (just above w).

Having shown that these value functions are well defined, and building on the arguments presented here, straightforward analysis provides the following result (whose proof, like all other results, can be found in the Online Appendix available here):

Lemma 1. *When social identity is not salient, in the unique equilibrium:*
(i) A worker always accepts to enter in a working relationship;
(ii) There exists a hiring threshold $\theta^{ND} \in (w, 1)$ such that an employer hires a worker if and only if $\theta \geq \theta^{ND}$.

We now turn to the labor market equilibria when social identity is salient. When this is so, all actors might simply ignore social identity and play the same strategy as before (when social traits are not salient): An equilibrium without work discrimination always exists. Alternatively, workers and employers might condition their labour decisions on social identity. There are many reasons to focus on this particular assessment. First, others (notably Peski and Szentes, 2013; Rosén, 1997) have shown that discriminatory equilibria are stable when identity can serve as a focal point (albeit in distinct set-ups from ours). Second, we want to contrast outcomes with and without social discrimination, so we need to understand the implications of social identity for the labor market. Finally, we also seek to study when social discrimination can arise due to a majority of voters demanding the implementation of symbolic policies, a question we analyse in detail in the next section.

What does a labour market shaped by social identity look like? Salient social identity generates a fully segregated labour market. Workers with majority social trait accept job offers from employers with the same identity. Likewise, employers with majority social trait only hire workers from their own majority group. Workers with majority social identity all face the same payoff from accepting a job offer. Hence, if one of them is willing to work for a firm owned by an employer with minority social trait, all would be willing to do so: the labour market would look identical to that under the non-discrimination equilibrium. Similarly, if type-M employers hire minority workers while type-M workers refuse to work with firms owned by employers with minority traits, with probability a.e. one, then the proportion of either type-m workers or type-M employers would drop to zero over time. Hence, in the steady state, identity could no longer play a role. Given its consequences on hiring, we refer to equilibria in which identity serves the role of focal point in the labour market subgame as 'discrimination equilibria.'

The assumption of exogenous wage (which we relax in Section 5) implies that workers from each group always accept job offers from employers from the same group (as noted above, majority workers always refuse offers from minority-owned firms, minority workers are never offered jobs from majority-trait

employers on the equilibrium path). To study the hiring decisions, we turn to the continuation values of the firms. We denote now $V_{J,K}^f(\theta)$ the continuation value of an employer with physical trait $J \in \{M, m\}$ and social trait $K \in \{M, m\}$ when the position is filled (f) by an employee with productivity θ who possesses the same social identity. Using this notation, and following the steps in our earlier construction, we obtain the following continuation value function:

$$V_{J,K}^f(\theta) = (1 - \tau)(\theta - w) + (1 - \delta)\beta V_{J,K}^f(\theta) + \delta\beta V_{J,K}^o. \tag{3}$$

Note that since we focus on the continuation value when employers and employees have similar social traits, the employer never changes social identity upon separation. This expression includes $V_{J,K}^o$ which denotes the continuation value should the employer's position become open (an event with probability δ).

Before describing $V_{J,K}^o$, note that the total mass of firms with an open position always equals the total mass of unemployed workers in the steady state (because each firm with filled position hires one worker and employers and workers have the same mass of one). Hence, an employer with a position to fill is certain to be matched with one worker looking for a job. However, in the pool of unemployed there are workers with majority social traits and workers with minority social traits. With random matching (more generally, as long as matching is not fully directed), an employer from the majority group is uncertain to be matched with an unemployed worker with the same social identity. We write the probability that an employer is matched with a type-M unemployed worker as μ^W.

Since a majority-trait employer only hires majority-trait workers, his status can change (from open to filled position) only if he meets a type-M worker (i.e., with probability μ^W). In turn, a minority-trait employer's position can become filled only if he is matched with a type-m worker since majority workers reject a minority-owned firms' offer (i.e., with probability $1 - \mu^W$). Thus, the relevant value functions for an employer with (physical and social) traits $J \in \{M, m\}$ and with an open position are given by:

$$V_{M,M}^o = 0 + \beta\mu^W E_\theta \max\{V_{M,M}^f(\theta), V_{M,M}^o\} + \beta(1 - \mu^W)V_{M,M}^o \tag{4}$$

$$V_{m,m}^o = 0 + \beta(1 - \mu^W)E_\theta \max\{V_{m,m}^f(\theta), V_{m,m}^o\} + \beta\mu^W V_{m,m}^o \tag{5}$$

As before, an employer uses a cutoff strategy: hire if and only if $\theta \geq \overline{\theta}_M^D$ ($\theta \geq \overline{\theta}_m^D$) for an employer with majority (minority) trait. Since the pool of potential matches is not evenly balanced except in knife-edge

cases, employers with different identities use different thresholds. Because employers only hire workers with the same identity as their own, the pool of potential employees is always smaller with than without discrimination. As a consequence, both types of employer become more lenient in their hiring decision and so their hiring thresholds are strictly lower than when social identity is not salient. The proportion of unemployed with majority or minority traits, in turn, depends on the hiring thresholds adopted by firms. In equilibrium, unemployment rates for both types of workers and the hiring thresholds for both types of firms must be consistent with each other. Despite this added complication, we show that a discrimination equilibrium, if it exists, is unique. Lemma 2 details the key features of labour market strategies then.

Lemma 2. *When social identity is salient, in any discrimination equilibrium, labour market strategies satisfy:*

(i) A worker with a majority social identity only agrees to work with an employer with a majority social identity;

(ii) An employer with a majority social identity only hires a worker with a majority social identity;

(iii) There exists a unique pair of hiring thresholds $\theta_M^D(\alpha^W, \alpha^F), \theta_m^D(\alpha^W, \alpha^F) \in (w, \theta^{ND})^2$ such that

- *an employer with majority social identity hires a worker with majority social identity if and only if $\theta \geq \theta_M^D(\alpha^W, \alpha^F)$;*

- *an employer with minority social identity hires a worker with minority social identity if and only if $\theta \geq \theta_m^D(\alpha^W, \alpha^F)$.*

For social discrimination to arise in equilibrium, it must also be that majority-trait employers never hire minority-trait workers and majority-trait workers reject all work offers from minority-owned firms. For a majority employer, this is equivalent to not hiring a type-m worker with the highest possible match-specific productivity, $\theta = 1$. Denote $V_{M,M}^f(\theta; m)$ the continuation value of a majority-trait employer when his employer comes from the minority group. Recall that social identity changes with probability ρ upon the breaking of a working relationship (which occurs with probability δ). If this happens, the employer's continuation value becomes $V_{M,m}^o$: the position is open and the employer has majority physical identity and minority social trait. For discrimination to be a best response for majority-owned firm, the following incentive compatibility constraint must hold:

$$V_{M,M}^o \geq (1-\tau)(1-w) + \beta\Big((1-\delta)V_{M,M}^f(1;m) + \delta(1-\rho)V_{M,M}^o + \delta\rho V_{M,m}^o\Big)$$
$$\Leftrightarrow \beta\delta\rho\Big(V_{M,M}^o - V_{M,m}^o\Big) \geq (1-\tau)(1-w) + \beta(1-\delta)V_{M,M}^f(1;m) \tag{6}$$

The left hand side of condition (6) corresponds to the cost of hiring a minority-trait worker. There is a risk that the social status of the employer moves from majority to minority. In other words, this is the cost of being tainted. The right-hand side corresponds to the benefit when the position is filled by a very productive worker and may remain so in the future.

This cost of being tainted, importantly, varies with the proportion of type-M workers in the population, α^W. When the proportion of employers with majority trait is relatively high compared to the percentage of workers from the same group, many firms compete for a relatively small pool of workers, who are likely to be employed. The proportion of unemployed belonging to the minority group is high and hiring from this pool is relatively easier for employers with minority social identity. In such case, the cost of being tainted is low and the majority-trait employer's incentive compatibility constraint cannot be satisfied. Hence, the cost of hiring a minority-trait worker is high enough to satisfy condition (6) if the percentage of workers with majority trait is large relative to the proportion of majority-owned firms. In formal terms, α^W needs to be above a population threshold $\underline{\alpha}^W(\alpha^F)$.

Let us now turn to workers with majority physical trait and social identity $s \in \{m, M\}$. We denote their continuation value $W^e_{M,s}(K)$ and $W^u_{M,s}$ when employed with an employer of social type $K \in \{m, M\}$ and when unemployed, respectively. By the same reasoning as above, recalling that a worker acquires an employer's social identity with probability γ when the working relationship breaks, a worker refuses a job offer from a type-m employer if the following condition holds:

$$W^u_{M,M} \geq (1-\tau)w + \beta\Big((1-\delta)W^e_{M,M}(m) + \delta(1-\gamma)W^u_{M,M} + \delta\gamma W^u_{M,m}\Big)$$
$$\Leftrightarrow \beta\gamma\rho\Big(W^u_{M,M} - W^u_{M,m}\Big) \geq (1-\tau)w + \beta(1-\delta)W^e_{M,M}(m) \tag{7}$$

We again recover the same trade-off between the cost of accepting a job offer from a minority-owned firm, the cost of being tainted on the left-hand side, and the benefit of being employed. When the proportion of type-M workers is large relative to the number of firms owned by majority members, many workers compete for a small pool of jobs. Becoming a worker with minority social trait is not so costly then since these workers experience relatively favorable labor market prospects. It follows that workers with majority trait suffer a loss from being tainted by the minority, and a discrimination strategy can be a best response for a majority worker, when the size of their group relative to the percentage of type-M employers is not too high: formally, α^W is below a population threshold $\overline{\alpha}^W(\alpha^F)$.

Bringing this reasoning together, we obtain that for discrimination strategies to be mutual best response the proportion of workers with majority identity relative to the percentage of employers with the same trait is intermediary. On top of this, the discount factor should be relatively high so that future losses from being tainted weight enough in type-M workers and employers' decisions. Proposition 1 summarizes these findings and Figure 1 illustrates them.[7]

Proposition 1. *For all proportions of employers with majority identity $\alpha^F \in (1/2, 1)$, there exists two population thresholds $\underline{\alpha}^W(\alpha^F), \overline{\alpha}^W(\alpha^F) \in (1/2, \alpha^F) \times (\alpha^F, 1]$ such that if the proportion of workers with majority identity satisfies $\alpha^W \in (\underline{\alpha}^W(\alpha^F), \overline{\alpha}^W(\alpha^F))$, there exists $\overline{\beta} < 1$ such that for all $\beta \geq \overline{\beta}$, workers' and employers' discrimination strategies are mutual best response.*
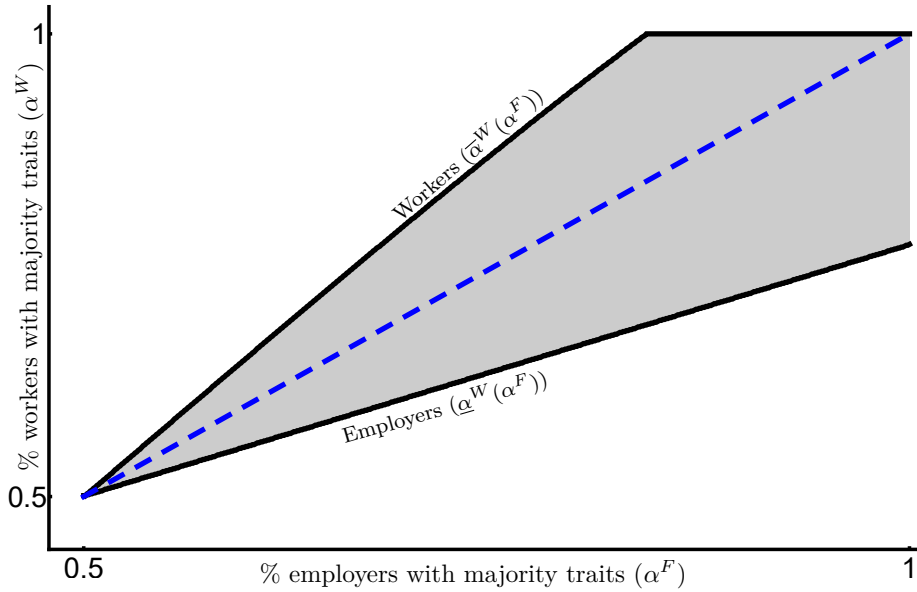

Figure 1: Labour market discrimination

The bottom and top black plain curves depict $\underline{\alpha}^W(\alpha^F)$ and $\overline{\alpha}^W(\alpha^F)$ for $\beta = 0.95$. The dashed blue line is α^F. The shaded gray area correspond to proportions of type-M workers and employers such that discrimination strategies are mutual best responses (for appropriate β). Parameter values: $w = 0.3$, $\delta = 0.2$, $\beta = 0.95$.

As shown in Figure 1, $\underline{\alpha}^W(\cdot)$ and $\overline{\alpha}^W(\cdot)$ are not mutually exclusive since they satisfy $\underline{\alpha}^W(\alpha^F) < \alpha^F < \overline{\alpha}^W(\alpha^F)$. Given the greater proportion of type-M employers and workers ($\alpha^F > 1/2$ and $\alpha^W > 1/2$),

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[7]Proposition 1 describes sufficient conditions. In general, the thresholds $\underline{\alpha}^W(\cdot)$ and $\overline{\alpha}^W(\cdot)$ depends on β (as well as other parameters) and the size of the losses is also a function of the discount factor. Hence, the necessary conditions take the form of a proper combination of α^W, α^F, and β, rendering their statements complex. We elected to define thresholds so that they do not depend on β (see Lemmas A.9 and A.15 in Online Appendix A) at the cost of only describing sufficient conditions (though they are close in spirit to the necessary ones). Finally, note that $\overline{\beta}$ is a function of other parameters, but we omit this dependence. Figure 1, in turn, simulates the equilibrium thresholds for a given value of β ($\beta = 0.95$) rather than the thresholds described in the proposition.

workers and employers with majority identity have a higher chance of being matched together than their minority counterparts when $\alpha^W = \alpha^F$. So discriminatory strategies are then mutual best responses (for β large enough). Further, both thresholds increase with the proportion of employers exhibiting majority traits. Higher α^F implies that unemployed workers with identity M are more likely to be matched with the right type of firms. Hence, these workers have stronger incentives to refuse a job offer from an employer with minority trait so that the upper bound $\overline{\alpha}^W(\alpha^F)$ increases. Higher α^F also implies that more type-M employers compete for the same pool of workers, making it more attractive to hire a worker with minority trait, so that the lower bound $\underline{\alpha}^W(\alpha^F)$ increases as well. Note that the difficulty of finding minority unemployed workers due to the smaller size of this group means that the threshold for employers is always strictly below one; that is, slightly abusing notation, $\underline{\alpha}^W(1) < 1$ (all these properties are formally shown in Corollary A.3).

Having shown that discriminatory strategies can be mutual best responses, we now turn to labor markets outcomes in the presence of social discrimination. First, workers with minority traits suffer from higher unemployment rates and longer spells of unemployment than their majority counterparts. In turn, because in equilibrium employers with majority traits must find it easier to hire workers with the same trait than their minority counterparts, majority employers are more discerning in their hiring: their hiring threshold is strictly higher than that of type-m employers'. As a result, firms owned by employers with majority identity are more productive on average.

Proposition 2 summarizes the observable labour market characteristics of the discrimination equilibrium, when it exists.

Proposition 2. *In the unique discrimination equilibrium,*
(i) the unemployment rate and duration of unemployment spell are strictly higher for workers with minority trait than workers with majority trait;
(ii) a firm's average productivity when producing is strictly higher when it is owned by an employer with majority trait than when it is owned by an employer with minority trait.

Our results, so far, highlight the dramatic consequences of social discrimination (when it arises in equilibrium). When the labor market is segregated large differences emerge in the employment patterns of minority and majority workers and in the productivity of majority and minority owned firms–even though all workers are identical and all firms are the same.

It is interesting to contrast these predictions with those emerging from set-ups where employers statistically discriminate against workers with minority traits. This would require, obviously, that

employers do not observe workers' match-specific productivity. In this case, workers from the minority group would experience the same employment patterns as those described in Proposition 2, but firms owned by minority members would be equally productive as their majority counterparts. Yet, some empirical evidence suggest that minority-owned firms exhibit lower performance, grow less fast, and fail more often than majority-owned businesses (Edelman et al., 2010; Robb, 2002). On top of this, recent, albeit indirect, evidence suggest that more workplace-related interactions can lead to more antagonism, not less (Hamel and Wilcox-Archuleta, 2022). This is not inconsistent with our model, whereby a decrease in α^W can trigger social discrimination (see Figure 1). It is much harder to explain with statistical discrimination, whereby more contacts yield new information which decreases the reliance on prior beliefs (e.g., Bohren et al., 2019).

We can also contrast our findings with models that incorporate taste-based discrimination from native workers. In this case, minority-owned firms would be less productive than majority-owned employers, but workers with minority identity would not face worse employment opportunities than their majority counterparts despite evidence to the contrary (most famously, Bertrand and Mullainathan, 2004).

The patterns that arise in equilibrium in our set-up cannot be reproduced by one-sided discrimination. They match the labour market outcomes of a setting where all elements from the majority have animus against the minority.[8] Even then, however, our findings have different implications. Unlike taste-based discrimination, social discrimination is immune from the optimistic dynamic famously described in Becker (2010). New firms, in our model, would perpetuate segregation by fear of being ostracised otherwise (if owned by a majority member) or because they are snubbed by workers from the majority (if owned by a type-m employer). Moreover, entrants are more likely to come from the majority since employers with majority traits make more profit. And this would generally, though not always, reinforce the sustainability of social discrimination (see Figure 1). An implication is that social discrimination can replace taste-based discrimination long after racial animus has faded.

Our labor market analysis also reveals that one group, workers with majority traits, are less affected by social discrimination than others. This raises the possibility that they demand change that could trigger a segregated labor market. In the next section, we study when the outcomes of free elections can kick-start norm-based discrimination. In other words, having studied the consequences of social discrimination, we now turn to its causes.

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[8]We do not exclude the possibility that similar outcomes arise when majority-owned(minority-owned) firms statistically discriminate against minority(majority) workers. Though, much will depend on the nature of uncertainty faced by employers.

4 Political demand for and supply of symbolic policies

Anecdotal and empirical evidence consistently document that exogenous political events affect social and labor relations. The entry of the far-right party FPÖ into government in Austria created new divisions between the Muslim minority and the rest of the population. As Professor Mahmud Yavuz describes, "Young people who want to help this country proper are cast aside. The gap is growing. Nobody wants to have contact with us. Neighbors used to come to open days at the mosque, not any more" (from news article "En Autriche, il ne fait pas bon être musulman," Le Monde, May 17th 2019, authors' translation). Brexit altered consumers' behavior in favour of products with nationalistic symbols (Nardotto and Sequeira, 2020). Increased tension between Palestinians and Israelis breeds intolerance in interactions with members of the out-group in the private used car market (Zussman, 2013). Bursztyn et al. (2020) find that American citizens became more willing to express extreme views after the election of Donald J. Trump in 2016 (we note that the authors provide a different explanation than ours for this finding). Giani and Méon (2019) highlight that this effect is not limited to the United States. Glover (2019) shows how the Charlie Hebdo attack in France in January 2015 significantly lowered employers' demand for Muslim workers as well as Muslim workers' job search effort. This effect is driven by communities exhibiting a lower ex-ante bias against minorities (as proxied by the far-right Front National's vote share), suggesting that animus is unlikely to be the source of heightened discrimination.

Exogenous events are not the unique cause of changes in attitudes; changes sometimes occur after the introduction of specific policies targeting the minority. **?** looks at the impact of the headscarf ban in 2004 on the achievements of minority pupils. Muslim girls see a decrease in their secondary educational attainment (lower completion rate, higher drop-out rates) and experience greater xenophobia following the law. As the authors argue, the law impacted all Muslim female students, independently of their practice (for a minority) or lack thereof (for a majority) of wearing a hijab before its implementation.

Inspired by these findings, we assume in this section that the salience of social identity is not exogenous; it requires politicians to create an environment where identity matters. And for this to be so requires that it is in politicians' interests to do so. To determine when this condition is satisfied, we analyse the electoral competition stage of our framework.

The demand for symbolic policies that trigger social discrimination on the labor market does not derive mechanically from the previous section. Earlier, we detailed the conditions such that discriminatory hiring and job acceptance decisions are mutual best responses when all majority-trait citizens

are discriminating. Here, we study whether a majority of the population prefers a labor market with discrimination to labor exchanges free of discrimination. That is, we compare payoffs *across equilibria.*

The previous section establishes that workers with majority-traits stand to gain most from social discrimination in the labor market. Majority-firms become more lenient in their employment decision, the hiring threshold drops from θ^{ND} to θ_M^D (Lemma 2). Yet, even for this group, discrimination is not without costs, both direct and indirect. Since the labor market is fully segregated, workers with majority traits must refuse to work with type-m employers. In contrast, without discrimination, they can enter working relationships with all types of employers. This reduction in the pool of potential employers is the direct cost of social discrimination for type-M workers. For workers with majority-trait to demand the symbolic policy, the loss from restricted employment opportunities must be strictly lower than the gain from the increased likelihood of being hired by an employer with majority identity. This condition is satisfied when the proportion of type-M firms α^F is large compared to the proportion of workers with majority trait α^W; i.e., α^W must be below a threshold denoted $\widehat{\alpha}^W(\alpha^F)$.

The indirect cost is slightly more subtle. As we have noted above, firms are less likely to be matched with workers they can hire with social discrimination. As a result, they produce less often and become less selective in their hiring (i.e., $\theta^{ND} > \theta_M^D > \theta_m^D$). Consequently, they are also less productive. These joint effects (lower productivity and lower proportion of firms producing) imply that the economy shrinks with discrimination and the total amount available for taxation is lower. Majority-trait workers receive less transfers with social discrimination than without. If taxes are very sensitive to the resources available, the drop in transfers is substantial and type-M workers may reject social discrimination even if it is beneficial employment-wise (i.e., even if $\alpha^W < \widehat{\alpha}^W(\alpha^F)$). Hence, a second condition for workers with majority identity to demand symbolic policies leading to social discrimination is that the elasticity of transfers to revenues is relatively low. Using our functional form for the deadweight loss of taxation—$K(\tau) = \tau - \frac{\tau^{1+\lambda}}{1+\lambda}$, this is equivalent to λ being strictly smaller than a threshold $\overline{\lambda}$.[9]

Lemma 3. *For all proportion of employers with majority identity $\alpha^F \in (1/2, 1)$, there exists a population threshold $\widehat{\alpha}^W(\alpha^F) \in [1/2, \alpha^F)$ such that if the proportion of workers with majority identity satisfies $\alpha^W < \widehat{\alpha}^W(\alpha^F)$, there exists an upper bound $\overline{\lambda} > 0$ such that workers with majority identity demand the symbolic policy whenever $\lambda < \overline{\lambda}$.*

---

[9]As for Proposition 1, we describe sufficient conditions for ease of exposition. Necessary conditions are a proper combination of α^W, α^F, λ, and β.

The threshold $\widehat{\alpha}^W(\alpha^F)$ satisfies $\widehat{\alpha}^W(\alpha^F) < \alpha^F$. The intuition for this inequality again involves the loss due to reduced employment opportunities: with discrimination, workers with majority traits no longer compete with minority workers for positions offered by employers with majority traits—but they forego the opportunity to work with employers with minority traits. If the proportion of types is the same among workers and employers, the ratio of jobs to workers is the same (one-to-one) with or without work discrimination. Majority workers are, however, less likely to be matched with a firm that will employ them (since they exclude employers with minority identity). Employers' adjusted hiring practices (hiring threshold θ_M^D instead of θ^{ND}) are insufficient to compensate for such lower employment prospects due to the relatively high chance of meeting productive workers with majority identity tomorrow ($\alpha^W > 1/2$). Hence, $\alpha^W < \alpha^F$ is a necessary condition for type-M workers to demand the symbolic policies (formally proven in Lemma B.3 in Online Appendix B). In other words, social discrimination is possible only if the minority is economically poorly integrated in this sense. In contrast, when the condition $\alpha^W < \alpha^F$ is satisfied, the jobs to workers ratio becomes favorable and employers with majority identity become more lenient in their hiring decisions (as we prove in Corollary A.1) so that a segregated labour market can become attractive for majority workers.

The population threshold $\widehat{\alpha}^W(\alpha^F)$ exhibits two other important properties (see Lemma B.3 for a formal statement). Intuitively, the upper bound on the demand for social discrimination is less stringent as the proportion of type-M employers increases. Since workers with majority identity are more likely to be matched with the right type of employer then, the benefit from a segregated labour market increases. In the limit when all employers exhibit majority traits, type-M worker always gain income from social discrimination since they face reduced competition for open positions.

We have established conditions such that a majority of workers benefit from social discrimination and so will demand policies that facilitate such discrimination. Next we turn to the supply side and consider candidates' behavior. It is useful for this purpose to define the following two quantities: Let τ^{ND} be the preferred tax rate of workers in the absence of work discrimination; and, in turn, let τ_J^D be the preferred tax rate of workers with identity $J \in \{M, m\}$ with discrimination. Notice that employers do not receive any transfer so their preferred tax rate is always 0.

Observe that candidates' problem is two-dimensional: they must choose a tax rate and a position on the symbolic dimension. While multi-dimensional electoral competition models are often intractable, we can take advantage of the binary nature of the symbolic dimension (offer or not the symbolic policy) and the shared interest of each separate group of voters (majority/minority workers, firm owners with

majority/minority traits) to establish the following properties of equilibrium platforms. In equilibrium, candidates propose one of two platforms. Candidates either do not offer the symbolic policy and propose a tax rate of τ^{ND} (platform $(0, \tau^{ND})$) or they promise the symbolic policy with a tax rate of τ_M^D (platform $(1, \tau_M^D)$).

Lemma 4. *In equilibrium, candidates converge to the same platform. Further, for all $J \in \{A, B\}$, candidate J's platform satisfies either $(d_J, \tau_J) = (0, \tau^{ND})$ or $(d_J, \tau_J) = (1, \tau_M^D)$.*

The classic dynamics of spatial politics explains this result. Any candidate proposing a platform $(0, \tau)$, with $\tau \neq \tau^{ND}$, faces certain defeat. Indeed, if his opponent offers $(0, \tau^{ND})$, he gathers the votes of all workers, a plurality of the citizenry since $1 > f$, and wins the election. Hence, by the usual logic, any candidate who is elected proposing no symbolic policy must also be proposing workers' preferred tax rate. Similarly, any candidate $J \in \{A, B\}$ proposing a platform $(1, \tau)$ with $\tau \neq \tau_M^D$, is certain to lose. If $\tau > \tau_M^D$, his opponent (by offering $(1, \tau_M^D)$) forms a winning electoral coalition consisting of workers with majority traits and all employers. If $\tau < \tau_M^D$, his opponent when offering $(1, \tau_M^D)$ forms a winning electoral coalition consisting of all workers. Since (when social identity is salient) workers with minority identity experience worse labour market outcomes than their majority counterparts (Proposition 2), they favour a higher tax rate than τ_M^D and so would vote for $(1, \tau_M^D)$ over any platform $(1, \tau)$ with $\tau < \tau_M^D$. Hence, by the usual logic, any candidate who is elected proposing the symbolic policy must also be offering the tax rate preferred by type-M workers.

We are now ready to determine when the discrimination equilibrium exists, or equivalently conditions under which both candidates propose the symbolic policy. Two broad conditions need to be satisfied: 1) discrimination strategies are mutual best responses and 2) a plurality of the citizenry demands social discrimination; that is, prefers $(1, \tau_M^D)$ to $(0, \tau^{ND})$ by Lemma 4. To satisfy the first condition, it is necessary that workers and employers are sufficiently patient, as per Proposition 1, so that the loss of being tainted always dominates the short-term gain of being hired when the labor market exhibits social discrimination. To satisfy the second, transfers must not be too sensitive to taxation (i.e., $\lambda < \bar{\lambda}$). Further, both conditions hold when the proportion of type-M workers relative to the proportion of type-M employers be intermediary: $\alpha^W \in (\underline{\alpha}^W(\alpha^F), \hat{\alpha}^W(\alpha^F))$ (see Proposition 1 and Lemma 3). The upper bound, you will notice, is determined by the political demand (not the condition for discrimination to be mutual best response, $\bar{\alpha}^W(\alpha^F)$). Indeed, for discrimination to be a best response, type-M workers compare their labour situation as an advantaged majority compared to a discriminated minority. When

considering the demand for discrimination, type-M workers compare their ex-ante welfare (including lower transfer) with and without discrimination. The second intuitively is a more stringent condition.

A positive demand for social discrimination is not sufficient: demand must be sufficiently large so that candidates offer the symbolic policy. If type-M workers are a sufficient mass ($\alpha^W > (1 + f)/2$), this is guaranteed. If not, it must be that employers with majority identity side with workers with the same trait. Majority firm owners face a trade-of: accepting lower productivity but also lower taxation with discrimination. While we cannot exclude the possibility that employers with majority identity favor the symbolic policy, we cannot prove it either. The reason is that the hiring thresholds described in Lemmas 1 and 2 are only implicitly defined making it hard to compare employers' expected payoffs across equilibria.

We thus obtain the following proposition which summarizes (sufficient) conditions on the population and other parameters for the symbolic policy to be implemented and social discrimination to be observed in equilibrium.

Proposition 3. *The equilibrium is the discrimination equilibrium with both candidates A and B offering the symbolic policy $d = 1$ and a tax rate of $\tau = \tau_M^D$ when:*
(a) the proportion of employers with majority identity satisfies $\alpha^F \in (\underline{\alpha}^F, 1)$ for some threshold $\underline{\alpha}^F \in (1/2, 1)$;
(b) the proportion of workers with majority identity satisfies $\alpha^W \in (\underline{\alpha}^W(\alpha^F), \widehat{\alpha}^W(\alpha^F))$;
(c) Workers and employers are sufficiently patient: $\beta > \overline{\beta}$;
(d) The marginal effect of labour income taxation on transfers is sufficient low: $\lambda < \overline{\lambda}$.

Figure 2 illustrates the conditions detailed in Proposition 3. In equilibrium, symbolic policies are introduced if the proportion of minority workers is sizeable (so there is a benefit from labour discrimination), but not too important (so they cannot block discrimination through democratic means). Further, it is necessary that the minority is poorly integrated economically (i.e., $\alpha^F > \underline{\alpha}^F$ and $\alpha^W < \alpha^F$). Importantly, the properties of the two thresholds ($\lim_{\alpha^F \to 1} \underline{\alpha}^W(\alpha^F) < 1 = \lim_{\alpha^F \to 1} \widehat{\alpha}^W(\alpha^F)$) are such that this discrimination zone, in purple in Figure 2, always exists (with the threshold $\underline{\alpha}^F$ corresponding to the point when thresholds $\underline{\alpha}^W(\alpha^F)$ and $\widehat{\alpha}^W(\alpha^F)$ intersect).

Our paper, thus, provides some rationale for the origins of social discrimination in term of first primitives (the proportion of workers and employers with majority identity). Our predictions are testable: higher economic integration by the minority (lower α^F) should lead to lower discrimination against this group. Further, the minority group will be discriminated only if its size is intermediate: not too strong
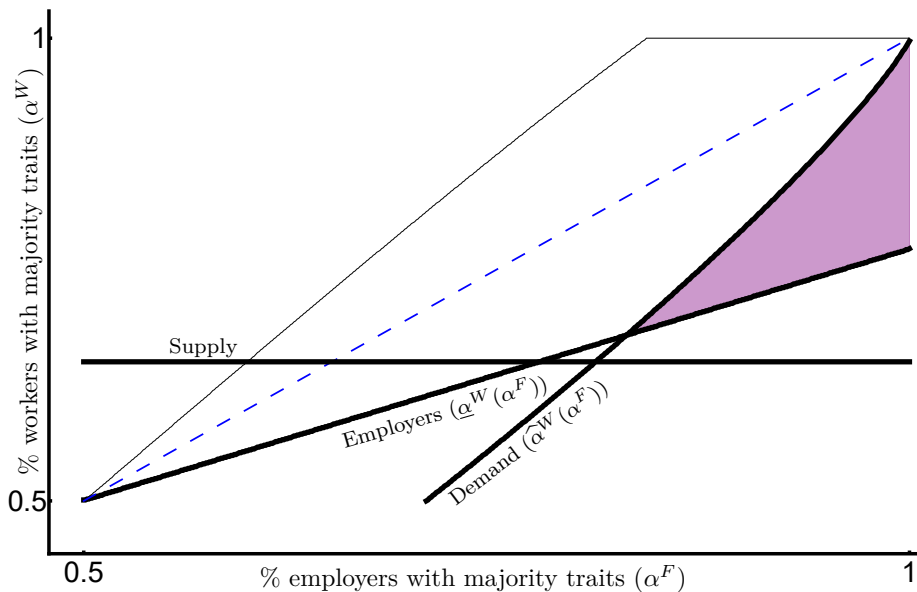
Figure 2: Discrimination zone

The curve labeled 'Demand' depicts $\widehat{\alpha}^W(\alpha^F)$. The horizontal line labeled 'Supply' depicts $\frac{1+f}{2}$. The shaded purple area correspond to proportions of type-M workers and employers such that discrimination is an equilibrium outcome (for appropriate β and λ). Parameter values: $w = 0.3$, $\delta = 0.2$, $\beta = 0.95$, $f = 0.3$.

to have political clout, not too small to be of little importance on the labor market. This differs from models of statistical discrimination in which time and repeated interactions (no matter the level of economic integration) are the key factor behind a reduction in discrimination as we noted above. While a full empirical test of our comparative statics is beyond the scope of this study, we note that a look at demographic statistics suggests that the conditions we uncover are plausible. The Muslim population in Europe is estimated to amount to 8.8% of the Austrian population (Austrian census), 6% of Belgians, 5% in Germany, 4.7% in Great Britain (Dancygier, 2017, 12 footnote 33). There are few statistics available on firms owned by employers with minority identity. Nevertheless, most agree that minorities are generally under-represented in several European countries. For example, self-employment is lower for Turks than for natives in Germany (European Commission, 2008). In Great Britain, the reverse holds true with a greater proportion of Pakistani and Indian minorities than White British choosing self-employment (Ram and Jones, 2008). This does not falsify our findings—far from it–since Great Britain is an exception in that the U.K. has not (yet) experienced policies of the form of burqa or hijab bans (even if the language used by prominent politicians is not always inclusive).

We can now detail the consequences of symbolic policies. To do so, we compare equilibrium outcomes when identity is salient and social discrimination occurs to those when it is not. The next proposition establishes the large economic consequences of symbolic policies such as those mentioned in our epigraphs. In addition to the labour market consequences (lower unemployment for the workers with minority traits while higher for those with majority ones with discrimination than without) we establish that the economy shrinks as firms are less likely to be matched with the right type of workers. Further, taxation decreases as majority workers see their private income increase and so demand less taxation. Finally, transfers decrease as a result of both the lower tax rate and lower revenues from taxation caused by the worsened economy.

Proposition 4. *Compared to the unique equilibrium when symbolic policies are not introduced and there is no discrimination, in the discrimination equilibrium*
(i) Total production is strictly lower;
(ii) The employment rate of workers with majority social identity is strictly higher,
(ii') The employment rate of workers with minority social identity is strictly lower;
(iii) The tax rate is weakly lower, strictly if $\tau^{ND} > 0$.
(iv) Redistributive transfers are weakly lower, strictly if $\tau^{ND} > 0$.

Proposition 4 highlights that workers with majority traits are generally the main beneficiaries of discrimination (though as mentioned above, we cannot exclude that type-M employers may also gain from it). Social discrimination is thus best understood as a transfer from the rest of the population to the native working class majority. Workers with minority identity are, in turn, severely negatively affected. They see their employment prospects reduced and their non-labour income diminished. That is, even though transfers are uniformly redistributed to the working population, workers with minority traits get less assistance when they need it the most. The next section shows that the situation gets even worse for minority workers when we introduce endogenous wages.

5 Extension: Endogenous wage

In this section, we extend our model to incorporate endogenous wages. When an employer with an open position is matched with an unemployed worker, they engage in a Nash Bargaining over the division of the (observed) productivity of the match, θ. The bargaining power of the workers is η (common to majority and minority-trait workers). The rest of the model remains unchanged.

As long as η is not too high (a precise, formal statement of what we mean by not too high can be found in Online Appendix C), all of the results of the baseline model continue to hold in this amended set-up. Absent discrimination, employers hire, and workers accept a job offer, if and only if productivity is above a certain threshold: $\theta \geq \theta^{ND}$ (while the value of the thresholds are obviously different, we keep the same notation as in the baseline model for ease of exposition). With the presence of social discrimination, the labor market is segregated: a type-M employer hires only type-M workers and type-M worker rejects all job offers from minority-trait employers. Hiring occurs if productivity is sufficiently large—$\theta \geq \theta_s^D$, $s \in \{M, m\}$—, with firms becoming more lenient $\theta^{ND} \geq \theta_M^D \geq \theta_m^D$ (see Lemma C.9). Not surprisingly, the (sufficient) conditions for existence of a discrimination equilibrium, with both candidates proposing the symbolic policies, are then unchanged relative to the baseline model (Proposition C.2). Social discrimination occurs if the proportion of majority-owned firms and the proportion of minority-trait workers are relatively large (for type-M workers to gain from social discrimination relative to a labor market free of discrimination), the proportion of workers with majority traits and patience are sufficiently high (for discriminatory labor market practices to be mutual best responses), and transfers are too sensitive to revenues (so that the decrease in transfers does not dominate the labor market gains for majority workers).

When the conditions described in the previous paragraph hold, we also recover all the economic and redistributive consequences of introducing the symbolic policy described in Proposition 4 (Proposition C.3). The introduction of an endogenous wage, however, adds another benefit for workers with majority traits as well as an additional cost for those belonging to the minority. The expected wage of type-M workers always increases (relative to a world without salient social identity), whereas the expected wage of type-m workers always decreases. This result is driven by the change in the outside options of workers (refusing a job and remaining unemployed) relative to the outside option of employers (refusing to hire and keeping the position open). As explained in Section 4, workers with majority traits prefer a platform with symbolic policies only if the ratio of workers to employers is favorable to them: $\alpha^W < \alpha^F$. This implies that type-M workers' outside options must be better with discrimination than without (they become more likely to be employed with discrimination). In turn, because employers with majority traits find it harder to hire, their outside option decreases when social discrimination emerges. The reverse holds true for type-m workers. They are disadvantaged with social discrimination, finding employment becomes harder, and their outside option worsens. Denoting $w^{ND}(\theta)$ a worker's wage as a function of θ absent discrimination and $w_J^D(\theta)$ a type-J worker's wage with social discrimination in labor
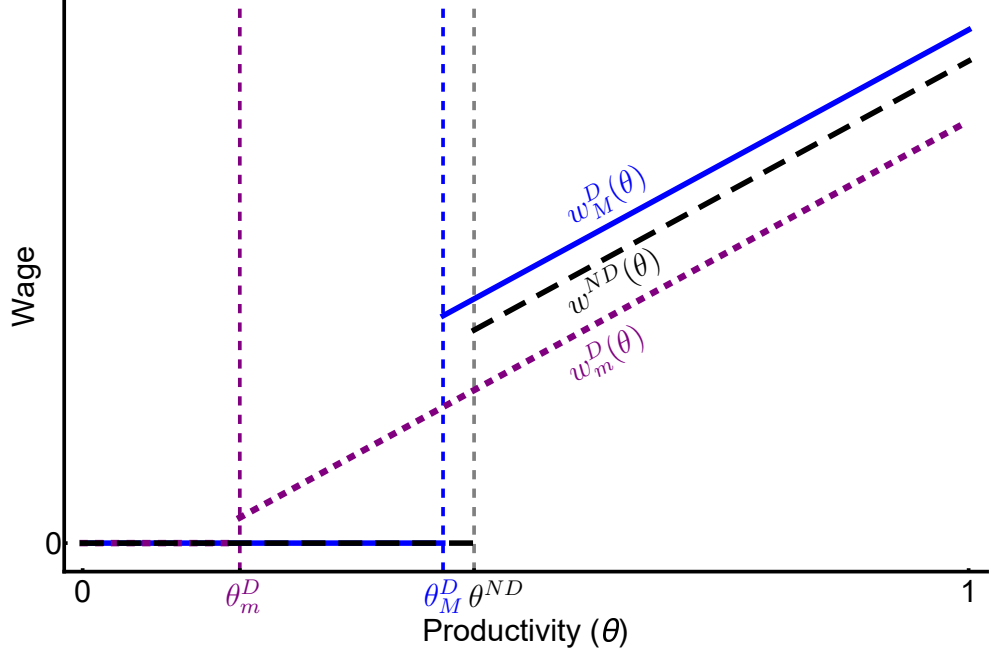
Figure 3: Equilibrium wage

Parameter values: $\alpha^W = 0.87$, $\alpha^F = 0.97$, $\delta = 0.3$, $\beta = 0.95$, $\eta = 0.4$.

market interactions ($J \in \{M, m\}$), the following proposition characterizes the effect of discrimination on remunerations.

Proposition 5. *In an equilibrium with social discrimination,*

(i) The expected equilibrium wage of a worker with majority trait is strictly higher with discrimination than without: $E(w_M^D(\theta)|\theta \geq \theta_M^D) > E(w^{ND}(\theta)|\theta \geq \theta^{ND})$;

(ii) The expected equilibrium wage of a worker with minority trait is strictly lower with discrimination than without: $E(w_m^D(\theta)|\theta \geq \theta_m^D) < E(w^{ND}(\theta)|\theta \geq \theta^{ND})$.

Figure 3 displays the equilibrium hiring thresholds and wages without discrimination (θ^{ND} and $w^{ND}(\theta)$ dashed black line) and with discrimination for the minority (θ_m^D and $w_m^D(\theta)$ dotted purple line) and the majority (θ_M^D and $w_M^D(\theta)$ plain blue line). The hiring threshold and the wage for the minority drops significantly when social identity is salient, with the latter the clear indicator of the cost of social discrimination for minority workers. In contrast, workers with the majority identity experience higher likelihood of being employed ($\theta_M^D < \theta^{ND}$) and a higher salary once in the job. The introduction of endogenous wage, thus, reinforces our main message. Symbolic policies, by raising the social salience of identity, can serve as a transfer from workers with minority identity to workers with majority traits, at a cost to the economy as a whole.

6 Summary and discussion

Discussing the causes of ethnic conflict, Fearon and Laitin (2000, 857) remark that "political elites use violence to construct antagonistic ethnic identities, which in turn favour more violence" with the masses following (see also Blouin and Mukand, 2019). Our paper, in turn, shows that this phenomenon is not confined to weakly institutionalized environments. In rich democracies, politicians use symbolic policies to construct antagonistic social identities, which in turn favour labor market discrimination. They do so when such policies are supported by the native working class who form a majority and can benefit from these labour effects. The labor market discrimination we document is not due to overt prejudice. In our theoretical framework, there is no room for taste-based discrimination. The labor market discrimination we describe is not caused by difference in human capital of workers. All workers are ex-ante identical so there is no room for statistical discrimination. Rather, labor market discrimination is sustained by anticipations about what others would do if a worker/employer with majority trait interacts with a employer/worker with minority identity. It is rooted in expectations about others' behaviors rather than preferences or beliefs (for experimental evidence on the importance of expectations, see Daskalova, 2018). It arises from collective norms rather than individual choices. As such, the discrimination our paper analyses is best understood as social discrimination.

This form of discrimination has dramatic consequences. In equilibrium, the labor market is segregated. Large differences emerge in the employment patterns of minority and majority workers and in the productivity of majority and minority owned firms. The predictions, as already noted, differ from those emerging from set-ups where employers statistically discriminate against workers with minority traits or models with taste-based discrimination from native workers. Our results match empirical evidence that minority workers suffer discrimination (Bertrand and Mullainathan, 2004) and minority-owned firms are less successful (Robb, 2002). The patterns that arise in equilibrium resemble closely a setting where all elements from the majority have animus against the minority. Hence, we believe, social discrimination can take the place of taste-based discrimination. Moreover, our political economy model shows that majoritarian politics and labour markets may prop up discrimination long after racial animus has faded.

In our model, social discrimination arises because native workers can gain from it. It is rooted in the notion of opportunities. As such, our paper suggests that social discrimination is driven by gains from excluding workers with minority trait can be an interesting addition to the racial threat theory and contact hypothesis generally used to understand racial/ethnic/religious relations between groups. Social discrimination can also help make sense of empirical evidence that is not (fully) explained by

these two commonly used frameworks. For example, CV experiments uncover stronger discrimination against Muslims in the Netherlands than in Spain where unemployment is higher and the size of the minority greater (Ramos et al., 2019). Why so? As the authors note, and consistent with our approach, a possible explanation is the stronger politicizing of Muslim identity in Netherlands than in Spain.

In addition to the labor market consequences of social discrimination, we study its economic and redistributive impact. We show that social discrimination shrinks the economy as a whole. Economic arguments, such as the detrimental impact on growth of some discriminatory policies, are unlikely to be persuasive. For example, at a public debate during the campaign on the Brexit referendum (an event which, arguably, changed the perception of Eastern European migrants, e.g. Rzepnikowska, 2019), responding to pro-Remain claims that the British GDP would be adversely affected if the country exited the European Union, an audience member exclaimed "That's your bloody GDP, not ours!" (cited in Hopkin, 2020, pp. 144-45). While we are not in the mind of this voter, this sentence aptly summarises one of our results: Workers with majority traits may find the overall adverse economic consequences of introducing identity-charged policies unimportant as long as they benefit from them personally.[10]

For the minority more specifically, we highlight that the labour market effects are magnified by fiscal policies that further erode their welfare: when they need it most, minority workers unable to find employment in the segregated market receive lower redistributive transfers even though revenues from taxation are uniformly redistributed. As such, our model offers one possible rationale for a pattern that has puzzled social scientists. Working class voters have voted for populist parties or leaders despite these politicians' promise to cut taxes (e.g., Trump's tax reform, Salvini's proposing a flat tax in Italy, Le Pen's promising to reduce taxation on income by 10% in France). Explanations for this pattern have been mostly cultural with, e.g., Anelli et al. (2019, pp. 8-9, emphasis in the text) writing "radical-right parties were able to assemble a coalition of the petty bourgeoisie and blue-collar workers, where the middle class was more attracted by economic conservatism and the promise of low taxes, while the working class was more attracted by authoritarianism and nativism" with the latter "pushed towards the radical right *in spite of* its economic conservatism, for reasons that have more to do with a shift in attitudes." We instead highlight that the working class's attraction for nativism may arise in order to kick-start social discrimination, which, by improving their labor market conditions, leads them to also demand lower taxes.

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[10]The recently documented increases in wages for certain professions also match our prediction regarding the effect of social discrimination with endogenous wage we described in Section 5 ("Brexit and Covid cause big jump in pay for lorry drivers," BBC, 2nd July 2021).

While it can be persistent and damaging, especially for members of the minority, social discrimination is not at all certain. It arises only if the proportion of workers and employers with majority trait belong to a discrimination zone described in Proposition 3. As such, there is room for policy intervention to mitigate the risk of its occurrence. At the national level, favouring entrepreneurship by migrants and people from ethnic minorities does not just represent an economic opportunity for home countries (European Commission, 2008)—it is also a defence against policies that have the potential to hurt the economy since social discrimination does not arise when the minority is well integrated economically (for qualitative evidence consistent with this prediction, see Dancygier, 2010). Another possible solution is to favour a point-based immigration system with a decreasing threshold over time so that potential firm owners enter the country before individuals more likely to belong to the working class. At the firm level, our model suggests that the introduction of quotas for minority workers may be beneficial not so much because it improves the employment prospect of minority workers, but because it reduces the risk that the labor market is segregated. As such, our theoretical framework suggests a novel argument for affirmative action and policies imposing some diversity in the workplace.

The correct policy response, however, depends fundamentally on the type of discrimination decision-makers are worried is prevalent. Indeed, reforms effective in fighting one form of discrimination may reinforce another. Take the diversity-compliant label to firms with diverse workforce proposed by Adida et al. (2016, 157). This measure may serve against statistical discrimination, but would also likely raise the salience of identity (or increasing the probability of identity transmission) and could trigger social discrimination. In contrast, the workplace affirmative action we highlighted above may help limiting social and statistical discrimination, but might raise resentment and thus worsens discrimination that is fundamentally taste-based. Identifying the source of discrimination is, thus, of primary importance for policy purposes (along the lines of works by Fershtman and Gneezy, 2001; Gneezy et al., 2012; Bohren et al., 2019; Emeriau, 2019, which attempt to distinguish discrimination driven by animus from discrimination driven by belief).

Social discrimination, we believe, is not limited to the labor market. The housing market seems to be an interesting avenue of enquiry. Small and Pager (2020) describe the persistence of redlining in the United States. Dancygier (2010, p.68) reports that in the 1960s, 98.5% of white inhabitants of Birmingham (UK) would have refused to take a coloured person into their home as a lodger. Our paper also raises the question of how social discrimination interacts with other forms of discrimination: does it trigger, sustain, or substitute for statical or taste-based discrimination? One may also wonder how

social discrimination affects integration: does it lead to more separation (e.g., Carvalho, 2012; Bisin et al., 2016; Fouka, 2019a) or more assimilation (e.g., adoption of the majority names as in Fouka, 2019b)?

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