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Social status, preferences for redistribution and optimal taxation: a survey

Andrea Gallice

Abstract

The author reviews recent studies of how social status concerns influence individual preferences for redistribution and impact the design of optimal tax policies. He focuses on two aspects: the relevant dimension over which relative concerns are defined and the different formalizations of the notion of social status that the authors provide.

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Keywords Social status; redistribution; externalities; optimal taxation

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1 Introduction

In this brief survey, I review a number of papers that investigate the economic consequences of agents' concerns for social status in two specific and closely related areas of research. The first area pertains to how status concerns influence individual preferences for redistribution (hence, taxation). The second area focuses on how optimal taxation should be designed when agents care about their relative standing in the society.

Studies that have addressed the first research question have mainly pursued a positive analysis: backed by empirical evidence that stems from international surveys, they argue that status concerns may explain voting behaviors that appear detrimental to individual well-being if one only considers monetary pay-offs. Papers that fall into the second area of research instead adopt more of a normative approach as they investigate the features of the optimal tax schedule when status competition generates externalities and leads to inefficiencies.

I focus in particular on 12 recent papers that I perceive to be important in the recent literature on the two topics of interest. This small sample of papers is well balanced: six investigate the impact of social concerns on redistributive preferences and six study the issue of optimal taxation when people care about their relative standing in the society. All of the papers that I discuss were published in 2000 or later, and six of them were published in 2012 or later. In presenting and discussing these contributions, I attempt to highlight the

following two aspects of the analysis: 1) what is the relevant dimension of status competition that the authors consider (i.e., what is the status-bearing object), and 2) which functional form the authors use to capture the notion of social status.

2 Social Status and Preferences for Redistribution

The line of research that studies how social status concerns can shape individual preferences for redistribution fits into the broader research agenda that aims to identify all of the determinants of these preferences.

In this respect, standard models of political economy (see the seminal papers by Romer, 1975, Roberts, 1977, and Meltzer and Richards, 1981) advanced the notion of economic voting (or pocketbook voting), which, in its basic formulation, identifies income as the sole driver of individuals' attitudes towards redistribution. According to these models, low-income individuals should favor redistribution ("poor" agents gain from the redistributive scheme because what they pay is less than what they get back), and high-income individuals should oppose redistribution ("rich" agents pay more than what they get). From an empirical point of view, the negative relation between income and support for redistributive policies has been studied extensively (see, for instance, Fong, 2001). International surveys such as the World Value Survey,

the European Social Survey, and the General Social Survey routinely collect information about respondents' income and their attitudes towards redistribution. These data make it possible to study how the two variables relate, while also controlling for a number of relevant covariates (e.g., age, education, political preferences). The data show that economic voting indeed describes the behavior of a large portion of the population. However, the data also exhibit two systematic deviations from this paradigm. Many members of the working class appear to be against redistribution; at the same time a sizeable fraction of the socioeconomic elite declare their support for relatively high levels of redistribution.

The magnitude and the robustness of these deviations, paired with the pronounced cross-country heterogeneity that these surveys highlight, motivated the search for other factors in addition to income that may possibly influence individual preferences for redistribution.¹ These factors include prospects of social mobility (Piketty, 1995, Bénabou and Ok, 2001), beliefs concerning returns on effort (Bénabou and Tirole, 2006), perception about the fairness of market outcomes (Alesina and Angeletos, 2005), and a number of agents' idiosyncratic characteristics such as their personal histories (Giuliano and Spilimbergo, 2014), race (Alesina and La Ferrara, 2005), and culture (Luttmer and Singhal, 2011).

A number of studies have argued that social status concerns may also play

¹See Alesina and Giuliano (2011) for a review.

a role in influencing voters' attitudes towards redistribution. There are many channels via which this effect can flow. Clearly, redistribution modifies an agent's disposable income and therefore his consumption possibilities. As such, redistribution also affects the resources that the agent can devote to conspicuous consumption, which is the standard mean via which individuals signal their status. Moreover, redistribution makes the society more equal and accordingly shrinks the distribution of consumption. As such, it decreases the social prestige (social stigma) that high-income (low-income) individuals experience when status is defined as a cardinal concept and an agent's relative position is measured with respect to a benchmark (say, the average level in the population). In principle, redistribution may also have consequences on ordinal status if it impacts individuals' incomes in an inhomogeneous way and accordingly modifies agents' relative standing. Finally, redistribution can also change the relevance that the society attributes to different individual characteristics in determining status. It can therefore benefit or harm voters based on their initial endowment of these characteristics.

In what follows, I explore and discuss these possibilities in more detail. Most of the papers that I review in this section are theoretical. I start, however, with a discussion of an empirical paper – Corneo and Grüner (2002) – that testifies that social status concerns do indeed influence agents' preferences for redistribution.

Corneo and Grüner (2002) use survey data from the International Social

Survey Programme to evaluate the explanatory power of three competing forces in driving agents' support for redistributive policies. The three forces that these authors consider are: 1) The monetary consequences that the redistributive scheme has on the individual (the authors call this force the 'homo oeconomicus effect,' essentially economic voting), 2) How the scheme conforms with the agent's public values and vision about how the society should be (the 'public values effect'), and 3) How the policy affects the agent's relative consumption and living standard (the 'social rivalry effect'). This last force is clearly related to the notion of social status. The mechanism that the authors have in mind is the following: individuals have different incomes, but they tend to mingle with people with similar income (for instance by living in the same neighborhood). Society is therefore partitioned into different income classes, and classes with higher income enjoy higher social prestige. Redistribution shrinks the distribution of income and accordingly moves adjacent income classes closer. As such, an individual of class k now has more opportunities to meet and interact with individuals that belong to income classes $k - 1$ (i.e., a bit poorer) and $k + 1$ (i.e., a bit richer). The first effect decreases the expected utility that the agent derives from social interactions, and the second effect increases expected utility. If the total effect is negative, the agent should oppose redistribution; if it is positive he should support it. Empirical results (the authors use standardized measures of occupational prestige to define the social prestige that they attach to the various income classes) confirm

the sign and the significance of this relation. The hypothesis that the desire to obtain high status shapes individual preferences for redistribution is therefore validated.²

Closely related to this study is another by the same authors: Corneo and Grüner (2000). Both studies highlight the relevance of status effects in influencing agents' redistributive preferences. However, while Corneo and Grüner (2002) is an empirical paper, Corneo and Grüner (2000) is mainly theoretical. Corneo and Grüner (2000) aim to rationalize a puzzling observation, namely the fact that the possibility to vote about taxes is more prevalent in more developed in countries that feature pronounced income inequalities. Given that the income distribution is typically right-skewed (i.e., the median voter has an income below the mean), why then people do not vote for more redistribution? To answer this question, Corneo and Grüner (2000) propose a model in which economic inequality has an informational value that makes it possible to infer agents' unobservable characteristics (e.g., non-marketable skills such as culture and taste) via their observable characteristics (e.g., consumption). It is this informational value of inequality that limits the scope for redistribution; in a completely equal society all agents would have the same consumption level, making it impossible to tell different agents apart. The authors argue that it is this fear of losing their social status that keeps members of the middle class from supporting more redistributive policies and makes them agree

²For completeness, Corneo and Grüner (2000) also find that the two other forces, the 'homo oeconomicus effect' and the 'public values effect,' have significant explanatory power.

with the elites to support more conservative taxation policies and therefore less redistribution. From a technical point of view, Corneo and Grüner (2000) study a three-period model in which agents first vote on their preferred level of redistribution, then consume their (post-redistribution) income, and finally voluntarily match into pairs. The matching process follows the model of Cole *et al.* (1992) and features social competition as the (unobservable) matching value of an individual is positively correlated with his (unobservable) wealth endowment or gross income, which are status-bearing objects and are in turn positively correlated with his (partially observable) level of consumption. The latter therefore serves as a signal of the agent's status.

A similar matching protocol has been used more recently by Levy and Razin (2015). These authors study preferences for redistribution in a setting in which agents only interact with individuals who belong to the same “club” (i.e., a partition of the society with respect to income). Levy and Razin (2015) do not model status concerns explicitly. As such, they do not rely on any particular (ordinal or cardinal) notion of social status. In their model, agents positively sort according to income (the utility function is supermodular in the income levels of the agent and of his counterpart). This setting endogenously leads to social stratification, because agents spend resources to access more prestigious clubs. Relevant examples include investments in the education market (say, the choice of a pupil's school) and in the marriage market. The sorting mechanism in turn affects individuals' preferences for redistribution.

The intuition is that, by decreasing income inequality, redistribution reduces the incentives to sort. In particular, Levy and Razin (2015) show that when the income distribution in a society is relatively equal, all individuals up to the mean, and most interestingly also some above, may prefer full equality (i.e., maximum taxation) over any society that features a higher level of inequality, and therefore pressure to engage in costly sorting. On the contrary, high income inequality may lead some individuals whose incomes are below the mean to oppose redistribution, because sorting gives them the option of not getting stuck in “poor” clubs. The model by Levy and Razin (2015) can therefore rationalize both deviations from pure economic voting (blue collar individuals voting against redistribution, members of the elite voting in favor of it), albeit not simultaneously and within the same society.

Koenig *et al.* (2017) provide an alternative explanation as to why affluent individuals may support redistribution. These authors focus on a specific form of redistribution, namely the public provision of goods for which a market alternative also exists. Examples of this kind of redistribution include education, childcare and housing. The intuition here is that rich individuals may support public provision to maintain the private substitute elitist (though not necessarily of a better quality) and therefore signal their social prestige. In terms of the model, Koenig *et al.* (2017) assume that citizens differ in their exogenous income, which is not directly observable, and they derive utility from general consumption as well as from consuming a good they can either

receive for free from the government or decide to buy on the market. The two options entail different status consequences that are endogenously determined as a function of the partition of the society into public and private sector users. In particular, the status that an alternative generates is proportional to the average income of the agents who use it. Affluent individuals then strategically support public provision: the majority of less well-off agents will use the public alternative so that the private alternative will be only bought by high-income families and therefore entail high social prestige. An interesting feature of the model of Koenig *et al.* (2017) is the fact that voters with different incomes may support the same redistributive policy (i.e., the public provision of the good). This finding is consistent with empirical evidence and survey data. However, the same data highlight the simultaneous existence of another typical pattern: people with the same level of income often support different redistributive policies. A paper that accounts for both patterns, and it is therefore able to simultaneously rationalize both deviations from pure economic voting, is Gallice and Grillo (2018b).

Gallice and Grillo (2018b) introduce a model in which agents are heterogeneous in two dimensions: productivity and social class. Productivity determines an agent's gross income. Social class captures all of the factors that influence an agent's social position after having controlled for the income consequences that these factors generate. Examples of these factors include the agent's educational and cultural level and the social network that he inher-

its from his family. Gallice and Grillo (2018b) then define social status as a weighted average of the agent's relative standing in the distributions of consumption and social class. The authors adopt a cardinal formulation of status (which in their model is a multidimensional attribute) because individuals get extra utility (disutility) that is proportional to the positive (negative) distance between the agent's attributes and the average values in the population.³ Redistribution impacts citizens' well-being not only because it reallocates resources from the rich to the poor but also because it endogenously affects the weights that define the importance of consumption and social class in determining agents' overall social status. In particular, a high level of redistribution makes consumption less salient (and therefore simultaneously increases the weight attached to social class) since differences across agents in that dimension will be less pronounced. Gallice and Grillo (2018b) characterize the coalitions of heterogeneous voters that support any specific tax rate. Interestingly, not only they find that agents with different income may support the same tax rate. They also find that voters who have the same income support different preferred tax rates. Gallice and Grillo (2018b) also show that, as status concerns become more relevant, individual preferences for redistribution become more polarized.

³Gallice and Grillo (2018a) adopt a similar cardinal notion in the context of educational choices. In particular, they study how status concerns influence individual educational choices and inequality when the status-bearing object is the agents' educational level, their perceived ability, or their income. Gallice (2009) also investigates the consequences of relative comparisons in terms of level of schooling on educational dynamics.

I conclude this section by discussing an additional channel via which social status may influence individual preferences for redistribution. Status concerns can drive an agent's process of social identification within a certain social group. This effect can in turn influence the agent's redistributive preferences and cause the individual to deviate from pure economic voting. This approach is the one pursued by Shayo (2009) with his model of social identity. Shayo (2009) defines status at the group level through a cardinal formulation: it is given by the relative position of the group in the relevant dimension of comparison (e.g., wealth, income or educational achievements). Shayo (2009) then defines the notion of social identification. An individual identifies with a certain social group if he cares about the status of that group (perhaps up to the point of sacrificing material payoff to enhance it) and wishes to conform to that group's standards. When social identification is at work, an agent may support the redistributive policy that is more favorable to the group as a whole, even if this policy is not necessarily the one that benefits him the most as an individual.⁴ Shayo (2009) considers two social groups with which an agent can identify: his own social class or the nation as a whole. He shows that poor individuals are more likely to identify with the nation and that this nationalistic attitude decreases their support for redistributive policies. This pattern therefore also rationalizes the puzzling observation that, in general,

⁴Klor and Shayo (2010) provide experimental evidence on this tendency. Luttmer (2001) uses instead survey data to show that group loyalty, and in particular racial group loyalty, matters in determining individuals' support for welfare spending.

there is a negative relation between the relevance of national identification and the level of redistribution.

3 Social Status and Optimal Taxation

As noted in the Introduction, studies of how social status concerns may impact the design of fiscal policies typically adopt more of a normative approach because they investigate how optimal taxation should be adjusted to account for agents' concerns for their relative standing. Indeed, what matters to a policymaker are not status concerns per se but rather the fact that these concerns modify individuals' behavior. For instance, status-seeking considerations may lead individuals to overindulge in the status-bearing activity (e.g., consume too much of a positional good) and therefore move away from the first-best solution (e.g., by inflating the labor supply so as to increase their consumption possibilities). Moreover, status competition creates externalities on others; agents can improve their relative standing only by climbing the social ladder, thereby automatically worsening the position of someone else. Taxation can mitigate, or sometimes fully eliminate, these distortions. A properly designed income tax can contrast agents' desire to increase their labor supply, perhaps discriminating across different types of individuals who face different incentives to engage in social competition. Similarly, a Pigouvian tax on positional goods can force agents to internalize the social costs that they generate by

overspending in conspicuous consumption and accordingly correct the negative externalities that social competition brings.

The welfare-improving role that taxation can play when agents care about their relative position in the society has long been recognized in the literature. Older studies that address this issue are, among others: Duesenberry (1949), Boskin and Sheshinsky (1978), Oswald (1983), Frank (1985), Ireland (1994), Persson (1995), Corneo and Jeanne (1997), and Ireland (1998). In what follows, I focus on more recent contributions. I concentrate on papers that model and investigate the issue in a game theoretic setting as a simultaneous and one-shot interaction among individuals.⁵ However, even in this restricted temporal and methodological domain, relevant contributions remain numerous and I will therefore only consider some of them.

In discussing this selected group of papers, I attempt to highlight how these studies address the primary research questions underlying the literature on the topic. These questions can be summarized as follows: how does the presence of status concerns modify optimal taxation with respect to the conventional case in which these concerns are absent? Does the fact that agents care about their relative standing call for a more or less pronounced progressivity of the tax system with respect to the “standard” level of progressivity that simply stems out from the decreasing marginal utility of income? Finally, which are

⁵Therefore, I exclude papers that study the intertemporal profile of optimal taxation in the presence of status concerns and feature overlapping generations of individuals (Abel, 2005, Aronsson and Johansson-Stenman, 2010, Wendner, 2010).

the consequences that status concerns brings about in terms of the shape (i.e., the concavity or convexity) of the optimal tax schedule? As we will see, the answer to the first question is rather uncontroversial as it appears to be robust to different matching protocols and different specifications of social status. The existence of status concerns generally calls for an increase in taxation for all types of agents. This increase is justified by a Pigouvian argument. It serves to realign the private and social costs that stem from social competition and thereby eliminate the negative externalities that status concerns generate. The answers to the second and third questions (effects on the progressivity and the shape of the optimal tax schedule) are less univocal because they are sensitive to the formulation of social status that one adopts.

The first paper that I discuss is Ireland (2001). This study investigates the issue of optimal income tax in a model that features a social status signaling mechanism. In the model, individuals choose their labor supply and signal their status via wasteful consumption expenditure. The government observes the income profile and chooses the income tax schedule that maximizes social welfare (a weighted average of individual utilities, where the weights are non-increasing in agents' types). Social concerns are captured by postulating that agents maximize a weighted average of their actual utility and their utility as perceived by others, where the weight of the second component is weakly increasing in agents' type (i.e., higher types may be more concerned about status than lower types). Assuming quasi-linear preferences in consumption

and focusing on the least-inefficient fully separating equilibrium, Ireland (2001) shows that, compared with the conventional case in which status concerns play no role, the optimal tax policy is more progressive because it features steeper tax functions for all agents.⁶ The tax system thus leads to more redistribution. However, the analysis also shows that in general marginal tax rates do not have to increase faster with agents' types, which can actually only occur when the rich are more concerned with status than the poor. Therefore, the optimal tax schedule is not necessarily more convex. As Ireland (2001) puts it: "Status seeking justifies income taxation and higher marginal tax rate, but not an increasing marginal tax rate."

Corneo (2002) investigates the efficiency of progressive taxation when agents care about relative income. This study illustrates the beneficial effects that progressive taxation may have as a way to contrast the negative externalities that status concerns generate. The rat race triggered by social competition leads to upward distortions in individuals' labor supply because agents want higher incomes to finance higher levels of consumption. Progressive taxation can restore efficiency because those who strive the most to improve their status are high-income individuals and therefore high marginal tax rates are necessary to prevent them from doing so. Corneo (2002) considers a model in which

⁶On a related note, see also Aronsson and Johansson-Stenman (2008). These authors show that concerns about relative consumption lead to (substantially higher) marginal tax rates with respect to the conventional case in which these concerns are absent. Aronsson and Johansson-Stenman (2008) investigate the consequences of relative concerns not only in terms of optimal income taxation but also in terms of public good provision (about this latter point see also Ng, 1987, and Wendner and Goulder, 2008).

agents are heterogeneous in terms of their time endowments, and therefore earning potentials. He defines status as an ordinal concept: it is given by the agent's rank in the post-tax income (or equivalently consumption) distribution and can accordingly be measured by the cumulative distribution function of income. This formulation leads to interesting results. It implies, for instance, that the incentives to engage in status-seeking behaviors are stronger in more equal societies because an individual can move up more in the social ranking when income differences are limited. That is why the benefits of progressive taxation are larger when the distribution of income in the society is more homogeneous; this situation is one in which individual incentives to engage in social competition, and thereby upwardly distort their labor supply, are stronger. Indeed, Corneo (2002) shows that, whenever income inequality is below a critical threshold, a progressive income tax can even yield Pareto improvements: the poor enjoy a higher level of redistribution while the rich save on the costs of the status race. In general, the author shows that a properly structured progressive taxation can restore agents' undistorted first-best labor supply. The amount of progressivity (i.e., the steepness of the optimal tax schedule) that is necessary to achieve this result decreases with inequality. The model accordingly provides an explanation as to why income taxation appears to be more redistributive in countries that are relatively homogeneous in terms of pre-tax income.

In an influential paper, Hopkins and Kornienko (2004) delve into a simi-

lar topic. These authors consider a simultaneous move game with incomplete information in which agents must decide how much of their (unobservable) income to devote to the conspicuous consumption of a positional good. Agents care about their absolute level of consumption as well as about their status, which is determined by their ranking in the distribution of consumption of the positional good (therefore status has an ordinal formulation). As a result, agents have to anticipate the amount that others will consume and best respond to this guess. Hopkins and Kornienko (2004) show that in the symmetric equilibrium of the game, the distribution of consumption resembles the distribution of income because each agent has the same rank under both distributions. People over-spend in the positional good but in equilibrium individual investments cancel out: agents are not able to change their initial position and basically “run to keep in the same place.” In terms of policy implications, the analysis reveals that taxing conspicuous consumption can improve social welfare because it disincentives the race for status. In particular, Hopkins and Kornienko (2004) show that as income becomes more homogeneous the marginal tax rate on middle incomes should rise. Like Corneo (2002), the intuition is that a low level of income inequality fosters social competition because agents that are in the middle of the distribution can more easily outperform a large numbers of their peers (see also Hopkins and Kornienko, 2009). However, the tax rate on high incomes (and under certain conditions also the rate on low incomes) should fall because at the extremes of the distribution the incentives

to improve one's own rank are lower. The optimal tax schedule therefore discriminates among agents by targeting the different level of social competition they face rather than their expenditure on conspicuous consumption (which is increasing with the agents' income). Hence, the analysis by Hopkins and Kornienko (2004) challenges the idea that progressive taxation is necessarily the optimal policy when people display status concerns.

Bilancini and Boncinelli (2012) elaborate on these insights and convincingly demonstrate an important result: the equilibrium outcomes of models that feature status concerns, and therefore also their policy and welfare implications, strongly depend on the shape and the properties of the status function. In their model, "rich" and "poor" individuals have a non-observable endowment of resources (the status-bearing object). The authors deliberately avoid defining these resources precisely because they can take on different meanings (e.g., income, consumption, wealth) depending on the context. Agents can signal their status by spending on a conspicuous good. However, these expenditures are socially wasteful. Bilancini and Boncinelli (2012) consider two different functional forms for status. The first one is an ordinal notion that only depends on the agent's rank in the distribution. The second one is a cardinal notion that also takes into account the distance between an agent and the other agents. Within such a framework, Bilancini and Boncinelli (2012) analyze the effects of redistributive policies in favor of the poor. Consistent with the findings of Hopkins and Kornienko (2004), they show that with ordinal

status, redistribution boosts social waste because it shrinks the consumption distribution and thereby fosters social competition. However, if status is cardinal an additional effect kicks in because a more compressed distribution lowers the social prestige (respectively, social stigma) that people perceived to be rich (respectively, poor) enjoy. This second effect reduces the incentives to signaling and, if it overcomes the first effect, may actually lead to a reduction in social waste. When this is the case and the reduction in social waste is sizable, more redistribution from the rich to the poor (i.e., a more compressed income distribution) may even lead to a Pareto improvement because the rich can get compensated for both the loss of resources and the loss of status that they suffer. Apart from these specific findings, the important message that Bilancini and Boncinelli (2012) convey is that, even if one is convinced that in a certain context status considerations are at work, the choice of which notion / functional form of status to adopt is not inconsequential.⁷

Aronsson and Johansson-Stenman (2013) enlarge the scope of the analysis by studying the issue of optimal taxation in a context in which both consumption and leisure are conspicuous goods that convey status (though consumption is possibly more salient). The authors introduce a model in which individuals must decide their labor supply while caring about their absolute and relative levels of consumption and leisure. Status is a cardinal notion and is measured by the distance between the agent's consumption and time spent on leisure

⁷In terms of the different implications of ordinal versus cardinal measures of status, see also Bilancini and Boncinelli (2008, 2014).

and the average values in the population. Aronsson and Johansson-Stenman (2013) show that in such a context a progressive tax schedule on income is the optimal policy.⁸ As in other models, a higher level of taxation with respect to a setting in which social status plays no role serves the purposes of internalizing the externalities that concerns about relative consumption generate. Progressivity then stems from the positional nature of leisure: as agents increase their labor supply to boost their consumption (thereby generating a negative externality on others in the consumption dimension), they necessarily have to reduce their time spent on leisure (thereby generating a positive externality in the leisure dimension, which accordingly offsets, but only partially, the negative externality in the consumption dimension). However, to sustain any given level of consumption, low-ability (i.e., low-income) individuals must decrease their amount of leisure by more than high-ability agents. The optimal marginal tax rate must therefore be higher for high-ability individuals to account for the fact that the positive externalities that these individuals generate by decreasing their amount of leisure is lower.

Finally, Kanbur and Tuomala (2013) focus on how the relevance of relative concerns impacts optimal taxation. They study a model in which consumption is the object of social comparisons, individual status is measured in a cardinal way because it depends (positively or negatively) on the (positive or negative)

⁸Mujcic and Frijters (2015) derive similar implications in a model in which consumption and health are conspicuous goods. These authors use survey data from Australia to show that health is indeed a status-bearing object.

distance from the population average, and the government taxes income with the goal of maximizing a utilitarian social welfare function.⁹ Consistent with Ireland (2001) and Corneo (2002), the authors' results confirm the general finding that higher marginal tax rates improve efficiency when people have status concerns. In particular, Kanbur and Tuomala (2013) show that stronger concerns for one's own relative position increase the progressivity and the convexity of the optimal tax schedule. Interestingly, Kanbur and Tuomala (2013) also study how the level of inequality in the society affects the impact of the salience of relative concerns on optimal taxation. Using some specific functional forms and numerical simulations, Kanbur and Tuomala (2013) show that higher inequality reduces the positive impact of the degree of relative concerns both on the level and on the steepness of the optimal marginal tax rate schedule. However, and as the authors first advocate, more research is needed on this issue to better understand the generality of this relation and disentangle the various forces at play in it.

4 Conclusions

I have reviewed recent studies investigating how concerns about one's own relative standing in the society affect individual attitudes towards redistribution and the design of optimal tax policies. In both contexts, status considerations

⁹See Aronsson and Johansson-Stenman (2018) for an analysis of the case in which the government instead adopts a paternalistic approach and thereby does not internalize the welfare effects of relative consumption in the social objective function.

lead agents to behave differently with respect to the optimal behavior they should adopt if only monetary payoffs were relevant. Models that explicitly acknowledge the importance of status concerns in driving individual decisions can thus provide a better description of agents' actual behavior. In particular, these models can rationalize patterns of behavior that would otherwise appear to be suboptimal. The papers that I reviewed demonstrate, for instance, that social competition can explain why a non-negligible fraction of the population supports redistributive policies that harm them from a purely monetary point of view. Similarly, they show that status-seeking behavior may influence agents' labor supply, bias their consumption habits, and accordingly call for specific tax interventions on the side of the government to counterbalance these distortions and improve efficiency. Current research about the role that status concerns may play in this kind of contexts is lively and will certainly lead to a wider and sharper array of sensible policy implications.

References

- [1] Abel, A. (2005). Optimal taxation when consumers have endogenous benchmark levels of consumption, *Review of Economic Studies*, 72, 21-42.
- [2] Alesina, A., Angeletos, G.M. (2005). Fairness and redistribution, *American Economic Review*, 95, 960-980.
- [3] Alesina, A., Giuliano, P. (2011). Preferences for redistribution, in Benhabib, J., Jackson, M.O. and Bisin, A. (eds), *Handbook of Social Economics*, Vol. 1A, The Netherlands: North Holland, pp. 93-131.

- [4] Alesina, A., La Ferrara, E. (2005). Preferences for redistribution in the land of opportunities, *Journal of Public Economics*, 89, 897-931.
- [5] Aronsson, T., Johansson-Stenman, O. (2008). When the Joneses' consumption hurts: optimal public good provision and nonlinear income taxation, *Journal of Public Economics*, 92, 986-997.
- [6] Aronsson, T. and Johansson-Stenman, O. (2010). Positional concerns in an OLG model: Optimal labor and capital income taxation, *International Economic Review*, 51, 1071-1095.
- [7] Aronsson, T., Johansson-Stenman, O. (2013). Conspicuous leisure: optimal income taxation when both relative consumption and relative leisure matter, *The Scandinavian Journal of Economics*, 115, 155-175.
- [8] Aronsson, T., Johansson-Stenman, O. (2018). Paternalism against Veblen: Optimal taxation and non-respected preferences for social comparisons, *American Economic Journals: Economic Policy*, 10, 39-76.
- [9] Bénabou, R., Ok, E. (2001). Social mobility and the demand for redistribution: The POUM hypothesis, *Quarterly Journal of Economics*, 116, 447-487.
- [10] Bénabou, R., Tirole, J. (2006). Belief in a just world and redistributive politics, *Quarterly Journal of Economics*, 121, 699-746.
- [11] Bilancini, E., Boncinelli, L. (2008). Ordinal vs cardinal status: Two examples, *Economics Letters*, 101, 17-19.
- [12] Bilancini, E., Boncinelli, L. (2012). Redistribution and the notion of social status, *Journal of Public Economics*, 96, 651-657.
- [13] Bilancini, E., Boncinelli, L. (2014). Instrumental cardinal concerns for social status in two-sided matching with non-transferable utility, *European Economic Review*, 67, 174-189.
- [14] Boskin, M., Sheshinski, E. (1978). Optimal redistributive taxation when individual welfare depends upon relative income, *Quarterly Journal of Economics*, 92, 589-601.

- [15] Cole, H., Mailath, G., Postlewaite, A. (1992). Social norms, savings behavior, and growth, *Journal of Political Economy*, 100, 1092-1125.
- [16] Corneo, G. (2002). The efficient side of progressive income taxation, *European Economic Review*, 46, 1359-1368.
- [17] Corneo, G., Grüner, H.P. (2000). Social limits to redistribution, *American Economic Review*, 90, 1491-1507.
- [18] Corneo, G., Grüner, H.P. (2002). Individual preferences for political redistribution, *Journal of Public Economics*, 83, 83-107.
- [19] Corneo, G., Jeanne, O. (1997). Conspicuous consumption, snobbism and conformism, *Journal of Public Economics*, 66, 55-71.
- [20] Duesenberry, J. (1949). *Income, Saving and the Theory of Consumer Behaviour*, Harvard University Press, Cambridge, MA.
- [21] Fong, C. (2001). Social preferences, self-interest, and the demand for redistribution, *Journal of Public Economics*, 82, 225-246.
- [22] Frank, R.H., (1985). The demand for non-observable and other non-positional goods, *American Economic Review*, 75, 101-116.
- [23] Gallice, A. (2009). Education, dynamic signalling, and social distance, *Oxford Economic Papers*, 61, 304-326.
- [24] Gallice, A., Grillo, E. (2018a). A model of educational investment, social concerns and inequality, *The Scandinavian Journal of Economics*, forthcoming.
- [25] Gallice, A., Grillo, E. (2018b). Economic and social-class voting in a model of redistribution with social concerns, Carlo Alberto Notebooks 448, Collegio Carlo Alberto.
- [26] Giuliano, P., Spilimbergo, A. (2014). Growing up in a recession, *Review of Economic Studies*, 81, 787-817.

- [27] Hopkins, E., Kornienko, T. (2004). Running to keep in the same place: Consumer choice as a game of status, *American Economic Review*, 94, 1085-107.
- [28] Hopkins, E., Kornienko, T. (2009). Status, affluence, and inequality: Rank-based comparisons in games of status, *Games and Economic Behavior*, 67, 552-568.
- [29] Ireland, N. (1994). On limiting the market for status signals, *Journal of Public Economics*, 53, 91-110.
- [30] Ireland, N. (1998). Status-seeking, income taxation and efficiency, *Journal of Public Economics*, 70, 99-113.
- [31] Ireland, N. (2001). Optimal income tax in the presence of status effects, *Journal of Public Economics*, 81, 193-212.
- [32] Kanbur, R., Tuomala, M. (2013). Relativity, inequality and optimal non-linear income taxation, *International Economic Review*, 54, 1199-1217.
- [33] Klor, E., Shayo, M. (2001). Social identity and preferences over redistribution, *Journal of Public Economics*, 94, 269-278.
- [34] Koenig, T., Lausen, T., Wagener, A. (2017). Image concerns and the political economy of publicly provided private goods, CESifo Working Paper Series No. 6304.
- [35] Levy, G., Razin, R. (2015). Preferences over equality in the presence of costly income sorting, *American Economic Journal: Microeconomics*, 7, 308-337.
- [36] Luttmer, E.F.P. (2001). Group loyalty and the taste for redistribution, *Journal of Political Economy*, 109, 500-528.
- [37] Luttmer, E.F.P., Singhal, M. (2011). Culture, context, and the taste for redistribution, *American Economic Journal: Economic Policy*, 3, 157-179.
- [38] Meltzer, A., Richard, S. (1981). A rational theory of the size of government, *Journal of Political Economy*, 89, 914-927.

- [39] Mujcic, R., Frijters, P. (2015). Conspicuous consumption, conspicuous health, and optimal taxation, *Journal of Economic Behavior & Organization*, 111, 59-70.
- [40] Ng, Y.K. (1987). Relative income effects and the appropriate level of public expenditure, *Oxford Economic Papers*, 39, 293-300.
- [41] Oswald, A. (1983). Altruism, jealousy, and the theory of optimal non-linear taxation, *Journal of Public Economics*, 20, 77-88.
- [42] Persson, M. (1995). Why are taxes so high in egalitarian societies? *The Scandinavian Journal of Economics*, 84, 569-580.
- [43] Piketty, T. (1995). Social mobility and redistributive policies, *Quarterly Journal of Economics*, 110, 551-584.
- [44] Roberts, K.W. (1977). Voting over income tax schedules, *Journal of Public Economics*, 8, 329-340.
- [45] Romer, T. (1975). Individual welfare, majority voting and the properties of a linear income tax, *Journal of Public Economics*, 7, 163-188.
- [46] Shayo, M. (2009). A model of social identity with an application to political economy: nation, class, and redistribution, *American Political Science Review*, 103, 147-174.
- [47] Wendner, R. (2010). Conspicuous consumption and generation replacement in a model with perpetual youth, *Journal of Public Economics*, 94, 1093-1107.
- [48] Wendner, R., Goulder, R.H. (2008). Status effects, public good provision, and excess burden, *Journal of Public Economics*, 92, 1968-1985.

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