



**HAL**  
open science

## Do you prefer having more or more than others in the workplace? A quasi-experimental survey in algeria

Latifa Barbara, Gilles Grolleau, Naoufel Mzoughi

► **To cite this version:**

Latifa Barbara, Gilles Grolleau, Naoufel Mzoughi. Do you prefer having more or more than others in the workplace? A quasi-experimental survey in algeria. *Managerial and Decision Economics*, 2016, Online (4), 12 p. 10.1002/mde.2806 . hal-01506479

**HAL Id: hal-01506479**

**<https://hal.science/hal-01506479>**

Submitted on 12 Sep 2023

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**Do you prefer having more or more than others in the workplace?  
A quasi-experimental survey in Algeria**

Latifa Barbara  
MDI Algiers Business School  
[l.barbara@mdi-alger.com](mailto:l.barbara@mdi-alger.com)

Gilles Grolleau  
Supagro, UMR 1135 LAMETA, F-34060 Montpellier  
Burgundy School of Business – LESSAC, F-21000 Dijon  
[grolleau@supagro.inra.fr](mailto:grolleau@supagro.inra.fr)

Naoufel Mzoughi (Corresponding author)  
INRA, UR 767 Ecodéveloppement, F-84914 Avignon  
[nmzoughi@avignon.inra.fr](mailto:nmzoughi@avignon.inra.fr)

**Abstract:** We examine the relevance of relative standings in Algeria (North-Africa). We focus on the workplace, by considering domains generally important in this specific context: income, extra wage, office size, free days, worked hours, days being ill, offered company car, traffic jam when going to work, and being praised and berated by supervisor. Respondents prefer equality situations (i.e., where everyone has the same endowment) rather than positional and absolute ones (i.e., where they have the highest relative and absolute levels, respectively). An exception is found regarding praise by supervisor where the proportions of individuals choosing positional states are the highest.

**Key-words:** positional goods, relative standings, workplace.

**JEL codes:** D0, D1.

# Do you prefer having more or more than others in the workplace?

## A quasi-experimental survey in Algeria

*'Apart from economic payoffs, social status seems to be the most important incentive and motivating force of social behavior.'* (John Harsanyi, 1976)

### 1. Introduction

Leading economists, such as Adam Smith, Thorstein Veblen, John Meynard Keynes and Arthur Pigou, have recognized since a long time that people care about their relative economic position and are even willing to forgo money in order to gain status (Solnick and Hemenway, 1998; Frank, 1985a; Carlsson et al., 2007; Grolleau et al., 2012a).<sup>1</sup> Positional concerns –that is, individuals' preference to having less in *absolute* terms of a given good or service if doing so conveys them a better *relative* situation, compared to others in their reference group– are pervasive in numerous real-world settings and have yet benefited from an important academic attention (e.g., Duesenberry, 1949; Hirsch, 1976; Frank, 1985a, 1985b; Neumark and Postlewaite, 1993; Easterlin, 1995; Chao and Schor, 1998; Solnick and Hemenway, 1998, 2005, 2009; Johannsson-Stenman et al., 2002; Brekke et al., 2003; Van Kempen, 2003; Alpizar et al., 2005; Solnick et al., 2007; Greene and Nelson, 2007; Carlsson et al., 2007; Carlsson and Qin, 2010; Békir et al., 2011; Grolleau et al., 2012a; Anderson et al., 2015).

A 'natural' environment where positional or relative standings can matter a lot is workplace (Waldron, 1998). Several stories describe situations where positional concerns generated unintended consequences, such as the failure of mergers because two CEOs could not decide who would get the top job (Loch et al., 2001). A study found that corporate acquisitions tend to produce too big firms in terms of efficiency, because CEOs are motivated by status conferred with presiding over a bigger company (Hayward and Hambrick, 1997). Another study found that CEOs of more prestigious companies earn less and suggests that 'CEOs derive social benefits in the form of an enhanced social status if they work for a company that enjoys public admiration, and that boards extract pay concessions for this non-monetary benefits' (Maug et al., 2011). In another but related vein, Salhi et al. (2012) argue that profitable innovations can remain not adopted if they destroy status in a given reference group (see also Hill and Buss, 2006). Nevertheless, as far as we know, several dimensions related to the specific context of workplace environment have not been considered in the previous literature devoted to positional goods.

---

<sup>1</sup> For ease of exposition, status and position are used interchangeably in this paper.

Hence, using a quasi-experimental survey *à la* Solnick and Hemenway (1998), our objective is to investigate the relevance of positional concerns in the workplace, setting similar colleagues as the reference group. First, while the previous surveys have mainly focused on individuals' income, and to a lesser extent other domains, such as luxurious clothes, vacation, education and physical attractiveness (e.g., Solnick and Hemenway, 2005), our survey considers domains which are particularly important in the workplace environment: income, extra wage, office size, the number of free days, the number of worked hours, the number of days being ill, the offered company car, traffic jam when going to work, and being praised and berated by supervisor. Second, our survey is framed in a way that captures individuals' preferences in their workplace environment (see Section 3).

Moreover, our study is conducted in a developing country, namely Algeria (North Africa), which constitutes another originality of our paper. Indeed, except some few contributions (Solnick et al., 2007; Carlsson et al., 2007; Carlsson and Qin, 2010; Békir et al., 2011; 2015; Akay et al., 2014), most previous surveys are conducted in developed countries, notably, United States and Sweden. Yet the available economic literature offers mixed results regarding the differences of positional concerns across countries. While individuals in developed countries frequently exhibit a high degree of positionality, some previous studies suggest a lower degree of positional concerns among people from poor countries, especially in countries with a group-oriented culture but evidence is mixed. Using a survey experiment, Solnick et al. (2007) found that positional concerns are present in China to a similar extent as in the United States, but with a fairly substantial disconnect between the goods that are positional among Chinese compared to Americans. Unlike the previous study, Carlsson et al. (2007) found low degree of positionality among farmers in rural Vietnam, while Carlsson and Qin (2010) showed that 'the concern for relative standing seems to be equally strong among rural households in China' when they compare them with those obtained in developed countries. Thanks to a survey experiment in urban Ethiopia, Akay et al. (2014) found a low degree of positional concerns, highly stable across different reference groups. To explain these mixed results especially in China, some researchers have noted a possible selection bias (Solnick et al., 2007) and an increased emphasis on competitive and self-oriented goals such as 'social status, power and wealth' and a corresponding decreased emphasis on values associated with family, authority and other relationships, such as 'equality of income' and 'modesty and contentment' (Yang, 1996). Thus, in addition to providing empirical evidence and questioning the robustness of previous results to various socio-economic environments, we also partially address the issue related to the use of Western, Educated, Industrialized, Rich, and Democratic (WEIRD) participants (Heinrich et al., 2010). These authors state that using samples drawn entirely from WEIRD societies to study human nature can be misleading. We however caution the reader against over-interpreting these cross cultural comparisons because the

variations observed in experimental games run across cultures may result mostly from cultural framing effects rather than variations in preferences (Heintz, 2013).<sup>2</sup>

The reminder of our contribution is organized as follows. The next section overviews the related literature and formulates behavioral hypotheses. We caution the reader that our literature overview is selective. In other words, our goal is not to present an in-depth analysis of positional concerns and an exhaustive review of previous findings but to highlight the issues which are the most relevant to our contribution. Section 3 describes the empirical strategy. Section 4 exposes the main findings and discusses them. Section 5 concludes and suggests directions for further research.

## **2. Selective literature overview and behavioral hypotheses**

Without negating the fundamental role of incentives and rewards to motivate employees, a growing literature argues that the desire for status is a fundamental and universal motivator (Anderson et al., 2015). In order to manage their status, people engage in a wide range of goal-directed activities such as monitoring the status dynamics in their social environment or preferring social environments that convey them higher status, and reacting strongly when their status is threatened (Loch et al., 2001; Waldron, 1998). A very frequent way to manage status is related to the consumption of goods that convey status in a given reference group (Hirsch, 1976; see also Waldron, 1998 for examples of positional goods in the workplace environment).

Even if some scholars conceptualize status seeking as a means to attain resources, others consider status seeking as an end in itself (Loch et al., 2001). From the first rationale, we can draw the managerial implication that managers could reduce some status-seeking behaviors by breaking the connection between status and resources. At the same time, there is a growing body of evidence supporting that the desire for status is fundamental and an end in itself. Status seeking can lead employees and managers to counterproductive behaviors, such as wasting resources. For instance, using an experimental setting, Charness et al (2014) show that some participants are willing to engage in unethical behaviors (e.g., sabotaging peers' work) in order to improve their status. Competition for relative position is a wasteful exercise and drives people to engage in socially undesirable behaviors (e.g., longer working hours, stress, debt) which can ultimately result in decreased happiness<sup>3</sup> (Frank, 2005) and contribute to under-development (Grolleau et al., 2009). The managerial implication from this second rationale is given that status seeking cannot be repressed, it can be actively channeled in

---

<sup>2</sup> We thank an anonymous referee for pointing this issue.

<sup>3</sup> Interestingly, a recent paper of Oswald et al. (2015) found empirical evidence that happy workers are more productive.

directions aligned with the interest of the firms. This result can be obtained by manipulating the environment and the criteria and symbols of status within the organization (Loch et al., 2001; Waldron, 1998). It is likely that status seeking is both a means and an end in itself. In a related contribution about interpersonal disadvantageous comparisons, Tai et al. (2012) re-conceptualize envy as pain at another's good fortune, which can result in both positive (e.g., prosocial behavior, job performance) and negative (e.g., social undermining) behavioral consequences. The authors argue that 'managerial attention should be focused on cultivating a functional climate where envy's potent benefits can be realized'.

As stressed in the previous section, many contributions examined positional concerns with regards to various domains, notably individuals' income (e.g., Frank, 1985a; Solnick and Hemenway, 1998, 2005; Chao and Schor, 1998; Van Kempen, 2003; Grolleau et al., 2012a). These studies support that position matters, that is, for several domains, individuals may prefer a situation where they have less in absolute terms but more than others in their reference group (colleagues, family, etc.), compared to another situation where they could have more in absolute terms but less than others. In other words, more is not always better. To make justice to this issue, we must also consider the fact that it is well documented that individuals also exhibit preferences for self-interest or payoff maximization and equality, in addition to positionality. Fehr and Schmidt (1999) and Bolton and Ockenfels (2000) captured inequity aversion in models where the utility function is modified to reflect the fact that unequal payoffs reduce the utility levels. Empirical evidence from numerous ultimatum games and dictator games support that several individuals exhibit other preferences and are averse to unequal sharing and prefer losing money to promote what can be considered as a fair sharing (Guth et al., 1982; Forsythe et al., 1994; Engel, 2011). Closer to our contribution, Charness and Grosskopf (2001), Celse (2012) and Bekir et al. (2015) found empirical support (in incentivized and non-incentivized environments) for the co-existence of significant proportions of people exhibiting equality oriented, self-interested and to a lower extent positional preferences. Consequently, we expect this figure holds in the workplace and thus formulate the following hypothesis:

- ✓ *H1: Position matters in the workplace environment but co-exists with equality-oriented and self-interested preferences. For all the considered workplace items (see Section 3), we expect respondents to prefer mainly positional and egalitarian states. Absolute states are the least preferred options.*

Moreover, the previously-mentioned literature stresses that position matters differently according to the considered domain. For instance, income is frequently found to be more positional than leisure (Frank, 1985a), that is, individuals care relatively more about their position for the former. Without

purporting to be exhaustive, previous studies suggest that the degree of positionality varies according to three characteristics of goods. First, previous surveys distinguished between goods (e.g., income, vacation) and bads (e.g., a task to do or being berated by a supervisor) and argued that position matters much more for goods than for bads (Solnick and Hemenway, 1998; Solnick and Hemenway, 2005; Grolleau and Said, 2008). In other words, compared to goods, people care more about absolute levels of bads rather than the relative amount. It should be noticed that some studies (Celse, 2012; Wouters et al., 2015) suggest that positionality can be also strong for bads. Nevertheless, the contribution of Celse (2012) considered only one item that can be classified as a bad, while the study by Wouters et al (2015) used only bads. Second, positional concerns vary according to the visibility of goods. In other words, visible goods are more positional than less visible ones, since the former are more likely to convey status benefits. For example, Chao and Schor (1998) found that luxurious clothes are more positional than luxurious under-wears. Third, individuals' initial endowment of a good or service is likely to determine their preference. Some studies found that people are more positional on domains for which they enjoy higher absolute levels. For example, people can be more positional on vacations if they already have longer absolute vacations (Solnick and Hemenway, 1998; Van Kempen, 2003). Hence, based on the previous findings, we formulate the following hypothesis:

- ✓ *H2: Positional concerns depend on three factors, namely social visibility, nature of the good and the magnitude of the allocation. We hypothesize that respondents are more positional when considering goods, socially visible items or when they enjoy higher absolute levels.*

Furthermore, predictions regarding the effects of various socio-demographic variables on preferences are scarce in the empirical literature. A notable exception is the paper of Birdal and Ongan (2015) devoted to the socioeconomic determinants of positional concerns in various domains. It is likely that the fact that socio-demographic variables may impact differently the various domains considered in the literature, makes it difficult to draw clear rationales about their effects. Yet scholars who tested such effects did not found significant results (e.g., Solnick and Hemenway, 1998, 2005; Grolleau et al., 2012a). The results of Wouters et al. (2015) constitute an exception but their survey experiment includes only bads which limits its applicability to our context. Grolleau et al. (2012a) simply state that these variables are 'not good candidates to predict positional concerns, except some characteristics' for some domains (see also Birdal and Ongan, 2015 for similar results). Nevertheless, we considered interesting to test the effects of some variables, namely individuals' employment status, age, gender, education level, and earnings. Regarding employment status, Solnick and Hemenway (1998) suggested that 'relative standing may be more important to students [compared to either faculty or staff] because they feel themselves in constant competition with one another, to earn approval and good grades while in school and to establish themselves in society after graduation'. In a similar vein,

Wouters et al. (2015) found that older respondents reported on average lower degrees of positional concerns. So, we expect that younger and not yet employed people are more likely to exhibit positional concerns (see also Birdal and Ongan, 2015). Regarding gender, we do not predict which one is more likely to exhibit positional concerns, even if other scholars (e.g., Johansson-Stenman and Martinsson, 2006; Birdal and Ongan, 2015) argue that women (men) may be more positional than others on some issues, such as beauty (car power). Interestingly Birdal and Ongan (2015) suggest that higher positional concerns among women can be due to the discrimination felt in the labor market in male-dominant societies. Moreover, following Wouters et al. (2015), we expect that respondents with a higher education level are considerably more likely to be non-positional than less-educated individuals (except for intelligence in Birdal and Ongan, 2015). Furthermore, we expect a positive relationship between earnings and positional preferences, notably for the questions about income and extra wage (see next section). Indeed, some studies (see Grolleau, 2012a) have suggested that people can be more positional on domains on which they excel (e.g., being rich makes one more likely to be positional on income) but failed to find empirical support. Given the inconclusiveness of most studies regarding the impact of socio-demographic variables, we formulate the following hypothesis:

- ✓ *H3: Individuals' socio-demographic characteristics have little importance on predicting their preferences, except for education for which we expect a negatively correlation with positional concerns.*

### **3. Methods**

In order to test the above-formulated hypotheses, a survey questionnaire was administered in February and March 2015 (N=138). The participants are students from a business school and a university specialized in management sciences located in the Algiers metropolitan area. The average age of respondents is 27 years and 54% of them are male.

In order to fit workplace environment as much as possible, participants were told to suppose they are recruited in a multinational firm which, in a context of its activities' development, is locating in Algeria and recruiting several dozens of intermediate managers. We explained that the questionnaire aims to understand their preferences regarding some characteristics of the job, but clearly indicated that their answers do not affect the decision to recruit them. We designed a short quasi-experimental questionnaire *à la* Solnick and Hemenway (1998). However, compared to the original idea of Tversky and Griffin (1991) and Solnick and Hemenway (1998), our survey instrument is refined by introducing an egalitarian option to distinguish egalitarian concerns from positional ones (Celse, 2012), in addition of self-interested ones. Moreover, we control for the reference group, namely 'colleagues', defined as



other employees of the same firm who have similar curriculum vitae and position and who were recruited at the same time.

Even if they have been used in several contributions, two criticisms are frequently addressed to some quasi-experimental surveys: the lack of monetary incentives and the use of a non-laboratory setting, which reduces control. Regarding the former, Rubinstein (2013, p.541) states that he has ‘never understood how the myth arose that paying a few dollars (with some probability) will more successfully induce real life behavior in a subject. He even suggested that ‘the opposite is the case’ and argues that ‘human beings generally have an excellent imagination and starting a question with “Imagine that. . . ” achieves a degree of focus at least equal to that created by a small monetary incentive (...).’ Regarding the use of non-incentivized surveys, Thaler (1987) and Camerer and Hogarth (1999) argued that they can provide reliable and accurate empirical evidence with much larger samples than what is possible in a monetary-incentives compatible environment. Regarding the concern that some environments do not provide control over what participants are really doing, Rubinstein (2013, p. 541) counter-argues: ‘But do researchers know whether a subject in a lab is indeed thinking about the experiment rather than his love life? Are decisions more natural in a ‘sterile environment’ or when a subject is sitting at home?’ Moreover, Quattrone and Tversky (1988, p. 720) argued that ‘the use of hypothetical problems raises obvious questions regarding the generality and applicability of the finding. Nevertheless, we believe that the use of carefully worded questions can address key issues regarding people’s values and beliefs as long as respondents take the questions seriously and have no particular reason to disguise or misrepresent their true preferences’. Interestingly, some of the key issues that generated the path-breaking contributions of D. Kahneman and A. Tversky were initially based on hypothetical situations. In a similar vein, but close to the issue addressed in our paper, Bekir et al. (2015) compared incentivized and hypothetical preferences regarding positional issues and their findings were consistent with those of Locey et al. (2011) who concluded that ‘results of experiments with hypothetical rewards validly apply in everyday life’. Indeed, the results found under the two methods were qualitatively similar, even if the magnitudes differed. In short, we contend that our experimental strategy can deliver insightful and credible results.

The survey consisted in 12 hypothetical questions in the same format about domains generally important in the workplace environment: income, extra wage, office size, the number of free days, the number of worked hours, the number of days being ill, the offered company car, traffic jam when going to work, and, being praised and berated by a supervisor (see Appendix 1). The questions about illness, traffic jam and being berated (all bads) are introduced to test whether positional concerns are more important for goods than for bads. In addition, as mentioned above, the distinction between public and private praise allows us to test whether positional concerns vary according to the visibility

of goods. Moreover, two questions relate to income and differ only in the used amounts. The goal of repeating the question using different values allows us to test whether individuals are more positional when they have yet higher absolute amounts.

Formally, for each question, respondents were asked to choose among three states of the world the one they prefer. In each state, respondents were told how much they have of the above-mentioned items and how much their colleagues have. In one state (called the positional answer), the respondent has more than others, but less in absolute terms. In another state (called the absolute answer), both the respondent and colleagues have more than in the positional answer but the respondent is in an unfavorable relative position, that is, he/she has less than others. In the third state, the respondent and colleagues have the same amount of the considered item. For example, one of the questions about income was structured as follows:

*Considering the cost of living and power purchase of money are the same in the three states, what do you prefer?*

- A. Your income is 70 000 DZ per month; colleagues' income is 80 000DZ per month*
- B. Your income is 60 000 DZ per month; colleagues' income is 50 000DZ per month*
- C. Your income is 50 000 DZ per month; colleagues' income is 50 000DZ per month*

Here, A is the absolute answer, B is the positional answer and C is the equality one. Of course, when the question deals with a bad (e.g., illness), the respondent has less than others in the positional state, whereas in the absolute state everyone has less, compared to the positional state, but the respondent has more than others. Moreover, all the questionnaires are similar except with regards to the order of the states that differs among individuals, in order to avoid any bias related to the status quo effect. Last, the questionnaire was pre-tested on a convenience sample (e.g., friends, colleagues, family) to make it more respondent friendly and has been then randomly distributed across participants.

#### **4. Results and discussion**

We first present and interpret the main results derived from individual responses for each item. We then present the estimation results of the effects of the socio-demographic variables on preferences. Finally, we provide a general discussion of our findings.

##### *4.1. Main results*

The percentage of individuals choosing the positional, egalitarian and absolute option for each item is provided in Table 1. In relation to our hypotheses, three main results may be emphasized: (i) respondents express equality preferences rather than positional and absolute ones, which partially

supports H1, (ii) goods are more positional than bads, but visibility and income threshold do not matter (i.e., H2 is also partially supported) and, (iii) individuals' socio-demographic characteristics have little importance on predicting their preferences, as predicted in H3. These three results are presented in detail below.

[Insert Table 1 around here]

*Result 1: Respondents express equality preferences rather than absolute and positional ones.*

Regardless of the considered domain, the highest percentages of responses correspond to egalitarian situations, as if people have strong concerns regarding what they consider the fair repartition of advantages. This is particularly noticeable for the number of worked hours where 80% of the sample selected the egalitarian situation even if it means working more. Consistently with Celse (2012), looking to the aggregate answers, that is, when cumulating the answers from all the questions (last line of Table 1), 48% of individuals prefer the egalitarian options rather than the absolute (29%) or positional ones (23%). Interestingly, the absolute answer is not systematically chosen, which indicates that a significant proportion of respondents (more than 55%, regardless of the considered item) are ready to sacrifice an absolute advantage in order to promote either equality or relative position.

Regarding the main object of our paper, that is, positional concerns, the two polar situations are traffic jam and private praise with respectively 8% and 52% of respondents selecting the positional answer. The high level of positional concerns regarding private praise may indicate that, in Algeria, individuals are very sensitive to some non-monetary incentives, such as encouragements and recognition from hierarchy. This result is also similar to the finding obtained by Celse (2012) about praise from supervisors. Moreover, in order to compare our findings with previous studies in countries whose culture focused on collectivism (e.g., Solnick et al., 2007; Carlsson and Qin, 2010; Akay et al., 2014), let us focus on income, which is the only domain these studies share. While Solnick et al (2007) and Carlsson and Qin (2010) found that more than 50% of their Chinese respondents picked the positional situation, between 25% and 29% of individuals in our sample did so. At first glance, our results are thus closer to those reported by Carlsson et al. (2007) among a sample of Vietnamese farmers (28% positional individuals on average). Nevertheless, the previous studies considered only two states of the world, that is, a positional and an absolute one, without taking into account individuals' preference for egalitarian situations, which may have overestimated positional concerns (Celse, 2012).<sup>4</sup>

---

<sup>4</sup> It is worthy to notice that even if the percentage of positional answers is lower when introducing an egalitarian option, it remains significant, especially for some specific domains (e.g., child-related items and relationships with supervisor).

Consequently, given that our design uses three states of the world, it seems inappropriate to draw clear-cut conclusions from these comparisons. However, given the nature of our sample (i.e., students in a business school) and the fact that Algeria has also evolved from a collectivist orientation towards a more individualistic one (Delhay and Le Pape, 2004), it is likely that our results are closer to those obtained in China by Solnick et al. (2007) and Carlsson and Qin (2010).

*Result 2: Goods are more positional than bads, but social visibility and income threshold do not matter.*

As expected, we found some support that position matters more for goods than for bads, since the percentages of positional answers for bads are among the lowest (16% for being berated, 13% for illness and only 8% for traffic jam<sup>5</sup>). Nevertheless, we did not find that visible goods elicit more positional answers than less visible goods. Respondents chose the positional answer more frequently for private praise (52%) versus public praise (44%), but this difference is not statistically significant. A tentative explanation to this counterintuitive result may be due to the fact that private praise is unlikely to be hypocritical or generate spiteful behaviors from peers. It can also be more consistent with a local culture valuing modesty and can be perceived as an indicator of the staff's sincerity. In addition, we have only one specific domain to control this effect, which limits the generalizability of this result. Indeed, people can transform even private praise in a public good, increasing subsequently its visibility. We suggest extending this result in future contributions to check its robustness by increasing the number of domains where we compare socially visible domains and hidden ones. Moreover, unlike our predictions, we did not find support that respondents selected more frequently the positional answer for domains on which they enjoy a higher absolute level. Regarding the income questions, 29% (versus 25%) of respondents selected the positional answer when their reference income was lower, but this difference is not statistically significant. *In sum, we found no evidence for an income threshold effect.* This result can indicate either that respondents are not necessarily more positional when they enjoy higher absolute levels, *ceteris paribus*, or that positional concerns become more prevalent only at higher levels of reference income.

*Result 3: Individuals' socio-demographic characteristics are poor predictors of individuals' choices.*

We run multinomial regressions to explore the effect of socio-demographic variables (employment status, gender, age, education and earnings) on the choice of positional and egalitarian options (absolute options are used as a reference) for each domain (Table 2). All the variables used in

---

<sup>5</sup> As pointed by a referee, social preferences for a given issue can depend on the job position the respondent occupies in the workplace. Indeed some domains can be out of reach for some employees, while others are very salient for them. For instance, a low status employee may be more positional regarding traffic jam but not regarding company cars since he/she has a poor status within the company.

estimations are dichotomous, equal to 1 if the respondent is already employed, a male, less than 23 years old, has a university education level higher than five years, and monthly earnings over 10.000 DZ (100.000 DZ for already employed respondents), respectively.

[Insert Table 2 around here]

Despite some significant effects (mainly at the 10% level), we cannot draw homogeneous and clear-cut conclusions regarding the relationship between the used variables and the choice of a given alternative. Indeed, except the employment status which is not significant for all the considered domains, the significance of the other variables is quite difficult to interpret. For instance, men are found to be more (less) likely to prefer the egalitarian option over the absolute one with regards to income, company car and traffic jam (illness). Moreover, younger individuals are found to be less likely to prefer the positional state over the absolute one regarding income. They are, however, more likely to be positional (respectively, egalitarian) on illness (respectively, public praise). Estimation results also suggest that education is negatively related to the choice of positional states regarding income, extra wage, and traffic jam. Finally, richer individuals are found to be more (less) likely to be positional on high income, worked hours and public praise (illness). In sum, consistently with previous studies (e.g., Grolleau et al., 2012a), we found no strong evidence of the effects of socio-demographic variables on preferences and, as such, we caution the reader to not over-interpret our findings.

#### *4.2. Discussion*

Our survey shows that in the Algerian context, significant proportions of individuals are motivated not by absolute amounts of a desirable good or service in the workplace, but rather by the desire to be at the same level or even better off than their reference group. This has potentially important implications for businesses. Using motivation systems based only on absolute advantages can fail to generate the expected results such as motivating employees and can even backfire if people adopt destructive behaviors to reduce the subsequent inequalities. Taking into account egalitarian concerns in designing incentives systems can lead to prefer egalitarian pay structures (over hierarchical ones) where the range of pay from the lowest paid employee to the highest paid employee is not too high or unjustified while simultaneously avoiding the possible cost of dissatisfying talented executives. Interestingly, this challenge has been taken up by some innovative and successful companies such as Gore (maker of Gore-Tex fabric) which has adopted an egalitarian management and pay structure (Manz et al., 2009). For instance, everyone received the title of ‘associate’ and the pay is notably determined by a group of peers who ranks collaborators to indicate who is making the biggest contribution to Gore’s success.

Our contribution also draws attention to the importance people give to private or public praise, given that it is the most positional domain, contrary to other countries where income is ranked higher (Solnick and Hemenway, 1998; Hill and Buss, 2006). Interestingly, the Algerian newspapers frequently stress the deficit of social recognition in the workplace environment as a strong impediment to economic progress. For instance, Raymouche (2014) reports that in Algeria ‘it is scarce for executives in the management of human resources to provide explicit thanks to their collaborators’. Seghir (2015) asserts that Algerian managers ‘desire executives who demonstrate them consideration (...)’. Social recognition and appreciation can constitute a precious and untapped motivational lever for Algerian companies.

It can be also useful to identify individuals who are status seekers in order to design an adequate management that actively channels the status-seeking energy in positive directions. This result can be achieved thanks to a wise manipulation of the environment and status symbols within the organization. Rather than becoming a source of counterproductive behaviors, managers have to find original ways to turn the drive for status or equality into a powerful motivator serving the interests of the group (Loch et al., 2001). Hill and Buss (2006) suggested the psychological frame of individuals within a given organization to direct envy and positional bias toward rival organizations rather than rival individuals within the organization. Tai et al. (2012) encourages managers to create and maintain the conditions that ease envy’s positive consequences while avoiding the potential negative consequences of envy. More practically, Milovic and Dingus (2014) suggest some techniques that can be implemented by sales managers in order to elicit positive envy in salespeople during a sales contest and ultimately increase their sales performance. In the same vein, Grolleau et al. (2012b) propose several strategies by which individuals can and do adapt to this zero-sum nature of rank games while increasing (or at least, not decreasing) their individual happiness, such as increasing the number of dimensions on which individuals compare, increasing the number of reference groups for a given dimension, and increasing the value of the dimension on which the individual excels within an appropriate reference group.

## **5. Conclusion**

We presented survey evidence on the elicitation of social preferences related to the workplace environment, namely equality, selfishness and positionality in a developing country context (Algeria). As expected, despite some differences across domains, significant proportions of respondents exhibit in a decreasing order preferences for equality, efficiency and positionality. Our results clearly support people do not always behave as systematic efficiency maximizers and exhibit other-regarding preferences. This finding must be replaced in the Algerian context where people seem to exhibit a social distaste for inequalities that can lead them to reject Pareto-improving policies. A major

implication for managers is to be very careful when implementing systems that create inequalities such as recruiting procedures or incentive systems. Indeed, rather than motivating employees, these systems can generate counterproductive behaviors from individuals seeking equality or positionality. Our findings also stress the crucial role of some non-monetary incentives such as praise and related dimensions (e.g., recognition, gratitude), which can constitute an untapped resource with great motivational power in the Algerian context.

Our results also raise issues regarding the management of heterogeneous groups where status seekers coexist with equality seekers and 'rational' individuals. How to design a conscientious management that can actively channel these various energies in directions favorable to the group interests? Even if some replies are available for a given subgroup (e.g., status seekers or maximizers), very little is known on how to manage a heterogeneous group. Moreover, in the workplace environment, many decisions are taken collectively (e.g., teams, boards) which makes it interesting to investigate whether social preferences are similar or different at a group level. Our contribution raises several issues regarding the effect of social preferences on managerial practices. Some dimensions have been little studied and deserve further academic attention, especially in a developing country context, such as the Algerian one. We believe that addressing these issues can offer valuable insights on the impact of social preferences on management issues and vice versa.

## References

- Akay, A., Martinsson, P., Andersson, L., Medhin, H. 2014; Positional concerns among the poor: Does reference group matter? Evidence from survey experiments. *Journal of African Economics* 23(5): 673-699.
- Alpizar, F., Carlsson, F., Johansson-Stenman, O. 2005. How much do we care about absolute versus relative income and consumption? *Journal of Economic Behavior and Organization* 56: 405-421.
- Anderson, C., Hildreth, J., Howland, L. 2015. Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological Bulletin* 141(3): 574-601.
- Bekir, I., El Harbi, S., Grolleau, G., Sutan, A. 2015. Efficiency, equality, positionality: What do people maximize? Experimental vs. hypothetical evidence from Tunisia. *Journal of Economic Psychology* 47: 77-84.
- Bekir, I., El Harbi, S., Grolleau, G. 2011. (Deceptive) status seeking strategies in France and Tunisia. *Journal of Economic Issues* 45(3): 717-732.
- Birdal, M., Ongan, T.H. 2015. Why do we care about having more than others? Socioeconomic determinants of positional concerns in different domains. *Social Indicators Research* (DOI 10.1007/s11205-015-0914-9).

- Bolton, G., Ockenfels, A. 2000. ERC: a theory of equity, reciprocity, and competition. *American Economic Review* 90(1), 166–193.
- Brekke, K.A., Howarth, R.B., Nyborg, K. 2003. Status-seeking and material affluence: Evaluating the Hirsch hypothesis. *Ecological Economics* 45: 29-39.
- Camerer, C., Hogarth, R. 1999. The effect of financial incentives in experiments: A review and capital-labor production framework. *Journal of Risk and Uncertainty* 19: 7-42.
- Carlsson, F., Johansson-Stenman, O., Martinsson, P. 2007. Do you enjoy having more than others? Survey evidence of positional goods. *Economica* 74(296): 586-598.
- Carlsson, F., Nam, P.K., Linde-Rahr, M., Martinsson, P. 2007. Are Vietnamese farmers concerned with their relative position in society? *Journal of Development Studies* 43(7): 1177-1188.
- Carlsson F., Qin P. 2010. It is better to be the head of a chicken than the tail of a phoenix: A study of concern for relative standing in rural China. *Journal of Socio-Economics* 39: 180-186.
- Chao, A. Schor, J.B. 1998. Empirical tests of status consumption: Evidence from women's cosmetics. *Journal of Economic Psychology* 19: 107-131.
- Charness, G., Masclet, D., Villeval, M-C. 2014. The dark side of competition for status. *Management Science* 60(1): 38-55.
- Charness, G., Grosskopf, B. 2001. Relative payoffs and happiness: An experimental study. *Journal of Economic Behaviors and Organization* 45: 301-328.
- Celse, J. 2012. Is the positional bias an artefact? Distinguishing positional concerns from egalitarian concerns. *Journal of Socio-Economics* 41(3): 277-283.
- Delhaye, G., Le Pape, L. 2004. Les transformations économiques en Algérie. *Journal des anthropologues* 96-97 : 177-194.
- Duesenberry, J.S. 1949. *Income, saving, and the theory of consumer behaviour*. Cambridge: Cambridge University Press.
- Engel, C. 2011. Dictator games: A meta study. *Experimental Economics* 14: 583-610.
- Easterlin, R. 1995. Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior and Organization* 27: 35-47.
- Fehr, E., Schmidt, K. 1999. A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics* 114: 817–868.
- Forsythe, R., Horowitz, J.L., Savin, N.E., Sefton, M. 1994. Fairness in simple bargaining experiments. *Games and Economic Behavior* 6: 347-369.
- Frank, R. 1985a. The demand for unobservables and other nonpositional goods. *American Economic Review* 75: 101-16.
- Frank, R. 1985b. *Choosing the right pond. Human behavior and the quest for status*. Oxford: Oxford University Press.



- Frank, R. 2005. Positional externalities cause large and preventable welfare losses. *American Economic Review* 95: 137-141.
- Greene, K., Nelson, P. 2007. Is relative income of overriding importance for individuals? *International Journal of Social Economics* 34(11): 883-898.
- Grolleau, G., Mzoughi, N., Saïd, S. 2012a. Do you believe that others are more positional than you? Results from an empirical survey on positional concerns in France. *Journal of Socio-Economics* 41(1): 48-54.
- Grolleau, G., Galochkin, I., Sutan, A. 2012b. Escaping the zero-sum game of positional races. *Kyklos* 65(4): 464-479.
- Grolleau, G., Mzoughi, N., Sutan, A. 2009. The impact of envy-related behaviors on development. *Journal of Economic Issues* 43(3): 795 - 808.
- Grolleau, G., Saïd, S. 2008. Do you prefer having more or more than others? Survey evidence on positional concerns in France. *Journal of Economic Issues* 42(4): 1145-1158.
- Güth, W., Schmittberger, R., Schwarze, B. 1982. An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior and Organization* 3: 376–388.
- Harsanyi, J. 1976. A bargaining model for social status in informal groups and formal organizations. *Essays on ethics, social behavior, and scientific explanation theory and decision library* 12: 204-224.
- Hayward, M., Hambrick, D. 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly* 42: 103-127.
- Henrich, J., Heine, S., Norenzayan, A. 2010. The weirdest people in the world? *Behavioral Brain Sciences* 33(2): 61-83.
- Heintz, C. 2013. What can't be inferred from cross-cultural experimental games. *Current Anthropology* 54(2): 165-166.
- Hill, S.E. Buss, D.M. 2006. Envy and positional bias in the evolutionary psychology of management. *Managerial and Decision Economics* 27: 131-143.
- Hirsch, F. 1976. *Social limits to growth*. Cambridge (MA): Harvard University Press.
- Johansson-Stenman, O., Martinsson, P. 2006. Honestly, why are you driving a BMW? *Journal of Economic Behavior and Organization* 60(2): 129-146.
- Johansson-Stenman, O., Carlsson, F., Daruvala, D. 2002. Measuring future grandparents' preferences for equality and relative standing. *Economic Journal* 112, 362-383.
- Locey, M.L., Jones, B.A., Rachlin, H. 2011. Real and hypothetical rewards. *Judgment and decision making* 6(6): 552-564.
- Loch, C., Yaziji, M., Langen, C. 2001. The fight for the alpha position: Channeling status competition in organizations. *European Management Journal* 19(1): 16-25.

- Manz, C., Shipper, F., Stewart, G.L. 2009. Everyone a team leader: Shared influence at W.L. Gore & Associates'. *Organizational Dynamics* 38(3): 239-244.
- Milovic, A., Dingus, R. 2014. Everyone loves a winner...Or do they? Introducing envy into a sales contest to increase salesperson motivation. *American Journal of Management* 14(4): 27-32.
- Maug, E., Niessen-Ruenzi, A., Zhivotova, E. 2011. Pride and prestige: Why some firms pay their CEOs less. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2008877](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2008877).
- Neumark, D., Postlewaite, A. 1993. Relative income concerns and the rise in married women's employment. *Journal of Public Economics* 70: 157-183.
- Oswald, A., Proto, E., Sgroi, D. 2015. Happiness and productivity. *Journal of Labor Economics* 33(4): 789-822.
- Quattrone, G.A., Tversky, A. 1988. Contrasting rational and psychological analyses of political choices. *American Political Science Review* 82(3): 719-736.
- Raymouche, S. 2014. Ne pas dire merci quand une personne réalise quelque chose interrompt la relation. Entretien avec Larbi Mehdi. *Le Soir d'Algérie* (10/25). <http://www.lesoirdalgerie.com/articles/2014/10/25/article.php?sid=170081&cid=52> (Accessed June 25, 2015).
- Rubinstein, A. 2013. Response time and decision making. *Judgment and Decision Making* 8(5): 540-551.
- Salhi, S., Grolleau, G., Mzoughi, N., Sutan, A. 2012. How can positional concerns prevent the adoption of socially desirable innovations? *Journal of Economic Issues* 46(3): 799-810.
- Seghir, S. 2015. Faut-il revoir la formation des managers algériens ? *Liberté* (05/06). <http://www.liberte-algerie.com/dossier/faut-il-revoir-la-formation-des-managers-algeriens-225183> (Accessed June 25, 2015).
- Solnick, S., Hemenway, D. 1998. Is more always better? A survey about positional concerns. *Journal of Economic Behavior and Organisation* 37: 373-83.
- Solnick, S., Hemenway, D. 2005. Are positional concerns stronger in some domains than in others? *American Economic Review* 95: 147-151.
- Solnick, S., Hemenway, D. 2009. Do spending comparisons affect spending and satisfaction? *Journal of Socio-Economics* 38: 568-573.
- Solnick, S., Hong, L., Hemenway, D. 2007. Positional goods in the United States and China. *Journal of Socio-Economics* 36: 537-545.
- Tai, K., Narayanan, J., McAllister, D.J. 2012. Envy as pain: Rethinking the nature of envy and its implications for employees and organizations. *Academy of Management Review* 37(1): 107-129.
- Thaler, R. 1987. The psychology of choice and assumptions of economics. In Roth, A. (Ed.). *Laboratory experimentation in economics: Six points of view*. Cambridge: Cambridge University Press: 99-130.

- Tversky, A. Griffin, D. 1991. Endowment and contrast in judgments of wellbeing. In Strack, F., Argyle, M., Schwarz, N. (Eds.). *Subjective Well-Being*. Pergammon: Chapter 6: 101-118.
- Van Kempen, L. 2003. Fooling the eye of the beholder: Deceptive status signalling among the poor in developing countries. *Journal of International Development* 15(2): 157-177.
- Waldron, D.A. 1998. Status in organizations: Where evolutionary theory ranks. *Managerial and Decision Economics* 19: 505-520.
- Wouters, S., Rohde, K.I.M., Van Exel, N.J.A., Brouwer, W.B.F. 2015. Positional concerns revisited – Revealing two sides of the coin. Working paper (<http://people.few.eur.nl/rohde/>).
- Yang, K.-S. 1996. The psychological transformation of the Chinese people as a result of societal modernization. In: Bond, M.H. (Ed.). *The handbook of Chinese psychology*. Oxford University Press, New York, pp. 479-498.

**Table 1: Percentage of positional, egalitarian and absolute choices by good (N=138)**

| <b>Examined good</b>  | <b>Positional</b> | <b>Egalitarian</b> | <b>Absolute</b> |
|-----------------------|-------------------|--------------------|-----------------|
| Private praise        | 52                | 20                 | 28              |
| Public praise         | 44                | 34                 | 22              |
| Income L (Q11)        | 29                | 30                 | 41              |
| Car                   | 27                | 42                 | 31              |
| Income H (Q1)         | 25                | 34                 | 41              |
| Office size           | 17                | 51                 | 32              |
| Extra wage            | 16                | 63                 | 21              |
| Berated by supervisor | 16                | 67                 | 17              |
| Free days             | 15                | 52                 | 33              |
| Illness               | 13                | 54                 | 33              |
| Worked hours          | 10                | 80                 | 10              |
| Traffic jam           | 8                 | 54                 | 38              |
| <i>Global</i>         | 23                | 48                 | 29              |

**Table 2: Multinomial regression estimates of the effect of socio-demographic variables on the choice of positional and egalitarian options (absolute options are used as a reference)**

| Income H (Q1) |                 |         |                 |         |
|---------------|-----------------|---------|-----------------|---------|
| Variable      | Positional      |         | Egalitarian     |         |
|               | Estimate        | z value | Estimate        | z value |
| Intercept     | 0.615           | 0.95    | 0.093           | 0.14    |
| Employment    | -0.618          | -1.10   | -0.071          | -0.13   |
| Gender        | 0.532           | 1.04    | <b>0.967*</b>   | 1.90    |
| Age           | <b>-1.329*</b>  | -1.93   | -0.479          | -0.71   |
| Education     | <b>-1.390**</b> | -2.30   | <b>-1.462**</b> | -2.42   |
| Earnings      | -0.098          | -0.21   | -0.134          | -0.29   |
| Pseudo R2     | 0.0522          |         |                 |         |
| LL            | -132.60753      |         |                 |         |
| LR Chi2(10)   | 14.60           |         |                 |         |
| Observations  | 130             |         |                 |         |

| Income L (Q11) |                 |         |             |         |
|----------------|-----------------|---------|-------------|---------|
| Variable       | Positional      |         | Egalitarian |         |
|                | Estimate        | z value | Estimate    | z value |
| Intercept      | 0.291           | 0.48    | -0.756      | -1.10   |
| Employment     | -0.293          | -0.55   | -0.199      | -0.35   |
| Gender         | -0.056          | -0.11   | 0.675       | 1.31    |
| Age            | <b>-1.214*</b>  | -1.82   | 0.451       | 0.66    |
| Education      | <b>-1.235**</b> | -2.20   | -0.748      | -1.24   |
| Earnings       | <b>0.814*</b>   | 1.73    | 0.571       | 1.24    |
| Pseudo R2      | 0.0584          |         |             |         |
| LL             | -132.65712      |         |             |         |
| LR Chi2(10)    | 16.47*          |         |             |         |
| Observations   | 130             |         |             |         |

| Extra wage   |                |         |                |         |
|--------------|----------------|---------|----------------|---------|
| Variable     | Positional     |         | Egalitarian    |         |
|              | Estimate       | z value | Estimate       | z value |
| Intercept    | 0.604          | 0.67    | 2.089***       | 2.82    |
| Employment   | -0.296         | -0.42   | -0.003         | -0.01   |
| Gender       | 0.167          | 0.25    | -0.072         | -0.14   |
| Age          | -1.254         | -1.39   | -0.756         | -1.04   |
| Education    | <b>-1.448*</b> | -1.84   | <b>-1.095*</b> | -1.70   |
| Earnings     | 0.301          | 0.48    | -0.491         | -1.05   |
| Pseudo R2    | 0.0355         |         |                |         |
| LL           | -116.82348     |         |                |         |
| LR Chi2(10)  | 8.60           |         |                |         |
| Observations | 129            |         |                |         |

| Free days    |            |         |             |         |
|--------------|------------|---------|-------------|---------|
| Variable     | Positional |         | Egalitarian |         |
|              | Estimate   | z value | Estimate    | z value |
| Intercept    | -0.645     | -0.85   | 0.292       | 0.51    |
| Employment   | 0.040      | 0.06    | 0.322       | 0.66    |
| Gender       | 0.299      | 0.48    | 0.011       | 0.02    |
| Age          | -0.176     | -0.22   | 0.149       | 0.25    |
| Education    | -1.074     | -1.53   | -0.795      | -1.54   |
| Earnings     | 0.247      | 0.43    | 0.450       | 1.09    |
| Pseudo R2    | 0.0238     |         |             |         |
| LL           | -126.62664 |         |             |         |
| LR Chi2(10)  | 6.17       |         |             |         |
| Observations | 130        |         |             |         |

| Berated by supervisor |            |         |             |         |
|-----------------------|------------|---------|-------------|---------|
| Variable              | Positional |         | Egalitarian |         |
|                       | Estimate   | z value | Estimate    | z value |
| Intercept             | 1.350      | 1.40    | 2.201***    | 2.72    |
| Employment            | -0.966     | -1.16   | -0.228      | -0.37   |
| Gender                | -0.724     | -1.00   | -0.513      | -0.87   |
| Age                   | -0.726     | -0.76   | -0.546      | -0.69   |
| Education             | -0.469     | -0.56   | -0.269      | -0.40   |
| Earnings              | -0.264     | -0.39   | -0.097      | -0.18   |
| Pseudo R2             | 0.0207     |         |             |         |
| LL                    | -105.27144 |         |             |         |
| LR Chi2(10)           | 4.46       |         |             |         |
| Observations          | 125        |         |             |         |

| Office size  |            |         |             |         |
|--------------|------------|---------|-------------|---------|
| Variable     | Positional |         | Egalitarian |         |
|              | Estimate   | z value | Estimate    | z value |
| Intercept    | -0.678     | -0.86   | 1.036*      | 1.71    |
| Employment   | -0.259     | -0.40   | -0.182      | -0.35   |
| Gender       | 0.969      | 1.63    | 0.471       | 1.01    |
| Age          | -0.507     | -0.65   | -0.955      | -1.55   |
| Education    | -0.311     | -0.46   | -0.361      | -0.67   |
| Earnings     | 0.021      | 0.04    | -0.669      | -1.52   |
| Pseudo R2    | 0.0345     |         |             |         |
| LL           | -129.33253 |         |             |         |
| LR Chi2(10)  | 9.23       |         |             |         |
| Observations | 129        |         |             |         |

Table 2 (continued)

| Illness      |                |         |                |         |
|--------------|----------------|---------|----------------|---------|
| Variable     | Positional     |         | Egalitarian    |         |
|              | Estimate       | z value | Estimate       | z value |
| Intercept    | -2.832**       | -2.22   | 1.552***       | 2.61    |
| Employment   | 0.962          | 1.15    | 0.194          | 0.39    |
| Gender       | 0.887          | 1.16    | <b>-0.850*</b> | -1.82   |
| Age          | <b>2.734**</b> | 2.33    | -0.142         | -0.23   |
| Education    | 1.040          | 1.08    | -0.824         | -1.58   |
| Earnings     | <b>-1.12*</b>  | -1.70   | -0.347         | -0.79   |
| Pseudo R2    | 0.0911         |         |                |         |
| LL           | -111.45896     |         |                |         |
| LR Chi2(10)  | 22.36**        |         |                |         |
| Observations | 127            |         |                |         |

| Car          |            |         |                |         |
|--------------|------------|---------|----------------|---------|
| Variable     | Positional |         | Egalitarian    |         |
|              | Estimate   | z value | Estimate       | z value |
| Intercept    | -0.992     | -1.47   | -0.344         | -0.57   |
| Employment   | -0.072     | -0.12   | 0.273          | 0.50    |
| Gender       | 0.812      | 1.54    | <b>1.010**</b> | 2.04    |
| Age          | 0.222      | 0.32    | 0.225          | 0.36    |
| Education    | 0.262      | 0.43    | -0.124         | -0.23   |
| Earnings     | 0.650      | 1.32    | -0.028         | -0.06   |
| Pseudo R2    | 0.0358     |         |                |         |
| LL           | -136.46072 |         |                |         |
| LR Chi2(10)  | 10.14      |         |                |         |
| Observations | 130        |         |                |         |

| Public praise |               |         |                |         |
|---------------|---------------|---------|----------------|---------|
| Variable      | Positional    |         | Egalitarian    |         |
|               | Estimate      | z value | Estimate       | z value |
| Intercept     | -0.039        | -0.06   | -1.414*        | -1.87   |
| Employment    | 0.372         | 0.63    | 0.781          | 1.20    |
| Gender        | 0.456         | 0.85    | 0.653          | 1.10    |
| Age           | 0.657         | 0.96    | <b>1.604**</b> | 2.05    |
| Education     | -0.120        | -0.21   | 0.389          | 0.58    |
| Earnings      | <b>0.851*</b> | 1.66    | <b>1.137**</b> | 2.03    |
| Pseudo R2     | 0.0417        |         |                |         |
| LL            | -128.1272     |         |                |         |
| LR Chi2(10)   | 11.16         |         |                |         |
| Observations  | 128           |         |                |         |

| Worked hours |                |         |             |         |
|--------------|----------------|---------|-------------|---------|
| Variable     | Positional     |         | Egalitarian |         |
|              | Estimate       | z value | Estimate    | z value |
| Intercept    | -0.890         | -0.71   | 1.860*      | 1.94    |
| Employment   | -0.803         | -0.71   | 0.080       | 0.09    |
| Gender       | 0.814          | 0.77    | -0.032      | -0.04   |
| Age          | 1.772          | 1.18    | 1.495       | 1.14    |
| Education    | -0.483         | -0.42   | 0.007       | 0.01    |
| Earnings     | <b>2.210**</b> | 2.07    | 1.246       | 1.40    |
| Pseudo R2    | 0.0795         |         |             |         |
| LL           | -67.077392     |         |             |         |
| LR Chi2(10)  | 11.58          |         |             |         |
| Observations | 130            |         |             |         |

| Private praise |            |         |               |         |
|----------------|------------|---------|---------------|---------|
| Variable       | Positional |         | Egalitarian   |         |
|                | Estimate   | z value | Estimate      | z value |
| Intercept      | 1.300**    | 2.08    | -1.376        | -1.47   |
| Employment     | -0.081     | -0.15   | <b>1.324*</b> | 1.79    |
| Gender         | 0.181      | 0.38    | 0.044         | 0.07    |
| Age            | -0.643     | -1.01   | 0.797         | 0.87    |
| Education      | -0.726     | -1.29   | -0.114        | -0.15   |
| Earnings       | -0.156     | -0.35   | 0.395         | 0.67    |
| Pseudo R2      | 0.0361     |         |               |         |
| LL             | -122.89516 |         |               |         |
| LR Chi2(10)    | 9.20       |         |               |         |
| Observations   | 128        |         |               |         |

| Traffic jam  |                 |         |                 |         |
|--------------|-----------------|---------|-----------------|---------|
| Variable     | Positional      |         | Egalitarian     |         |
|              | Estimate        | z value | Estimate        | z value |
| Intercept    | -0.171          | -0.18   | 2.035***        | 3.17    |
| Employment   | -0.181          | -0.23   | -0.103          | -0.20   |
| Gender       | -0.262          | -0.34   | <b>1.413***</b> | -3.00   |
| Age          | -0.832          | -0.88   | -0.609          | -0.96   |
| Education    | <b>-1.656**</b> | -2.01   | <b>-1.294**</b> | -2.38   |
| Earnings     | 0.192           | 0.28    | 0.026           | 0.06    |
| Pseudo R2    | 0.0977          |         |                 |         |
| LL           | -106.58699      |         |                 |         |
| LR Chi2(10)  | 23.09**         |         |                 |         |
| Observations | 128             |         |                 |         |

## Appendix 1: Survey instrument (translated from French)

Suppose you are recruited in a multinational firm which, in a context of its activities' development, is locating in Algeria and recruiting several dozens of intermediate managers. This questionnaire aims at understanding your preferences regarding some characteristics of the job. For each question, there are three hypothetical situations A, B and C. You are asked to pick which of the three you would prefer. The word 'colleagues' corresponds to the other employees of the same firm who have similar curriculum vitae (age, diploma, etc.) and are recruited at the same time and position. Notice that except the considered dimension in each question, all other conditions are identical.

Your participation is entirely anonymous. Thank you to answer all the questions as honestly as possible. The questions are independent. There is no right or wrong answer. In other terms, your answers do not affect the decision to recruit you.

*[The order of states varied across surveyed individuals]*

**1. Income:** Considering the cost of living and power purchase of money are the same in the three states, what do you prefer?

- A. Your income is 70 000 DZ per month; colleagues' income is 80 000 DZ per month.
- B. Your income is 60 000 DZ per month; colleagues' income is 50 000 DZ per month.
- C. Your income is 50 000 DZ per month; colleagues' income is 50 000 DZ per month.

**2. Extra wage:** Considering the cost of living and power purchase of money are the same in the three states, what do you prefer in terms of extra wage?

- A. You benefit from the 15<sup>th</sup> monthly wage; your colleagues benefit from the 16<sup>th</sup> monthly wage.
- B. You benefit from the 14<sup>th</sup> monthly wage; your colleagues benefit from the 13<sup>th</sup> monthly wage.
- C. You benefit from the 13<sup>th</sup> monthly wage; your colleagues benefit from the 13<sup>th</sup> monthly wage.

**3. Number of free days:** Other things being equal, what do you prefer?

- A. For the same wage, you have 2 free days/week; your colleagues have 2.5 free days/week.
- B. For the same wage, you have 1.5 free days/week; your colleagues have 1 free day/week.
- C. For the same wage, you have 1 free day/week; your colleagues have 1 free day/week.

**4. Times getting berated by a supervisor:** Other things being equal, what do you prefer?

- A. You are berated in private 5 times/month; your colleagues are berated in private 7 times/month.
- B. You are berated in private 4 times/month; your colleagues are berated in private 3 times/month.
- C. You are berated in private 4 times/month; your colleagues are berated in private 4 times/month.

**5. Size of your office:** Other things being equal, what do you prefer?

- A. Your office is 10 m<sup>2</sup>; your colleagues' offices are 8 m<sup>2</sup>.
- B. Your office is 15 m<sup>2</sup>; your colleagues' offices are 20 m<sup>2</sup>.
- C. Your office is 8 m<sup>2</sup>; your colleagues' offices are 8 m<sup>2</sup>.

**6. Illness:** Other things being equal, what do you prefer?

- A. You are ill 10 days/year; your colleagues are ill 8 days/year.
- B. You are ill 12 days/year; your colleagues are ill 14 days/year.
- C. You are ill 10 days/year; your colleagues are ill 10 days/year.

**7. Number of worked hours:** Other things being equal, what do you prefer?

- A. For the same wage, you work 32h/week; your colleagues work 32h/week.
- B. For the same wage, you work 32h/week; your colleagues work 28h/week.
- C. For the same wage, you work 35h/week; your colleagues work 39h/week.

**8. Company car:** Other things being equal, what do you prefer as a company car (considering BMWs are ranged from the most modest [BMW 1 series] to the most luxurious one [BMW 7 series])?

- A. You have a BMW 5 series; your colleagues have the BMW 7 series.
- B. You have a BMW 1 series; your colleagues have the BMW 1 series.
- C. You have a BMW 3 series; your colleagues have the BMW 1 series.

9. Private praise by a supervisor: Other things being equal, what do you prefer?

- A. You are privately praised 3 times/month; your colleagues are privately praised 2 times/month.
- B. You are privately praised 4 times/month; your colleagues are privately praised 5 times/month.
- C. You are privately praised 2 times/month; your colleagues are privately praised 2 times/month.

10. Public praise by a supervisor: Other things being equal, what do you prefer?

- A. You are publicly praised 3 times/month; your colleagues are publicly praised 2 times/month.
- B. You are publicly praised 2 times/month; your colleagues are publicly praised 2 times/month.
- C. You are publicly praised 4 times/month; your colleagues are publicly praised 5 times/month.

11. Income: Considering the cost of living and power purchase of money are the same in the three states, what do you prefer?

- A. Your income is 25 000 DZ per month; colleagues' income is 25 000 DZ per month.
- B. Your income is 35 000 DZ per month; colleagues' income is 40 000 DZ per month.
- C. Your income is 30 000 DZ per month; colleagues' income is 25 000 DZ per month.

12. Traffic jam when going to work: Other things being equal, what do you prefer?

- A. You spend 40mn/day in traffic jam when going to your work; your colleagues spend 40mn/day.
- B. You spend 60mn/day in traffic jam when going to your work; your colleagues spend 90mn/day.
- C. You spend 40mn/day in traffic jam when going to your work; your colleagues spend 20mn/day.