Chapter 2

Theoretical behavioral analyses of work motivation

The previous chapter has provided us with several facts as regards employment relation which conventional analytical tools hardly explain. It turns out that pTWO[1] give rise to gains in (qualitative and quantitative) performance by means which call into questions the conventional behavioral assumptions of analyses of the employment relation. In theoretical terms, it can be pro…table to the employer to favor incomplete labor contracts although informational and contractual contexts look as propitious to the establishment of "high-powered" incentives. From conventional point of view, such cases lead to e¤ort level which is just equal to the minimum enforceable by employers. Facts suggest that actual e¤ort is scarcely at this minimum. What theoretical explanation can we advance to e¤ort levels exceeding what the employer can impose? How can it be pro…table to moderate the incentives accompanying the employment relation?

As far the relation of agents to e¤ort, conventional analysis relies on two hypothesis: (a) e¤ort is associated with negative marginal utility at all levels of an activity; (b) the marginal utility of e¤ort is exogenously given. Yet, as Falk and Fehr (2002) observe, there is no doubt that people engage in many tasks and activities because they enjoy them. Hence, hypothesis (a) prevent us from understanding the levels at which these tasks are performed, while hypothesis (b) induces us to disregards the potential determinants of the disutility of e¤ort, which is a problem in particular if some of these determinants can be a¤ected by actors.

The theoretical contribution of behavioural approaches of the employment relation can be apprehended as challenging these hypotheses. Beyond the answers this approach allows to the questions raised by pTWO e¢ciency, it comes onto a reconsideration of the role of wage. For the most, the theoretical analyses we present now are direct echoes to the empirical …ndings previously considered.

This chapter comprises three sections. The …rst of them is devoted to behavioral micro analyses of work motivation. Starting from the theme of intrinsic motivation, the problem is to …nd a set of elementary assumptions from which rebuilding individual behaviors at work. The second section addresses theoretical works based on the results of social psychology. The issue is use these results to provide new enlightenment to (macro-

[1] post-Taylorism Work Organizations.

)economic questions. In line with these studies, We isolate recent works by Akerlof and Kranton: their purpose is to introduce the notion of identity as a tool for economic analysis. Corresponding papers are the direct sources of the model we provide from chapter 3, and hence the detailed account we make of them.

2.1 Behavioral microeconomic analyses of work motivation

Behavioral microeconomics attempts to derive individual behaviors from elementary psychological assumptions. These assumptions have to be as fundamental as possible (the seek of pleasure and the avoidance of displeasure, the risk aversion, addiction...). Results of the analysis is the explanation of behaviors as equilibrium outcomes.

In what follows, we leave apart theoretical analyses of reciprocity - such as that of Rabin (1993) - to focus on other determinants, less circumstantial, of the disutility of e¤ort. Works presented below mainly refer to the notion of intrinsic motivation. Let us start by clarifying this notion

2.1.1 Intrinsic motivation and the problem of crowding out

Studies gathered in Frey (1997) provide the bases for the analysis of a problem which has long been neglected by standard labor microeconomics. Providing pecuniary incentives for a task to be completed can crowd initial worker's motivation out. This eventuality refers to a huge literature in psychology dealing with situations where extrinsic incentives crowd out the intrinsic motivation of the subjects in doing certain tasks.[2] Kreps (1997) underlines that such an observation should mostly be relevant as regards employees with high initial levels of intrinsic motivation, when pride derived from ones job is high and the work interesting.

What is intrinsic motivation? Kreps mentions two possible lines when facing this

[2] We present this literature in the section devoted to the form of preferences within the framework of the employment relation.

question. The …rst consists in deeming that what one generally calls intrinsic motivation is simply the worker's responses to fuzzy extrinsic motivators, such as fear of discharge, censure by fellow employees, or even the desire of co-worker's esteem - Bernheim (1994)[3] The second consists in calling into question the hypothesis (a), that e¤ort has strictly negative marginal utility – as suggested in Baron (1988)[4] or Frey (1997). Kreps does not exclude that workers could take su¢ciently pride at work so that an increased e¤ort bring them more utility. How and why can this happen? Does attempting to answer this question require to explore workers' utility functions? Our purpose here is: to present the best answers provided by conventional analyses on the one hand; to discuss the opportunity of calling into question hypothesis (a) on the other hand.

Conventional approaches

Kreps (1997) shows that conventional approaches are not powerless as far the issue of intrinsic motivation crowding out is considered. The whole thing is to accept that some vague incentives pre-exist... that, properly speaking, there is no such things as intrinsic motivation. Let us review some conventional explanations of the intrinsic motivation crowding out phenomenon. We have already mentioned the case of multitasks jobs: new incentives can simply induce a misallocation of e¤ort between the tasks and eventually a lower overall productivity. A second economic rationale considers a single task job but a risk adverse worker. In the absence of clear rules, such an employee can seek to minimize the risk of being …red by overworking. Once a clear e¤ort demand is expressed, the employee can content himself with just doing the required e¤ort. A third explanation involves screening. Suppose that some workers value autonomy more than others; others prefer strong economic incentives. If explicit extrinsic incentives are imposed on the work force, the mix of workers at the …rm will change. If there is correlation between these tastes and speci…c worker abilities, a net drop in certain aspects of productivity could occur. Finally, a fourth explanation is a signalling story. Most employers (even those who

[3] Bernheim, D.B. (1994). "A Theory of Conformity." Journal of Political Economy, 102(5), pp. 841-77.

[4] Baron, J.N. (1988). "The employment relation as a social relation." Journal of Japanese and International Economies, 2, pp. 492-525.

plan to cut and run to some foreign location) want their current employees to believe that a long-term, cordial employment relation is in prospect. Thus an employer that truly plans to stay around may have to "oversignal" with incentives systems that are too expensive for those who plan to cut and run. Shifting to extrinsic (sharp) incentives may signal a change in plans to workers, who may respond with greater levels of opportunism.

Should we reconsider the link between e¤ort and utility?

If previous leads can indeed give an account of some pernicious e¤ects of incentives, they cannot be pretended to provide explanation to psychologists' …ndings such as described in Fehr and Falk (2002). Corresponding experiments place subjects in a situation that has little in common with the theoretical situations reviewed by Kreps. This being so, can/should the economic analysis echo this psychological literature? Is there a need for reassessing the role of e¤ort within individual utility functions? As Fehr and Falk (2002) point it, relying on the hypothesis of a strict disutility of e¤ort is not necessary damaging. If one is only interested in e¤ort change as a result of a change in incentives, the assumption of e¤ort disutility for any level of activity can have no negative impact. The reason is that in economic situations actors typically do receive material rewards for their activities and, therefore, the marginal utility of e¤ort will be negative at the individual optimal e¤ort level. Yet, this argument is valid if marginal utility of e¤ort schedule can be taken exogenous, i.e., the schedule is not a¤ected by the incentives. If the marginal utility of e¤ort is changed by variations in economic incentives, it is no longer possible to predict changes in e¤ort correctly. But this is precisely what psychological …ndings on the crowding out of intrinsic motivation suggests: the disutility of e¤ort is endogenous. Previous considerations actually raise the possibility that pecuniary incentives in‡uence the disutility of e¤ort. This leads Kreps (1997) to advise to take seriously problems of interference between intrinsic motivation and incentives. As regards the leads that could allow a better understanding of this interference, and their consequences, he writes

> The results are likely to be messy. They will involve activities unfamiliar to economics (e.g., theories of how preferences are formed and reformed). But messy or not, they are important and must be pursued.

The studies we now discuss illustrate the behavioral attempts to echo Kreps's recommendation.

2.1.2 Cognitive leads to analyse the employment relation

We now address microeconomic behavioral analyses of the employment relation.

Self-con…dence and work motivation

The model of Bénabou and Tirole (2004a) provides a new light on the impact of performance bonus, monitoring or empowerment on employees' morale and productivity. Their approach relies on three premises. The …rst premise is that people have imperfect knowledge of their own abilities in many of the tasks they face. They therefore study decision-making by an individual who faces uncertainty about his payo¤s from pursuing a certain course of action. The unknown variable could be a characteristic of the individual himself (his talent), of the speci…c task at hand (long-run return), or of the match between the two. Second premise is that the individual is an information processor who extracts from his environment relevant signals, he is fully rational and Bayesian. The third premise is that self-knowledge is relevant to the extent that, in most tasks, ability and e¤ort are complementary factors in the production of performance. Thus, an agent undertakes an activity only if he has su¢cient self-con…dence in his ability to succeed. A consequence of these complementarities is that people interacting with this individual and having a stake in his action have an incentive to manipulate information relevant to his self-knowledge. Bénabou and Tirole consider the role of a principal concerned by the action of an agent.

Both the agent and the principal have private information about the agent's ability to perform a task: for example, the agent knows his ability to accomplish some tasks he performed in the past while the principal has information about the di¢culty of a task the agent has never performed before, the skills it requires. The important point is that the principal may have private information as regards the ability of the agent to perform a speci…c task. Bénabou and Tirole analyse the consequences of this kind of information asymmetry.

General con…dence-management strategies. Let us start by presenting the general idea. The agent selects an action or e¤ort level e that impacts his and the principal's utilities. The principal knows a parameter π, the capacity of the agent to successfully accomplish a task. However, she ignores what is the belief of the agent as regards this parameter, in other words, she ignores his intrinsic motivation. This motivation results from the observation by the agent of a signal σ (unobservable by the principal) which is correlated[5] to π. As a consequence, the incentive b o¤ered by the principal carry information on π to the agent. If $\hat{\pi}(\sigma, b)$ denotes the posterior belief of the agent on his capacity to accomplish the task, the principal, given the conditional distribution σ, maximizes $E_\sigma\left(S\left(e^{\text{¤}}\left(b, \hat{\pi}\left(\sigma, b\right)\right), b\right) \mid \pi\right)$ where $S(.)$ denotes her payo¤. Assuming the solution is interior, the optimal transfer is such that

$$E_\sigma\left[\frac{\partial S}{\partial e^{\text{¤}}}\frac{\partial e^{\text{¤}}}{\partial b} + \frac{\partial S}{\partial e^{\text{¤}}}\frac{\partial e^{\text{¤}}}{\partial \hat{\pi}}\frac{\partial \hat{\pi}}{\partial b} + \frac{\partial \bar{S}}{\partial b} \mid \pi\right] = 0$$

Compared to the standard case, the term $\frac{\partial S}{\partial e^{\text{¤}}}\frac{\partial e^{\text{¤}}}{\partial \hat{\pi}}\frac{\partial \hat{\pi}}{\partial b}$ represents the need for self-con…dence management from the principal. Let us consider two application of this idea.

Self-con…dence. The agent chooses whether to undertake an activity or task (exert e¤ort) or not (exert no e¤ort). His disutility or cost of undertaking the task is denoted $\psi > 0$. If the task is successful it yields direct payo¤ $V > 0$ to the agent and $W > 0$ to the principal; if it fails, both get 0. Success requires e¤ort; yet e¤ort is not su¢cient for success. Let $\pi \in [0,1]$ denote the probability of success when the agent works. The principal is assumed to know perfectly π. The agent knows π is drawn from a cumulative distribution function $F(.)$ with density $f(.)$, and learns a signal $\sigma \in [0,1]$ with conditional cumulative distribution $G(. \mid \pi)$ and positive conditional density $g(. \mid \pi)$. Higher σ is assumed "good news", in the sense that the expectation $E(\pi \mid \sigma, I)$ is weakly increasing in σ for any information I the agent may have besides σ. It is further assumed the monotone likelihood ratio property (MLRP): for all σ_1 and σ_2 such that $\sigma_1 > \sigma_2$, $\frac{g(\sigma_1 \mid \pi)}{g(\sigma_2 \mid \pi)}$ is increasing in π.

[5] The timing is thus the following: the principal selects a bonus b; the agent, after observing the bonus chosen by the principal and learning σ, chooses e.

The principal is allowed to select a bonus $b < W$ in case of success. Thus the agent's (respectively, the principal's) total bene…t in case of success is $V + b$ (respectively, $W ¡ b$), while both parties obtain 0 in case of failure. Were the agent to know the probability of success π, he would choose to exert e¤ort if and only if $\pi (V + b) ¸ \psi$ and the bonus b could only be a positive reinforcer. However, only the principal observes π, the agent only receives a signal σ about π. His self-con…dence is then $\hat{\pi} (\sigma, b) ´ E (\pi | \sigma, b)$ and he accomplishes the e¤ort if $\hat{\pi} (\sigma, b) (V + b) ¸ \psi$. Previous assumptions guarantee there exists a threshold signal $\sigma^{¤} (b)$ such that

$$\hat{\pi} (\sigma, b) ¸ \frac{\psi}{V + b} , \sigma ¸ \sigma^{¤} (b)$$

The principal's payo¤ if she o¤ers the bonus b when her information is π is thus $\pi (1 ¡ G (\sigma^{¤} (b) | \pi)) (W ¡ b)$. Which she maximizes over b.

Let B denote the set of equilibrium bonuses; that is b 2 B , b is an equilibrium o¤er by the principal for some π. If b_1, b_2 2 B and $b_1 < b_2$ then $\sigma^{¤} (b_1) > \sigma^{¤} (b_2)$. Indeed, if this inequality did not hold the principal could, regardless of her information about the probability of success, (weakly) increase the likelihood of e¤ort while o¤ering the lower wage. Therefore b_2 could not be an equilibrium bonus.

As a consequence, a higher bonus is bad news to the agent. Intuitively, the fact that the principal o¤ers a high bonus reveals her concern that the agent receives bad news as regards the probability of success. The agent can infer that π is low. He interprets a given signal with less optimism when the bonus is high.

Intrinsic motivation. The literature on intrinsic versus extrinsic motivation refers to an apparently di¤erent argument: the subject …nds the task less attractive when o¤ered a reward. The same model actually allow to explain the possibility that a bonus crowds out an intrinsic motivation. To see how, let us assume that π is symmetric information. By contrast, the principal knows from previous experience the cost ψ, while the agent only has a signal[6] σ distributed according to $G (. | \psi)$ with the MLRP. An attractive task is one with low ψ, and a high signal σ makes this more likely. The objective function of

[6] Nota: the signal σ is now on ψ.

the principal is then $\pi(1 - G(\sigma^{\alpha}(b)|\psi))(W - b)$ and the agent exerts e¤ort if and only if $\pi(V + b) \geq \hat{\psi}(\sigma, b)$.

The same reasoning as above shows that a higher reward is, in equilibrium, associated with a less attractive task; therefore bonuses reduces intrinsic motivation.

A cognitive version of morale in the workplace

As Bewley (1999) states it, morale is a source of intrinsic motivation. Fang and Moscarini (2003) interpret a worker's moral as his con…dence in her own ability. A worker has "high morale" when he thinks that her e¤ort has a large impact on output; and conversely, a worker is demoralized when he believes that his costly e¤ort is basically useless. In their model, a principal hires many agents to produce output. Each worker's output depends on her own e¤ort and ability but not on those of other workers. E¤ort is not contractible and the ability of each worker is uncertain. As in Bénabou and Tirole (2004a), the principal privately observes a performance evaluation of each workers, which is informative about his ability; and workers observe each other's received contract o¤ers. Fang and Moscarini consider the e¤ects of relative wage comparisons by workers on the perception that they have about their own skills. Incentive contracts play a signalling besides their traditional allocative role, and a¤ect worker incentives through both channels. The …rm can either condition its wage o¤ers on performance evaluations (di¤erentiation policy), or conceal its opinion about workers' abilities by o¤ering the same contract to all employees. Wage di¤erentiation has two e¤ects. The …rst is a sorting e¤ect, which is bene…cial to the …rm by allowing it to tailor incentive contracts to each worker's ability. The second is a morale e¤ect, which is "double-edge sword": on the one hand, wage di¤erentiation breaks bad news to some workers and depresses their morale; on the other hand, it also breaks good news to other workers and boosts their morale. Whether e¤ort and ability be are complements or substitutes, one of the two groups of workers optimally reduce e¤ort simply because of the information they acquire.

This model provide an account of an important stylised fact: wage compression i.e. the fact that wage distribution is less dispersed than the underlying distribution of productivity. The reason would be that workers infer their ability from their relative wage so

that a rational management of morale may require to adopt a non-di¤erentiation policy.

Self-esteem and motivation Although they provide a general model of pro-social behavior, we present in the following the contribution of Bénabou and Tirole (2004b) within the perspective of motivation and employment relation.

Agents considered in Bénabou and Tirole (2004b) are motivated by social and self esteem concerns and their actions play as signals as regards an exogenous type (for instance, grasping or conscientious). We favor the interpretation in terms of self-esteem they make of their model. The hedonic valuations an agent attributes respectively for his productive contribution as such and for his wage (consumption) are given by v_e and v_w. Exerting e¤ort e allow the agent a direct gain amounting to $(v_e + v_w w)\, e$ ¡ $\psi(e)$ where we represents the agent's earnings and $\psi(e)$ the disutility of his e¤ort. An individual's preference type or "identity" (v_e, v_w) is drawn from a continuous distribution on R_+^2. Its realization is private information, known to the agent when he decides how to act. At the time he makes his decision, the individual engages in a self-assessment: "To what extent is my job important in the assessment of who I am? Do I just care about money or is it important to me to do my job properly? What are my values?" This self-assessment, however, may not be perfectly recalled or "accessible" latter on – in fact there will be strong incentives to remember it in a self-serving way. Actions by contrast, are much easier to quantify, record and remember than their underlying motivation, making it rational for an agent to de…ne himself partly through his past choice: "I am the kind of person who behaves in this way". Bénabou and Tirole suppose therefore that the signal is forgotten with probability p and that latter on, the agent cares about his self-image – that is derives utility from his own belief concerning his type: $p(\gamma_e E(v_e | e, w) - \gamma_w E(v_w | e, w))$, with $\gamma_e \geq 0$ and $\gamma_w \geq 0$. The signs of γ_e et γ_w re‡ect the idea that people would like to think of themselves as led by conscientiousness rather than by greed. Agents choose their e¤ort e so as to maximize $(v_e + v_w w)\, e - \psi(e) + p(\gamma_e E(v_e | e, w) - \gamma_w E(v_w | e, w))$. The presence of rewards or punishments creates doubt as to the true motive for which e¤ort is performed, and this "overjusti…cation e¤ect" can result in a net crowding out of intrinsic motivation by extrinsic incentives.

The three latter models provide several responses to the endogeneity to the disutility

of e¤ort. The spirit of the …rst two models is common, it can be expressed in terms of disutility of e¤ort. Contrary to employers, employees do not perfectly observe this disutility. Hence they make e¤ort decisions based on beliefs; these beliefs are a¤ected by wage incentives o¤ered by the employer. Thus, the (belief of) the disutility of e¤ort is actually endogenous. A limit of these models is the very particular structure of the information: employees are usually better informed of their e¤ort aversion than employers. The third model involves a psychological motives: self-esteem. It shows how self-esteem motivation may direct behaviors through the will of agents to self-signalling their type. It can be view as micro-foundation of the preferences we posit in chapter 3.

2.2 Theoretical analyses of the employment relation relying on social psychology

Theoretical behavioral approaches can also consist, from the experimental results of psychology in directly addressing the explanation of (macro-)economic facts. Behavior is the starting point of the analysis, the purpose is to then to draw economic consequences of this individual behavior.

2.2.1 A behavioral e¢ciency wage theory

By providing facts as regards the coexistence of employment security and e¢ciency wage, Osterman (1994) - see the chapter 1 - pleads in favor of Akerlof (1982)'s e¢ciency wage theory. According to Akerlof (1982), the employment relation can partially be understood as a gift exchange between an employee and his employer. Beyond their consumption, employees derive utility from the conformity of their e¤ort to a norm prevailing within the …rm, which represents a "fair" e¤ort. Based on sociological studies, Akerlof makes this "fair" e¤ort depending on: the average wage and satisfaction in the workplace, the minimal enforceable e¤ort[7] which are variables controllable by the employer; on the other

[7] Which represents the e¤ort level that an adequately design incentives mechanism (given constraints as regards observability and veri…ability characterizing the job) can induce.

hand it depends on market conditions (wages that other …rms pay, unemployment rate and bene…ts, for the reference group). According to market conditions, raising employees' remuneration above competitive wage can allow an employer to increase the norm of "fair" e¤ort and hence to obtain an e¤ort higher than the minimum enforceable. This story is clearly based on the assumption that individuals have a propensity to reciprocate.

Akerlof and Yellen (1988, 1990) reformulate and refocus the analysis of Akerlof (1982) on the notion of "fair wage". Employees observe competitive wage level and subjectively elaborate a conception of a "fair wage" from the salaries paid within their reference group. What does the "fair wage" encompass that activate employees' propensity to reciprocate? Akerlof and Yellen (1990) provide a model in with two classes of workers, the one made up of well-paid employees, the other of poorly-paid employees. The idea as regards the setting of the "fair wage" is the following: the low-paid group regard their wage as an average of the wages of the high-paid group in the same …rm (who constitute part of their reference group) and the wages they would be paid if the market cleared. This formulation is a compromise between theories in which market forces completely determine fairness (in which case fair wages and market-clearing wages would exactly coincide) and theories in which sociological theories completely determine fairness (in which case the wages of some reference group would determine the fair wage).

Their model is applied to the issue of unemployment. Beyond a story (among many others) justifying an e¢ciency wage, a crucial contribution of the paper lies on the predictions of the model as regards the relative exposure of di¤erent classes of workers to involuntary unemployment. While workers whose competitive wage is high are paid to this level, those whose competitive wage is low bene…t from an e¢ciency wage. The second class obviously cover the less skilled workers and hence their overexposure to involuntary unemployment.

2.2.2 Social status and relative wage

The analysis of Fershtman and Weiss (1993) starts from the assessment that individual have social status concerns and that the choice of their occupation re‡ects these concerns. Indeed, as several empirical …ndings suggest, it appears that every society can

be associated a social status scale of occupation and that the perception of this scale is shared among individuals in this society.[8] As far industrial societies are considered, the main characteristics of an occupation which in‡uence its status are the average wage $\bar{w}_j$ and the average level of skill $\bar{h}_j$ (or the proportion of skilled workers). z_j denoting the social status of the occupation j, $z_j = z\left(\bar{w}_j, \bar{h}_j\right)$ where $z(.)$ is increasing in both its arguments. The utility of the agent in the job j include two arguments $u(w_j, z_j)$. Fershtman and Weiss (1993) consider the properties of the social status an occupation provides as a collective good: a highly skilled worker adopting occupation j represents a positive externality to all the agents in this occupation. This externality a¤ects education choices, the repartition of agents between occupations and eventually macroeconomic performances.

Fershtman, Hvide and Weiss (2002) apply a similar argument (relative wage concerns) to the issue of CEO compensation. Their argument however seems us as being more generally applicable to the compensation of the employees of a work group. Indeed, the starting point of their idea deals with the violation of the informativeness principle[9] by the actual labor contracts. To the extent that the performance of an employee depend of productive random shocks a¤ecting the whole working group, employers should propose transfers contingent upon other workers' performance. As a consequence, a negative correlation should exist between various employees compensation... which is scarcely the case as regards facts. Taking into account concerns of social status brings a reason of why there can be a positive correlation between those compensations.

2.2.3 Mood, motivation and e¤ort at work: the theoretical analysis of Bewley (1999)

Bewley (1999) provides a model aiming at including labor psychology arguments. We present here a simpli…ed version within the framework of a Principal-Agent relation. The actual productive activity of an agent is assumed to depend on his decision d and on his mood m: $e = e(d, m)$. The agent is unconscious of the role of his mood on his productive activity. Let us assume that it is also the case for the principal i.e. that the latter

[8] See the empirical supports for this line in chapter 1.
[9] See section 1.1.1 of the current chapter.

takes m as a given parameter. If $S(e) - w$ represents the net surplus of the principal, considering the agent's mood as …xed to m_0, the principal solves $\max_{d,w} S(e(d, m_0)) - w$ subject to the participation constraint $u(w, d, m_0) \geq u_1$ where u_1 represents the reservation utility of the agent. Let (w_1, d_1) be a solution of this problem. Bewley suggests that people unconsciously adjust their mood and general state of mobilization so that to solve $\max_m u(w_1, d_1, m)$. The agent's actual productive contribution set to $e(d_1, m^{\alpha}(w_1, d_1))$ which is obviously not necessary equal to $e(d_1, m_0)$. A forewarned principal solves $\max_{d,w} S(e(d, m^{\alpha}(w, d))) - w$ subject to $u(w, d, m^{\alpha}(w, d)) \geq u_1$: participation constraint is then not necessary binding in the optimum! This explains that employer be not so prompt to take advantage of a slack labor market: we should observe downward rigidity.

Here are presented what we believe are good illustrations of the renewal brought by behavioral approaches to the understanding of the employment relation: making motivation endogenous. As we have just seen, this understanding appears as requiring a reconsideration of the form of individual preferences within the employment relation.

There exists many studies of employment relations that already assume non-standard preferences. For instance, some of them, studying the e¢ciency of public good supplying, consider agents directly concerned with collective ideals - Dixit (2000, 2001), Besley and Ghatak (2003), Dewatripont, Jewitt and Tirole (1999). Should we come to think that idealistic concerns be peculiar to public sector workers? We would rather incline wondering about the determinants, common to all working persons conditioning how they feel about their job. Akerlof and Kranton (2000) seek for a transversal argument in the notion of identity.

2.3 The notion of identity as a tool for economic analysis

The purpose of this section is to introduce the Akerlof-Kranton methodology, their modelling of the notion of identity and the results their analyses achieve. Indeed, the notion of identity can give an account to many phenomena that conventional economics cannot well

explain. From their paper of 2000, Akerlof and Kranton have developed a methodology allowing the introduction of identity in economic analysis. We present their contribution in three steps. The …rst two steps are devoted to their initial paper: we present the general model and its …rst applications. We particularly stress on the analysis they provide of role of gender stereotypes in occupational segregation characterizing the labor market: this issue is indeed closely related to what is developed in next chapters. The third step is devoted to the presentation of Akerlof and Kranton (2005) which applies their model to the issue of corporate culture. It is about making explicit the role of identi…cation processes in e¤ort incentives.

2.3.1 The link between identity and utility

The link between identity and utility is based on a series of statements putting forward the social embeddedness of interactions. On the basis of Akerlof and Kranton (2000)'s model is the idea that observable social di¤erence between individuals gives rise to abstract social categories (which are to be understood as categories of perception). These categories are associated with di¤erent ideal physical attributes and prescribed behaviors. Following these behavioral prescriptions (corresponding for instance to a gender identity) a¢rms one's self-image, an identity. Violating the prescriptions evokes anxiety and discomfort in oneself an in others. Identity, then, changes the "payo¤s" from di¤erent actions. Social psychology provides evidence that: (1) people have identity-based payo¤s from their own actions; (2) they have identity-based payo¤s derived from others' actions; (3) third parties can generate persistent changes in these payo¤s; and (4) some people may choose their identity, but choice may be proscribed for others. We come again on this assessment in the following. Akerlof and Kranton stress on the new kind of externality implied by (2): a person's actions may have a meaning to others and provoke responses from them. This externality is the heart of their contribution.

A utility function with identity

Agents' interactions are embedded into a social context. Let N denote a set of agents, each one indexed by i; C the set of available social categories. Each agent i has an

assignment of people to the categories in C. This assignment, denoted $\mathbf{c}_i$, writes: $\mathbf{c}_i = (c_i(k))_{k \in \mathbb{N}}$ where, for all $k \in \mathbb{N}$, $c_i(k) \in 2^C$. This vector is subjective, that is, two distinct individuals can assign di¤erent subsets of social categories to a same third agent. Di¤erent social categories may have higher or lower status.

Assignments drive expected behaviors through a prescription correspondence. Prescriptions **P** indicate the behavior appropriate for people in di¤erent social categories in di¤erent situations. The prescriptions may also describe an ideal for each category in terms of physical characteristics and other attributes.

Given an interaction and a vector of actions $a = (a_i, a_{-i})$, Akerlof and Kranton propose the following utility function $U_i = U_i(a; I_i)$ where I_i, the level of agent i's self-esteem, is determined as $I_i = I_i(a; \mathbf{c}_i, \theta_i, \mathbf{P})$. Hence, agent i's self-esteem mainly depends on his assigned social categories $\mathbf{c}_i$: what image does he have of himself and others? That relatively to this image that i determines: 1) the proximity of his characteristics θ_i to the ideal attributes of his self-assignment $c_i(i)$; 2) the proximity of the vector a to the behaviors prescribed by **P**.

In the simplest case, an individual i chooses action a_i to maximize utility, taking $\mathbf{c}_i, \theta_i, \mathbf{P}$ as given. Akerlof and Kranton also posit that beyond action, to some extent an individual may choose the category assignment $\mathbf{c}_i$. Social categories may be more or less ascriptive, and in general, the individual is likely to have some choice over identity.

Evidence supporting this formalization

Let us mention the empirical justi…cation Akerlof and Kranton posit.

Psychology and experiments on group identi…cation. According to Akerlof and Kranton, psychological results suggest that identity is an argument of utility. Experiments in social psychology demonstrate that even arbitrary social categorizations a¤ect behavior. "Groups" form by nothing more than random assignment of subjects to labels, such as even or odd. Subjects are more likely to give rewards to those with the same label than to those with other labels, even when choices are anonymous and have no impact on own payo¤s. In these experiments, as in Akerof and Kranton utility function, there are social categories, there is an assignment of subjects to those social categories,

subjects have in mind some form of assignment-related prescriptions (else rewards would not depend on group assignment).

Examples of identity-related behavior. Akerlof and Kranton present a set of examples of the four di¤erent ways (1) to (4) that identity may in‡uence behavior.

(1) People have identity-related payo¤s from their own actions. Some behaviors illustrate such assertion: a) tattooing, body-piercing, hair conking, self-starvation, steroid abuse, plastic surgery all yield physical markers of belonging to more or less explicit social categories and groups; b) because trial lawyers are viewed as masculine, nurses as feminine, and a Marine as the ultimate man, people in these occupations but of the opposite sex often have ambiguous feelings about their work; c) alumni giving.

(2) People have identity-related payo¤s from others' actions. Some behaviors to illustrate this assessment: a) a women working in a "man's" job may make male colleagues feel less like "men"; b) for a man, an action may be viewed as an insult which, if left unanswered, impugns his masculinity; c) because of i's identi…cation with others, it may a¤ect i's identity when another person in i's social category violates prescriptions or becomes a di¤erent person.

(3) Third parties can generate persistent changes in these payo¤s. Some examples are: (a) advertising often promote an image of the ideal man or woman; (b) graduate and professional programs try to mold students' behavior through a change in identity; (c) politics is often a battle over identity, rather than take preferences as given, political leaders and activists often strive to change a population's preferences through a change in identity or prescriptions.

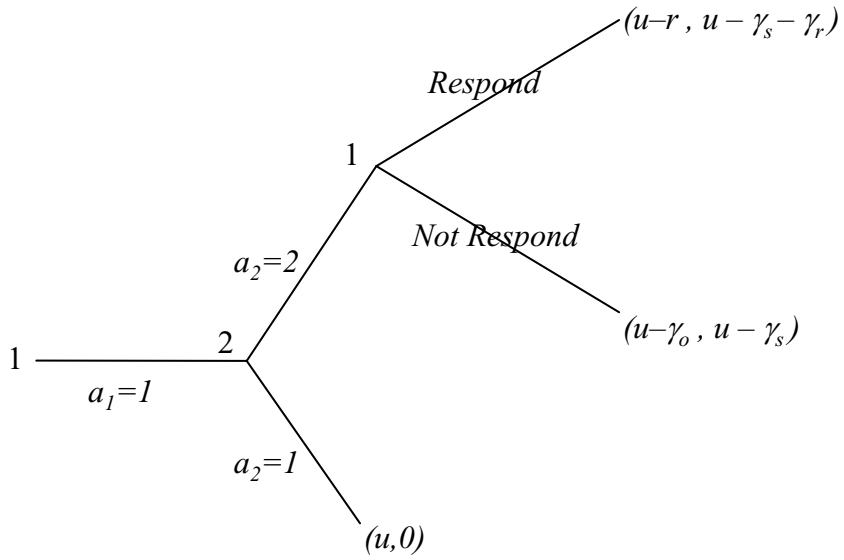
(4) To some extent, people choose their identity. Examples: a) women can choose either to be a career woman or a housewife; b) parents often choose a school to in‡uence a child's self-image, identi…cation with others, and behavior; c) the choice for an immigrant to become a citizen is not only a change in legal status but a change in identity, the decision is thus often fraught with ambivalence, anxiety, and even guilt.

A prototype model. Each agent i in N = f1, 2g must choose between two activities a_i 2 f1, 2g. Let us assume agent i prefers activity i. The utility attached by action a_i in

itself is de…ned as

$$u_i(a_i) = \begin{cases} u > 0 \text{ if } a_i = i \\ 0 \text{ otherwise} \end{cases}$$

The set of social categories is given by $C = \{A, B\}$. It is assumed that $\forall i, i' \in \{1, 2\}, i' \neq i : c_i(i') = A$. Prescriptions are that a A must engage in activity 1. Anyone who chooses activity 2 is not a "true" A which induce a loss in utility $\gamma_s > 0$. There are identity externalities. The fact that agent i chooses activity 2 diminish i''s ($\neq i$) utility by $\gamma_o > 0$. Assuming that i has committed to activity 2, i' may "respond." The response restores i''s self-esteem at a cost r, while entailing a loss to i in amount $\gamma_r > 0$. The game tree of the interaction is



An identity interaction.

Akerlof and Kranton view this model as relying on ideas central to the psychology. In personality development, psychologists agree on the importance of internalization of rules for behavior; on the importance of anxiety that a person experiences when she violates her internalized rules. In the above model, person 2's internalization of prescriptions causes her to su¤er a loss in utility of γ_s if she chooses activity 2. Identi…cation is a critical part

of this internalization process: a person learns a set of values (prescriptions) such that her actions should conform with the behavior of some people and contrast with that of others. That is because agent 1 has internalized prescriptions via such identi…cations, that agent 2's violation of the prescription will cause anxiety for agent 1 (loss γ_o). Agent 1's possible response (at cost r) restores her identity: aggressiveness is a way to reduce anxiety. Another basis for the model is the psychology of cognitive dissonance. When agent 2 engages in activity 2, she challenges the validity of agent 1's beliefs, and agent 1 su¤ers from cognitive dissonance. To remove this dissonance, agent 1 may act against agent 2. Various extensions are mentioned by Akerlof and Kranton among which that people could choose - more or less consciously - their identities as well as their activities.

The model is applied to several empirical issues: this leads to renewed economic analyses.

2.3.2 Socio-demographic identities and employment

In this presentation, we favor two applications: the issue of gender identities in the workplace and that of social exclusion. The …rst is directly related to the developments in the next chapters while the second illustrate the endogeneity of preferences as involved by the choice of an identity.

Gender identity in the workplace

Akerlof and Kranton provide an identity theory of gender in the workplace which expands the economic analysis of occupational segregation. The problem is the following. As recently as 1970, two-thirds of the United States' female or male labor force would have had to switch jobs to achieve occupational parity. This measure of occupational segregation remained virtually unchanged since the beginning of the century. Yet in twenty years, from 1970 to 1990, this …gure decline to 53%.

Their analysis is based on the observation that occupation are associated with the social categories "man" and "woman," and that individual payo¤s from di¤erent types of work re‡ect these gender associations. Their model explains patterns of occupational segregation that previous models have eluded. It also directly captures the consequences

of the women's movement and a¤ords a new economic interpretation of sex discrimination law. Identity also provides micro foundations for models which remained ad hoc - see the models of discrimination à la Becker; in particular, women's assumed lower desire for labor force participation - as in Mincer and Polachek (1974),[10] Bulow and Summers (1986),[11] and Lazear and Rosen (1990)[12] - can be understood as the result of their identity as homemakers.

The model. There are two social categories, "men" and "women," with prescriptions of appropriate activities for each. A …rm wishes to hire labor to perform a task. By the initial prescriptions, this task is appropriate only for men; it is a "man's job." Relative to a "woman's job," women lose identity in amount γ_s by performing such work. In this situation, male co-workers su¤er a loss γ_o They may relieve their anxiety by taking action against women co-workers, reducing everyone's productivity. To avoid these productivity losses, the …rm may change gender-job associations at a cost. The …rm is likely to create a "woman's job" alongside the "man's job," rather than render the whole task gender neutral, when a new job description can piggyback on existing notions of male and female.

Akerlof and Kranton illustrate their argument with an historical example. In the nineteenth century, Horace Mann (as Secretary of Education for Massachusetts) transformed elementary school teaching into a woman's job, arguing that women were "more mild and gentle," "of purer morals," with "stronger parental impulses." Secondary school teaching and school administration remained for men.

The model easily extends to the decision to participate in the labor force. If women's self-esteem is enhanced by work inside the home, they will have lower labor force attachment than men.

E¤ects of the women's movement. The model gives a theoretical structure for how the women's movement may have impacted the labor market. The movement's goal

[10] Mincer, J. and S. Polachek (1974). "Family investments in human capital: earnings of women." Journal of Political Economy, 82, pp. S76-S108.

[11] Bulow, J.I., and L.H. Summers (1986). "A theory of dual labor markets with application to industrial policy, discrimination and keynesian unemployment." Journal of Labor Economics, 4, pp. 376-415.

[12] Lazear, E.P. and S. Rosen (1990). "Male-female wage di¤erentials in job ladders." Journal of Labor Economics, 8, pp. S106-S123.

included reshaping societal notions of feminity (and masculinity) and removing gender associations from tasks, both in the home and in the workplace. In the model, such changes would decrease women's gains (men's losses) in self-esteem from homemaking, and decrease the identity loss γ_s of women (men) working in traditionally men's (women's) jobs, as well as the accompanying externalities γ_o. These shifts would increase women's labor force participation and lead to a convergence of male and female job tenure rates. More women (men) would work in previously male (female) jobs. And actually, of the three explanations for such increases - technology, endowments, and tastes - elimination makes tastes the more convincing, since there was no dramatic change in technology or endowments that would have caused such increased mixing job.

Community identity, exclusion and poverty

Akerlof and Kranton (2000) consider the impact of community attachment of individuals on their economic achievement. People belonging to poor, socially excluded groups choose their identity. Choosing identity A is identifying with dominant culture, while choosing identity B is rejecting it and the subordinate position assigned to those of their "race," class, or ethnicity. Much literature on identity and social exclusion actually argues that dominant groups de…ne themselves vis-à-vis "other(s)," and members of the dominant (resp. excluded) groups bene…t (resp. lose) - materially and psychologically - from the di¤erentiation.

From the point of view of those with the identity A, B are often making bad economic decisions, they can even be described as engaging in self-destructive behavior. Taking drugs, joining a gang, and becoming pregnant at a young age are possible signs of B identity. This aspect of behavior is implicit in every study that …nd signi…cant dummy variables for "race," after adjustment for other measures of socio-economic status. Akerlof and Kranton's model o¤ers an explanation for the signi…cance of such dummy variables.

Motivation for the model. The model re‡ects the many accounts of "oppositional" identities in poor neighborhoods - see references in Akerlof and Kranton (2000). It further evokes the psychological e¤ects of social exclusion. Individuals from particular groups can never fully …t the ideal type, the ideal A of the dominant culture. Some in excluded

groups may try to "pass" or integrate with the dominant group, but they do so with ambivalence and limited success. Social exclusion may create a con‡ict: how to work within the dominant culture without betraying oneself?

Lack of economic opportunity may also contribute to the choice of an oppositional identity. Wilson (1987, 1996)[13] underscores the relation between the decline in remunerative unskilled jobs, the loss of self-esteem by men who cannot support their families, and the rise of inner city crime and drug abuse.

Antisocial activities of agent holding the identity B have negative pecuniary externalities. In Akerlof and Kranton's model there are also identity-based externalities. A B is angered by a A' complicity with the dominant culture, while the A is angered by a B's "breaking the rules."

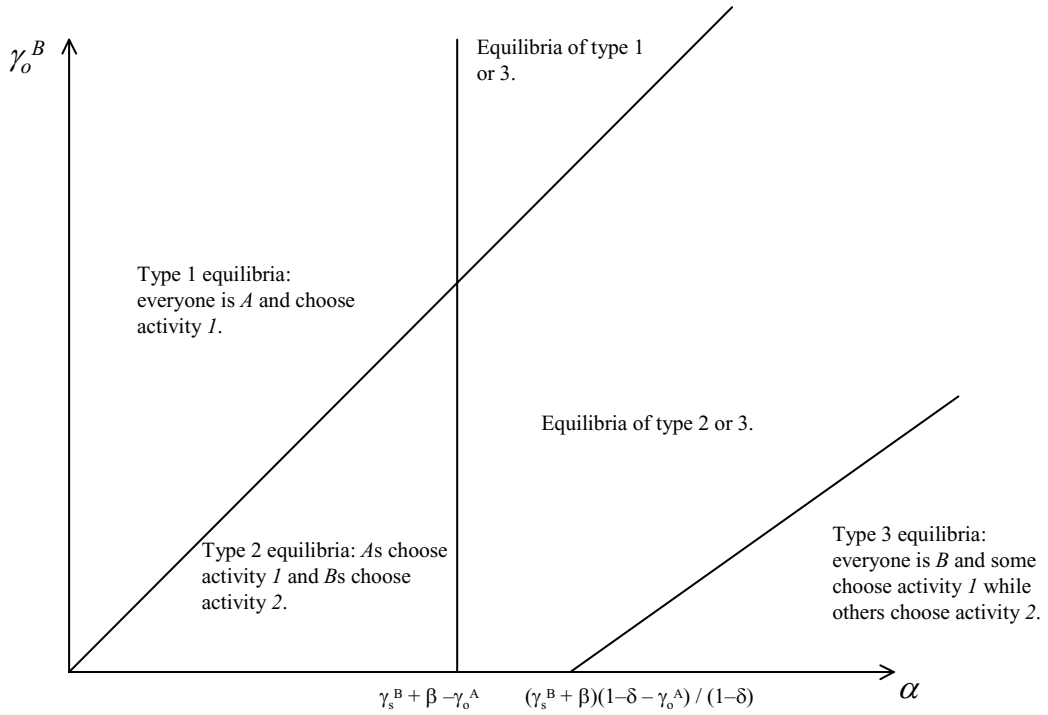
The model. As in the prototype model, there are two activities, 1 and 2. Activity 1 can be thought of as "working" and activity 2 as "not working". There is a large community, normalized to size one, of individuals. The economic return to activity 1 for individual i is w_i which is assumed to be uniformly distributed on $[0,1]$. The economic return to activity 2 is normalized to 0. An agent holding the identity A su¤ers a loss in identity α 2 $]0,1[$, representing the extent to which someone from this community is not accepted by the dominant group society. Those with the less adaptative B identity do not su¤er this loss. Behavioral prescriptions say that agents holding the identity A (resp. B) should engage in activity 1 (resp. 2). Thus, a A (resp. B) loses self-esteem from activity 2 (resp. 1) in amount γ_s^A 2 $]0,1[$ (resp. γ_s^B 2 $]0,1[$). Because, agents holding the identity B reject the dominant A culture, they are also likely to have lower economic returns to activity 1 than agents holding the identity A. A B individual i will only earn w_i ¡ β where β 2 $]0,1[$ from activity 1, as well as su¤er the loss γ_s^B. There are also identity externalities when A and B meet. A A (resp. B) su¤ers a loss γ_o^A ¡ γ_o^B¢. In addition, B who have chosen activity 2 impose a pecuniary externality δ on those who have chosen activity 1.

Each person i chooses an identity and activity, given the choices of everyone else in the

[13] Wilson, W.J. (1987). The truly disadvantaged. Chicago, IL: University of Chicago Press.
Wilson, W.J. (1996). When work disappears: the world of the new urban poor. New York: Knopf.

community. It is assumed that people cannot modify their identity or activity for each individual encounter. Rather, individuals choose an identity and activity to maximize expected payo¤s, given the probabilities of encounters with A who choose activity 1, A who choose 2, B who choose 1, and B who choose 2.

For $\gamma_s^A > \delta$ and $\gamma_s^B + \beta + \delta < 1$, the set of equilibria is depicted in the next graph. Equilibria of this model show how social interaction within the community and social exclusion from the dominant group determine the prevalence of B identities and activity 2 behaviors.



The fact that choosing the identity B and the activity 2 can be an equilibrium strategy is clearly beyond what conventional analyses excluding self-esteem motivations could predict. The "self-destructive" B behavior is not the result of individual "irrationality", but instead derives from low economic endowments and a high degree of social exclusion. Comparative statics on equilibria of type 2 captures Wilson (1987, 1996) analysis of ghetto poverty. An out-migration of the middle class (those with high returns w_i in the model) will result in further adoption of B identities among the remaining population

(Equilibria of type 3).

In their conclusion, Akerlof and Kranton insist on the economic impact of a choice of identity for individuals:

> In a world of social di¤erence, one of the most important economic decisions that an individual makes may be the type of person to be. Limits on this choice would also be critical determinants of economic behavior, opportunity, and well-being. Akerlof and Kranton (2000, p. 748).

The study we present below is an adequate introduction to our own analysis.

2.3.3 Identity and the economics of organization: the theme of corporate culture

The starting point of Akerlof and Kranton (2005) is the observation that a source of motivation is missing from current economic models of organizations: identity. According to them, within …rms notably, some organizational features can change the way people see themselves: they can become part of the organization and internalize its rules. Such identi…cation, or lack of it, plays a critical role in determination of work e¤ort, incentive schemes, and organizational design. Two models or built. Here, we are mostly interested by the …rst which shows the most elementary addition of self-esteem motivations to a standard principal-agent model. It models organizations' ability to motivate their employees through identi…cation. Yet a second model allow workers to identify with their work group rather than with the organization as a whole. In this case, organizational policy involves a trade-o¤ - which is in fact a choice as regards work organization (see chapter 1). The …rm can introduce a supervisor who reports on worker's actions. With more information, the …rm can reduce the incentive pay it gives its workers. On the other hand, introducing a supervisor creates a rift within the …rm, and workers are less likely to identify with the …rm and its goals. This trade-o¤ obviously evokes the choice between Taylorism and post-Taylorism work organization in section 1, chapter 1.

The model mainly uses empirical results on work and identity from the psychology of organizations as reviewed by Haslam (2001). Considering the bounds of current economic

literature on incentive, Akerlof and Kranton view their approach as a natural counterpart. If monetary incentives do not work, what does? They describe why workers might act in a …rm's interest, even when they have many chances to behave opportunistically.

Identity within organizations

A simple principal-agent model with identity is posited. The agent could identify with the organization. The situation is a case of moral hazard where the agent exerts e¤ort $e \in \{\overline{e}, \underline{e}\}, \overline{e} > \underline{e}$. Revenues are random and conditional on the agent's action: $q \in \{\underline{q}, \overline{q}\}$ with $\Pr(q = \overline{q} \mid e = \overline{e}) = \frac{1}{2}$ while $\Pr(q = \overline{q} \mid e = \underline{e}) = 0$. When bene…ting a wage w, the agent's overall economic utility is simply $u(w) - e$ with $u(w) = \ln w$. The agent also derives utility from self-esteem. The set of social categories is $C = \{N, O\}$ where N denotes the identity of those people who think of themselves as part of the …rm and O that of those who think of themselves as not a part of the …rm. Although potentially misleading, Akerlof and Kranton describe the …rst as "insiders", the second as "outsiders". Prescriptions state that $e_N = \overline{e}$ and $e_O = \underline{e}$ so that the global utility of an agent with identity c writes

$$U_c(w, e) = \ln w - e + I_c - \gamma_c |e_c - e| \qquad \text{where } c \in \{N, O\}$$

$I_c - \gamma_c |e_c - e|$ representing the speci…cation of utility from identity the agent derives from belonging to social category c. The utility of reservation is denoted $U^{out} > 0$.

The question is whether a principal will …nd it pro…table to invest in "motivational capital" and change a worker's identity from an outsider O to an insider N at a cost $m > 0$. For a worker with identity c, the principal's expected pro…ts are then: $\frac{1}{2}\left[\overline{q} + \underline{q}\right] - \frac{1}{2}(\overline{w}_c + \underline{w}_c)$. She programs

$$\max_{(\overline{w}_c, \underline{w}_c)} \frac{1}{2}\left[\overline{q} + \underline{q}\right] - \frac{1}{2}(\overline{w}_c + \underline{w}_c)$$

subject to the usual participation and incentive constraints

$$\begin{aligned}
&\frac{1}{2}\ln\overline{w}_c + \frac{1}{2}\ln\underline{w}_c - \left[\overline{e} + I_c - \gamma_c\left|e_c - \overline{e}\right|\right] \quad , \quad \ln\underline{w}_c - \left[\underline{e} + I_c - \gamma_c\left|e_c - \underline{e}\right|\right] \\
&\frac{1}{2}\ln\overline{w}_c + \frac{1}{2}\ln\underline{w}_c - \left[\overline{e} + I_c - \gamma_c\left|e_c - \overline{e}\right|\right] \quad , \quad U^{out}
\end{aligned}$$

One can see in these constraints the reason why the principal could prefer a worker with identity N. A N feels that he should act in the interest of the …rm. Hence, for $\gamma_N > 0$, a N loses utility when he exerts $\underline{e}$. This loss loosens the agent's incentive constraint, and the principal can pay wages with less variation to induce the agent to exert $\overline{e}$. In addition, when $I_N > I_O$ the worker directly gains utility from being a N, and this utility gain loosens the participation constraint.

The principal induces e¤ort $e = \overline{e}$ whatever the agent's identity. When all constraints are binding ($\gamma_N \cdot 1$), the optimal wages are

$$\begin{aligned}
\ln\underline{w}_c &= U^{out} - I_c + \underline{e} - \gamma_c\left|e_c - \underline{e}\right| \\
\ln\overline{w}_c &= U^{out} - I_c + 2\overline{e} - \underline{e} + 2\gamma_c\left|e_c - \overline{e}\right| + \gamma_c\left|e_c - \underline{e}\right|
\end{aligned}$$

and hence, the optimal wages for an O agent

$$\begin{aligned}
\underline{w}_O &= \exp\left[U^{out} - I_O + \underline{e}\right] \\
\overline{w}_O &= \exp\left[U^{out} - I_O + \underline{e} + 2\left(1 + \gamma_O\right)\left(\overline{e} - \underline{e}\right)\right]
\end{aligned}$$

and the optimal wages for an N agent

$$\begin{aligned}
\underline{w}_N &= \exp\left[U^{out} - I_N + \overline{e} - \left(1 - \gamma_N\right)\left(\overline{e} - \underline{e}\right)\right] \\
\overline{w}_N &= \exp\left[U^{out} - I_N + \overline{e} + \left(1 - \gamma_N\right)\left(\overline{e} - \underline{e}\right)\right]
\end{aligned}$$

We thus see that the wages for an O agent always involve less variation than for an

N agent. Indeed,[14] since $2(1+\gamma_O)(\overline{e}-\underline{e}) > 2(1-\gamma_N)(\overline{e}-\underline{e})$, inducing the identity N allows to save in insurance: this represents a gain in efficiency (a reduction of the costs of moral hazard). Akerlof and Kranton give a definition of the return of motivational capital. Denoting $V_c^{\square}$ the profit of the firm when employees have the identity c, and r the interest rate, the value of the stream of the firm's additional earnings when it pays m to change workers' identity will be $\frac{V_N^{\square}-V_O^{\square}}{r}$. For $m < \frac{V_N^{\square}-V_O^{\square}}{r}$, the optimal choice is to invest in motivational capital. In this partial equilibrium model, the returns to an additional unit of motivational capital will accrue totally to the individual firm. Whether the worker is a N or a O, he earns U^{out}. In general equilibrium, additional motivational capital will increase the demand for workers and thus increase U^{out}: some of the returns to the additional capital will accrue to firms, but some will accrue to workers.

Illustrating examples

Akerlof and Kranton (2005) examine the extent to which the model applies to the workplace. To many managers identity is central to employee motivation. They briefly review management theories and techniques suggested to enhance performance, and examine sociological and ethnographic literature that further supports their assumption that firms try to mold workers' identity.

Since the 1930's management theory has moved away from Taylorism and has increasingly emphasized employee self-motivation, especially in jobs that are hard to monitor (see chapter 1). According to this school of thought, if employees are given a role in setting their own goals (management by objective) or if the organization itself has a goal that gives the workers pride in their work, such as attainment of high standards of quality, their identification with the job will lead them to perform. The literature thus sees the costs of motivating workers by monetary incentives and advocates reduction of Those costs by inducing workers to take on the goals of management - which in terms of Akerlof and Kranton's model is an investment m to turn employees from O to N.

A study of accountants - Covaleski, Dirsmith, Heian, and Samuel (1998)[15] - describes

[14] $\ln\overline{w}_O - \ln\underline{w}_O > \ln\overline{w}_N - \ln\underline{w}_N$.

[15] Covaleski, M.A., M.W. Dirsmith, J.B. Heian and S. Samuel (1998). "The calculated and the avowed: techniques of discipline and struggles over identity in big six accounting firms." Administrative Science

how management by objectives (MbO) can enhance worker motivation. In MbO, employees meet with supervision to set mutually performance goals. Standard economic analysis would view MbO as a disciplinary device; the measurable standards of performance set for each worker are the bases for reward and punishment. But Covaleski et al. emphasize a di¤erent e¤ect: these goals are subsequently internalized by employees. They report that employees believe themselves more "energized" by achievement and recognition than by …nancial rewards - Covaleski et al. (1998, p. 313).

According to Akerlof and Kranton (2005), motivation and identi…cation with the …rm is not only important to professionals, it is also to workers far down the occupational ladder, whose job are dead-end and boring. They mention problems that can arise when workers do not feel they are part of the organization. Hodson (2001),[16] show workers would like to take pride in their jobs and are angered - and may do damage - when management does not respect their e¤orts. Several examples are examined. One of them is about a worker who resents the way his managers treat him but, for fear of losing his job, he shows only minor resistance: this worker is an outsider who exerts $\overline{e}$ rather than $\underline{e}$ because of the monetary rewards. Also, corresponding to the model, he loses utility, in amount $\gamma_O(\overline{e} - \underline{e})$, as a result. His expressions of hostility both on the job, and also o¤ of it, are a way of partially restoring this loss of identity - see the prototype model previously presented. Remarkably, even in the pecuniary branch of the model, identity does not lie totally dormant: its consequences can be seen.

A di¢culty in Akerlof and Kranton (2005) seems us to rely on some methodological ambiguities in their models. Indeed, contrary to the analyses provided by Akerlof and Kranton (2000), preferences integrity does not look respected in the previous model: one leaves individualism paradigm. The gap does not rely on an opposition between individualistic behavior and concerns for conformity, it relies on the fact that individual preferences could confound with …rms interest.

Quarterly, 43(2), Special issue: critical perspectives on organizational control, pp.293-327.

[16] Hodson, R. (2001). Dignity at work. Cambridge, England: Cambridge University Press.

Summary and conclusion

This chapter was devoted to the presentation of theoretical behavioral approaches to the employment relation that we believe echo the empirical concerns raised in chapter 1. Works in the previous development have in common to endogenize the disutility of e¤ort. Microeconomic analyses revolve around the notion of intrinsic motivation and study the ways high-powered incentives could crowd out such a motivation. Cognitive foundation are provided to psychological notions such as self-con…dence and themes such as self-signalling strategies establish a link between individuals' action and their self-esteem. Yet, to account for facts, these models require arbitrary hypotheses as regards the hedonic purposes of working persons. An alternative approach (that of behavioral macroeconomics) consist in directly applying the results of psychology to (macro-)economic issues. Works by Akerlof and co-authors represent this approach: the purpose is to connect economic and sociologic mechanisms, to put various motives of action (narrow self interest, norms) into dialogue. This leads Akerlof and Kranton to suggest identity as a tool for economic analysis. Applied to the issue of employment relation, this allow to address the theme of corporate culture and to provide a precise foundation to such mechanisms as those invoked in Kandel and Lazear (1992) mentioned in chapter 1. Akerlof and Kranton's analyses put the stress on the notion of identity externalities. But identity is also a speci…c way to address the endogeneity of preferences within the employment relation. As long as choices are about physiological well-being arguments (consumption, health,...) one can recognize that preferences be stable from one individual to the other. When choices are about more psychological well-being arguments (status, feelings of achievement,...) the issue of how preferences are formed raised di¤erently. The range of the things to which an individual can give value is a priori large, and, in an applied economics perspectives, the notion of identity such as introduced by Akerlof and Kranton allow to make explicit a channel by which social experiences frame the form of preferences.

The idea that agents, to some extent, can choose their identity (the form of their preferences) is particularly useful. First, the assumption of a choice of identity is a mid-term between those of fully autonomous behaving and behaving according to norms.

Second, the assumption allow to partially avoid the arbitrary choice of how preferences can be speci…ed when considering psychological well-being arguments. In the following chapters, we apply this approach to the analysis of motivation at work.