SOCIAL IDENTITY ECONOMICS

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Tiivistelmä – Referat – Abstract

This master's thesis is a literature review on social identity economics. Traditional economic models, in which decisions of a rational agent are analyzed, have been challenged by models and theories where concepts and insights from other sciences such as sociology and psychology are introduced. Identity economics - pioneered by George Akerlof and Rachel Kranton - is a field that brings now the social context in to the economic analysis.

In this thesis, I collect together the essential theories of identity and economics. I start by representing related work on experimental economics and the relevant developments of the field. I review both empirical and theoretical literature on how the concept of social identity explains decision-making. The main focus is on Akerlof and Kranton (2000), whose concept of identity is based on social categories to which people belong to. These categories have ideal characteristics and behavioral norms that the members of the category follow. Identity is incorporated into a standard utility function analysis as an endogenous explanatory variable. Real-life examples of social identity economics in use are drawn from military and civilian workplaces.

As an example of a model of social identity, I present a theoretical model by Akerlof and Kranton (2005, 2008). Their model is a classical principal-agent model modified to fit into the setting of social identity economics. It explores employee behavior in organizations in a simple two-agent environment, where the agent chooses between high and low effort and the principal observes profits. Once the social identity of workers is introduced, the effort level of workers depends on their type, insider or outsider. I demonstrate that, consequently, the wage levels for different efforts are closer to each other.

Last I present critique against identity economics approach. Although social identity economics does take into account an important factor that has previously been omitted, there are problems with the approach. Most importantly, it is not obvious that the social identity is incorporated to the models in a right way. For example, standard analysis concentrates on the concept of social identity, and the personal identities of decision-makers are omitted.

Avainsanat – Nyckelord – Keywords
Identity economics, social identity, behavioral economics, identity economics of organizations,

Table of Contents

1 INTRODUCTION 4

2 EXPERIMENTAL ECONOMICS AND THE SOCIAL IDENTITY APPROACH 7

2.1.1 Experimental Economics *8*

2.1.2 History of Social Identity Approach *10*

3 IDENTITY ECONOMICS 13

3.1 Identity Economic Literature 14

3.2 Motivation for the Identity Economics Framework 15

3.1 Framework for Identity Economics 17

3.1.1 Social Categories, Norms and Ideals *17*

3.1.2 Internalization and Identification of Norms *18*

3.2 Formal Presentation of Identity Economics -Framework 19

3.3 How Identity Affects the Outcomes 20

3.3.1 Identity Based Payoffs of One's Own Actions *21*

3.3.2 Identity Based Payoffs of Actions of Others *23*

3.3.3 Changes in Norms and Ideals *24*

3.3.4 Choice of Identity and the Limitations for it *25*

3.4 Simple Game Theoretical Model 27

4 EMPIRICS OF SOCIAL IDENTITY ECONOMICS 30

4.1 Social Identity Economics in Organizations 30

4.1.1 Military *32*

4.1.2 Civilian Workplace *34*

5 FORMAL MODEL OF SOCIAL IDENTITY ECONOMICS FOR ORGANISATIONS, SUPERVISION AND WORKGROUPS 37

5.1 General Case of Employees as Insiders or Outsiders 38

5.2 Including Workgroups and related Norms into Analysis 39

5.3 Results from the Analysis 44

6 CRITISISM 44

6.1 Total Identity consists both of Personal and of Social Identity 45

6.2 The Vague Concept of Identity 47

6.3 Difference between the Norms and Actual Behavior 48

6.4 Overall Comments about Identity in Economics 49

7 CONCLUSIONS 50

8 REFERENCES 52

1 INTRODUCTION

Standard economics have been challenged in the last decades by models and theories where concepts and insights from other sciences are incorporated into the economics analysis. People do not always act like standard economic theories would imply so individuals do not always try to maximize their utility rationally. In economics it is known that peoples' behavior and decisions are also influenced by other factors than just utility or price, or the risks. Because the models are formalized in a precise manner, the concepts they employ have also to be structured. Most economists have been very careful in expanding the concept of economics and the theory is developing slowly. Lately many noneconomic motivations have been considered in or together with the economic analysis. (DellaVigna 2009.) As economic models and the frameworks are defined accurately, in order not to deviate too far from the basic features, the new incorporated concepts should also be defined in this fashion. There is always some limitations and restrictions in a model or a framework, so something has to always be omitted, so that other factors can be optimized. Behavioral economics is the new research field where these noneconomic theories are used in economic setting. It tries to better explain the behavior of people. Sometimes these departures lead far from the original models, as additional aspects from psychology, sociology or even neurology are added into the analysis. Fairly recently behavioral economics has introduced cognitive bias and other psychological findings. Identity economics brings now the social context into the economics analysis. (Akerlof and Kranton 2010.)

In recent decades the concept of identity has widely been studied in psychology, social psychology and sociology and it is considered to be a major force driving individuals' behavior. In economics the concept of identity had been considered only in a few studies until George Akerlof and Rachel Kranton (2000) presented their general framework for identity economics in the paper "Economics and Identity". They follow the methodology of Gary Becker (1957), who was the one of the first to expand the standard utility function to cover also noneconomic motivations for behavior. Their concept of identity is based on social categories to which people belong to and which

have ideal characteristics and behavioral norms for their members' conduct, guidelines about how one should look or act as member of these groups. They incorporate identity as an explanatory variable into a standard utility function analysis so that people have a new payoff for actions through identity. Of course a change in the social categories or the behavioral norms related to these categories can affect the payoffs. The concept of identity they incorporate is defined explicitly and therefore is relative easy to add into the economic theory (Akerlof and Kranton 2010.)

Identity is a commonly understood concept, which here is determined to describe how one individual sees himself as a person, his self-image. Social identity refers to a person's identity in a social context describing how he sees himself as a member of a group and how he shares the identity of the group. Identity and especially social identity have been studied extensively in psychology, social psychology and also sociology. Akerlof and Kranton base their concept of identity on psychology's social identity approach, which dates back to 1970s and especially to works of Henry Tajfel and John Turner. This approach consists of two theories, of social identity theory and of self-categorization theory. Social identity theory explains behavior on intergroup level, where people in order to achieve a positive social identity seek positive distinctiveness for their in-groups compared to out-groups. The self-categorization theory in turn explains behavior on an intragroup level. It explains how different people under particular circumstances are able to become, act, think and feel as a psychological group. (Haslam 2001.)

The purpose of this paper is to show how economics together with the concept of social identity can explain decision-making. The essential literature about identity and economics shall be presented together with the empirical findings that support the framework. The main focus shall be on George Akerlof and Rachel Kranton (2000), who were the first to make a general framework for identity economics. Incorporating the concept of identity as an explanatory variable into a utility function which describes people's behavior creates new payoffs for actions and therefore new ways to explain the behavior that is observed and gives more insight into why people actually behave like they behave. These new ways of explaining are then supported with

examples and empirical observations. After the first paper, Akerlof and Kranton have used the same framework and created more specific models to explain behavior in education, why students behave as they do, and also to explain economics of organizations, how workers relate norms in a workplace and how their behavior could be motivated.

The criticism the identity economics framework has received concentrates to the concept of identity they use. Akerlof and Kranton refer to the concept of individual's identity as if it would be the total identity of a person, but since the identity is based mainly on social context, the individual's personal identity, his sense of self without others, is omitted in the analysis. In his critique Davis presents an inverted modification of the model as a solution to the problem of using the term "whole identity." (Davis 2007.) My conclusion is that Akerlof and Kranton's framework should be considered as a social identity economics framework, so that the constraining the concept of identity to a social setting explicitly clear. This paper is therefore limited to consider the overall framework presented by Akerlof and Kranton, the literature in social psychology and economics to which their concept is based on and the empirics that support this addition to the standard economics thinking.

In the next section a short review of the histories for the experimental economics and for the social identity approach is presented. The third section consists of the framework and formal model of identity economics by Akerlof and Kranton with the different ways how it extends the standard utility function analysis. In the fourth section the novel implication of this class of models on explaining behavior is then reviewed in light of empirical studies and observations. In the fifth sections I present an example how the Identity Economics -framework can be used to explain the economics of organizations and work incentives. In the sixth section the criticism against to the framework and the concept of identity it uses are presented. The seventh section summaries the paper and the analysis and I present my conclusions.

2 EXPERIMENTAL ECONOMICS AND THE SOCIAL IDENTITY APPROACH

Behavioral economics is a new research field in economics research where theories and concepts from other social sciences are introduced into economic models. The trend is to challenge the standard economic theories and the concept of *homo economicus*[1], which in many empirical studies fails to explain the actual behavior of people, by incorporating cross-discipline theories and noneconomic motivations into these models. (See DellaVigna 2009.) By challenging the existing theories with these updates and departures from standard models, behavioral economics tries to bring economic models closer to reality, with the observations of economic and social life and transforming existing theory. The motivation of incorporating noneconomic concept of identity into the standard utility function of economics is the same, since as like overall "in behavioral economics, a large body of experimental research informs our theory. Experiments in social psychology, and now increasingly in economics, show that individual's behavior depends on who people think they are." (Akerlof and Kranton 2010.)

Gary Becker was one of the first ones to expand the standard utility function to consider also other than economic topics like social problems. Akerlof and Kranton's utility function in their Identity Economics -framework looks similar to the extended utility function of Becker's time allocation modelling strategies. (Davis 2007.) The concept of identity they use is based largely on social identity approach. This approach consists of two theories: the social identity theory developed largely by Henri Tajfel and the self-categorization theory developed by his associate John Turner (Haslam 2001). In the next chapters the histories and backgrounds for these theories are presented.

[1] Economic man, who is rational and self-interested individual, who is capable to make judgments on their subjectively defined ends.
https://www.princeton.edu/~achaney/tmve/wiki100k/docs/Homo_economicus.html

2.1.1 Experimental Economics

Experiments have brought a significant change into the methodology of economics just in a few decades. The discipline of economics where experimental methods were considered irrelevant and ineffective is now using them to create further advancements into its theory. Experimental economics is a product of both massive investments in science and the positive intellectual culture and socio-political conditions in the 1940s and 50s in the United States. Because of the scattered nature of several independent and only partly intervened studies and the highly interdisciplinary character of them, it is hard to point out the actual beginning for experimental economics. Some key studies can be pointed out, which have established the approach for using investigation as a method in economics. (Guala 2008.)

Von Neumann and Morgenstern's *Theory of Games and Economic Behavior* (1944) and the developments of game and decision theory that followed are major influencers to the history of experimental economics. Game theory is often considered as a contribution primarily to the theoretical corpus of contemporary economics, but it created basis for a variety of approaches and research methods which were used across discipline boundaries to solve scientific, policy and management problems. When game theory increased in popularity gaming, playing the game theoretical questions for real spread elsewhere from University of Princeton where it was originally practiced. The positive attitude of combining formal theories with various kind of empirical evidence can be found in writings of some of the pioneers of game theory (see Schelling 1960 and Shubik 1960). (Guala 2008.)

In 1952 in Santa Monica a two-month seminar devoted to ”The Design and Experiments in Decision Processes” was held. It was organized by researchers from the University of Michigan with sponsorship from Ford Foundation. Members of the RAND Corporation, a nonprofit global policy think tank supported by the US Air Force, also participated mostly because they had been conducting various game-theoretic experiments. Although the seminar did not directly inspire experimental papers it raised the topic to larger awareness among scientist. (Guala 2008.) Lawrence Fouraker

and Sidney Siegel (1960) published a book about their experiments of investigating bargaining behavior with large systematic variations both in the monetary payoffs and in the information given to the subjects of these experiments. Two remarkable points in their system design were the importance of using real money incentives to motivate subjects as well as the implementation of strict anonymity between the subjects. (Guala 2008.) One of the first monographs of experimental decision theory was published at same time (Davison et al. 1957). Also one of the most famous experimental discoveries of this period was made by Maurice Allais, who questioned the consistency of expected utility model (Allais 1953).[2] Reinhard Selten used empirical evidence combined with the theory to introduce new solutions for important social science problems (Selten 1995). In the 1950s also Vernon Smith started conducting experiments to test properties of different market institutions and the robustness of ”no convergence” results to variations in the exchange institutions with repetition of the task (Smith 1962). Smith also co-operated with Siegel and introduced many of his insights of experimental design into his own work which lead to new characteristics of economic experimentation (see Smith 1981, Smith 1992) (Guala 2008).

In the 1970s the exhaustion of general equilibrium theory (see Rizvi 2005), the expanding disillusionment of econometrics and the turmoil in macroeconomics created conditions for experimental economics to grow (Guala 2008). Preference reversal theory based on seminal experiments of Sarah Lichtenstein and Paul Slovic (1971) was introduced also into economics literature (Grether and Plott 1979). In 1974 an article was published about judgment and the heuristics and biases that limit the rationality of decision making (Tversky and Kahneman 1974). Smith (1976) was the first one to introduce articulations of principles trying to systematize the methodology of economic experiments. These were then expanded when Smith adopted the principles of a microeconomic system by Leonid Hurwicz where economic mechanism can affect the outcome (Smith 1982). These experiments with their results and consolidation in the field have led into creation of behavioral economics. Different fields of behavioral economics are unified by a substantial project of revising the economic theory and

[2] Allais later returned to expected utility theory and published his results also in English (Allais and Hagen 1979).

using experimentation as major source of evidence. It should still be noted, that ”experimental economics refers primarily to method of investigating”, and although it is often source for behavioral economics, they are not the same thing. (Guala 2008.)

In the 1950s the modern approach of broadening of economics to cover also other motivations for behavior observed in real life began with Gary Becker. In 1957 in his book “*The Economics of Discrimination”* Becker studied the market implications of the consequences of discrimination by whites against blacks. (Becker 1957.) He incorporated a new variable into the analysis, which measured the taste for discrimination, creating a new utility function. According to the analysis, people must act as if they were willing to directly pay something or to suffer in the form of reduced income to be associated with some people over others. (Becker 1971.) Becker studied such preferences and their effects in labour markets. The result of his study was that competitive marketplace eliminates the effects of discrimination. This is because firms that hire the most efficient workers will replace the companies that discriminate employees. (See Becker 1957 and Becker 1971.) Becker later studied also other kind of behaviour using the same methodology and by changing the utility function also to explain other noneconomic motivations. He showed how economics can explain also behaviour, such as crime, fertility, marriage and addiction (see Becker 1968, Becker 1981, Becker 1993a, Becker 1993b; and Becker and Murphy 1988). (Akerlof and Kranton 2010.)

2.1.2 History of Social Identity Approach

In 1945 a psychologist Muzafer Sherif made an experiment with his colleagues and took eleven-year-old schoolboys from Oklahoma City to Robbers Cave State Park. The boys were divided into two groups, and the groups were isolated from each other for a week. During that time they created distinct group identities. By the end of the week when these two groups were brought together to play competitive games, the groups acted hostile towards each other. The boys differentiated themselves from the other group with name-calling and mischief. (Sherif et al. 1954.) This experiment of Sherif and other experiments that followed have showed that assigning unacquainted people

into groups and putting these groups into competition produces ethnocentrism and the phenomena of group conflict. So it had been shown, that for creation of ethnocentrism the objective group competition was sufficient condition. This was then studied further by Henri Tajfel, when he studied whether it was “a necessary condition, whether it was the minimal case.” (Brown 1986, P.543.)

In 1971 Tajfel and his associates made an experiment on Bristol schoolboys, where the boys were shown slide projections containing various numbers of dots in them and asked to estimate the amount of them. The boys were then divided into two groups, namely underestimators and overestimators, for the second task which was a point allocation game. The actual division between the groups was made randomly but that was not told to the subjects. In the second tasks boys then allocated points, which were exchangeable for money, to others with just the information of all relevant group memberships. They knew their own group and group memberships of the other anonymous participants to whom they allocated points. The basic result was in-group favoritism, since the average number of points allocated to assigner's in-group members was higher for both groups. (Tajfel et al. 1971.) “In-group favoritism is a sign of preference for the in-group over the out-group, and so is a form of ethnocentrism.” The schoolboys were surely linked in various ways before the experiment, but none of these groups had any meaningful link to this new imposed and arbitrary classification. “As underestimators and overestimators the boys had no prior history.” (Brown 1986, p. 543 .)

In the second experiment in 1971 the subjects were shown reproductions of abstract paintings of Paul Klee and Wassily Kadinsky in order to make the basis for the random groupings. Paintings were projected in pairs and subjects expressed their preferences between anonymous artworks. Subjects then were divided into Kadinsky or Klee fanciers and told their group memberships before the point allocation game. Again, although the actual division into groups was again made randomly, both groups showed consistent in-group preference. (Brown 1986, p. 545.) Although these two experiments were almost minimal in their setting, but still in both two grouping factors operated: firstly the explicit group assignment for the subjects and secondly the

supposed similarity the groupings were said to be based. The supposed similarities alone can create groups and in-group preferences without explicit talk of the groups, but what is surprising is that using actual minimal conditions by dividing people into groups so that people know the division to be random and giving those groups trivial names like ”A’s” and ”B’s”, people still show full group preference effect. (Billig and Tajfel 1973 and Locksley, Ortiz and Hepburn 1980.) ”The ultimate minimal condition is assignment to a group on a random basis.” (Brown 1986, p. 545.)

”One of the most consistent and psychologically telling result in all this research is the preference for a maximal in-group advantage over the out-group, even at the sacrifice of total in-group rewards” (Brown 1986, p. 550). These results, that group division matters, were later on tested and proven to be effective also when monetary stakes were involved. Chen and Li (2009) divided the subjects into two groups and the tokens they gave to the subjects could be redeemed for real money. Subjects could now at a cost for themselves to punish or reward the other player when divided into pairs for a strategic game. Subjects rewarded the members of the same group more and also punished the members of the other group more, presenting in-group preferences. (Chen and Li 2009.)

The fundamental claim made by Tajfel (1981) and by Tajfel and Turner (1979) is that when people are assigned into groups, they automatically and almost reflexively think of that group as an in-group and consider it to be better than the alternative. This is because they are motivated to achieve and maintain a positive self-image. The self-image consists of two components: personal identity and multiple social identities.[3] The theory of social identity (see Tajfel 1972, 1974, 1981, Tajfel and Turner (1979), and Turner (1975)) assumes that individuals can make an effort to improve their self-image by enhancing either their personal or their social identity. This in-group preference can be seen for example in cultural affirmation, where affirming one's culture is good for all the individuals whose culture is being affirmed. (Brown 1986, p. 551.)

[3] Identity is a definition that no one has defined with precision, but which is roughly understood by everyone (Brown 1986).

The previously described social identity theory is closely related with another theory in social psychology, the self-categorization theory. Like John Turner emphasizes in the foreword of Alexander Haslam's book *Psychology in Organizations* (2001): using term "social identity approach" is appropriate since these two "theories are complementary and related, but they are different, defined by different core hypothesis and different problems." While social identity theory explains the intergroup relations the self-categorization theory (see Turner 1978, 1982, 1985; Turner, Hogg, Oakes, Reicher and Wetherell 1987) is a theory of psychological group. The fundamental psychological idea of social identity theory is that when people make social comparisons on a group level, they in order to achieve positive social identity seek positive distinctiveness for their in-groups compared to out-groups. As social identity theory explains behavior on intergroup level, the self-categorization theory in turn explains it on an intragroup level. It explains how different people under particular circumstances are able to become, act, think and feel as a psychological group. The psychological core idea is that people shift from individual to group psychology and behavior. This is also a shift from people defining themselves in terms of their personal identities to defining themselves more in terms of shared social identities they share. So in psychology's point of view people instead of behaving as individual personalities are able to behave collectively. (Haslam 2001.)

3 IDENTITY ECONOMICS

George Akerlof and Rachel Kranton (2000) incorporate "the psychology and sociology of identity into an economic model of behaviour." In their framework the identity is based on social categories[4], to which people belong to and which all have corresponding norms and prescriptions how people in these categories should behave and ideally look. (Akerlof and Kranton 2000.) After introducing the general framework for identity economics, Akerlof and Kranton have studied its relevance in the fields like

[4] "Social categories are broad social science classifications used in academic research and by government agencies to describe widely recognized social aggregates" (Davis 2007).

education, *Identity and Schooling: Some Lessons for the Economics of Education (2002)*, and later with theory of organizations: *Identity and the Economics of Organizations (2005)* and *Identity, Supervision and Work Groups (2008).* In 2010 they published a book *Identity Economics: How our Identities shape our Work, Wages and Well-being (2010)* which summaries all the different fields and papers where the Identity Economics -framework has been used.

Like Becker who added noneconomic variables into standard utility functions without deviating far from it Akerlof and Kranton follow the same kind of mentality. They incorporate identity into a utility function and they use the utility function analysis to explain behavior where social context is partly motivating it. The incorporation of social identity creates new externalities for actions and therefore the new payoffs and results given by this extended analysis deviate from standard ones and can in some cases explain the observed behavior better.

3.1 Identity Economic Literature

Since the 1970s both in psychology and sociology the concept of identity has been extensively investigated, but in economics it has only recently received more attention (Davis 2007). Aguair at al. (2010) argue that the lack of identity in economics has been explained by appealing to the traditional concept of *homo economicus* (see Sen 1985, 2004, 2006; Davis 2003; Basu 2006; Horst, Kirman, and Teschl 2006). (Aguiar et al. 2010.) There exist few early contributors. Sen (1985) does not incorporate identity into a utility function, but mentions it as an influence on goal achievement. Folbre (1994) discusses the importance of gender identity for preserving the male privilege with collective action. Other connotations of identity in economics has been studied by Landa (1994) and Kevane (1994), who study how a group membership affects economic transactions when individual members are subject to group sanctions. Bowles and Gintis (1997) have studied cooperation within a community. In previous economic literature, norms were used with a little different notation, as they were seen to be obeyed since failure to do so would have resulted in punishment (see

Akerlof 1976, Kandori 1992 or Cole, Mailath and Postlewaite 1992). (Akerlof and Kranton 2000.)

More recent studies combining identity and economics have been with different approaches. Barret (2005) studied how individual's social and moral identities affect their membership in different communities, groups and networks, and how these identities and social affiliations affect their behavior, and how this all affects poverty. Darity et al. (2006) studied the relationship between racial identity formation and inter-racial disparities in both economic and noneconomic outcomes and found that identity norm formation imposes positive and negative externalities to each person's actions. Davis (2003) focused on the role of an individual in economics and noted that there has been lack of attention given to it in economics. In a more recent paper he argues that in all these economic theories incorporating social identity approach into it has been "difficulties associated with failing to explain social identity and personal identity together" (Davis 2006).[5]

Other later literature with the analysis of economic outcomes of identity studies racial conflict (Mason 2001; Bodenhorn and Ruebeck 2003; Basu 2005 and Darity et al. 2006), religious identity (Minkler and Cosgel 2004), trust and identity (Güth et al. 2008), economic development (Basu 2006), identity and microfinance programs (Chatterjee and Sarangi 2004), symbolic good consumption (Dolfsma 2004 and Starr 2004), integration in politics (Wichardt 2008) and law and identity economics (Hill 2007). Also in a general theoretical model explaining beliefs of people and how those beliefs are interfered by preferences for identity, dignity and taboos, the concept of identity was combined with economics (Bénabou and Tirole 2007). (Aguiar et al. 2010.)

3.2 Motivation for the Identity Economics Framework

The normal garden-variety tastes for oranges and bananas are commonly viewed as being characteristics of an individual and a utility function is the mathematical and

[5] His critique shall be presented more thoroughly in the sixth section.

formal expression that characterizes it in economics. It describes what people care about. Economists have used them in explaining not only income and consumption, but it can explain all kind of motivation. In today's economics also nonpecuniary motives like desire for children, the concern for status, and the concern for fairness and retribution are increasingly explained with economic analysis tools. Still most of the economists have maintained the assumption that tastes and preferences are individual and independent of social context. “This presumption ignores the fact that what people care about, and how much they care about it, depends in part on their identity.” In psychology the self, or ego, is a primary force driving individual behavior. Adding identity widens the representation of tastes since social context is incorporated into decision-making. (Akerlof and Kranton 2010.)

In social psychological experiments the result has been, as presented earlier, that even most minimal group assignments affect behavior. Like in many other behavioral economics theories, the motivation that this framework should also consider the concept of social identity in its analysis is based on many empirical observations and cross-discipline theory. (Akerlof and Kranton 2010). Peoples’ identity, their sense of self, is formulated in the groups with which they identify. These groups therefore can have more influence to the behavior of an individual than the individual itself by determining the norms for acceptance or rejection or for solidarity and competence. (Aguiar et al. 2010.) Social identity connects individual's own image and actions to the ideal of the group and starts to affect their behavior. Internalized behavioral norms and the ideal characteristics, if violated, can create anxiety and cognitive dissonance. In turn acting accordingly to the norms can create a higher sense of self to the individual. (Aguiar et al. 2010.) “Norms are powerful source of motivation.” (Akerlof and Kranton 2010). The combination of identity, social categories, norms and ideals allows parsimonious modeling of how utility functions change as people see them in social context.[6] (Akerlof and Kranton 2005, 13.)

[6] This can be compared the framing effect, where utility depends on how the situation is framed (see Kahneman and Tversky 1979).

3.1 Framework for Identity Economics

Identity in Akerlof and Kranton's framework is based on social categories and behavioral norms associated with each of these categories.[7] Theory is based on a vast body of research on the salience of social categories for human behavior and interaction. (Akerlof and Kranton 2000.) Identity is used to describe person's assigned social category, as well as well as persons' self-image. "It captures how people feel about themselves, as well as, how those feelings depend upon their actions."(Akerlof and Kranton 2005.) The concept of identity that Akerlof and Kranton employ in their framework and models is the psychology's social identity approach (Davis 2007).

3.1.1 Social Categories, Norms and Ideals

In the formal language of the social sciences, people divide themselves and others into social categories. These social categories are associated with norms that state how people belonging to these categories should behave.[8] (Akerlof and Kranton 2010, 11). In addition to prescriptions for behavioral conduct these norms may also describe an ideal for each category in terms of physical characteristics and other attributes. Adding identity as an argument into a utility function describing people's behavior and decision-making, one's actions have also identity-based payoffs for themselves as well as for others. By following the norms a person can bolster his own identity as well as identity of others in that category, but failure to "live up the ideal" would decrease the identity for both the person acting as well as all others observing this behavior in same category. (Akerlof and Kranton 2000.) Basically when adding identity as an argument into the utility function it means that every person belonging to a certain social group, whose members are associated with a certain code of conduct and ideal characteristics, now have a utility effect through identity.

[7] In Akerlof and Kranton (2000) term prescriptions was used instead of norms, but in their later literature, they shift to use term norms for the same meaning.

[8] In terminology used by Akerlof and Kranton should does not just imply ethical or moral views, but also the code of conduct how to behave according to the social codes, which can largely be internalized and even unconscious (Akerlof and Kranton 2010).

Gender is the most common example with two categories, male and female. Exemplary associated norms could be that males should be handsome and should not wear a dress, and females should be beautiful and wear a dress. Acting according to these norms people receive positive payoff in utility through identity, and when acting against these prescriptions they receive negative utility through identity. “Following the behavioral prescriptions for one’s gender affirms one’s self-image, or identity, as a “man” or as a “woman”. Violating these prescriptions evokes anxiety and discomfort in oneself and in others.” (Akerlof and Kranton 2000.) Sociologists often describe this behavior by referring to ideals, which are real or imagined characters that personify how someone in a given social category should behave. A person who identifies with being a member of a respective social category then loses utility insofar as her behavior differs from that of the ideal. (Akerlof and Kranton 2005.)

Like seen in the previous empirical tests in social psychology on minimal conditions, the norms also affected the distribution in the point allocation game. ”As for norms or values, it is a good thing to be fair, we are told, and a good or better thing to be generous.” Subjects still were dominantly selfish for the in-group although they afterwards said that this strategy would be regarded socially as undesirable strategy. In many minimal group situation experiments the in-group favoritism has been the dominant strategy but not all-out, unqualified favoritism. Rational strategy for the schoolboys would have been the effort to try to maximize the number of points for all classmates from the previously unknown experimenter. (Brown 1986.)

3.1.2 Internalization and Identification of Norms

People have individualistic tastes in their utility functions, but as norms also enter into it, the social tastes start to matter also. Individuals acquire some of these tastes and learn some of these norms as members of their communities. These norms may be internalized through mechanisms of community approval and disapproval. Gossip, stories, and private and public censure are common ways of communicating and reinforcing norms. (Akerlof and Kranton 2010, 22) In psychology for personal

development the importance of internalization of rules for behavior is important, and when a person violates these norms that they consider their own, their feel anxiety. One's own self should be defended against this anxiety so that disruptions would be limited and sense of unity would be maintained. (Thomas 1996.) So the psychologists say that people can internalize the norms, so the norms become their own and start to guide the behavior. Identification is a critical part of this internalization process: a person learns a set of values, prescriptions and norms, such that his actions should conform to the behavior of some people and contrast with that of others. (Akerlof and Kranton 2000.) "Norms are particularly clear when people hold an ideal of who they should be and how they should act." (Akerlof and Kranton 2010, 11.)

3.2 Formal Presentation of Identity Economics -Framework

The standard utility function describing people's behavior incorporated with the identity based on social categories and behavioral norms as an additional motivation for behavior is of the following form:

(1) $U_j = U_j(\boldsymbol{a_j}, \boldsymbol{a_{-j}}, I_j),$

where the total utility of a person j depends on of his own actions, $\boldsymbol{a}_j$, on the actions of others, $\boldsymbol{a}_{-j}$, and on his identity, I_j. Actions $\boldsymbol{a}_j$ and $\boldsymbol{a}_{-j}$ determine the consumption of goods and services, and together with the utility function U_j they are sufficient to capture the standard economics of actions and externalities. (Akerlof and Kranton 2000, 719.)

Formally the identity of a person j, I_j, is based on social categories, C. Every person j has an assignment of people to these categories, $\boldsymbol{c}_j$. Person j may be mapped into multiple social categories, since categories need not to be mutually exclusive. People have conception of their own categories as well as the categories of others, although the categorizations of oneself might not correspond to the mappings others give. Behavioral norms and ideal characteristics for different social categories, $\boldsymbol{P}$, indicate

the appropriate behavior and attributes for people in different social situations. The identity that is argument in the utility function is defined as:

(2) $I_j = I_j(\boldsymbol{a}_j, \boldsymbol{a}_{-j}; \boldsymbol{c}_j, \mathcal{E}_j, \boldsymbol{P})$,

where the identity, the self-image, of person *j* depends on how his own actions, $\boldsymbol{a}_j$, and the actions of others, $\boldsymbol{a}_{-j}$, correspond to the prescripted behavior given by the norms, **P**. It also depends on the social categories assigned to the person *j*, $\boldsymbol{c}_j$, and on his own characteristics, $\boldsymbol{\varepsilon}_j$, and the extent to which those characteristics match the ideals for *j* 's categories indicated by social norms $\boldsymbol{P}$. Finally the identity depends also directly on the recognized social norms, $\boldsymbol{P}$. (Akerlof and Kranton 2000.)

3.3 How Identity Affects the Outcomes

Adding the concept of identity into the utility function as an explanatory variable enriches the results given by the analysis. In the extended utility function the identity based on social categories with associated behavioral norms affect the payoffs of actions compared to a case without identity by creating new tradeoffs. The new externality of the action can now have either a positive or negative effect[9] to the utility depending on if the action is according to or against the behavioral norms associated with the groups respectively. There exists four different ways through which the identity concept can affect the payoffs and drive people's behavior compared to analysis without identity. Firstly people now have identity based payoffs from their own actions. Secondly people have also payoffs from actions of other people. Thirdly by changing the norms and ideals, one can affect the payoffs of actions and in this way affect the choices people make. The fourth way how the concept of identity can affect the payoffs is the actual choice of identity and the limitations for this choice. (Akerlof and Kranton 2000.)

[9] Called the identity utility effect. Akerlof and Kranton used a term of "gains or losses in identity", whether the new externality through identity component increased or decreased the total utility (Akerlof and Kranton 2000).

3.3.1 Identity Based Payoffs of One's Own Actions

Adding the identity into a utility function creates an extra payoff for one's own action. Compared to a standard case, people now have utility from an action directly from the action itself and in addition an externality through the identity part. Formally, the identity I_j depends on a_j, so the total utility (1) for an action consist of the action itself and how well it follows the behavioral norms and ideals of the social category the individual j belongs to. If the action one conducts is according to the norms, there is a positive externality through the identity and vice versa if the action contradicts the norms. So identity can either increase or decrease the utility of an action. If the utility through identity is large enough, $|I_j| > |a_j|$, it might change the payoff of an action totally compared to a case without identity. This might help to explain behavior that people from other social groups observe as detrimental. People with other identities may seem to act maladaptively or even self-destructively, but the reason behind this kind of behavior maybe an attempt to bolster one's identity or to salve a diminished self-image. (Akerlof and Kranton 2000.)

The first example of this kind of an effect can be found everywhere where people have certain cultural norms stating how one should ideally look. Self-mutilation and mutilating one's children's appearances as an expression of identity is a type of behavior that can be explained with the framework. Changing one's appearance either with tattoos, body-piercings (ear, nose, naval etc.), self-starvation, weightlifting and steroid abuse, plastic surgery, or with circumcision (both male and female) leaves "physical markers of belonging to more or less explicit social categories and groups." So the norms and ideals, that certain social groups have, drive individuals to change their characteristics in order to match them. By doing this they gain a higher utility. The reason for this kind of mutilation could also be pecuniary rewards and interactions like marriage, but the "defense of these practices indicate the extent to which belonging relies on ritual, and people have internalized measures of beauty and virtue. (Akerlof and Kranton 2000.) Wealthy parents for example try to maximize their offspring's benefits by teaching them to foster the in-group identification with their own class. Being loyal and honest is important, although it might mean that "these

traits may in some circumstances cause the individual to engage in non-maximizing behavior." (Akerlof 1983.) It has indeed be seen, that individuals can suffer large personal costs, if it profits the group to which they belong to (Dawes et al. 1990).

Second good example is the gender related occupations and working in a business or a sector which is considered to be a workplace of the opposite sex. In the term of the model, working there contradicts the norms and therefore creates disutility, "ambiguous feelings about their work." One study with female lawyers presents this contradiction. Although they considered themselves as women, they acted like men in order to be good in their work. They expressed their ambivalence about the situation where their working contradicted the norms in many discussions. (Pierce 1995.) Nurses and Marines give both genders a good example of stereotypical occupations. Marine Corps demands from the soldiers traits like strength, aggressiveness and emotional detachment, when as nursing is linked with qualities like nurturing, caring and passivity. Former traits are considered masculine, and later feminine. (Williams 1989.)

Other examples can range from the facing of the discomfort of mountaineering in order to enhance the individual's own sense of self (Loewenstein 1998) to alumni giving. Alumni giving might not be the charity form bringing the highest marginal return and it might be that it enhances the reputation and value of the degree, but it also represents identity, when graduates give to their own Alma Mata (Akerlof and Kranton 2000, 722). This framework was also studied in education. It was observed that the students had social categories: crowd leaders, nerds and burnouts, which all had behavioral norms. Students therefore were not just optimizing their effort, but they also tried to fit to their category. (Akerlof and Kranton 2002.) All of these are good examples were the utility of an action is compensated or increased by positive identity utility, even so that if the utility from the action itself is negative, the total utility can still be positive if the identity utility is positive and large enough.

3.3.2 Identity Based Payoffs of Actions of Others

The concept of identity depends also on actions of others. Formally, the identity I_j depends on a_{-J}. This means that individuals have identity-based effects to their utility from the actions conducted by others. This is through the people observe the actions of others. If these actions are according to the behavioral norms or ideal characteristics, these actions support the already existing norms, which people have internalized creating positive identity utility. When the actions of others contradict these norms or ideals, it creates anxiety, negative identity utility, since the internalized norms are seen as less profound. This might result in action of retaliation, where one might try to salvage one's questioned self-image, and so creates even further externalities.[10] (Akerlof and Kranton 2000.)

The first and obvious example is again the gender and norms related to it. Like in the previous example, dress is a symbol of femininity and if a man would wear one, this would threaten the identity of other men, for the reason that the internalized norms would be contradict. This would now create negative identity utility to other men if one man would wear a dress[11], this externality could also expand to other effects if other men would decide to retaliate in order to repair their loss of utility. The previous example of gender related workplaces has also the externality effect to others than just for the one working in a job that is considered to be job for the opposite sex. An example of this retaliation could be the sexual harassment of female co-workers in masculine workplaces, since men might feel their identity threatened and have decided to retaliate. (Akerlof and Kranton 2000.)

This retaliation can be also a source for explaining the insults, hate crimes and violence. Insults, perceived or real, can create much violence or escalate racial and ethnic strife. (Akerlof and Kranton 2010.) In the 19th century United States men countered insults with retaliation, gentlemen would have engaged into a duel when

[10] Simple game theoretical framework for these retaliations shall be presented at the end of this section

[11] Of course the man wearing the dress would have negative identity utility to himself also like stated previously about the identity utility payoff from own actions

the lower-class men would have fought with hands and fists. The result is that in the South of the United States a man's reputation is central to his economic survival and in the South it is more acceptable to use violence in response to an insult, in order to protect home and property. (Nisbett and Cohen 1996.) Same kind of distancing can be found also in school playgrounds, where children who behave differently are mocked and bullied (Akerlof and Kranton 2000).

Positive examples of the in-group norms could be used to solve free-rider problems, where someone is trying to benefit from a resource, service or a good without paying for it. In economics this widely recognized problem is usually handled with public goods and covering the costs with taxation. (Akerlof and Kranton 2010.) One solution to the free-rider problem can be found in communities where people share norms for cooperation (see Ostrom 1990). Empirical research also supports the argument, since in communities that are more ethnically homogenous people make larger contributions to local public goods and education than in more diverse communities (see Alesina et al. 1999 and Miguel and Gugerty 2005). (Akerlof and Kranton 2010.)

3.3.3 Changes in Norms and Ideals

In a normal utility function analysis other factors are assumed to be constant in order to decide the optimal action. In the identity economics –framework the categories, norms and ideals have in previous analysis been assumed to be constants, but these notions may also change. Indeed, many people and organizations have incentives to change these behavioral norms or ideal characteristics, in order to get people to act differently and more favorably to them. In formal terms, they are either trying to change the given social categories, C, to which people belong to or the corresponding behavioral norms that are associated with these categories, P. Both of these are a part of the identity and therefore the changes in them affect the total utility. (Akerlof and Kranton 2010.)

One obvious example is advertising, where companies try to induce people to consume more of their product or service. Advertisers both try to appeal to the

existing norms and to create new ideals.[12] Cigarette advertisers try to promote the image of the ideal man or woman with a right cigarette, and in this way try to influence the norms that people observe, by trying to change the ideal. A good example of this change is the smoking habits of women. In the United States from the 1960s when smoking was more acceptable for men to the 1990s when there no longer exists a difference between different sexes, and the transformation in the actions people conduct cannot be purely explained by standard utility function with desire for tobacco or nicotine. So the norms regarding women smoking have changed, and much by influence of tobacco companies advertising (Akerlof and Kranton 2010.) Other examples are the professional and graduate schools, where the student's identities are changed in order to mold their behavior. In some fields like medicine, theology, military and the doctorate a tittle is added to the person's name, implying a change in the person, as one's identity has changed. (Akerlof and Kranton 2000.)

Politics is also a good example of a field, where people are trying to affect the opinions of the others. Politicians and activists do not usually take the preferences of the voters as given, but try to change their identity and norms (for analysis and theory of politics and identity see Anderson (1983), Norton (1988) and Connolly (1991)). Romer (1994) considers the possibility that politicians can change the emotions of voters, especially their anger, and in that way affect the political outcomes. Racial and ethnical division is typical for populist and fascist leaders (see Glaeser 2005). In history major changes in identity have spurred revolutions, in France subjects were changed into citizens and in Russia into comrades (Akerlof and Kranton 2000).

3.3.4 Choice of Identity and the Limitations for it

Identity utility, I_J, in the framework is based on social settings and so part of the identity-based utility derives from the social categories, c_j, and therefore the forth way how the payoffs can be changed through are the changes of one's social categories. Identity itself can be a choice. One can to some extend choose the category one

[12] For historical studies of advertising's and other influences effect on gender and consumption (see De Grazia 1996).

belongs to. This change of category then also changes the payoffs given by the analysis, since also norms and ideals which one follows and values are changed. (Akerlof and Kranton 2000.)

Women in the U.S. could choose whether to be a housewife or to pursue a career (Gerson 1986), selecting partly the categories where they belong to, and also their identity, in the long run. This transformation can be seen in statistics also. In the 1970s only few teenage women expected to work at age of 35 and almost all college-educated women used to take their husbands name. Today almost all women expect to be employed at that age and a significant group retains their surnames. (Goldin 2006.) Second example is the choice of school that parents make for their offspring. Whether to send them in public or private school, and hence choosing the identity they would get with the new self-image and identification with others in the same group. (Akerlof and Kranton 2000.) Third example is the college dorms which are associated with certain "themes" like fraternities, sororities or African-American. Each of these creates certain social categories and is associated with behavioral norms and ideals. These then change how student think of themselves. (Sanday 1990.) For immigrants the citizenship is not just a legal issue but also an identity one. This is why the decision of change is often fraught with anxiety and even guilt. (Akerlof and Kranton 2000.)

Because identity is fundamental determinant of behavior, choice of identity may be the most important "economic" decision people make. Individuals may more or less consciously choose who they want to be. Some categories might have such norms and ideals that ethnical background or racial differences limit the chances of a person to pass into it. In these cases those with nondistinguishing physical features may be able to pass in the group, but others are constrained by their appearance, voice or accent. Limits for this choice may also be the most important determinant of an individual's economics well-being, since they would constraint the utility they can get. (Akerlof and Kranton 2000.)

Changing one's social categories may also create retaliations from others, as they see one member contradicting the norms by trying to change the groups and so devaluate other's identity. Peers usually tease people who are seeking upward mobility (see Suskind 1998). (Akerlof and Kranton 2000.)

3.4 Simple Game Theoretical Model

A simple game theoretical model for describing people's behavior with identity based on social categories consists of two different actions, action One and Two. The utility of an action for a person who has the taste for it is V. If the person chooses the action they dislike, the utility is zero. Let's assume that person A prefers the action One, and person B prefers the action Two. In a standard case, both individuals would perform the action they prefer in order to maximize their utility. Now adding two social categories in to the model creates the identity-based preferences. Let there be two social categories, Blue and Red. The behavioral norms dictate that Blues should perform the action One, and Reds the action Two. Conducting the action that is not prescribed creates negative utility, as one loses through identity the sense of self. Let this anxiety about losing one self's identity be denoted by I_S. Also others loose from the action of contradicting the behavioral norms, since their internalized rules of behavior are questioned. Let this be denoted by I_O. Person who observes action that contradicts the norms may choose to retaliate in order to repair his identity. This can be done at a cost, c, and it creates to the targeted person additional loss, L. (Akerlof and Kranton 2000.)

Now assuming the simplest possible division of people, that both of the persons belong to category Blue, creates following game tree for the actions:

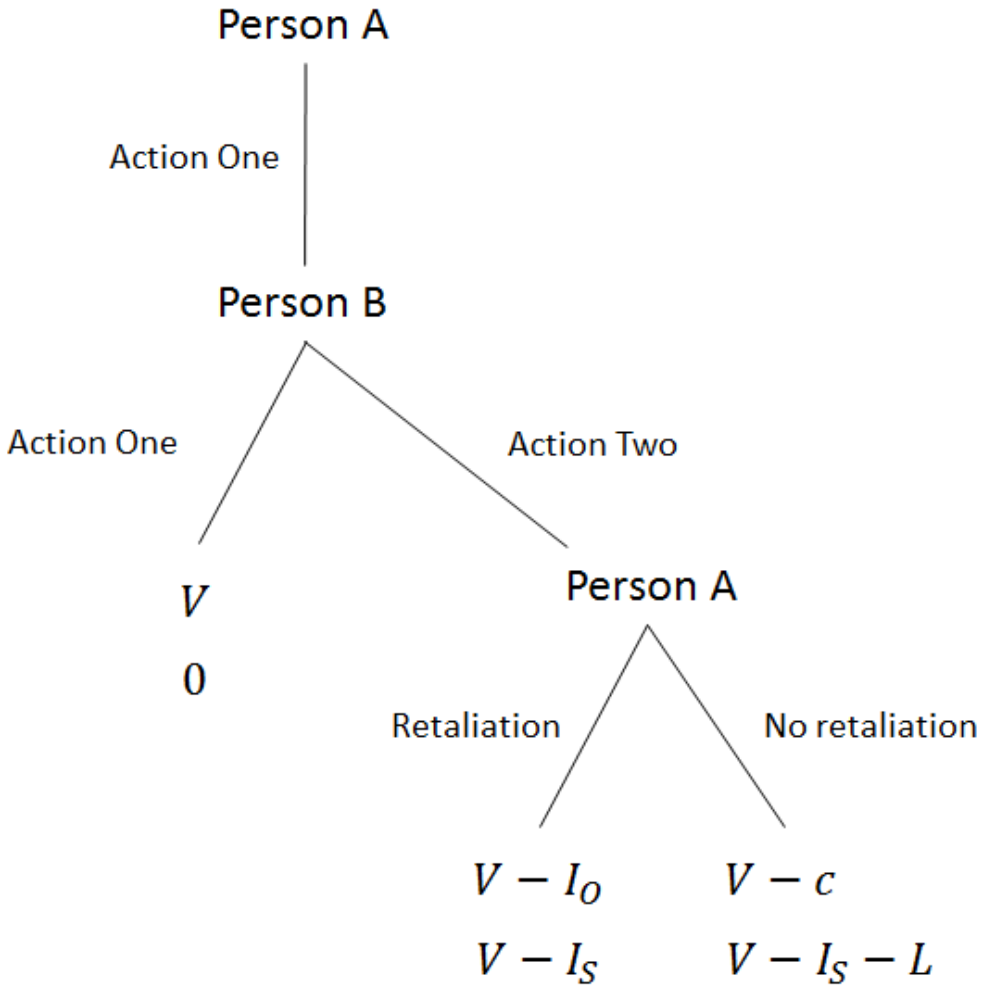

Figure 1
Game Tree of Interaction for Two Person Game with Option to Retaliate
(Akerlof and Kranton 2000.)

As person A prefers the action One, he performs it always and therefore the other branch for the decision tree is omitted. Person B can either also perform the action One, gaining no utility from it, or engage into action Two. If person B chooses the action Two, he gains the utility V, but the person A has a change to retaliate in order to fix his own identity. Person A either suffers the loss of utility from the action of others, I_O, or he retaliates at the cost c. If Person A does not retaliate, Person B loses only his sense of self, I_S, but if Person A retaliates, the loss will consists of loss of sense of self and of the additional loss, $(I_S + L)$. There exist four possible subgame perfect outcomes:

1. When the cost of retaliation is smaller for person A than his loss of identity utility from other's action ($c < I_O$), and the total losses for person B after the retaliation are larger than the utility from the action ($V < I_S - L$), person A deters person B from action Two, since person A would retaliate: (One, One).

2. When the cost of retaliation is smaller for person A than his loss of identity utility from other's action ($c < I_O$), but the total losses for person B after the retaliation are smaller than the utility from the action ($V > I_S - L$), person B chooses the action Two although person A retaliates: (One,Two).

3. When the cost of retaliation for person A is larger than his loss of identity from other's action ($c > I_O$), and the utility from the action for person B is larger than the loss of his own identity utility ($V > I_S$), person A never retaliates and person B chooses action Two: (One,Two).

4. When the loss of person B's own identity is larger than the utility from the action ($V < I_S$), person B never chooses the action Two: (One,One) (Akerlof and Kranton 2000.)

All the four ways previously discussed how identity part affects the payoffs are present in this simple game theoretical model. Firstly person A has a positive utility from the action One and also a positive utility from identity while his action affirms his Blue identity. Person B in turn has either zero utility from the action One and positive identity utility from acting according to of the norms or positive utility from the action Two but also negative identity utility while contradicting the norms. Secondly the actions of others affect also the utility, so if the person B chooses the action Two and contradicts the norms that both have internalized, person A suffers negative identity utility. The models possibility to repair one's negative identity utility from actions of others with a cost is what has been observed in gender workplaces or between ethnic groups. Thirdly by changing the norms and ideals one can shift the payoffs or even the

ideal actions associated with each group and therefore drive the behavior. The new norm after a rhetoric campaign could for example state that Blues can perform the action they want, and so neither person would face negative identity utility if person B would then choose action Two. Fourthly without any changes in norms or ideals there is the question whether the person B could change his social category, and his identity simultaneously, and be part of the group Red, then no negative identity utility would be created to persons from the B's action Two, assuming there would be no negative utility from the process of changing categories.

4 EMPIRICS OF SOCIAL IDENTITY ECONOMICS

The social identity economics framework with the augmented utility function gives a good tool for analyzing different behavior observed in real life. One good field is the economics of organizations and the worker behavior, and how work incentives and working effort can be studied with this concept of social identity. Akerlof and Kranton (2005) made a more specified principal-agent model by using their framework where employees' identities drive them to behave more or less in concert with the goals of the organizations. They later developed this even further to explain the effects of supervision and workgroup norms in a workplace (Akerlof and Kranton 2008). Accurate and subtle descriptions of motivations given by this specified model can be seen both in military and civilian workplace (Akerlof and Kranton 2005).

4.1 Social Identity Economics in Organizations

Incorporating the concept of identity into the economics of organizations can change the understanding of such policies as incentive pay and supervision. For employers Identity offers a supplement to monetary compensation which as only motivator for work can be infective and costly. (Akerlof and Kranton 2005). Current economics deals with the basic problems for businesses: how to give employees proper incentives. Owners or management have only limited sources of output statistics to which they

can base their decisions about compensation levels. Rates like product failure percentage or the total amount of sales receipts could be this kind data. The higher the results are the higher the pay is. The theory gives a simple solution that workers should be given incentives with the variation of the pays, low or high, and on average be paid just enough to take the risk. (Akerlof and Kranton 2010.)

In turn economic theories also suggest that these monetary incentives will not work properly in practice (see Prendergast 1999 and Gibbons 1998). There exist problems when trying to observe the information for basis of compensations. Often the output is not just work of one person but of team of people, so the product failure rate or the end of day sales receipts are not so strongly related to effort of individual worker. (Akerlof and Kranton 2010.) If the whole team is responsible for success, without supervision, it is impossible to give individual worker their deserved compensation (Holmstrom 1982). Secondly many jobs consist of multiple tasks. If person's work is assessed just by some of the tasks, that person then concentrates mainly to these tasks. Thirdly when reward is based on relative performance, there does not need to be so much supervision as people are competing with each other, but competitive behavior can create other negative effects, like sabotage (see Lazear 1989). Finally the fairness that exists between workers, is one aspect why they will resist variations in monetary compensations (Akerlof and Yellen 1990). Using direct monetary compensation will game the employees so that “firms get what they pay for”, but since the criteria for the pay cannot be well targeted, firms might not actually get what they actually wanted. One solution could be performance criteria on subjective level and repeated interactions, but in these cases the evaluated employees have incentive to influence the work of their supervisor. (Gibbons 1998.)

Akerlof and Kranton suggest that identity is central to the efficiency of organizations, and that employees should be in jobs with which they identify and companies should promote such attachments. Management can change the behavior of employees. This claim is supported by classic works of sociology (see Barnard 1938 and Selznick 1957). This is also seen in more recent literature, Kogut and Zander (1996) study the role of the employee's identity for their motivation. Other study states that production is

enhanced in organizations where employees share its mission (see Prendergast 2003 and Besley and Ghatak 2005).

4.1.1 Military

On the first day of military academy at West Point, called the R-day, the new cadets must stand and salute and repeat over and over again this statement until they get it perfectly right: “Sir, New Cadet Doe reports to the cadet in the Red Sash for the first time as ordered.” It is at this beginning of the four years of training that the new cadets surrender their old selves in stages. (Lipsky 2003.) At the West Point the Army aims to change the identities of the cadets, so that they would share the same goals as the U.S. Army. “This change in identity is a way to motivate employees, different than incentives from monetary compensation.” Driving the identity is good motivator in situations and especially in fields like military, where the effort from a worker is either hard to observe or hard to reward. (Akerlof and Kranton 2005.)

Military is then a typical example of an organization where soldiers as its workers are not motivated through monetary compensation, but through changing their values, their identities and their norms of how they should behave in a certain situations. This is relative easy for military since mostly the recruits in the US they are volunteers and are isolated from the civilian life. In history in the US Army and Navy the rank and pay have been based almost only on seniority (See Janowitx 1960, and Rostker et al. 1992) and today this non-dependence of monetary compensations is supported by the fact that pay differentials between officers with different ranks are much smaller than in corporate world (see Asch and Warner 2001). In military the soldiers are awarded from outstanding effort with medals instead of bonuses (see Besley and Ghatak 2005 and Frey 2007). (Akerlof and Kranton 2010.)

In the terms of the social identity economics framework the army has incentive to change recruits' social categories, from civilians to soldiers, from outsiders into insiders, respectively. Insiders have certain behavioral norms and ideals, military code of conduct that prescribes how soldiers should or should not act. If they fail to live up

the ideal, they will lose identity utility. (Akerlof and Kranton 2010). According to leading military sociologist, ideal soldier should be “war oriented in mission, masculine in makeup and ethos, and sharply differentiated in structure and culture from civilian society (Moskos et al. 2001). Air Force ideal of “Service before Self” and the fact that officers must follow the rules of the organization and obey the orders given in the chain of command having “faith in the system” (Benton 1999), describe well the norms for the insiders. From a company point of view military makes an investment to change the categories with initiation rites, short haircuts, boot camps, uniforms and oaths creating common identity for the soldiers (see Bradley 1999). Harsh training is partly one of them, of course there is the direct benefits from learning of skills and developing physical form, but cognitive-dissonance theory from psychology suggest that it can also be an effective way to change soldiers’ social identities. Recruits must explain to themselves why such a treatment is acceptable for them and simultaneously when doing so they create a new self-image of themselves. (Akerlof and Kranton 2010.)

Military discipline is also one aspect that supports the framework, since it can reveal a community's behavioral norms. Discipline proceedings do not just punish the offenders, but also define and inform the nonoffenders about proper conduct (Erikson 1966.) Punishment is not just a fine, which is paid upon breaking the rules, but more of idealized response to discipline compared to that imagined responses of standard economics. Becker's (1968) fines, dismissals in efficiency wage models (Shapiro and Stiglizt 1984 and Becker and Stigler 1974) or the pay variations in principal-agent models give the agent optimization problem where discipline reduces income. There is no place in these models for the moral obligation of the agent.[13](Akerlof and Kranton 2005.)

In military there also exists workgroups and related norms. The dilemma, whether unit leaders owe their allegiance to their men or to the higher command, is obvious one. Exemplary study is from Stouffer et al. (1949) form Second World War in which the officers, non-commissioned officers and privateers were asked questions regarding

[13] Harsh punishments also have direct role in the operation of successful military (Akerlof and Kranton 2005).

appropriate disciplinary actions in different situations. One question was for example, which would be suitable punishment for bringing liquor bottle into the barracks. Soft action was considered appropriate by 70% of privates, 59% of NCOs and 35% of officers. This presents the same result as in all cases, that NCOs took the middle ground between the enlisted men and officers, showing the ambiguous position of supervisor. (Akerlof and Kranton 2008.)

4.1.2 Civilian Workplace

Social identity economics concept of insiders and outsiders can explain the how employees relate to the firm and how they could be motivated to work differently. In management literature the dichotomy between intrinsic and extrinsic motivations is one of the central themes, and it matches the distinction of worker's into insiders or outsiders. Later management literature has studied the difficulties in observing of the efforts of the workers and emphasized the importance of individual and group motivations. Current literature underlines the role of management in changing the workers' objectives. Management by objective is the strategy where employees take part in setting their own goals, which aligns the objectives of management and workers to same. In terms of the model this would be described as insider sharing the goals of the company. (Akerlof and Kranton 2010.)

The frameworks feasibility to explain also worker motivations and economics of organizations is supported by many empirical findings and studies. One study about company's commitment to customer service and quality of its products says that these efforts pay off, since when employees are proud of the company's products and services, they are more motivated (Peters and Waterman 1982). Bewley (1999) conducted a research in Connecticut, where he interview mostly smaller companies in the recession of early 1990s. The finding was that companies did not lower the workers' pay although it would have been possible. The reasoning for this behavior was that the employees could identify with their firm and its objectives. (Akerlof and Kranton 2010.) Many other studies describe this categorization of employees either to

insiders or outsiders and the behavior following it (see Terkel 1974, Smith 2001, Juravich 1985, Newman 2000). The General Social Survey (GSS), an annual survey to about three thousand employees, had in 1991 module about work organizations. Most answers regarding how well employees shared the values and goals of the companies were considerably high and the answers only differed only a little bit between blue-collar and white-collar jobs, or across races or genders. Of course these do not directly tell, if companies invest into identity, or if workers select jobs they identify with. It might also be in order to minimize the cognitive dissonance workers take the values of the firm as their own, but “all of these explanations fit our general framework.” (Akerlof and Kranton 2010.)

In addition to workers insider and outsider identities, many ethnographies have found out, that employee's related more often with immediate colleagues than to the firm as a whole. These ethnographies support also the fact, that these workgroups who are not monitored create norms that restrict output. With supervision firms can gain information and then adjust the incentive pay accordingly. Supervision is greatly resented by workers and they might adopt identity in opposition to the firm and therefore also require higher compensation for working in firm’s interests. Akerlof and Kranton (2008) studied with their framework how supervision and group identities at workplace affect the trade-offs. They followed “the social psychology of intrinsic incentives that depend on how workers see themselves in relation to the firm.” (Akerlof and Kranton 2008.)

Frederick Taylor's view that management defines tasks, determines the best ways to perform them and then pay for that performance (see Hodson 2001) were questioned by the human relations movement in studies of organizational behavior which started in 1930s with the study of Western Electric Company by industrial sociologists Mayo, Roethlisberger and Dickson. The Bank Wiring Observation Room experiment shows that workers may respond to strict supervision with decline in effort. Small group of employees producing telephone switches in an isolated room was observed. A clear norm for output was established by the group, two switches per day. There were two different supervisors for the most of the experiment. When hard line supervision was

conducted, the workers retaliated by sabotaging the production, breaking the two machine per day norm. The resolution was that the supervisor was transferred to elsewhere. The other supervisor in turn was aware of this norm, and didn't report it forward, and the workgroup continued production with its own norms. (Homans 1951.) One other classical example of workplace studies is the Alvin Gouldner's (1954) Patterns in Industrial Bureaucracy, where the effect of change in management policy was studied in a wallboard plant. Old manager had relaxed management culture with good worker morale, perks that were formally against company rules and other flexible views towards material use, time stamping and holidays. This in the framework corresponds to the culture of no monitoring and a workgroup norms. After his death he was replaced by a new manager who exercised a strict and by-the-book management policy with strict supervision and trimming the perks given in the past. This created in the frameworks terms an outsider identity for the employees, since workers started to recent him and his policies. (Akerlof and Kranton, 2008.)

Loose supervision was seen in two studies where a small machine shop was observed 25 years apart. Both studies give evidence about workgroup norms and loyalty. Workers had pay based on hourly wage and a job-specific piece rate. Aim of the management to make the piece rate equally difficult to achieve failed, and some jobs were easier than others. The workgroup norm was to make medium effort, so that they would not earn too much. Management turned blind eye to these norms, most likely since satisfactory results were gotten. The strategy for employees' was to make out. (Burawoy 1979 and Roy 1953.) One statistical study of a heavy machinery plant in Midwest provides more evidence about workgroups and their norms. Employees were assigned to different jobs almost at random, noting that similar jobs might require similar characteristics. Index about workgroup cohesion constructed from questionnaires was analyzed against individual worker productivity. Data shows that variance in productivity among individuals in cohesive workgroups was lower than in non-cohesive workgroups. This supports the fact that in some workgroups the norms were affecting the employee behavior. Study also showed effect of strict supervision, since employees gave also answers whether the foreman was near the men or the management. (Seashore 1954.)

5 FORMAL MODEL OF SOCIAL IDENTITY ECONOMICS FOR ORGANISATIONS, SUPERVISION AND WORKGROUPS

In a basic economics model a worker's utility depends on income and effort and there is no relation to how the employee considers oneself as a member of a firm. Akerlof and Kranton (2005 and 2008) made a more specified model from their previously presented framework of social identity theory. Akerlof and Kranton (2005) expanded the classical principal-agent model and introduced the framework of social identity economics to explain the employee's behavior in organizations. In the model there is two people, owner of the firm, called principal and then the worker, called the agent. Worker as an agent can choose between two levels of effort, high and low. The likelihood that the firm will earn larger revenues is higher with high work effort. Principal does not have information about the level of the effort, but only sees the level of revenues. The principal can affect the worker by paying more if the revenues are of high level and less if they are low. (Akerlof and Kranton 2005 and 2008.)

The standard economics would now derive the salaries depending on the level of revenues. Like in the social identity economics framework let us now assume that there exist two social categories for the worker, insiders and outsiders. Let these categories be associated with behavioral norms about the level of effort the group members should extract: insiders conduct high effort when the outsiders should conduct low effort. Insider's ideal is to make higher effort as he loses identity utility if he deviates from the ideal. Therefore it is not required to pay him so much extra for conducting the high effort. In this situation there shall be less difference between the wage levels. This difference in costs of efforts is not a new one, but the source, social identity, is a new reasoning for it. Outsiders in turn lose identity utility when making the high effort, and therefore should be compensated extra for that, and therefore the wage differential between the effort levels would be larger. (Akerlof and Kranton 2005.)

For companies this creates incentives to induce insider identity into the workers, when the pay difference is great enough, since insiders are willing to work harder for lower

overall pay. It should be noted, that inducing this change with trainings and benefits can be costly. According to the framework, companies overall revenues are likely to be higher, when they invest into worker identity in situations when: inculcating identity is not costly, observing worker's effort is hard, output or revenues are depended on special efforts on peak seasons, workers dislike risk, economic uncertainty exists or the high effort is crucial for the company's output. (Akerlof and Kranton 2010.)

5.1 General Case of Employees as Insiders or Outsiders

The new model incorporated social categories and behavioral norms of a workplace into the analysis of workers' actions and their incentives. In the model, the basic principal-agent setup between firms and their employees described previously captures the current economic thinking of motivation in organizations. "The firm wishes to devise the optimal contract to maximize its expected profits, which are expected revenues net of expected wage payments. The contract will optimally trade off worker's wages, which reduce firm's profits, against incentives for work, which increases the firm's revenues. The worker wishes to maximize expected utility." Let the worker have two effort levels from which to choose from denoted by A and B, high-effort action and low-effort action respectively. Let those both actions have costs for the worker, cost e_A for the high-level effort and for the low-effort action cost $e_{B,}$ where $e_{A>}$ e_B. To give a worker an incentive to take the high-effort action, the firm will pay high wage when they observe high revenues and low wage when it observes low revenues. With a sufficient large difference in the wages, the worker will do the high-effort activity. (Akerlof and Kranton 2005.)

Following the framework previously presented and now adding the social identity in form of social categories gives the worker possibility to take one of two identities: insider, N, or outsider, O. As stated before both of these identities are associated with corresponding behavioral norms. The insider should by the behavioral prescriptions conduct the high-effort activity, A, and deviation from this would create loss of identity

for them. The outsider in turn has a norm stating that the conducted action should be of low-effort, B. Limiting the categories for now to two, **c** = N or O, the general utility function with social identity framework for the worker is of the following form:

(3) $U(y, e; c) = \ln y - e + I_j - t_c|e^*(c) - e|,$

where $\ln y$ is the diminishing marginal utility from income, e is disutility from the chosen effort, $I_{j,}$ is the identity utility from being in category c and $t_c|e^*(c) - e|$ is the disutility from diverging from the ideal effort level for category c, denoted $e^*(c)$. (Akerlof and Kranton 2005.) The parameter t_C scales the loss of the utility (Akerlof and Kranton 2008). The firms profit function, the employee's utility, the relation between worker effort and firm revenues and the information available to the firm are sufficient to determine the firm's optimal wage payments to the worker (Akerlof and Kranton 2005).

5.2 Including Workgroups and related Norms into Analysis

Now following the ethnographies more closely and specifying the model even further to allow workgroups with their norms that restrict output and possibility for supervision like made by Akerlof and Kranton (2008). Let there be now a third action Γ. This is the behavioral norm for a workgroup, which is supported by the empirical observations previously presented. It is somewhere between the norms for insider and outsider, actions A and B respectively. Worker can conduct this workgroup action at a cost $e_Γ$, where $e_A > e_Γ > e_B$. Now lets assume the revenues for the firm: when the agent takes the action A, the firm's revenues are high, π_H, with probability 0,5 and low, $\pi_{L,}$ with probability 0,5. If agent takes the action B the firm's revenue is always low $\pi_{L.}$. When agent takes the workgroup action Γ, the probability of high-level revenues, $\pi_{H,}$ is γ/2 and of low-level, $\pi_{L,}$ is (1-γ/2), where $0 \leq \gamma \leq 1$. The parameter γ represents how workgroup interaction and norms may reduce productivity. When γ is close to 1, the workgroup action is close to the action of the insiders, and in turn, when the γ is close

to 0, the workgroup norm is close to norm of the outsiders. (Akerlof and Kranton 2008.)

"Following ethnographies and social psychology experiments, we assume that appointing a supervisor who reports on workers creates a rift between the worker and the firm: the agent adopts outsider identity" (Akerlof and Kranton 2008). The model was limited because of the assumption that the employee could primarily identify as an outsider or as a member of a workgroup. Let c_{WG} equal G or O, workgroup or outsider identity respectively. The worker's utility function was the following:

(4) $U(y, e; c_{WG}) = \ln y - e - t_c|e^*(c_{WG}) - e|,$

where there is no direct identity utility I_J and the effect of identity economics comes through the scaled disutility from differentiating the behavioral norms of the assigned social category, $t_c|e^*(c_{WG}) - e|$. (Akerlof and Kranton 2008.) The omitting of the identity utility, $I_{j,}$ was not clearly motivated. The probable reasoning behind this is, that when insider identity is omitted in their analysis, the other social categories do not get positive identity utility as such from their actions. So the identity utility is basically scaled to zero. So when comparing equation (4) to (3), the identity utility is described with the scaled disutility from deviating from the behavioral norm, and therefore the identity utility can be zero at largest when people are acting according to their norms.

Now adding the supervision into the model, let us assume for simplicity that it is cost free and successful with probability p, which is the probability with which supervisor can verify if the worker has chosen low-effort action. If verification is successful the worker can be fined amount f from his wage. This can be considered as a kind of retaliation like in the simple game theoretical model presented previously. Let the w_H^C be the wage for the worker when revenues are high, and w_L^C wage when revenues are low. Principal's expected profits for the case when observing outsider identity which is the outcome of the supervision are:

(5) $\Pi(O) = 0{,}5[\pi_H + \pi_L] - 0{,}5[w_H^O + w_L^O].$

The participation constraint, which states that agent chooses to work for this company rather than for an outside opportunity instead, $\bar{u}$, is of the following form:

(6) $0{,}5lnw_H^O + 0{,}5lnw_L^O - e_A - t_O|e_B - e_A| \geq \bar{u}$. (Akerlof and Kranton 2008.)

This means that the expected utility for the worker has to be higher or equal than the utility he would be able to get from another workplace. The incentive constraint that the worker will prefer to pursue effort A rather than B is of the following form:

(7) $0{,}5lnw_H^O + 0{,}5lnw_L^O - e_A - t_O|e_B - e_A| \geq (1-p)lnw_L^O + pln(w_L^O - f) - e_B$.[14]

This describes that the expected utility for the high effort has to be larger or equal than the utility from the low-level effort. Finally the limited liability constraint is given by:

(8) $b \leq w_L^O - f$,

where b>0. This constrains the fines to a certain level b. When all of these constraints (6) - (8) are binding, we have:

(9) $f = w_L^O - b$

(10) $w_L^O = \exp\left[\frac{1}{1-p}\right][\bar{u} + e_B - plnb]$ and

(11) $w_H^O = \exp\left\{\left[\frac{1-2p}{1-p}\right][\bar{u} + e_B] + 2(1+t_O)(e_A - e_B) + \left[\frac{p^2}{1-p}\right] lnb\right\}$.

[14] In Akerlof and Kranton (2008) the equation was given as: $0{,}5lnw_H^O + 0{,}5lnw_L^O - e_A - t_O|e^*(c_{WG}) - e_A| \geq lnw_L^O + pln(w_L^O - f) - e_B$, which is inconsistent.

From these equations (9) - (11) can be seen the trade-offs created by monitoring. As p increases, the, w_L^O increases whereas the w_H^O decreases. Therefore the gap between wages decreases and thus lowers the cost of incentive pay for the principal. Simultaneously the strict supervision also tightens the participation constraint and the worker with the outsider identity must be compensated more to perform action A, namely the scaled gap of e_A-e_B. This is more than would be needed for incentive pay in case without supervision when workgroup norms would exists and the difference would be smaller than e_A- $e_Г$. (Akerlof and Kranton 2008.)

Now consider a case where principal does not supervise the worker, so by assumption based on the ethnographies mentioned previously, workers adopt workgroup identity and their ideal conduct is of medium-level effort, Г with cost of $e_Г$. The possibilities for the principal are either to pay higher wage to induce workers to select the high-effort action A or let them perform the workgroup norm. The equations for firm's profits, worker's participation constraint and incentive constraint are following:

(12) $$\Pi(O) = 0{,}5[\pi_H + \pi_L] - 0{,}5[w_H^G + w_L^G],$$

(13) $$0{,}5lnw_H^G + 0{,}5lnw_L^G - e_A - t_G|e_Г - e_A| \geq \bar{u},$$

(14) $$0{,}5lnw_H^G + 0{,}5lnw_L^G - e_A - t_G|e_Г - e_A| \geq \left(\frac{\gamma}{2}\right) lnw_H^G + (1 - \frac{\gamma}{2})lnw_L^G - e_Г$$ and,

(15) $$0{,}5lnw_H^G + 0{,}5lnw_L^G - e_A - t_G|e_Г - e_A| \geq lnw_L^G - e_B - t_G|e_Г - e_B|.$$

Incentive to choose action A over action Г is shown in constraint (14) and incentive to choose action A over action B in (15). These constraints show the costs and benefits to the principal of no supervision, since the supervision makes it more costly for the principal to induce the high-effort action when the worker considers himself as an outsider. Worker's ideal effort Г is higher than B, but no information from agent's

action is received. When γ is sufficiently close to 1, the (14) is the tighter constraint and when it and (13) are binding the optimal wages are:

(16) $$w_H^G = \exp\left\{\bar{u} + e_A + t_G|e_A - e_\Gamma| + \left[\frac{1+t_G}{1-\gamma}\right](e_A - e_\Gamma)\right\}$$

(17) $$w_L^G = \exp\left\{\bar{u} + e_A + t_G|e_A - e_\Gamma| - \left[\frac{1+t_G}{1-\gamma}\right](e_A - e_\Gamma)\right\}.$$

(Akerlof and Kranton 2008.)

Comparison with previous wages shows one reason for lower wage costs. Because (e_A-e_Γ) is less than (e_A-e_B), the participation constraint is relaxed. The equations also show that eliciting action A from workgroup can be difficult, since the difference between wages is:

(18) $$lnw_H^G - lnw_L^G = 2(e_A - e_\Gamma)\left[\frac{1+t_G}{1-\gamma}\right].$$

So the incentive wage to choose action A may get quite large, especially when γ approaches unity, meaning that the workgroup norm is near the high-level effort. This is because high revenues are realized more often, so it becomes costly to compensate for high effort. The choices that are left are either to monitor or let the worker perform the workgroup norm Γ. With no supervision the firm can elicit Γ with a lower wage differential than it would take to elicit action A with supervision. There exists an effort cost of Γ over B, (e_Γ-e_B), which is partially offset by t_G<1 by the utility gain of $t_G|e_\Gamma - e_B|$. The incentive constraint of Γ relative to B is:

(19) $$\frac{\gamma}{2} lnw_H^G + (1 - \frac{\gamma}{2}) lnw_L^G - e_\Gamma \geq lnw_L^G - e_B - t_G|e_\Gamma - e_B|.$$

If this constraint (19) is binding, the difference in log wages is:

(20) $$lnw_H^G - lnw_L^G = 2/\gamma(1 - t_G)(e_\Gamma - e_B).$$ (Akerlof and Kranton 2008.)

5.3 Results from the Analysis

So if the γ is fairly close to one, meaning that the workgroup norm is near the high-level effort, or if the t_G is fairly high, meaning that the negative identity utility from deviating from the internalized norm is larger, or if the cost for workgroup effort is close to the outsider effort, principal would prefer to elicit the workgroup norm Γ rather than the high-effort action A. Comparing the options of principal, there exist $p'>0$, such that for all lower values of p, the principal would prefer not to supervise. This is so although supervisor could possibly detect low-effort action, but since supervision can lead into resentful workforce, which identify against the company as outsiders, eliciting performance from a workgroup may be relatively inexpensive. (Akerlof and Kranton 2008.)

So the outcome of this specified model is that even though the workgroup may have ideals and norms that are different than the principal has, the optimal outcome for the principal might be to let them work according to the norms, since the other outcomes could prove costly. This is supported by the ethnographies and studies that were presented on the empirical part of the paper. The model is based on the malleability that subjects can easily be transferred from social category to another and that management policy can affect these identifications. (Akerlof and Kranton 2008.)

6 CRITISISM

In addition to praises that Akerlof and Kranton were the firsts to introduce a generalized economics analysis framework, where they systematically introduce the concept of identity as an argument in the utility function and all the new research that has been conducted and publishes after their series of articles, their framework and models have also received criticism. Most of it is towards the concept of identity they incorporate into the economic model. The critique is that since their concept of identity based on social categories and the norms that are observed and enforced are

related to social context also, therefore it is the concept of social identity and not the total identity of individuals. The people's personal identities are omitted in the analysis. (Davis 2007 and Aguiar et al. 2010.) Part of the criticism is also towards the concept of identity, which is used in many fields of study with different notations and explaining different things (Aguiar et al. 2010). There is also criticism towards how people actually see the ideal norms and characteristics in relation to their actual behavior (Aguiar et al. 2010). One should also be critical towards using of empirical evidence and inserting noneconomic motivations as a basis for new economic theory. These topics are covered shortly in the next four chapters.

6.1 Total Identity consists both of Personal and of Social Identity

The Akerlof and Kranton's framework as well as other literature on economics and identity have mainly been influenced by theories from social psychology (Aguiar et al. 2010). This means that although Akerlof and Kranton speak about person's self-image and identity overall, these terms are still both linked to social categories. As people identify with some and differentiate from others, the concept they incorporated into the analysis is the social identity one. In many critical papers it has been stated that in the framework the personal identity, person's sense of self without others, is omitted. Formally in the framework the self as a whole is the utility function, U_J, and the identity component I_J does not depend on U_J, because of this the identity as a self-image is not reflexive. The self-image in the framework reflects how well individual's characteristics or actions match the ideal characteristics or actions of certain social category, and therefore "I_J might better be labeled as a social image of the self which the individual adopts." (Davis 2007.)

Total identity is not only based on social context, but individual's personal identity matters also, since "social identity is only a portion of the identity of a person" (Aguiar et al. 2010.) The interpretation of self-image should therefore not be confused with the often used idea of self as a whole. The social identity, person identifying with others, is different from personal identity, individual's identifications without others. In social

identity there exist similar commonalities between members of a social category differences between categories. Personal identity refers more to individual level, self as different from other people overall. (Davis 2007.) It could also be considered as a kind of reference between multiple social identities, since given the consensus that people can have multiple identities personal identity should be used as reference for the social identities. So it would state which category and therefore which norms individual ould choose to or not to follow in different situations. (Aquiar et al. 2010.) If there is no account of the "bearer" of the social identities, how could one rank between multiple social identities (Davis 2007). Personal identity would tell us how the individual would fit the action to the image that individual wants to have about oneself (see Sen 2004 and Teschl 2006). (Aguair et al. 2010.)

Social identity theory generally does not consider relation between personal and social identity, and also as the self-categorization theory depersonalizes the individuals when they adopt social identities, creates embodiments of group prototypes rather than as independent individuals. (Davis 2007.) Individual's personal identity refers to his self-categories which are based on his differences from other individuals and determine him as a unique person. Social identity in turn refers to social categorization of oneself and others, which is based on shared similarities between members of the same group as well as differentiations to members of other categories. (Turner 1999.) As this social identity theory is more of a psychological one, and distinguishes between in- and out-groups, It allows people to have multiple identities, but the relation between them is not explained. (Davis 2007.)

Davis argues that in sociological approach people can also have multiple relations to others, which cannot be just restricted into yes or no group memberships. In sociological approach to identity there is a mutual and interactive relation between the self and society, both influencing each other. Individuals' actions are always in social context through different social structures, which are conceptualized in terms of different social phenomena. The basic idea is that individual's personal identity and society affect each other, and therefore person is seen to have a status also without social context, personal identity. Using this concept Davis inverted the utility function

and created a new production function which would then cover all the identities. His argument was that the previous scope of Akerlof and Kranton is limited as in social psychology's literature there is much evidence that people re-order their social identities when in conflicts, and not just act accordingly to the norms they have from existing social rankings. (Davis 2007.)

6.2 The Vague Concept of Identity

The concept of identity in addition its use in common language is widely used in many fields like sociology, political science and psychology. It is used as a concept to explain how people see themselves and how they relate to each other, for socially constructed meaning which is based on biological aspects like gender or race, as a term for identification with national, cultural or linguistic symbols, as a cognitive schema by which people see the world, different forms and understandings of oneself, as a prescriptive representation of political actors and much more. (Aguiar et al. 2010.) The term identity is therefore widely used in explaining different things (Brubaker and Cooper 2000). Only in economics the term is used as payoffs or outcomes, set of social groups and categories, internalized social norms for behavior, as beliefs in profound personal value, as a perpetual lens or as non-instrumental deontological elements of action. These multiple usages and definitions of the term raise the question about the usefulness and efficiency of the whole concept explaining the causality between identity and action. (Aguiar et al. 2010.)

Also there is difference in the meaning of the term depending on if it is used as categories of practice or as categories of analysis. It is hard to differentiate if the term identity is used as describing the people's everyday life and how they see themselves in their economic, social or political practices or whether it describes the analytical concept that is part of the theory of social action. Aguair et al. consider that this difference would be good to clarify, whether the researcher has given the category for a person or is the term used to describe how the person actually sees oneself as an outcome of true process of self-categorization. (Aguiar et al. 2010.)

6.3 Difference between the Norms and Actual Behavior

Aguiar et al. (2010) conducted a study about personal identity using dictator game and the identity economics framework of Akerlof and Kranton. Their focus was on personal identity, since in their critique, like previously mentioned, they consider that the concept of individual's personal identity has been omitted in the Akerlof and Kranton framework. They used dictator game, where subjects get real money to be distributed among themselves and anonymous counterparty. They have to decide how much money they keep for themselves and how much to give away. In the experiment subjects were first asked, what they thought, how much they should give and keep. This was then followed by actions. In the former part, using the terminology of the identity economics framework, subjects gave insight to the behavioral norms about how they should act. This was then used as prescriptions for behavior. Conducting the experiment in a way where the social distance is large, since the subjects are without any information about the counterparty, their personal identity is revealed more clearly through their self-definition and self-understanding. (Aguair et al. 2010.) This setup was without social context since in another experiment using dictator game with hypothetical money and where social context was allowed the results were that subjects give more money to those people, who are in a wide range of social categories more similar to them (Ben-Ner et al. 2006).

Aguair et al. used identity here as an analytical category and grouped the subjects into different categories according their answers and decisions. They defined personal identity to be what the subject says he should do. They assumed that one key aspect of identity economics framework is the coherency between one's personal identity, based on answers about what they consider they should do and then the actual action observed. They considered people's identities unstable if they do not act accordingly to the norms they have themselves stated. The result was that conduct differed largely from the norms. Majority of the subjects did not donate half to their counterparties although majority of subjects also stated that they should donate half. The fact that people did not act according the common codes of conducts they themselves

determined, casts doubts about the concept of identity and the fact that it might conceal other drivers for behavior like interests, beliefs and values. (Aguair et al. 2010.)

Social categories can explain the economic and noneconomic behavior of individuals to some extent, but there is a wide margin for discretion. Using large social categories like gender or race the individual's personal identity or his identification with values, interests and desires could be more suitable framework. As the results about personal identity as a driver for behavior in many examples and cases explain the decision making of people, but using it as explaining concept on individual decision-making level raises contradictions. (Aguiar 2010.) The critique here is a little contradicting. Firstly they say that identity economics is based on social categories and person's sense of self should also be considered, but secondly, the results of their experiment do not support the fact that on personal norm level, people would act according to them. In the experiment it can of course be so that the answers given about the ideal behavior were not the actual norms for the subjects but more like ideals of a perfect world. It can also be that the answers reflect how the subjects would have liked others to behave. One supporting factor to use identity more on social level than on personal level is the group pressure which can support the behavioral norms in decisions where social context matters since it can force people to align around certain identity out of group benefits of obligation (Aguiar 2010).

6.4 Overall Comments about Identity in Economics

Economic theories and the models are simplified projections of reality so that they can be used in explaining the decision-making of individuals. The preferences of individuals cover the incentives that individuals have. By adding identity into the standard utility function the framework can explain the behavior individuals more than standard models would do, but standard models could also cover these topics. Rationality is not assumed in economics, but it is more of a methodological stance. This reflects the decision of economist to "view the individual as the unit of agency and investigate the

interaction of the purposeful behaviors of d ifferent individuals within various economic institutions." The methodological usefulness of this decision can be questioned by challenging an individual model or the economics' combined outcomes. There are numerous ways to incorporate changes into individual preferences in economics by assuming that they depend on "an exogenous state variable, on the information of his opponents, or his own consumption history." It can be that the economists' concept of individual is not suitable for psychologists' goals and it is not even necessary that economist should incorporate the goals and methods from psychology. "Greater psychological realism is not an appropriate modeling criterion for economics." (Gul and Pesendorfer 2008.)

7 CONCLUSIONS

The purpose of this thesis was to show how economics together with the concept of social identity can explain decision-making. I have presented the Akerlof and Kranton's seminal framework of identity economics and the specified models that have followed are part of the behavioral economics in the sense that they incorporate noneconomic motivations for behavior into economic modelling and base the motivation for the model on empirical and experimental findings. However their framework differs from the most of the behavioral economics of today, since it does not deviate far from the standard economics when they incorporate the identity based on social categories into the utility function as an endogenous variable. The concept of identity they incorporate is based on the social psychology's studies about identity, social identity approach, which constitutes of two psychological theories: the social identity theory and self-categorization theory. These theories motivate how people see themselves as part of groups and how their thinking and feelings relate to the norms they observe and internalize. This structured way of incorporating social context into economics creating the augmented utility function brings clearly defined concepts from noneconomic science into the analysis. As economics have usually been careful not to extend their

models too much, this addition offers nice and structured framework which can be used in explaining peoples' behavior.

Their framework is useful in the sense that it helps to explain behavior that is observed, but cannot directly be explained using the standard economic outcomes. As people are often tied to a social context, taking this into account in the utility function is also reasonable. The addition of identity can describe the individuals' preferences regarding their behavior more than normally in an economic model. This like in many empirical cases seen previously can shed some light into behavior that would seem irrational or illogical for others, if their identities differ. This can explain behavior in different kinds of organizations, as well as between races, voter behavior in politics or relationship between consumers and advertisers.

Although the framework has received criticism that the concept of identity it tries to incorporate is not in psychological sense the concept of individuals whole identity, in my opinion restricting the framework just to consider social context is reasonable. People interact so that social context is usually present, and in explaining the behavior it is good to consider peoples' opinions how they think they should behave. As the critique is right in the sense, that in the framework Akerlof and Kranton have omitted the individuals' personal identity, which could be used in order to determine relations between multiple social identities, I think one should make this restriction to ensure less complexity in the framework. This is why I think their framework should be considered as the theory of social identity economics.

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