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REASONS FOR DOING GOOD: BEHAVIOURAL EXPLANATIONS OF PROSOCIALITY IN ECONOMICS

ABSTRACT. This paper discusses issues of altruism and prosocial behaviour within economics. The first part discusses relations between understanding of expected utility theory and features of an economic man. It also defines the most important properties of the game and provides some simple solutions. The second part includes a critical overview of selected and increasingly complex concepts explaining the phenomenon of prosocial behaviour. It begins with models focusing only on final allocations and ends with those studying the role of intentions, motivations and social status of agents. It also shows how needs, social conditions, norms and individual characteristics affect the propensity to behave prosocially.

Introduction

The *homo economicus* model until quite recently was almost unanimously accepted as, at least, a normative standard of economic behaviour. A subject within this model is characterised with a set of elegant attributes, although from a relatively long time we know that these attributes are at odds with properties of actual economic actors. Among features forming the core of *homo economicus* we usually find self-interest, maximisation of expected utility, consistent preferences, rationality, knowledge of inference rules and complete information (Solek, 2010, p. 22). Above all, however, her actions are intentional, based on knowledge and she always chooses proper tools to achieve intended objectives (Szarzec, 2014, p. 195).

This model includes thus a number of assumptions but most of them met, sooner or later, with an open criticism. Already in the 50s of the previous century we were informed that actual cognitive capacities are inconsistent with those described in the standard model. Only slightly later psychologists (including Slovic, Lichtenstein, Kahneman and Tversky) proved that people in their choices are driven by risk aversion, and therefore weigh expected utilities differently than the orthodox theory predicts. Shortly after publication of the classic paper written by Kahneman and Tversky (1979), there came another offensive. This time, however, the blow was struck by economists themselves: Güth, Schmittberger i Schwarze (1982) somewhat accidentally proved that people are not only more stupid and fearful than *homo economicus*, but also less selfish (Solek, 2010, p. 22). They designed a game called later *ultimatum* that revealed another weakness of the formal model of economic behaviour. A victim of this not entirely intended coup was egoism. Already earlier this assumption had

been challenged by Simon, who indisputably showed that when maximisation, due to cognitive constraints, is impossible, a subject will rather choose a satisfying, or as Akerlof says *near-rational*, action (Akerlof, 2002). 1982 is, however, the year that could be accepted as a conventional turning point, after which we observed an intense growth of interest in altruistic behaviour and motivations, and the economic theory was enriched with another, beside the cognitive one, behavioural pillar indicating how motivational factors systematically lead the mind astray. More often than it is expected people pay their taxes, protect environment, participate in charity actions, vote and finally less frequently free ride. Before, however, we resolve, whether the observed behaviour is altruistic or not, we should focus for a moment on the experiment that caused all the fuss.

1. The ultimatum game has begun

The intellectual turn toward studying a philosophical in its nature issue is all the more surprising when taking into account the simplicity of the tool applied. The first player, *X*, receives a certain amount of money, say 100 dollars, and is required to divide it between herself and the other player (some designs allow submitting *zero* offers). A decision made by the second player, *Y*, ends the game. If the offer is accepted, then the amount is divided accordingly. If, however, *Y* rejects the proposed share, both players end the game empty-handed (see *Figure 1*).

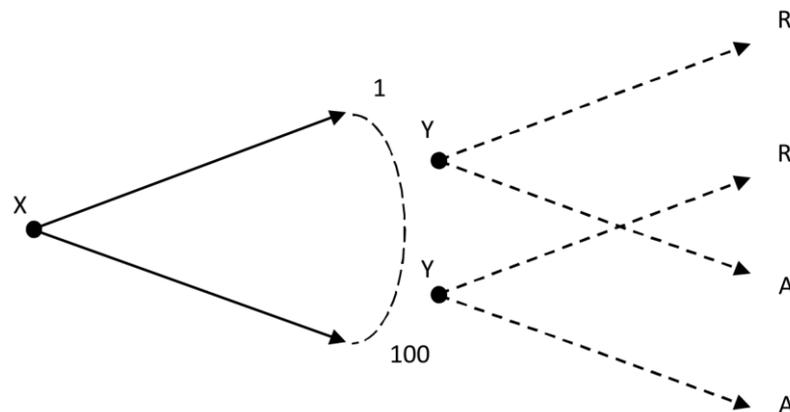


Figure 1. Ultimatum game

Source: Own study based on Güth *et al.*, 1982.

Is it indeed possible, that this uncomplicated game could constitute a riddle? Let us consider the rationality assumption in its classic form – in this game *Y* could gain at least 1 dollar. Because 1 is better than 0, a rational player limited in her motivations to narrow self-interest, should always accept an offer, regardless its nominal value. On the other hand, a rational player *X* should always offer the least possible amount – if she must share, then the lower the offer is, the better. If, additionally, *X* assumes that *Y* is rational, then she needs not fear that her offer will be rejected (see *Figure 2*).

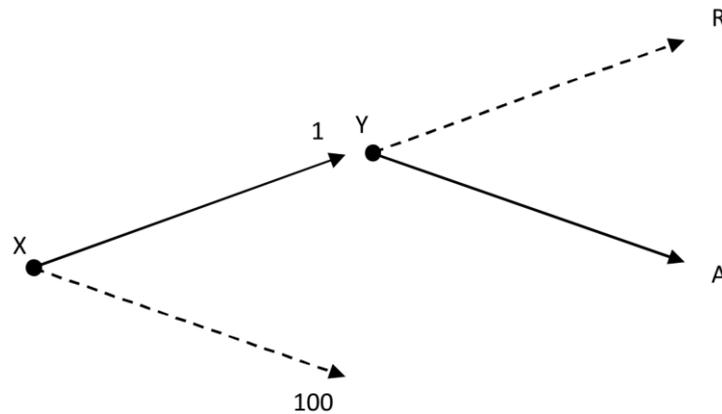


Figure 2. Rational solution of the ultimatum game

Source: Own study based on Güth *et al.*, 1982.

So much for the theory. Empirical studies performed across the world and with great dedication showed that reality disproves it. First of all half of the offers lower than 20% of the pie are systematically rejected. Offers lower than 10% are extremely rare and the most common offers range from 40% to 50% (Camerer, 2003, p. 49; Dixit, Nalebuff, 2009, p. 72). Experimental results clearly contrast the rationality assumption. But stating the fact is merely a beginning – what we expect is an explanation or at least an impression that we are getting closer to it. Why players, both X and Y, behave irrationally? And most of all, why their behaviour bears the hallmarks of altruism?

2. Altruism from the perspective of behavioural economics

The entire spectrum of behaviour regarded as altruistic could be divided into two general types: *self-interested* and *other-interested* (that is truly ethical in a sense given to this concept by Kant for example). This philosophical understanding is sometimes close to definitions of altruism adopted in natural languages, but is far from being reliable. Judging an action, relatively easily we can verify, whether it brought some benefits to other people, but only with a great difficulty, if at all, we can resolve, whether it was beneficial for an agent that undertook it. And even less, what were her motives. Benefits may be unobservable (e.g. linked with improved well-being), may arise from egoistic motivations (such as prestige or acceptance) and finally may be postponed in time. Therefore, one should not be surprised that economic theories that today refer to altruism, concentrate rather on a specific subtype of *self-interested* behaviour, namely *other-regarding* as contrasted with *self-regarding* (Figure 3). Because economics, similarly as other social sciences, is helpless when confronted with „real” altruism, it needs to analyse observable facts. Such behaviour, in a broad sense, meets a definition of altruism, although it is not completely devoid of egoistic component (is *self-interested*). Own benefits are thus mediated through benefits of others and linked with prosocial actions. Why should, however, these actions be considered altruistic? Is it only due to definitional reasons? But maybe because actually only such imperfect forms of altruism are observed and could be studied? To avoid misunderstandings, economists often prefer to use the term *prosocial* rather than *altruistic* behaviour. This more general term allows capturing a series of factors that (separately or jointly) can affect the final allocation of the pie. These factors include but are not restricted to fairness and will be discussed further in the second part of this paper.

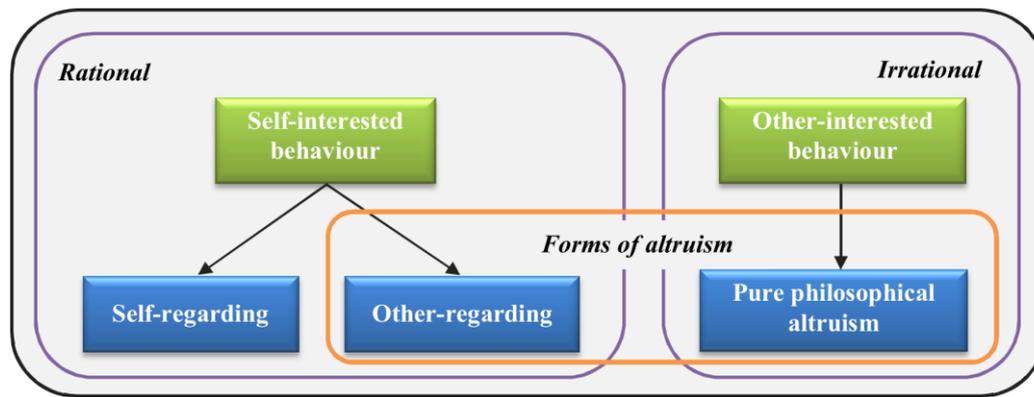


Figure 3. Typology of altruistic behaviour

Source: Own study.

The history of theories of prosocial behaviour could be divided into three general phases. (i) At the very beginning researches focused on final allocations and relations between them. Similarly as in the standard model, behaviour was assessed only based on individual's perception of utility. These models reflect the belief that utility functions are quite capacious and can include nearly everything making behaviour perfectly rational (Bolton, Ockenfels, 2000, 2005; Fehr, Schmidt, 1999; Rabin, 2002; Charness, Rabin, 2002). (ii) In the next phase it was noticed, however, that outcomes are not everything and behaviour needs to be evaluated also in terms of other factors, such as intentions or motives inducing a player to a given behaviour (Rabin, 1993, 1998; Blount, 1995; Falk *et al.*, 2003). (iii) Finally, in the third phase we observed an increasing interest in models including social status concerns, identity and image (Akerlof, Kranton, 2000, 2010; Bénabou, Tirole, 2003, 2006). A similar typology was presented by Meier (2007, pp. 53-54), who additionally mentions reciprocal altruism, but these theories could be ascribed either to (i) or (ii) phase. Relying on two papers written by Bénabou and Tirole (2003, 2006) Ariely and his team introduced another proposal (Ariely *et al.*, 2009, p. 544). They classify prosocial behaviour according to types of motivations affecting it. The first group includes intrinsic motives meaning those having sources in private preferences. The next group consists of actions motivated by extrinsic incentives such as tax exemptions or direct subsidies. Finally, the third group brings together actions motivated by a desire to achieve or maintain high social status. These factors could be named as *reputational*. Before, however, we proceed with comprehensive and nontrivial theories explaining observed anomalies, we should take a closer look at a solution introduced by Thaler, namely the *dual sophistication* concept.

2.1. Theory of dual sophistication

Nearly since the very beginning the *ultimatum* game was challenging economists and posed a threat to theories predicting behaviour in real-life economic situations. Let us then consider a relatively simple explanation adding more realism to the model (Thaler, 2000, p. 135). The first dimension covers cognitive capacities that, as we already know, even with the greatest effort, remain limited and fallacious. The second, however, requires a reflection on behaviour of other people. Using a psychological term, this is nothing more than a form of *theory of mind* manifested as a responder's minimum acceptable offer (*MAO*). We already know that generally this value is located somewhere close to 50%, although may be different for different people. When value of the ultimatum, $V(u)$, is greater than *MAO* the offer is accepted, otherwise it is rejected (see *Figure 4*). Therefore, if we suspect that a responder will

violate the economic man model, and indeed our reasons to believe so are overwhelming, it is better to offer more than the minimum allowed in the game. And better here means both more beneficial and more rational.

$$(V(u) \geq MAO) \Rightarrow A \quad (1)$$

or

$$(V(u) < MAO) \Rightarrow R \quad (2)$$

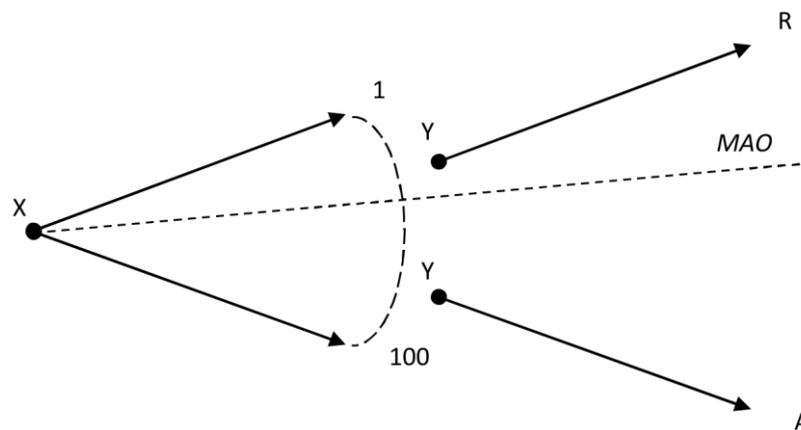


Figure 4. Solution of the ultimatum game with theory of mind

Source: Own study based on Thaler 2000.

When determining *MAO* a player may make a mistake, but ignoring this factor she behaves completely unreasonably. If, however, this explanation turned out to be the most accurate, then we would have to accept the sad fact that prosocial behaviour in this game (and presumably also in many other situations) is not motivated by altruism, but rather by subtle strategic thinking and self-interest. In practice, therefore, we would observe concerns for public goods (such as healthy environment or donations to charity), but with a view to obtain some private goods in return (such as prestige, network of relations, social image) as a background (Meier, 2007, p. 52). Fortunately, behavioural economics is not helpless when faced with such questions and subjected this hypothesis to an efficient, although very simple test.

2.2. Strategic aspect and the dictator game

What would happen, if the game was deprived of its strategic aspect? Would the players be still willing to offer more than a common sense dictates? A test for these concerns was provided by a simple modification of the ultimatum game, known as the dictator. The game starts exactly as the ultimatum: a player receives some money to divide. This time, however, the second player cannot reject the offer. The game ends, when the offer is made and since it cannot be questioned, there is no strategic aspect in it anymore. This simple test proposed by Kahneman, Knetsch and Thaler delivered some startling answers to the questions mentioned above (Kahneman *et al.*, 1986a, 1986b). These answers, although not unambiguous, still confuse supporters of the standard model.

The game that we should label as “mini-dictator” was played by 161 students, of whom only 8 were actually paid. The design assured full anonymity and players had only two

options to choose: either to divide 20 dollars equally or keep 18 dollars and offer 2. Surprisingly as many as 76% subjects decided to divide the pie equally – even though the other player could not affect the outcome. In the next stage players were grouped into three person teams and were informed that they can either divide 10 dollars with a “fair” player (one who previously divided the pie equally) or 12 dollars with an “unfair” one. The results were as follow: 88% of just players preferred to share the smaller pie with another fair subject. Among unfair players only 31% revealed preferences for smaller amount of money (see also Eckel, Grossman, 1996a).

Summing up, despite advantageous circumstances, only 40% of all dictators keep all the money for themselves and the average offer is 20% (Camerer, 2003; Guala, Mittone, 2010). Manipulating the conditions, however, we can effectively influence generosity of subjects and therefore: full anonymity and modification of social distance, defined as a degree of expected reciprocity, reduces the propensity to share and 60% of subjects keep everything while only 10% decide to offer more than 30% of the pie (Hoffman *et al.*, 1996). Providing a picture of responder makes 25% of dictators give half, but still 58% give nothing (Burnham, 2003; Burnham *et al.*, 2000). When anonymity is accompanied by an impression that money was earned only 3-5% dictators give anything (Cherry *et al.*, 2002), if however all participants (not only dictators) answer questions, but only half of them is paid for their work, the propensity to share grows to 80% (Mittone, Ploner, 2012), and when only responders work, but money is given to dictators, 20% of them offer more than half of the pie (Ruffle, 1998). The amount offered is affected also by a degree of familiarity with a beneficiary – for example when given an opportunity to donate to the Red Cross, as much as 73% dictators decide to do so, comparing with only 27% donating to some unknown organisation (Eckel, Grossman, 1996b). And finally, participants share more willingly, if they know that their money is given to poor people or will be spent on medicines (Brañas-Garza, 2006; Aguiar *et al.*, 2008). There are some researchers who even believe that the dictator game cannot measure altruism or any other form of prosocial behaviour and the observed effect is merely forced by expectations of experimenters (Frohlich *et al.*, 2001; Zizzo, 2011).

Still, however, positive offers were not eliminated in any of those variants, although in proper conditions we are relatively close to predictions of the standard model. We know now, then, that the strategic aspect affects the game, but cannot be its only explanation. We still do not know, however, what exactly motivates players to divide the pie and whether those motives could be indeed described as altruistic.

3. Theories of prosocial behaviour – an overview

Justice in the sense given to this concept by Rawls (1994) dictates to evaluate policies and actions in terms of those people, who are the worst off, who do not benefit from redistribution sufficiently or even are its victims. But empirical tests, like those applying the ultimatum game, prove that in practice the faith we put in human nature is excessive. Indeed, manipulating the conditions we can increase prosocial orientation, but such behaviour is anything but consistent with sublime, philosophical assumptions. Clearly, to a large extent, players are motivated by their self-interest for which they often sacrifice the fair division principle. A discomfort they feel, when they obtain low payoffs is not identical with the one they experience when notice that others may be worse off. Does it mean that shaping a social order, we should abandon the knowledge about the man provided by economics and psychology and conserve unreliable although praiseworthy ideals? Particularly if we already know, how achieve equivalent objectives, even when the fairness norm is not sufficiently internalised and agents care more for being perceived as fair than for the fairness itself (Andreoni, Bernheim, 2009; Bénabou, Tirole, 2003, 2006).

Based on the study performed by Andreoni and Bernheim (2009), Ariely and his team (Ariely *et al.*, 2009) tested two hypotheses, namely that (i) prosocial behaviour could be attributed to image concerns and (ii) monetary incentives can enhance prosociality. According to Bénabou and Tirole (2003, 2006) evaluation of behaviour depends on the way it is perceived by others. If a society believes that seemingly altruistic behaviour of an agent is motivated, at least partially, by self-interest, it will not increase an agent's social status. It seems that in such cases a society is rather willing to apply presumption of guilt rather than innocence. Therefore, researcher decided to check, whether people do good or rather well. The study assumed a relatively easy task, namely to press keys x and z . The more presses, the more money donated for charity. It was observed that indeed agents put more effort, when their actions were public. But in such cases external incentives (financial remuneration) did not increase agents' commitment. In private conditions, however, when neither incentive nor behaviour is known to other participants, money does its job even doubling the effort. Practical consequences of this experiment are indeed didactic: once we make behaviour public, eyes of others are a sufficient incentive. They will serve both as a pressure and a reward (see also Haley, Fessler, 2005). Adding monetary rewards will be ineffective. If, however, the behaviour is private, such external incentives may be crucial, because otherwise agents rather avoid effort or any other cost, and thus they behave egoistically (exactly like in the most anonymous variants of dictator and ultimatum games).

Of course, some agents behaved prosocially (at least to some degree) also in private conditions and without incentives, but the average number of presses was about 40% lower (900 presses in relation to 517), which clearly demonstrates that we should not have excessive trust in the sense of fairness. The hypothesis that it is the main (or maybe even the sole) driving force was challenged relatively early (Forsythe *et al.*, 1994). This complex study provided one clear conclusion: because the distribution of offers in ultimatum and dictator games is different, fairness concerns cannot be considered as a sufficient explanation. Among motives that are most often reported as sources of prosocial behaviour we find fairness, equity, equality, reciprocity, cooperation and competition.

3.1. Outcome based models

The earliest attempt to solve the paradox of prosocial behaviour precedes the ultimatum game. Its author is Selten (1978), who referred to the equity principle, according to which only quantitative factors matter, including contribution to common goods, power indices, outside options or number of people represented by a player. Thus, in the simplest version the division is proportional to bargaining power expressed as an aggregate of the abovementioned factors. Clearly, this theory cannot capture the complexity of phenomena observed during the ultimatum game and nowadays is of historical importance only, primarily because it does not explain the difference in offers between ultimatum and dictator games.

Among early approaches a theory formulated by Andreoni (1990), who distinguishes two forms of altruism (pure and impure), stands out. In a case of pure altruism, utility increases proportionally to subject's individual consumption (x_i) and cumulated wellbeing of other members of the group (w_{-i}). Formally, utility of i could be expressed as follows:

$$u_i: (x_i, w_{-i}) \rightarrow \mathbb{R}; \text{ where: } \frac{\partial u_i}{\partial w_{-i}} > 0. \quad (3)$$

The problem, however, is that the theory eliminates the relation between i 's utility and her contribution to the wellbeing of others. Therefore, a rational, economic man should support charity, but only verbally. The more others are willing to contribute, the less i will share. In other words, she would like to live in a welfare state, but maintaining libertarian

taxation habits. This effect is described as *crowding out*, but, again, the reality seems to be detached from expectations. Although public donations indeed reduce private contributions sometimes, they do not eliminate them completely, and some studies even show that they can encourage others to get involved (Meier, 2007).

Seeing the weakness of the model Andreoni (1990) introduced its modification and added a component of a private good (g_i) that is consumed simultaneously with the act of giving. It is the so called *warm glow* and is also a component of G (public good). As a private good, this feeling is internal and is not linked with prestige – it could be felt also in a case of anonymous good deeds. This is an answer to some previous doubts: even after eliminating all external motives, there always remains a private one, namely an individual satisfaction.

$$u_i: (x_i, G, g_i) \rightarrow \mathbb{R} \quad (4)$$

But although this modification can explain *crowding out*, it cannot capture the volatility of behaviour in time. Furthermore, it can be hardly considered a definition of altruism in the sense provided by natural languages or biology as it lacks the element of selflessness or unconditional dedication. Let us recall that in biology utility of an altruist (u_i) is (*ceteris paribus*) always lower than utility of an egoist (u_e), because it depends only on agent's own consumption (understood as fitness) and is reduced by an act of altruism (g_i).

$$u_i(x_i - g_i) < u_e(x_e) \quad (5)$$

Recognising shortcomings of those early approaches, economists focused on providing a new utility function that would explain, and predict, failures of the standard egoism. Such function would include prosocial preferences or, in other words, a propensity to help others that reducing consumption of one good, increase at the same time consumption of another (of a different type). Therefore the final utility of such person could be even greater than in a case of pure egoism. Due to heterogeneity of population, however, we need to accept that such models will be fallible.

The first model that relatively accurately predicts behaviour not only in ultimatum and dictator games, but also in a series of public good, gift exchange or trust games is ERC (*equity, reciprocity, cooperation*). This solution was introduced by Bolton and Ockenfels (2000, 2005) and explains that prosocial behaviour may have three different sources. In this model own result is compared with an average outcome of other players. The decisive factor regulating the generosity of offers is one's own share of the pie – whether it is greater or smaller than the average. Players maximise their utility function, which final value (v_i) depends on two indicators: own payoff (y_i) and its comparison with payoffs of others (σ_i), but has no links with the welfare.

$$v_i = v_i(y_i, \sigma_i) \text{ where: } \sigma_i = \frac{y_i}{c} \text{ and: } c = \sum_{j=1}^n y_j \quad (6)$$

Another model that gained immense popularity was introduced by Fehr and Schmidt, who added also an element of competition (Fehr, Schmidt, 1999). Sometimes this model is also labelled as *difference aversion*, because it captures two factors reflecting aversion to the situation, when i is either worse off or better off than others (respectively α_i and β_i , while $\alpha_i > \beta_i$ and $\beta_i \in (0,1)$). It is easy to notice that the main difference between those two, otherwise similar, models is their reference point. While Bolton and Ockenfels refers to the average value, and Fehr and Schmidt perform a series of detailed bilateral comparisons.

$$u_i = y_i - \alpha_i(y_i - y_j) \text{ where } y_i \leq y_j \quad (7)$$

and

$$u_i = y_i - \beta_i(y_i - y_j) \text{ where } y_i > y_j \quad (8)$$

Direct comparisons favour the model proposed by Fehr and Schmidt – it predicts actual behaviour in various games more effectively. Both those models, however, have their deficiencies: for example ERC does not explain fifty-fifty offers in the dictator game, distribution of α and β is arbitrary, they do not capture the impact of efficiency on decisions (this factor was introduced in the model formulated by Charness and Rabin, and published in 2002). Above all, they remain one question open: what about other games with similar structure and real life situations (Engelman, Strobel, 2004)?

3.2. Models based on intentions and beliefs

Another fact that we learnt relatively fast is that, when it comes to acceptability of offers, intentions matter. As usually, it took one simple study to prove it (Blount, 1995). In this experiment offers were made by another player, an impartial third party or were assigned randomly. As expected, offers significantly lower than equal split were accepted more often, when they were consequences of the random mechanism. The simplest explanation here is reciprocity – we reciprocate intentions of the other party, although we ascribe them based on our own beliefs and formally identical offer could be a consequence of completely different intentions (Burnham *et al.*, 2000). At the same time, a proper behaviour can serve as a form of strategic signalling of own willingness to cooperate in the future. It resembles the most efficient strategy in the prisoners' dilemma, namely the tit-for-tat and well reflects the repetitive nature of social interactions (or their virtual uniqueness). Therefore, today, some researchers try to include psychological factors such as guilt, shame or trust (Rabin, 1993, 1998, 2002; Charness, Dufwenberg, 2006; Cohen *et al.*, 2011). The problem, however, is that those factors are flexible and context dependent and thus it is much more difficult to interpret and implement them into quantitative models.

3.3. Image building and social identity

The *warm glow* theory introduced an awareness of self-perception linked with prosocial behaviour into economics. We should remember, however, that this feeling is private, intimate while social sciences already know that society affects decisions. This means that social status, reputation and image sometimes may be even of crucial importance, although still associated with own consumption. For example in a study, in which subjects were “observed” by eyes drawn on a screen, their offers were significantly larger, but did not go beyond the fifty-fifty share (Haley, Fessler, 2005). Observation strongly affects decisions taken and their prosocial orientation making, for example, anonymous donations rare (Glazer, Konrad, 1996). Knowing this, organisers of charity actions should ensure transparency of procedures, but also make their results public. And although such studies encounter some difficulties, we have at least two elegant, formal models presenting utility functions as results of social impacts (Akerlof and Kranton; Bénabou and Tirole).

Most people want to be seen as complying with norms: if fairness is an important norm in a given group, then they will shape their image accordingly – regardless of the degree of its internalisation. This, in turn, means that their actions are not disinterested. Formally, such utility function includes three basic components: own consumption (x_i), subjective importance of fairness (t_i) and desire to achieve high social status (m_i) (Andreoni, Bernheim, 2009; Bénabou, Tirole, 2006; Ariely *et al.*, 2009).

$$u_i(x_i, m_i, t_i) \quad (9)$$

An interesting confirmation of this threefold character of altruism was provided by Andreoni and his team (Andreoni *et al.*, 2016). They studied, how direct requests affect willingness to donate. The action took place at entrances (either one or both) to a shopping mall. When solicitors stood at only one entrance even more than 30% of customers decided to choose the other entrance (even if it was more distant) just to avoid being seen as those, who do not contribute. On the other hand, an average donated amount increased by 75% in relation to a control treatment, when solicitors were not directly asking for donation. Utility function covering self-image concerns presumably gained its most mature form in works of Akerlof and Kranton (2000).

$$u_i = u_i(a_i, a_{-i}, I_i) \text{ where } I_i = (a_i, a_{-i}, c_i, \varepsilon_i, P) \quad (10)$$

This function has two basic components – monetary and social (or image-centred). The monetary component combine both own consumption and consumption of all other members of a given group. We see here, therefore, a direct link with altruism in a form introduced earlier by Andreoni, but also the aversion to inequality. The second element (I_i) includes a series of factors affecting social status. These components obviously include own consumption as contrasted with consumption of other people (a_i, a_{-i}), but also a social category i assigns to herself (c_i) (e.g. gender or race) and her actual characteristic (ε_i). Finally, her identity relies on the extent to which own characteristics are consistent with an ideal characteristics adopted in that group (P). This is why an agent is prone to choose those actions that not only maximise her own consumption, but also those that increase her social status. Since altruism is a highly praised norm in many societies, it cannot be surprising that it was introduced into the general function proposed by Akerlof and Kranton. It is clear, however, that compliance with norms could be balanced with higher own consumption, particularly when the sense of anonymity is reinforced. Thanks to anonymity agents could maximise their utility and avoid, to some degree, image damages. These identity concerns explain also a phenomenon of strategic cooperation – that is the cooperation that is undertaken, because it is positively valued or because other behaviour could be punished.

Conclusions

The list of theories presented here was not meant to be exhaustive. There are many already existing theories that were not mentioned and certainly even more will be formulated in the future. The results suggest that the understanding of altruism requires a significantly greater cognitive effort that was assumed in economics and presumably even in philosophy. Preliminary observations allowed us to admit that utility functions are more capacious and two strong norms (rationality and altruism) are not necessarily exclusive. We know that people sometimes differ significantly. We know that under proper conditions such factors as gender, age, education, ownership and finally social norms may matter. We know that shaping interpersonal relations and providing proper institutional frames may provide a sufficient incentive to find internal motivations to behave prosocially. One is thing is sure: despite all similarities, altruism is not a universal value. Presumably pure altruism (understood as selfless and unconditional behaviour) is extremely rare, so rare that it has not been captured in any of the abovementioned experiments. Each of the theories described here shows how prosocial acts could be translated into individual benefits. People may behave this way with a view to gain prestige, recognition, internal satisfaction or to avoid punishment and ostracism, or maybe they are indeed guided by the fairness principle. Thanks to behavioural

analysis we can give at least partial answers to these questions. Realism in the theory of altruism means that prosocial behaviour may have various sources, but this does not make such behaviour less desirable.

We can no longer deny that this issue is an important link between behavioural and orthodox economics, attracting interest at both sides, but at the same time dangerously invading areas previously restricted for psychology and philosophy. The success of the theory of social preferences depends critically not on detecting deviations from the standard model, but on attempts to give the utility function actual, mathematical form. It seems that models derived from studies on the ultimatum game, at least to some extent, meet these expectations. Unable to separate actions from motives, we need to accept the fact that we can assess only observable behaviour and through this behaviour make inferences about the motives and preferences. This understanding not only satisfies a cognitive curiosity, but primarily contributes to shaping the world, where people have opportunities to reveal what is best in them and to suppress motivations that are not necessarily laudable. Even if they gain some benefits themselves as by-products.

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