

# **DISPONIBILITY AND EXPECTATIONS: THE DETERMINANTS OF HELPING BEHAVIOR IN TEAMS<sup>1</sup>**

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## **Introduction**

The goal of this paper is to analyze the antecedents of helping behaviour in teams by looking at performance based compensation and autonomy. We build upon previous organizational citizenship behaviour (OCB) literature by focusing on a specific area, helping behaviour received in teams. This paper considers teams as groups of people who work together for the accomplishment of a common goal set by a higher authority in the firm. This goal could be temporary, as in case of project or problem-solving teams or continuous as in the case of production teams and observations come from different firms, industries and countries. It is important to relate helping behavior and compensation in order to study which payment schemes are prone to induce more or less help in a team context. Also, autonomy is connected to the amount of assistance received as it enables workers to move across and answer requests of help from their colleagues. Managers should know when to apply a specific form of compensation and when to use a specific job design with the purpose of creating a good working environment in which employees receive help when they ask for it.

Human resources management is one of the critical areas in which changes and adoption of new rules and procedures have been evident in the last decades. Most of these practices refer to the adoption of alternative forms of team-based organization together with learning, decentralization of decision making rights and incentives, all in order to enhance employee's involvement and knowledge sharing. Moreover, compensation is also of growing importance because firms need to both adjust their payment schemes according to their organizational design and understand as well that compensation influences behavior and consequently it can be used as a motivator. If an employee is rewarded for certain behaviours or performance, he or she will be keener to repeat the same attitude or action (Zobal, 1998). So, we motivate an employee by showing that his performance is taken into account through an individual performance-pay type of contract or by implementing a team-based pay that shows how the individual effort influences the whole performance of the team.

Another aspect concerning teams refers to their general purpose. Thus, it is considered that teams are implemented so that their members could combine and apply their differences in skills and abilities through helping each other, and providing each other with advice (Tjosvold and Yu, 2004; Oosterhof, Van der Vegt, Van de Vliert and Sanders, 2009). For that reason helping behavior is important not only for employees, as it provides and maintains a good and friendly environment, but also for the organization, as it increases productivity. For instance, Hamilton, Nickerson and Owan (2003) found that heterogeneous teams formed by both high and low-ability workers were more efficient than homogeneous teams in terms of ability. In this study I assume that workers receive help from somebody else who may be called the good Samaritan- in two cases: first, when

somebody else has something to gain if he or she offers help (for instance higher common reward or the perspective of receiving help himself) and second, when somebody else wants to help only because he or she can-has the necessary autonomy to do it-, this person being the good Samaritan<sup>2</sup>. In this way, my paper contributes to the literature by considering the concept of Good Samaritan behavior as a potential explanation for OCB that goes beyond compensation and autonomy.

Consequently, the goal of my paper is to develop a perspective that takes into account these assumptions when analyzing the effect of performance pay compensation and autonomy on helping behaviour in teams. Theories relevant to my research question are agency theory from economics, and both social exchange theory and the theory of cooperation from psychology. First, agency theory suggests that once we adopt high performance work practices<sup>3</sup> we have to adapt also the compensation system. As well, it provides predictions on the effects of the rewards. The connection between employee autonomy and performance pay was explored by Prendergast (2002), Raith (2008) and Ortega (2009) who found a positive correlation between them as complex jobs require more discretion and compensation based on performance “in order to take advantage of the employee’s specific knowledge” (Ortega, 2009). Following agency theory premises, it is expected to introduce also autonomy as a determinant of helping behavior as it is highly correlated with the compensation system and also considered a type of non-monetary reward (Lawler, 1971; Campion & Berger, 1990). Second, I draw from social-exchange theory in order to investigate why team-members help their colleagues. Based on the norm of reciprocity (Gouldner, 1960), a significant source of helping behavior refers to how much organizational citizenship behavior an employee has previously received from coworkers (Deckop, Cirka & Andersson, 2003). Third, the theory of cooperation explains the effect of the new practices on employee behavior which may explain the determinants of assistance received through pure altruistic behaviors as team-members perceive easier their goals as connected and the similarities among themselves. Therefore, the motivation of this paper is to investigate how performance based compensation and autonomy shape helping behaviour among team-members and to analyze how much help comes from “the love of money” (Tang, Sutarso, Wu Davis, Dolinski, Ibrahim & Wagner, 2008) and how much from good Samaritan attitudes.

Unfortunately, research examining the relationship between piece rates and helping behaviour has offered contradictory responses. While it was argued that team-based performance pay increase

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<sup>2</sup> The concept of the “Good Samaritan” comes from the Biblical parable with the same name and refers to those who come to the aid of others for no other reason than kindness, therefore acting without any expectation of reward (Brouhard, 2007). The Good Samaritan’s helping motives are purely intrinsic and altruistic in nature and lead to genuine helping behavior (Tang, Sutarso, Wu Davis, Dolinski, Ibrahim and Wagner, 2008)

<sup>3</sup> High performance work systems are a systemic approach to organizational design that seeks to align the organization and its environment, the organizational structure, systems, and processes using team structures in order to achieve operational effectiveness, innovation, and high quality results for customers (Sienknecht and Aken, 1999).

cooperative behaviour (Miller and Hamblin; 1963, Rosenbaum et al., 1980; Shea and Guzzo, 1989; Encinosa, Gaynor and Rebitzer, 2007; Bamberger and Levi, 2009), it was also found that task and not reward interdependence drives helping behaviour (Wageman and Baker, 1999). Therefore, in order to come to terms with the conflicting results from the literature, in this article I argue that two aspects of the previous studies require a better understanding of the relationship between team compensation and team-member behaviour. First, as noted before, most prior research has studied the relationship between the compensation system and cooperation in groups but very little is known about the role played by autonomy in this context. Consequently, in this study I aim to contribute to the compensation and behavioural literature by looking at how both individual and team-level autonomy affect the amount of assistance received in teams. Second, a limitation of the existent research refers to the data which was used. There are very few studies with non-experimental data. Many articles based their findings on experiments or quasi-experimental field studies (Wageman, 1995; Wageman and Baker, 1999; Bamberger and Levi, 2009). Other results came from national random samples that were not recent enough and described only a particular field (e.g. Encinosa, Gaynor and Rebitzer, 2007 who used a 1978 survey from the medical field). Thus, in order to overcome these limitations my paper considers real and recent data from across various industries and countries. The empirical analysis is based on data from the fourth European Working Conditions Survey conducted in 2005 by the European Foundation for the Improvement of Living and Working Conditions. Third, a direction of future research in Chen and Chiu (2009) paper refers to exploring simultaneously the direct and indirect effects of autonomy on OCB. Consequently, the goal of my research is to analyze in the same paper the influence of autonomy on help received in teams both as independent and moderator variable.

All together, this study aims to contribute to existing literature by examining how different variables such as piece rates or productivity payments along with autonomy influence cooperation among team-members.

The structure of the paper is presented as follows: in the next section I develop the theoretical framework and formulate the hypotheses of interest, in section three I describe the data, then I present the results and in the last section I discuss the conclusions and implications for future research.

### **Previous Literature concerning Helping Behavior in Teams**

In order to develop the model and elaborate the hypotheses of interest for this study, I will present the most relevant literature on which this research is based. The evidence comes mainly from agency theory, social-exchange theory and the theory of cooperation. Agency theory suggests

that once high performance work practices are adopted there is a necessity to adapt also the compensation system, while the theory of cooperation explains the effect of the new practices on employee behavior.

### **The Influence of Agency Theory**

When I analyze the agency theory perspective I focus on performance pay compensation and its influence on helping behavior in teams. In this context I draw from agency theory the idea that individuals respond to financial incentives therefore they will help each other if this leads to an increase in pay or if offering help does not prejudice their own work pace and time allocated for finishing their own jobs. Then, it is interesting to analyze which compensation scheme is best in order to induce helping behavior. In a team context, receiving piece rates or other productivity payments may diminish the probability of giving assistance to other colleagues due to the fact that employees are paid according to their actual work, which in this case is measurable easily. Consequently, how “time is money” each minute that an employee spends helping another may bear an opportunity cost.

### **Empirical Evidence**

Financial incentives are considered to be the most powerful of all compensation types in aligning organizational objectives and employee behavior (McAdams, 1996). When we apply performance pay rewards we have to do it very carefully by rewarding properly each member of the team. If any member feels that he or she was paid less than what he or she considered according to the effort laid, we face the problem of observation and the employee can decide to lower his or her performance. Employees may feel injustice if they receive a lower compensation than their colleagues (Kirkman and Shapiro, 2000). If the worker from a team thinks that he or she exercised a certain level of effort that requires in change a certain amount of compensation he or she will expect it. Nevertheless, if the manager does not observe this effort he would not compensate it accordingly. And here appears the observation problem which can determine the employee to withdraw from the team or to perform at a lower level -free riding problem. Moreover, an employee can decide not to respond to a request of assistance received from another colleague if he or she feels that the compensation received did not match his or her effort.

With respect to the relationship between the compensation received and cooperation, it was argued that worker decisions to help one another are influenced negatively by promotion-based incentives (Drago and Garvey, 1998). On the other hand, previous literature has found that group rewards lead to increased cooperative behavior (Miller and Hamblin, 1963; Shea and Guzzo, 1989;

Bamberger and Levi, 2009) and that performance-based compensation (at both individual and group level) influences positively employees' perceived rewards for sharing knowledge (Siemsen, Balasubramanian & Roth, 2007). As well, the relationship between incentive pay and intra-group consultations is consistent with mutual help activities (Encinosa, Gaynor and Rebitzer, 2007). The authors found that "high-powered individual incentives will cause individuals to shirk on help to others" as "in a group of four physicians, increasing incentives from equal sharing (team-based rewards) to full incentive pay reduces the frequency of intra-group consultations by 0.19 per day" (Encinosa, Gaynor & Rebitzer, 2007).

Additionally, in order to be able to move and answer to assistance requests employees need autonomy. Workers need flexibility to move and help their team-mates. If they do not answer to their colleagues' requests for help that does not mean that they are not eager to assist, it may be due to the job title specificity which does not allow to leave the job or to interrupt what one doing at a specific moment. On the other hand, an employee who enjoys autonomy can decide by himself or herself what to do in his or her own time. By introducing autonomy into the analysis I gain a thorough perspective on the organization of work inside the team, and so I am able to consider the availability of the employees to help others as a variable that depends on the job design.

The connection between employee discretion (autonomy) and performance pay was explored by Prendergast (2002), Raith (2008) and Ortega (2009) who found a positive correlation between them due to the fact that complex jobs require more discretion and compensation based on performance "in order to take advantage of the employee's specific knowledge" (Ortega, 2009). Following agency theory premises, it is expected to introduce also autonomy as a determinant of helping behavior as it is highly correlated with the compensation system and also considered a type of non-monetary reward (Lawler, 1971; Campion & Berger, 1990).

## **The Psychological Perspective**

Once team-working and innovative compensation schemes have been introduced within companies we need to explore their effect on employee behaviour. The psychological perspective comprises both social-exchange theory with roots in economics, psychology and sociology and the theory of cooperation.

### **Social-Exchange theory**

In order to be able to help one another, employees have to be endowed with autonomy or to receive some kind of reward based on group performance. My paper considers autonomy at both individual and team-level. Even if most prior research has conceptualized autonomy at individual level of analysis (e.g., Karasek, 1979; Ortega, 2009) it is also advisable to look at multiple levels

(e.g. Seibert, Silver and Randolph, 2004) as they can offer a more accurate perspective on the role of empowerment. Furthermore, previous research argued that autonomy will be insufficient “unless it is truly collective, distributed throughout the team so that each team-member must have both autonomy to act and the ability to influence others to act” (Spriggs, Jackson & Parker, 2000). However, sometimes team-autonomy may inhibit individual autonomy as decisions are shared rather than taken alone and responsibility is diffused instead of granted to one person (Uhl-Bien & Graen, 1998; Kirkman & Rosen, 1999) so it is advisable to consider the potential moderating role of this construct. According to social-exchange theory co-worker support can be explained through the concept of “team-member exchange” (TMX, Seers et al., 1995; Cole et al. 2002; Van Mierlo et al., 2006) which captures the willingness of an employee to help the team or other team-members to accomplish their goals. According to Van Mierlo et al. (2006), an employee may thus reciprocate supportive actions from colleagues by engaging in extra role behaviours. Reciprocation has been found in disciplines ranging from economics (Rappaport and Chammah, 1965) to evolutionary biology (Axelrod, 1984) as an optimal strategy for long-term self-benefit (Deckop, Cirka & Andersson, 2003). Thus, building on Gouldner’s (1960) norm of reciprocity it is likely that an employee who previously received help from another to be keen to return the favour. Deckop, Cirka and Andersson (2003) actually found that employees help their colleagues because they received help from others.

To sum up, in the case of a compensation based on piece rates (generally individual but specifically can refer also to group rewards) or other productivity payments agency theory predicts that employees prefer to focus on their own work rather than offering their help in order to obtain a higher individual reward. By combining it with social-exchange theory it is expected that employees with individual piece rates would receive less assistance through reciprocation: team-members would prefer not to help them as they would expect less or no assistance from their part. As for autonomy, I expect team-members with high individual and/or group discretion to receive more help especially from the colleagues who they assisted before.

### **The Theory of Cooperation**

The creative process specific of a team will be fruitful only if we pay attention to the attitude of the workers and to the relationships that form among them (Ditkoff et al, 2005). Creativity and cooperation can be also stimulated by creating the right match of task and goal interdependence and so decreasing the possible negative effects of information asymmetry (Van der Vegt et al., 2003). The issue of team working and team member behaviour in particular, was addressed by the theory of cooperation and competition (Deutsch, 1949; De Dreu, 2007). In order to understand the psychological processes underlying team effectiveness this theory argues that people in groups

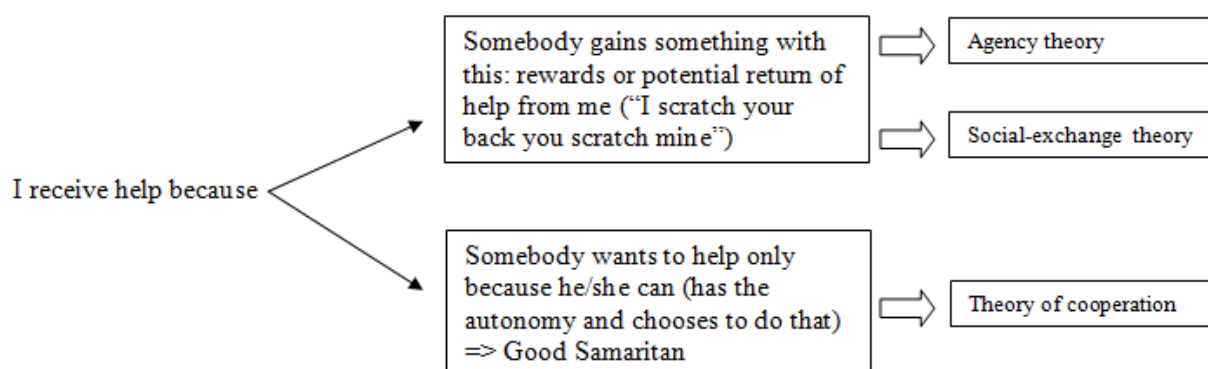
perceive their goals and those of others to be either cooperatively linked (“swim or sink together”). Thus, cooperative outcome interdependence is an important dimension of workgroups. DeDreu (2007) observed that the more team members perceive it the more they share information, the better they learn and higher the efficiency of the group. Using the theory of cooperation I expect that employees working in a group would generally see their goals as cooperatively linked and thus be keener to assist their colleagues especially when they receive a group-based reward (Bamberger and Levi, 2009). Consequently, a better understanding of the common goal of the company and of the team leads to proper efforts exercised by the employees and consequently to a higher cooperation among the members of the group. In this respect, helping behaviour depends on the perception of its members who may consider cooperation beneficial for their own interests. If the employees understand that, they will be eager and open to offer support to their colleagues.

Other elements affecting OCB refer to job characteristics (Van Dyne, Graham and Dienesch, 1994) like autonomy as determinants of helping behaviour. Also, Anderson and Williams (1996) found that task autonomy increased the incidence of employees’ seeking help from others and that this behaviour fostered the employees’ efforts to help others. Likewise, previous literature has argued that autonomy can increase employees’ perceived organizational support (Eisenberger, Cummings, Armeli, & Lynch, 1997; Eisenberger, Rhoades, & Cameron, 1999), an antecedent of OCB (Rhoades & Eisenberger, 2002). This phenomenon can be explained either through reciprocation, as argued in the previous section, employees preferring to assist the colleagues who helped them before or through genuine altruistic behavior like offering help to someone just because he or she is in need. Besides, in teams is easier to notice the similarities among workers and to perceive somebody else’s goal as your own. On the other hand, when an employee with both individual and group autonomy high receives more help we expect him or her to have a higher status in the group. If this person receives more help a “boss”-effect is present which annihilates the possibility of a good Samaritan behavior. Nevertheless, if workers with simultaneously high levels of individual and group discretion receive the same or less amount of help we witness a pure altruistic behavior induced by the premises of the theory of cooperation, kindness and no expectation of any type of compensation, material or intangible (i.e. assistance received in the future).

As noted before in this study, I assume that workers receive help either when somebody else has something to gain if he or she offers help (extrinsic motivation) or when somebody else wants to help only because he or she can -has the necessary autonomy to do it (intrinsic motivation). Building upon Tang et al. (2008) model which considers Good Samaritan behavior as intrinsic motivation versus love of money as extrinsic I assume that there is also another antecedent, the enabler, worker autonomy. These assumptions are summarized in the following figure:



Figure 1: The assumption of receiving assistance in teams

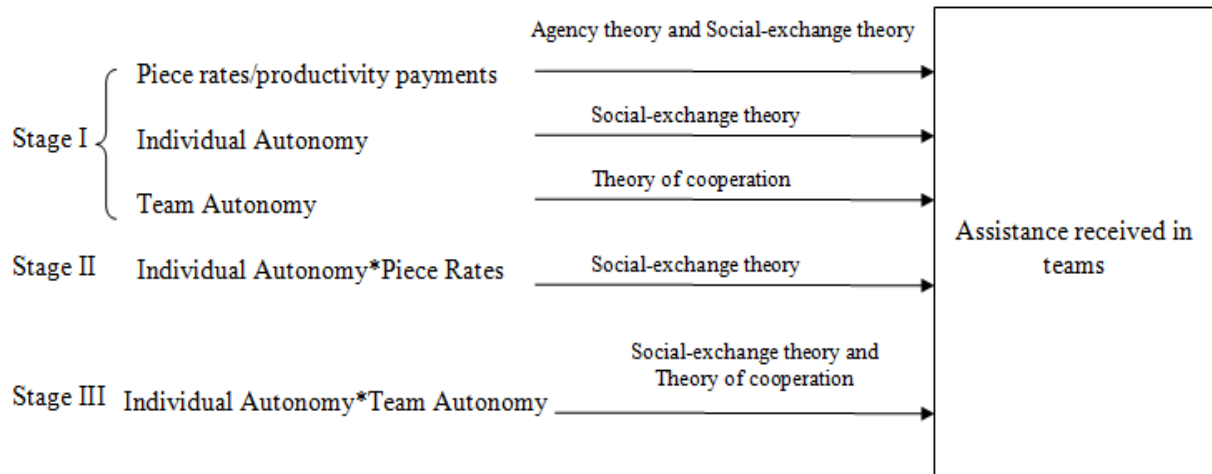


The first part of figure suggests that when employees have autonomy they help their teammates only if they have something to gain from this action in terms of monetary rewards or future reciprocal help. The second part of the figure shows that autonomy gives the ability, so it is a necessary condition but not sufficient: the help can come also from genuine concern for people, team or the organization. Consequently, potential Good Samaritan behavior, as a hidden driver, can be estimated through different variables in order to catch its effect on the amount of assistance received in teams.

## Hypotheses Development

Helping behaviour in a team can be determined and controlled by either the compensation system or the job design through autonomy. If genuine altruistic behaviors are present they can not be directly manipulated by the management as they are intrinsic and subjective characteristics of the employees. The only mechanisms through which managers can objectively induce helping behavior are either the payment system applied or the amount of empowerment given at both individual and group level. The model explaining helping behavior developed in this paper captures the effects of these two variables by analyzing their influence alone or through interactions between them. Agency theory and social-exchange theory focus more on the “love of money” and reciprocity type of drivers while theory of cooperation brings a more altruistic explanation that goes beyond compensation and autonomy.

Figure 2: A Model explaining Helping Behaviour in Teams



### Stage I: Independent variables

From agency theory I infer that a compensation based mainly or entirely on individual performance pay affects negatively cooperation inside the team as the worker would prefer to concentrate on his own work and performance rather than to assist his colleague. Building on agency theory concepts, individual piece rates or productivity payments make the employee less prone to offer his help. Adding now social-exchange theory premises, through the norm of reciprocity, I expect that an employee who receives piece rates to enjoy less assistance from his colleagues as he did not offer help to other team-members. Consequently, as shown in Figure 1, I expect that piece rates/productivity payments to have a negative effect on assistance received in teams.

On the other hand, based on the theory of cooperation I expect that employees working in a group would generally see their goals as cooperatively linked. Nevertheless, they may prefer to assist less their team-mates when they receive an individual performance payment than when they enjoy a compensation based on team performance (Bamberger and Levi, 2009) as the latter means a higher reward for the whole group so helping a colleague would indirectly be beneficial for them as well. In the case of individual piece rates employees focus more on their own work and tend to see their goals and the ones of the other team-members less connected. Therefore, the potential negative influence from the agency theory is considered to be higher than the potential positive one

derived from the theory of cooperation. So, through reciprocation, the resultant is expected to decrease assistance received inside the team:

*Hypothesis 1:* Piece rates or productivity payments influence negatively the amount of assistance received in teams

### **Individual and team-based autonomy**

As noted before, employees need flexibility in order to be able to assist one another. Consequently, team-members with high autonomy are likely to offer their assistance and applying the norm of reciprocity to their case, also to receive more help. This paper considers autonomy at both individual and group level. Team-autonomy is introduced in the analysis because of two reasons. First, at team level, individual autonomy is insufficient if it is not complemented with team autonomy (Spriggs, Jackson & Parker, 2000) and as I want to study the complete set of the determinants of assistance received in groups I have to take it also into account. Second, I assume that team-autonomy has a positive effect on employee helping behaviour as it determines team-members to share assistance due to the premises of theory of cooperation. The theory of cooperation emphasizes that employees working in a team tend to see their goals related. Moreover, DeDreu (2007) observed that the more team members perceive this the more they share information and consequently I expect them to offer more assistance to their colleagues. It is also assumed that if a team-member enjoys team-autonomy, other team-member will enjoy it as well due to the definition of team-autonomy which answers to the following question from the survey: “Do the members of the team decide by themselves on the division of tasks?” For instance, if a team-member who has team autonomy receives help, this must have been given by another group member who also enjoys team autonomy. Consequently, I elaborate the second hypotheses of my study:

*Hypothesis 2:* Individual autonomy influences positively the amount of assistance received in teams

*Hypothesis 3:* Team autonomy influences positively the amount of assistance received in teams

### **Stage II: Combined effects of piece rates and individual autonomy**

My paper considers autonomy as the enabler of giving help, so I expect its influence to be higher and more significant than the effect of the reward system. Also, Ortega (2009) noticed as well that autonomy varies more than performance pay across occupations, industries or countries suggesting that differences in working conditions are larger than differences in earnings. Moreover, it is interesting to study what happens if the compensation system is based on piece

rates or other productivity payments and there is simultaneously high individual autonomy. As previously stated in the first hypotheses, the compensation has a negative effect and autonomy a positive influence on assistance received in teams. Nevertheless, previous literature on autonomy found its influence on OCB highly significant either directly (Van Dyne, Graham and Dienesch, 1994; Anderson & Williams, 1996) or through mediators (Piccolo & Colquitt, 2006; Chen & Chiu, 2009), while research regarding compensation based on productivity provided divided results: if group rewards increase cooperation behaviour (Miller & Hamblin, 1963; Bamberger & Levi, 2009) it was found that individual incentives decrease the amount of help offered to others (Encinosa, Gaynor & Rebitzer, 2007). Surprisingly, Wageman and Baker (1999) found that task and not reward interdependence drives helping behaviour. Thus, seeing that previous literature has divided results, my research proposes to analyze the determinants of helping behavior by combining a specific type of compensation with individual autonomy. Furthermore, by applying the norm of reciprocity, I predict that the combined effect of piece rates and individual discretion increases the amount of assistance received in teams:

*Hypothesis 4:* The interaction between piece rates and individual autonomy influences positively the amount of assistance received in teams

### **Stage III: Combined effects of individual and team-based autonomy**

As argued in the theoretical framework, the justification for using autonomy as a moderator variable comes from the fact that employees need autonomy in order to be flexible and answer to assistance requests from other team-members. Nevertheless, high levels of team-autonomy may decrease individual autonomy as in this case decisions are shared rather than taken alone and responsibility is diffused instead of granted to one person (Uhl-Bien & Graen, 1998; Kirkman & Rosen, 1999). Moreover, I expect from social-exchange theory that an employee who enjoys both individual and team-based autonomy will receive more help due to the norms of reciprocity. Nonetheless, if I base my assumption on the theory of cooperation and the good Samaritan attitude I predict that employee with simultaneously high levels of individual and team autonomy will receive less assistance as team-members offer their help from altruism not expecting hidden material or intangible rewards. Also, the case of both types of autonomy high could reflect the case of a higher status member in the team so if we receive less help in this context we assure that high position bias is accounted for. Therefore, I predict that the combined influence of individual and team-autonomy leads to less help offered in teams. Having too much responsibility may diminish the willingness to offer support. Thus, using social-exchange theory I expect also the level of assistance received to decrease and consequently team-autonomy to work as a moderator of the relationship between individual autonomy and help received.

Additionally, employees with simultaneously high levels of individual and team discretion may be perceived as higher-status members and others may feel obliged to help. Nevertheless, under the premises of theory of cooperation, I expect team-members to assist each other out of pure altruism so irrespective of the status and obligation:

*Hypothesis 5:* Team-based autonomy moderates the relationship between individual autonomy and the amount of assistance received in teams. I expect the sense of the interaction to be negative.

## Data and Methods

The data that I use in this paper comes from the fourth European Working Conditions Survey conducted in 2005 by the European Foundation for the Improvement of Living and Working Conditions<sup>4</sup>. This survey provides an analysis of working conditions in the 27 countries of the European Union, in the two candidate countries (Turkey and Croatia), in Switzerland and Norway. In total, nearly 30.000 individual workers were interviewed in face-to-face interviews in their own homes between September and November of 2005, but I kept the observations referring to employees working in a team. The unit of analysis is the individual and the observations are cross-national. The survey sampled the total active population of the respective nationalities of the EU member states, aged 15 years and over, resident in the countries involved in the survey. All the data that I use is from this survey and it refers to employees who are already working in a team.

**Dependent variable:** the dependent variable is assistance received in teams measured as the assistance received by team-members from their colleagues if they ask for it. The question from the survey used to measure this variable is q25a: “You can get assistance from colleagues if you ask for it.” Responses were collected using a 5-point Likert-like scale (from 1= “strongly disagree” to 5= “strongly agree”), 1 meaning that the respondent almost never receives assistance, 2 that he rarely receives it, 3 that sometimes he is assisted, 4 that he often gets supported and 5 that he almost always receives assistance. I consider the distance among the intervals equally important. The survey has other two questions that refer to assistance, q25b and q25c which consider help received from superior and external help. Thus, in a group setting it can be inferred that colleagues who offer their assistance are fellow team-members.

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<sup>4</sup> The source of the survey that provided my data it is available at: <http://www.eurofound.europa.eu/ewco/surveys> and it is based on a questionnaire containing a core of common questions, allowing meaningful comparisons to be made between this survey and previous editions. All interviews were conducted face-to-face in the respondent's own household; this was selected by starting from an assigned address and following a random walk procedure.

**Independent variables:** the explicative variables that I use in this study in order to contrast the hypotheses are piece rates or other productivity payments<sup>5</sup> (PR), individual autonomy (index) and team autonomy. PR and team autonomy are dummy variables with levels 1 for applying PR and 0, otherwise and 1 for high team autonomy, 0 otherwise. Team autonomy is measured through the variable q26b\_1a from the survey: “Do the members of the team decide by themselves on the division of tasks?”

**Moderator variable:** team autonomy in hypothesis 5.

Employee behaviour refers also to perceived similarity to other team members and this was proved essential for individuals (Van Knippenberg, De Dreu, & Homan, 2004). From here it may be inferred that employees prefer to assist other colleagues with similar attributes. Therefore, the need to control for certain variables:

**Controls:** are classified into individual, organizational and contextual. The individual group refers to the factors that are idiosyncratic to the workers: age, gender, education, tenure and occupation. Organizational factors refer to the size of the company while my contextual factors are external to the employee and to the organization and they represent the country of origin and the type of industry<sup>6</sup>.

To test the hypotheses I estimate the following general assistance equation using Ordinary Least Squares<sup>7</sup>:

*Assistance received = F (PR, Individual Autonomy, Team-level Autonomy, IPP\*Individual Autonomy, Individual Autonomy\*Team Autonomy, Individual, Organizational & Contextual Characteristics)*

## Results

I started to analyze the data by observing the descriptive statistics among the main variables of interest: piece rates, individual and team-level autonomy, age, gender, tenure and assistance. Then, I report a table with the correlations among the variables and finally test the hypotheses using OLS hierarchical regression analyses with four models: first, the basic model considers only the effect of

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<sup>5</sup> The Assistance variable refers to the help received by the respondent, whereas PR refer to the type of compensation received by the respondent. I would like to be able to use both sets of variables to refer to the same person (i.e.: help given by the respondent and pay received by the respondent). Since, due to data availability, I do not have this information I have to work with assistance and pay received by the respondent.

<sup>6</sup> For a detailed description of all the variables and of their expected effects see the Appendix.

<sup>7</sup> I used both OLS and O-LOGIT and I obtained similar results but in order to save space I will present only the results from the linear regression.

control variables, the second one introduces direct effects, the third model considers also the influence of the moderator variable while the last model presents the most complete regression with interaction effects of the independent variables.

Table 1: Descriptive statistics

Variable	N	Mean	SD	Min	Max
1. Piece rates or productivity payments	8785	0.12	0.32	0	1
2. Individual autonomy	9666	2.12	1.09	0	3
3. Team autonomy	8126	0.61	0.49	0	1
4. Age	9867	40.17	11.54	15	99
5. Gender	9885	0.52	0.50	0	1
6. Tenure	9784	10.04	9.82	0	60
7. Assistance received in teams	8212	4.46	0.91	1	5
8. Assistance received by employees not working in a team	1583	4.22	0.03	1	5

Table 1 presents the descriptive statistics of the main variables of my research. Piece rates (PR), individual autonomy and team autonomy are the independent variables that influence employee assistance received in teams, while age, gender and tenure are control variables describing the individuals. What is interesting to observe is that respondents generally received a high amount of assistance (4.46) and PR are not very common the mean is around 0. Also, I see that the average individual autonomy is 2.12 representing about two thirds of the total potential. Team autonomy is more balanced as its mean is 0.61 and tenure in a company is around 10 years.

Table 2 presents the correlations between the main variables of my research. I notice a negative and significant correlation between PR and individual autonomy (-0.07) and between PR and autonomy at team level (-0.05). There is also a negative correlation between team autonomy and gender (-0.07). Positive and highly significant correlations are found between PR and gender (0.08), between TBR and gender (0.05) and between team autonomy and assistance (0.08). The highest correlations are between individual and team autonomy (0.21) and between age and tenure (0.57). I also did a mean comparison test between the mean assistance received by the employees working in a team and the rest and I obtained that the difference between the groups was

significantly different and people working in teams received more help: 4.46 compared to 4.22 ( $p < .01$ ).

Table 2: Correlations among the main variables

Variable	1.	2.	3.	4.	5.	6.
1. Piece rates or productivity payments	-					
2. Individual autonomy	-0.07 <sup>•</sup>	-				
3. Team autonomy	-0.05 <sup>•</sup>	0.22 <sup>•</sup>	-			
4. Age	-0.04 <sup>•</sup>	0.03 <sup>•</sup>	0.01	-		
5. Gender	0.08 <sup>•</sup>	0.01	-0.07 <sup>•</sup>	-0.01	-	
6. Tenure	-0.04 <sup>•</sup>	0.04 <sup>•</sup>	-0.00	0.57 <sup>•</sup>	0.02	-
7. Assistance received in teams	-0.05 <sup>•</sup>	0.14 <sup>•</sup>	0.11 <sup>•</sup>	-0.01	-0.01	-0.01

<sup>•</sup>Significant correlations using Spearman test correspond to  $p < .01$

Table 3 presents the results of steps that I followed for testing the hypotheses. The assistance equation is estimated using Ordinary Least Squares. In Step 1 I consider only the effects of the control variables on assistance received in teams, Step 2 adds direct effects of PR and individual autonomy, step 3 considers also the moderator effect of team autonomy while the last step adds interaction effects between PR and individual autonomy and between individual and team-level autonomy. As noted before in the first stage of the analysis I focused on the direct effects of the independent variables. The first conclusion is that PR do not influence significantly the amount of assistance received in teams in any of the models meaning that hypothesis 1 is not supported. Hence, employees who receive PR do not receive less assistance from their colleagues. As for hypothesis 2 we observe that the coefficient of individual autonomy (H2) is positive and highly significant in all the models: 0.0787, 0.0685 and 0.0581 all for  $p < .01$ . Remember that Hypotheses 3 asserts that team autonomy affects positively the amount of assistance received in teams. Results from Table 3 confirm this hypothesis as the coefficient of autonomy at group level is positive and significant in all the models: 0.0931 and 0.0887 ( $p < .01$ ).

In the next stage of the analysis, hypothesis 4, I consider the interaction between piece rates (or other productivity payments) and individual autonomy. Results from Table 3 show that the coefficient of this combined variable is positive and significant (0.0636) for a  $p < .05$  suggesting that this hypothesis is also supported. What is interesting to notice is that PR alone do not affect



assistance but in combination with individual autonomy they have a positive influence meaning that the positive effect of individual autonomy is so strong that it prevails also when it is used together with other variable. From a managerial point of view, this suggests that team members who receive PR do not receive more help but employees who enjoy both PR and individual autonomy receive also more assistance. The intrinsic motivation of this behaviour could lie in one of the following situations: either employees may base their decisions on norms of reciprocity expecting that team-members with more autonomy will also be able to help them in the future, or employees may consider that team members with both PR and individual autonomy have a higher status in the group and is their obligation to help them. Either way, this hypothesis does not indicate a good Samaritan behaviour. However, combining it with the finding from the regression with fixed (regular) salary- it was obtained that team-members with fixed salary receive significantly more help- I may infer that employees tend to assist one another unconditioned by the level of autonomy.

In the last stage of the results I study the potential moderator effect of team autonomy as predicted by hypothesis 5. Findings from model 4 confirm this hypothesis as the coefficient of individual autonomy is positive and significant (0.0581 at  $p < .01$ ), the coefficient of team-based autonomy is also positive and significant (0.0887 at  $p < .01$ ) while the coefficient of the interaction between these two variables is negative and significant as expected (-0.0212 at  $p < .05$ ). This result confirms that having too much responsibility may diminish the willingness to offer support. Moreover, it suggests that team members do not offer their help to a higher-status member (the boss effect) with both levels of individual and team autonomy high, as the coefficient of the interaction is not positive. Thus, in line with social-exchange theory I observe that team-members offer their help basing their decisions on both objective reasons like actual freedom or discretion to move across and assist their colleagues (autonomy) and on more subjective and altruistic motivations like offering help to fellow team-members in need (good Samaritan attitude).

I also ran O-LOGIT regression and I obtained similar findings, backing the majority of the hypotheses. The only difference regards the interaction between individual and team autonomy which was not found significant. In order to study the potential effect of other type of performance-based compensation on the amount of assistance received I introduced team-based rewards in the regression but the coefficient of this variable came out insignificant. Thus, the promise of a shared reward does not influence helping behavior in groups.

Consequently, both individual and team-based autonomy are essential when it comes to assistance received in teams. As for the compensation type it was found that piece rates have an effect only in combination with individual autonomy potentially suggesting either a “boss”-effect, a very strong and overwhelming effect of individual autonomy or an uncovered motivator role of

individual performance pay. For instance, employees who receive piece rates may consider offering assistance as beneficial through perceiving more rewards from sharing or helping (Siemens et al., 2007) and consequently, if they also enjoy autonomy, receive more help due to the norm of reciprocity.

Table 3. Hierarchical regression analysis for piece rates and autonomy predicting assistance received in teams

<i>Variables</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4*</i>
Piece rates or productivity payments		-	-.0308	-.0326	-.0214
Individual autonomy		-	.0787***	.0685***	.0581***
Team Autonomy		-	-	.0931***	.0887***
Piece rates x Individual autonomy		-	-	-	.0636**
Individual Autonomy x Team Autonomy		-	-	-	-.0212**
Individual	Age	-.0056***	-.0049***	-.0042***	-.0041
	Gender	.0795***	.0640***	.0786***	.0762
	Tenure	.0006	.0005	.0006	.0005
	Job title dummies	Yes	Yes	Yes	Yes
Organizational	Size dummies	Yes	Yes	Yes	Yes
Contextual	Industry dummies	Yes	Yes	Yes	Yes
	Country dummies	Yes	Yes	Yes	Yes

Number of observations		9745	8488	7008	7008
R <sup>2</sup>		0.0818	0.0936	0.0855	0.0868
Adjusted R <sup>2</sup>		0.0762	0.0871	0.0774	0.0784
Root MSE		.87557	.85395	.81723	.81678

*Notes:* The Assistance equation is estimated by OLS

\* p<.1

\*\* p<.05

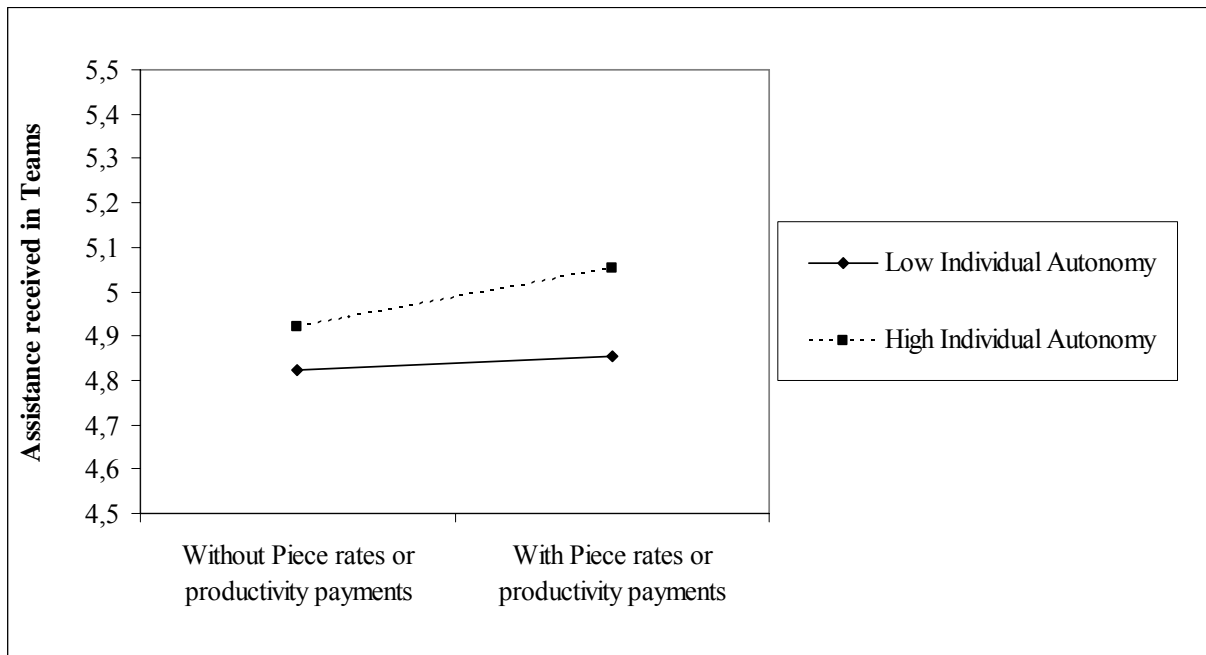
\*\*\* p<.01

\* In this model I tested a regression with fixed salary also and found its influence on the amount of assistance received positive and significant

## Discussion and Conclusions

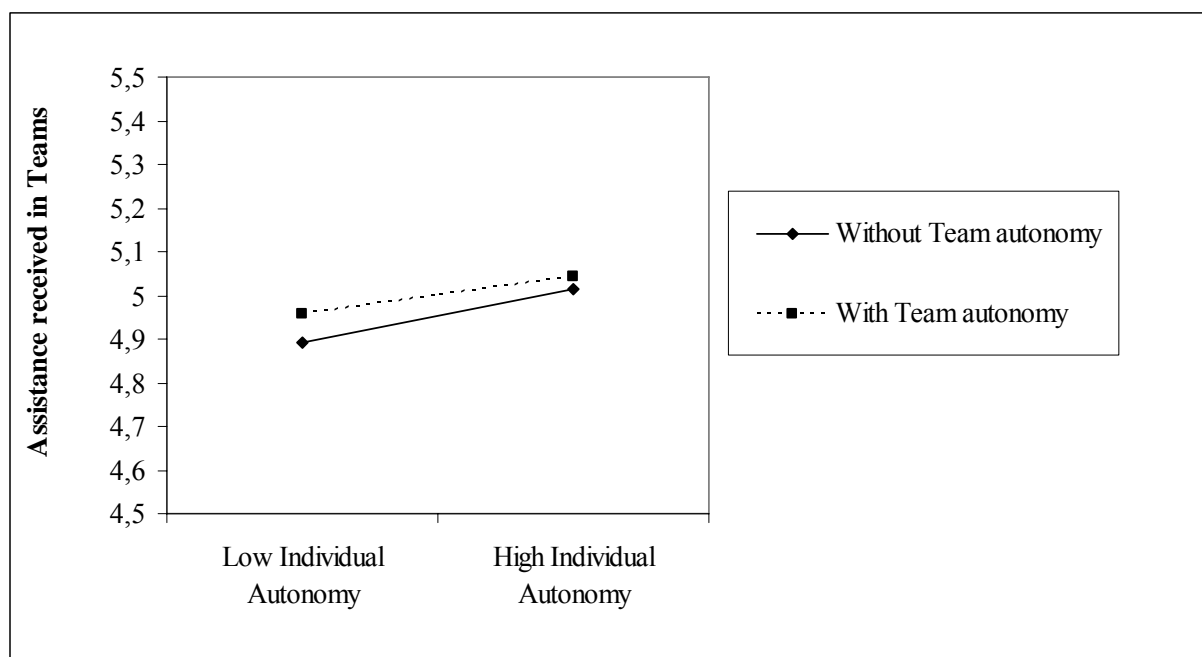
The purpose of this study was to examine the relationship between performance pay and employee helping behaviour in teams. In order to study the hypotheses of interest I considered also the role of individual and team-level autonomy. Data comes from the forth EWCS and I employed Ordinary Least Squares analysis.

Several important findings emerge from this study. First, my results show that in the first stage of the analysis (H1, H2 and H3) Hypothesis 2 and Hypothesis 3 are entirely supported, while hypothesis 1 is not supported. Therefore, it seems that piece rates or other productivity payments are not associated with low helping behaviour. The results show that even if the coefficient of piece rates is negative in all the models (-0.03; -0.03 and -0.02) there is no significant connection between them and the amount of assistance received in teams. On the other hand, as expected, both individual and team autonomy influence positively the amount of help received in work groups. With respect to individual autonomy it may be also that employees with high levels of task discretion may enjoy also higher status in the team and other employees may feel obliged to offer their help. In the second stage of the analysis, when considering the interaction between piece rates and individual autonomy (H4) I find its positive effect on assistance, as predicted by the model. The coefficient of this variable (0.06) is higher than the coefficient of individual autonomy (0.05) suggesting that the effect of individual autonomy increases when combined with productivity payments. The shape of this interaction is illustrated in Figure 3:



This figure reflects that in the case of low individual autonomy employees who are paid according to piece rates receive almost the same amount of assistance as team-members who do not receive productivity payments. Nevertheless, in the case of high individual autonomy, employees with piece rates receive more help. An explanation for this could be that once given high autonomy employees paid according to their productivity are prone to offer and consequently receive more help. This confirms H4 which stated the importance of the positive effect of autonomy.

Finally, in stage III, the interaction between individual and team autonomy is found negative and significant supporting Hypothesis 5. Consequently, as both coefficients of individual and team autonomy are positive and significant while their interaction is negative and significant, team autonomy plays the moderating role between individual autonomy and help received in groups. The shape of the interaction is shown in Figure 4:



This suggests that when given high levels of both individual and team autonomy team-members receive more assistance. However, in the case of low individual autonomy, employees with high team autonomy receive more help confirming that at least one type of autonomy is required in order to benefit from colleagues assistance. I observe that employees with high individual and team autonomy alone receive more help indicating a potential norm of reciprocity along with Good Samaritan predictions. Nevertheless, in the case of employees with simultaneously high individual and team autonomy we find less assistance suggesting that team workers offer their help from altruism and because they are able to do so than basing their decisions on reciprocity expectations. As argued before, having simultaneously high both types of autonomy I control for the potential effect of a high status member who received help from his or her colleagues who may feel obligated to respond to requests of help. Having found the effect of total autonomy on the amount of assistance received negative rules out the “boss” effect. Consequently, it looks like hypothesis 5 sheds some light on why team-members receive help. If at the beginning there were four possibilities: either because of the compensation, of the norms of reciprocity, of the “boss” effect or genuine altruism now we found that the compensation is not significant (H1 not supported) and the reciprocal behavior and “boss” effect are ruled out (H5 supported). Therefore, the good Samaritan attitude is present in teams.

An implication of these findings is that managers should offer employee autonomy-individual or team-based but not simultaneously both- in order to be able to answer to other requests of help. Surprisingly, it appears that when workers receive productivity rewards and

simultaneously enjoy high autonomy they receive more assistance from their colleagues, suggesting that the effect of high individual autonomy is very powerful.

### **Limitations, Future Research and Managerial Implications**

This study presents some limitations that have to be looked at carefully. First, this research is a cross-sectional analysis; there is only one period of time, between September and November of 2005. It would be interesting to study if the findings change when we conduct a time series analysis. The second limitation of this study is due to data availability: the survey does not offer information about the exact percentage of piece rates or productivity payments applied, the data showing only if employees receive this type of compensation or not. The same shortcoming refers to the payment based on group performance. For future research it would be interesting to compare the percentage of piece rates with the percentage of team-based compensation. Another limitation refers to data availability about genuine altruistic behaviors. This paper estimated genuine help through different variables but it is important to study its effects through questions that regard it directly. However, due to the nature of altruism, it is a construct difficult to measure and we may overcome the shortcomings of a general survey by developing a more focused questionnaire with questions that capture true Good Samaritan attitudes (and even then these can be biased: for instance in the case of a small team honest answers can create disruption). It will be also interesting to study the amount of help given in teams in order to have a more direct relationship as the independent and dependent variables refer in this case to the same person.

Another direction for future research would be to investigate the role of task interdependence when it comes to helping behaviour as providing more help was associated with help givers having higher individual autonomy and jobs interdependent with the help-seekers' jobs (Anderson & Williams, 1996). It would be interesting to find a proxy for this variable and study its effect on helping behaviour in the context of this paper. Researchers may also be interested in the personality type of the employee (Tang, Sutarso, Davis, Dolinski, Ibrahim and Wagner, 2007) in terms of intrinsic and extrinsic motivations in order to reveal genuine altruistic behavior.

Finally, the contribution of this study demonstrates that both individual and team-based autonomy influence positively the amount of assistance received in teams. Moreover, when individual autonomy interacts with piece rates its effect is increased while when it interacts with team autonomy its combined effect diminished. The last finding confirms previous research which considered the cancellation effect obtained when one uses both types of autonomy (Uhl-Bien & Graen, 1998; Kirkman & Rosen, 1999).

Taken together, my results imply that both productivity based rewards and autonomy are important tools when it comes to determining employee helping behaviour. Managers should know

when to introduce rewards based only on individual merits so as to keep their workers motivated and willing to help their team-mates. Moreover, managers should give employees autonomy in order to be able to move across and offer their assistance to others. As for genuine altruistic behaviour encompassed through the term of “the good Samaritan” it seems that employees who receive help are the ones with high individual or team autonomy and the ones with productivity based-salaries and high job discretion. Consequently, the only true altruism could come from the case of team autonomy, case in which employees help because they perceive their goals and the ones of other team members as related and they either expect reciprocity in the future (not true altruism) or simply help because it is easier in this context to share and see the similarities among people in teams (good Samaritan attitude). By carefully examining the results we observe that employees with high individual or team autonomy alone receive more help indicating a potential norm of reciprocity along with Good Samaritan predictions. Nevertheless, in the case of employees with simultaneously high individual and team autonomy we find less assistance suggesting that team workers offer their help from altruism and because they are able to do so than basing their decisions on reciprocity expectations.

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## Appendix

Table 4. Variable definition and structure:

Variable Name	Definition	How it becomes operational	Expected effects
Age	The age of the respondent measured in years	Control variable with real values from 15 to 99 years. -uses variable hh2b from the survey	Control variable , individual
Gender	The gender of the respondent	Dummy variable with value 0 for woman and 1 for man. -uses variable hh2a from the survey	Control variable, individual
Autonomy: -Individual Autonomy (indivauto) -team-level autonomy (ateam)	-indivauto is an index that comprises three variables which the employee can control: his methods of work, the order of tasks and the speed of his work -ateam describes whether or not the team can decide by itself the division of tasks	-indivauto is an index variable which represents the combination of three dummy variables: methods of work, the order of tasks and the speed of work. It uses variable q24a,b,c from the survey - ateam uses question q26b_1a from the survey: “Do the members of the team decide by themselves on the division of tasks?”	Independent variables with team autonomy moderator in H5 -We expect autonomy to increase assistance received in teams
Country	The country where the survey is taken	Dummy variables with values for the country of interview for the respondent -uses variable country from the survey	Control variable, contextual
Type of Industry (ind)	In which industry activates our respondent	Dummy variable for different industries -uses variable nace11 from the survey	Control variable, contextual
Job Tenure (tenure)	Number of years a respondent has been employed in his/her present main job	Control variable with values in real years at the current company -uses variable q2d from the survey	Control variable, individual
Piece Rates (PR)	Piece rates or other productivity payments	Dummy variable with 1 for PR, 0 otherwise -uses ef6b from the survey	Independent variable - We expect to decrease the help received
Size of the organization (size)	Number of employees in the company	Dummy variables for 7 different sizes -uses variable q6	Control variable, organizational
Occupation	Job title	Dummy variable with for 10 different categories of occupation -uses variable isco from the survey	Control variable, individual
Employee Helping Behaviour	The amount of assistance received by team-members	Categorical variable -uses a 5-point Likert scale from 1= “strongly disagree” to 5 = “strongly agree” -uses variable q25a from the survey transformed so that value 5 represents help received almost always	Dependent variable