# Autonomic Teams and Self-Organisation: Types and Formation of the Teams

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## 1. Introduction

The centralised control over work is a well-established tradition in organisational theory. (Barker. 1993). Traditional way of organising work involves companywide rules and certain methods common to all employees. However over the past decades the concept of self-control and self-managing teams has increased and several studies has been conducted in order to understand the formation and evolution of the self-managing teams (Barker. 1993), the types of different teams (Langfred. 2000), the relationship between team and individual autonomy (Mierlo et all. 2006) as well as importance of company's strategy and vision to the self-managing teams (Cordery et al. 1991).

This study conducts a literature review on these aspects of self-managing teams. The aim of the paper is to clarify what are the different types of the self-managing teams are well as how these teams are formed and how do they evolve. Also a brief case example of taxi drivers is discussed.

## 2. Literature Review

Group autonomy is defined as "the amount of control and discretion the group is allowed in carrying out tasks assigned by the organisation" (Langfred. 2000.). It should be noted that group autonomy does not automatically mean autonomy on individual level and this dimension should be discussed separately from group level autonomy. The more independent the tasks of individual members of the group are the greater the individual autonomy in a group is. In a situation where

individual autonomy is high there most probably will be less interaction between the group members, which in turn affects the group cohesiveness in a negative way.

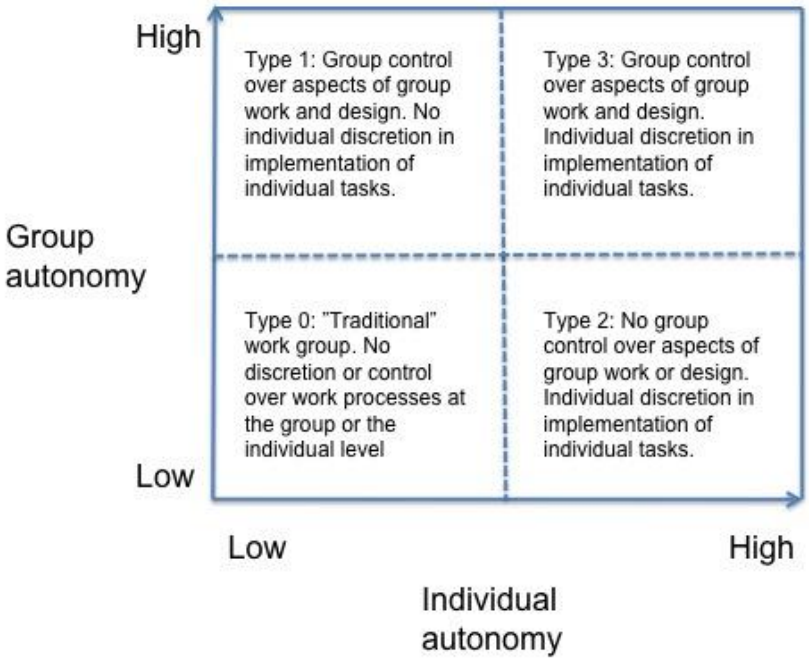


**Figure 1 Types of self-management work group designs (Langfred. 2000)**

~~Figure 1~~ describes different types of group organisations as functions of individual and group autonomy (Langfred. 2000.). Type 0 is the group that is most commonly seen in traditional manufacturing processes where individuals or group have little control over their tasks. High group and low individual autonomy can be found in groups that have clear goal to be reached and the pressure of the group members on individual is high (See for example Barker 1993). Type 2 groups with low group and high individual autonomy is most commonly found in organisations where the output of the group is very important and guided by external rules whereas the internal processes of attaining the goal are independent of each others. High group and individual autonomy of type 3 groups is most common in teams where tasks require creativeness such as in software and design teams.

In a study amongst health care organizations it was noted that there is a positive relationship between the team and individual autonomy (Mierlo et al. 2006). Members in an autonomous team

did take extra tasks more frequently and reported higher levels of self-efficaciousness. However studies also show that after the autonomous team has been fully deployed and is working full speed there is a remarkable pressure from the team towards the team members to help in achieving the team goals (Barker. 1993). This can have a negative effect on team members and present itself in the team as high levels of stress. Also team members who are strongly supported by other team members and their supervisors are more likely to feel more tightly connected to the team and its goals and feel more pressure to conform to for example additional tasks and working overtime (Mierlo et al. 2006). This behaviour in autonomous teams should be considered carefully when designing supervisors' practices and task management.

The effect of autonomy and task interdependency has been studied in relation with conflict and trust inside a team (Langfred. 2007). It has been noted that high level of conflict is associated with task dependencies and low individual autonomy. Further lower trust is usually found in team with lower individual autonomy.

Studies in manufacturing industry show that autonomous work groups and flatter organizations tend to lead to more positive attitude towards work as well as stronger commitment to company vision and strategy (Cordery et al. 1991. Barker. 1993). In the process of building up an autonomous team the strategy and vision of the company act as important guideline for the workers and thus it should be communicated clearly to the team. The vision helps to build the value system for the autonomous team and lead the teams to discussions on how to act in accordance to the values and vision of the company.

In a study of autonomous team building it has been noted that after the vision has been communicated and the value system formed amongst the team member a new substantive rationality is formed to fill the former formal rationality (Barker. 1993). The team development continues with formation of normative rules that is a result of the substantive rationality being brought into social action. The teams evolve into stabilised state where the members have established ways of working and certain methods for planning the tasks assigned for team. For example the study of Barker (1993) found that after formation of the autonomous team the members

established a habit of short morning meetings to discuss the day's tasks and the ways to reach the goals given to the teams as well as problems faced.

After the team has stabilised its functions bringing new members into the team con be challenging (Barker. 1993). In this kind of situation the team members might find it difficult to guide the new members to follow the established ways of working. As a result the normative rules of the team begin to take more rational form and the members of the team are expected to follow the rules more strictly. Teams begin to sanction the members who are not acting in accordance of the formed rules.

As the team structure matures further the normative rules become more and more objective creating new formal rationality among the teams (Barker. 1993). The rules and routines of the team can be written down in order to help coping challenging situations and establishing work regulation and worker self-control. At this point the team members can feel stressed by the rules and the concertive system but as they have established the rules themselves they accept the stress as natural part of their work. As s results of formation of autonomous teams the self-established rules inside the group can be stricter than the ones set by traditional hierarchical organisation and also result into more tight control towards the team members by the team itself.

## 3. Case example: Taxi drivers

Taxi drivers work as independent members of organised system consisting of drivers and the central call-centre. The call-centre takes the orders of customers and directs them into a pool of order from which the taxi drivers can choose their own tasks independently. The drivers can also take customers directly from a taxi stand regardless of the call-centre. The methods of the choosing the tasks is based on the parameters such as proximity of the customer, proximity of other taxis and the so called desirability of the task i.e. how long the drive would be as longer drives result into better income. (Interview of a taxi driver).

The problem noticed in this kind of autonomous organisation of work is that especially during peak hours the drivers tend to choose the most convenient drives from the pool leaving some customers

waiting for a taxi (phone interview with Mobisoft inc). It is also possible that no taxi driver selects the drive from the call-centre pool in which case the call-centre attempts to push the task to nearest driver.

Further research of the taxi organisation would include a visit to the taxi call-centre in order to receive information on their ways of pooling the orders as well as finding potential problems, survey among the taxi drivers in order to find out their views on the systems as well as a more thorough interview of Mobisoft Inc which is the provider of the devices for the taxi drivers and the call-centre.

## 4. Conclusions

It is important to distinguish between the group and individual autonomy as these two dimensions affect the suitability of the autonomous group in different organisation. Also trust and conflicts are associated to different levels of group and individual autonomy as well as to task interdependency. In the best case the members of the autonomous groups benefit from this in such a way that they are more willing to take extra tasks and in this way commit themselves to the group goals.

In establishment of the autonomous group it is important to inform the members about the company vision and strategy. In this way the group can establish their own ways of working in accordance to the company's vision. As the group matures the ways of working tend to lead to more rational rules, which guide the work of the group. In a situation in which the group has long established ways of working bringing new member to the autonomous group can be challenging. As the new members are guided to the ways of working in the group the rules become more and more established and can also be written down as a guidebook to the whole group. This situation might lead to more stressful working environment when compared to traditional organisations.

An example of taxi drivers and organisation of their work is briefly discussed in the text. There is an obvious need for further study of the subject in order to understand the benefits and challenges of a well-established autonomous system. This study would include interviews of the taxi call-centre

and the device manufacturer as well as a brief survey among taxi drivers to obtain their view on the system.

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