BOOST YOUR TEAM INDIVIDUALITY

A new perspective on group development over time
The developmental phases of groups:

Does it get any better than Tuckman?

Review of small group development research

Social Psychology Approach

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1 Introduction

The concept group has many different meanings and connotations in social psychology. It can mean a small group of a few people, a complete ethnic group or part of a population. In everyday speech the word usually indicates a small group, which is the focus of this paper. There are many kinds of groups ranging from a completely spontaneous one to a carefully and consciously formed one. What the all have in common is group development over time.

In this paper I examine group development over time referring to several small group development models. The models are generally presented as consecutive phases of development. Two points are of particular interest: how clearly the phases are differentiated and whether there are particular tipping or breaking points between the phases. I will also note the breakdown of development either through failure or through a return to an earlier development phase.

A very early and much cited small group development theory was presented already in the 1950’s. Warren Bennis and Herbert Shepard (1956) presented a theory, which has two developmental phases and six sub-phases. The movement from the first phase to the second means a change of emphasis from authority to emotion and at the same time from role to personality. Each phase has three sub-phases. The researchers describe the stages in detail from seven different perspectives: feeling, themes, roles, structure, activity, movement and defense mechanisms. (Ibid)

Bruce Tuckman (1965) is a real king of references. His original, four-phase model of group development is cited in almost every book and article on the theme, which I have come across. His model has become the basic concept of small group development thinking, to which this field’s fundamental literature primarily refers, for example The Social Psychology of Behaviour in Small Groups (Pennington, 2002, 71–73) and Group Performance (Nijstad, 2009, 26–28). These two books also present the supplement to Tuckman’s model, which appeared later, that is the fifth phase (Tuckman & Jensen, 1977). John Adair’s classical teamwork book Effective Teambuilding (2009, 71–73) also uses Tuckman’s original model without noting the source.
I suggest that the general validity of small group development models can be called into question. Many articles regard Tuckman’s model as successful and broadly accepted. I want to challenge this model thinking. I myself have applied Tuckman’s model in my consulting profession, and at the same time I have become doubtful. This doubt has arisen particularly in connection to modern teams, for instance project teams. The aims of this paper are a) to summarize the central characteristics of group development theories and b) discover evidence in support of my doubts in research in this field.

2 Classical four-phase development models

2.1 Tuckman’s original model

Tuckman’s model (1965) has become over time very popular. The model was originally developed through research on therapy groups. Tuckman came to suggest four developmental phases, which are described through both the structure of the group and through the activity of the group. He researched 50 articles and applied his theory to natural groups, training groups and laboratory groups. He gleaned the characteristics and building blocks belonging to the developmental phases of groups from the articles.

In the first phase group members explore their mutual dependence and orient to the task to be performed. In the second phase they meet internal conflict or hostility in the group and respond emotionally to the requirements associated with the task, or voice their opinions. Group cohesion develops in the third phase and there is dialogue among the group members, also one to one. The fourth phase sees role assignments and breakthroughs. Tuckman named the phases forming, storming, norming and performing. (Ibid)

2.2 McGrath’s model

Another four-phase model, comparable to Tuckman’s (1965), was presented by Joseph McGrath (1984, 158–162). He calls a group’s structural factors “interpersonal factors.” In the beginning values and aims are generated and plans and ideas are created. In the second phase values and aims are chosen and accepted (cooperative agreement on working principles) and the right or the better alternatives are chosen.
In the third phase behavioral norms are developed, roles and resources are allocated and conflicts of interest and approach are resolved. In the fourth phase cohesion and solidarity are maintained and stabilized and the task is performed.

The phases can be referred to as: values and aims, capabilities and resources, norms and cohesion, and group performance; or even more briefly: generate, choose, negotiate, execute. McGrath depicts the phases as a circle, so after the fourth phase comes another orienting first phase. (Ibid, 158–162.)

### 2.3 Hare’s model

The third four-phase model, which can be compared to the other two presented above, is Paul Hare’s model (1973; 1976, 12 – 16, 109 – 111). It is based on the operational needs of groups, which form the so-called AGIL-structure: adaptation, goal attainment, integration, and latent pattern maintenance. The four needs appear in the order LAIG as the group develops.

In the first, the L-phase the group requires the articulation and definition of the group’s purpose. In the second, the A-phase, new capabilities and resources are acquired and developed. In the third, the I-phase the group organizes itself so that the members can explore the new capabilities independent of the group’s leader; this is a question of the purposeful development of roles. In the fourth, the G-phase the members work on the task at hand. Hare’s model is also presented in a circle, so a new L-phase comes after the G-phase. (Hare, 1973; 1976, 15.)

When we look at the mutual compatibility of the three, presented models we see that the second phase of Tuckman’s model is not particularly compatible with the other two models. I have included three archetypical models here. The models are classical and linear, which means that each phase is essential to the group and progression is dependent on the successful conclusion one phase, before moving to the next (Morgan, Salas & Glickman, 1993).

### 3 Other models, including challenging ones

#### 3.1 Gersick’s equilibrium model
A few traditional models are described above. Connie Gersick (1988) called these types of models into question in her research. She presented an alternative to the four-phase development model. She observed and analyzed eight, actual project groups, whose size ranged from 3 – 12 members. She puts forward a process in which the task and time pressure define the group’s development without a member’s phased familiarization process. She calls the process “punctuated equilibrium.” The groups, which she researched, were working on business problems.

According to Gersick’s observations behavior models and expectations are prepared in the first meeting, when the requirements of the task are discussed. Then individuals use the first half of the development process on gathering information (data collection) up until a point of change in behavior. So, the first phase concerns generating information. The rush to complete the task initiates the second phase, in which the generated and collected material is joined together. The second phase concerns interaction among the members. Gersick calls this second phase “inertial movement.” So, in the life span of the team there are the following elements: the first meeting, phase 1, a change point, phase 2, the completion and achievement of the task (figure 1). The significance of members knowing each other on the personal level is not meaningful, but cohesion and cooperation are an essential prerequisite to achieving the aim. (Ibid)

![Diagram](image)

Figure 1: from Gersick (1988)

Gersick (1989) continued her research in laboratory simulations. There were simulations of creative projects, where the participants were videoed and interviewed. A particular focus was mutual pace. The results both reflected and complemented the theory developed from research in the field. For me, Gersick’s use of the term inertia in her article was difficult, because most meanings of this word were not applicable in this context. The researcher was likely aware of this, because she explains the concept. She compares the concept to the tendency of a physical object to remain in
the state, in which it at any moment exists: if it is at rest, it tends to stay at rest; and if it is in movement, it tends to continue moving in the same direction. (Ibid.)

3.2 Development and maturation model TEAM

Morgan and others (1993) emphasize that development situations are more dynamic than what linear models indicate. They have combined various sources and developed a general development model of teams called TEAM (team evolution and maturation). They mention as sources many of those accessed in this paper, among them Gersick 1988, Hare 1976 and Tuckman 1965. These researchers want to use the term stage instead of phase, although phase is used as an umbrella term. The stages are not clearly separated from one another rather they overlap.

This model is adapted and combined from the models of Gersick (1988) and Tuckman (1965). The TEAM model has nine stages. The first one is preforming. The second stage is forming and is at the same time the first meeting before phase I. The stages three to five, storming, norming and performing I, comprise phase I. The sixth stage is reforming and represents the change between phase I and phase II. The seventh stage, performing II, is phase II. Stage eight is conforming and at the same time the end of phase II, completion. In conclusion comes the ninth stage, de-forming.

(Morgan et al, 1993)

The model is depicted in figure 2. To clarify, the task of the pre-forming stage is to recognize the requirements and boundaries of the surroundings. Instructions for the activity are given in forming. In the reforming stage an evaluation is made whether the requirements are being met. The conforming stage evaluates whether the results achieve the requirements set by the organization. (Ibid)

Figure 2: from Morgan et al (1993)
3.3 Virtual group models

It is a feature of our time that more and more cooperation is conducted over knowledge networks without participants being physically present in the same space; one speaks of virtual groups or teams. Generally virtual team is the more common expression. Because of this trend research on virtual teams has been timely. The development of virtual teams is also of interest to researchers.

Scott Johnson and colleagues have studied the development of virtual learning groups. Tuckman’s original model (1965) was once again a central frame of reference in this research. The researchers did refer to Gersick’s model (1988; 1989) in the beginning, but according to them the results fit better to Tuckman’s model. According to the results there is almost no evidence of the existence of the storming phase. They thus concluded that there are three phases: forming, norming and performing. They did however end up with a more dynamic model after observing in the performance phase conflicts between members. After the resolution of the conflict the process began again with the forming phase. (Johnson, Suriya, Won Yoon, Berrett & La Fleur, 2002)

Sarkar and Sahay (2002) present research about virtual teams, which deviates essentially from Johnson et al. The research focused on 12 virtual student teams. At the base of their analysis were two significant streams of social science research: structuration theory and interaction analysis. There was a rare occurrence in this research: Tuckman’s theory (1965) was not mentioned at all, contrary to general use. The theoretical framework was first of all the structure of a virtual team comprising the productive and the social structure; secondly structuralist modalities comprising power, norms and meanings; and thirdly communicative activity comprising turn-taking and dealing with trouble. (Sarkar & Sahay, 2002)

There was also the question of the project context. The information system development projects in question here had their own, formal three-stage structure on a timeline. The team was formed and the work plans created in the first phase. In the second stage the business problem was defined. In the third stage the system was designed, developed and delivered. The researchers suggested a four-phase model to depict the development of a virtual team in the project: I initiation, II exploration, III
collaboration, IV culmination and dissolution. The phases are described in detail in the article and cross-referenced to all the aspects of the theoretical framework. The researchers discovered two deviant phenomena to linearity: there can be a progression from phase II directly into phase IV, when the project deadline looms near. There can also be a regression from phase III to phase II, when dealing with trouble is not successful.

3.4 Supplements and alternatives

Tuckman’s supplement. An addition was made to the Tuckman’s model mentioned above. Tuckman and Jensen (1977) later investigated 22 articles, which touched on groups’ developmental phases. They indicated the need to recognize a phase, which relates to the ending of the group, to death. They suggested the name adjourning. As mentioned earlier, this supplement to team development phases has been included in basic literature (Nijstad, 2009, 26 – 28; Pennington, 2002, 71 – 73).

Integrated model of group development. Researchers, who accept groups’ development models, have strived to combine the theories into a coherent based on the classical model. As part of these efforts Susan Wheelan and colleagues have presented the integrated model of group development. Like in Tuckman’s and Jensen’s’ model, there are five phases. Dependency and inclusion, dependency on the leader and discussions about irrelevant points describe the first phase. Counter-dependency and fight, conflict and being in disagreement about the aims and procedures belong to the second phase; the task is to find solutions and to prime an atmosphere, which allows for disagreement. Trust and structure, openness, mature negotiation and positive relationships describe the third phase. In the fourth phase, the work stage, there is productive and efficient activity towards generating results. In termination, the fifth phase, conflicts arise in some groups while in others appreciation of the group experience arises. (Wheelan, Davidson & Tilin, 2003)

Seven phase model. Carlisle and Parker (1991, 154 – 167) present a developmental model, which is divided into seven phases. These are contact, maneuvering, adapting, encounter/ meeting, effective, creative, dissolving. The writers enliven the description of the phases through using team members’ typical comments. Each phase ends at a threshold or going through a crisis point. This model distinguishes itself from other
models by taking creativity as its own phase. Another model, with which there is confluence, is the creative project team model (Rickards & Moger, 2000) described in section 5.3.

4 Real teams are from a different planet

There are very different small groups. The most traditional is a work group, formed to perform a particular task. It is however common today to speak of teams. A team clearly means something more than a traditional group or committee. This new word “tiimi” has become entrenched in modern (Finnish language) usage, although it is not a translation, rather a loan. The translation, joukkue, is used almost exclusively in conjunction with sports.

Other traditional small groups, in addition to work groups, are in particular social groups and learning groups. A real team integrates these three elements. The real team has a task to perform (work group), it requires team maintenance (social group), and possibly or even likely it needs its members to develop and learn (learning group). Adair (2009) presents this three dimensionality as a holistic principle in his book Effective Teambuilding. Projects form their own modern context; the basic form is traditionally called a project group, but today the expression is more likely project team.

4.1 Developing from a work group into a team

The sources often fail to differentiate the concepts (work) group and team. I think it is necessary to do so. One can examine these concepts as different developmental stages of the same thing. In their work The Wisdom of Teams: Creating the High-Performance Organization Jon Katzenbach and Douglas Smith (1993, 87 – 110) write about developing into a team and the performance curve associated with this development. According to their description the stages of growing into a team are: working group, potential team, real team and high performance team. This process is different from both the linear and the dynamic development models mentioned above. (Ibid, 87 – 110)

Different from teams, work groups are based on the collective sum of individual performances. They do not seek cooperative performance through shared efforts.
Team members commit to shared goals and aims as well as shared responsibilities and practices. There is also preparedness for expressing differences of opinion and managing conflict. A work group can pose as a pseudo team, which calls itself a team but does not take any risks of commitment. (Ibid, 87 – 110)

Developing into a team starts from the work group stage. A work group does not have the kind of shared aims or shared results, which necessitate becoming a team. What is shared is mostly the exchange of information. The emphasis is on performing the tasks in each member’s own area of responsibility. Pseudo teams are not interested in shared goals. They do not invest in joint efforts, even though they call themselves a team. A pseudo team typically has the weakest performance. A potential team really strives to improve its performance. There is a shared approach, but there is a need to develop how responsibilities are distributed and shared. In a real team, complementary skills, commitment, shared goals and shared ways of working and responsibility are realized. In the high performance team you find, in addition to the above, that commitment is highly developed also regarding the personal development and the success of team colleagues. (Ibid, 87 – 110)

The process of growing into a team described here is said to be a gradual developmental process, which starts after the team is formed. The team improves its performance as it becomes aware of the effects of its achievements and aware of how to work efficiently. The developmental process is a continuum, to which efficiency and the effectiveness of performance belong. (Ibid, 87 – 110)

4.2 The social identity of a team and the validity of development models

Lembke and Wilson (1998) meritoriously examine the process, which leads to a real team. They criticize presented theories, which fail to sufficiently explain the emotional and cognitive process, through which individuals develop into a team. The theory of social identity is decisive in this development. The feeling and thinking of a separate individual become the feeling and thinking of a team member. The team member’s social identity is tied up with the team’s interests as a social unit. Only one identity can reign at a time and in a team it is exactly the team identity. From the perspective of social identity it is important to the individual, if s/he categorizes her/himself as a team member (self-categorization). The social identity of the team
helps to create a cognitive structure for the selection of information. The basic task of the team is a forceful, guiding factor in the forming of identity. The team is a social construct, which is experienced as an attractive work environment. (Ibid)

As was stated earlier, Tuckman’s (1965) model of the development curve of small groups has been widely accepted, partially also the supplemented version (Tuckman & Jensen, 1977). Lembke and Wilson (1998) reasonably suggest, that this model is not relevant to teams, in which a shared perception and thinking process have developed and in which there has been a cognitive transformation. They also suggest the same for McGrath’s (1984) group task circumflex model. These models are indeed relevant for work groups, but not for teams. The writers note that later research, for example Katzenbach and Smith (1993), has a better focus on the social context but still do not sufficiently explain the emotional and cognitive transformation, which individuals experience in becoming a team. (Lembke & Wilson, 1998)

5 How true are the theories?

5.1 Development theories and lack of evidence

Cissna (1984) has published a sharp and critical review of groups’ phase theories. He uses Tuckman’s (1965) original model (without the fifth phase, which he does mention however) as a shell. According to Cissna Tuckman looks in his research for evidence and results, which fit to his four-phase theory. Cissna references many research reports, which do not support the phase theory. He also presents a certain criticism of Tuckman’s later supplement (Tuckman & Jensen, 1977). According to Cissna neither of these articles present any evaluation or criticism of research in the field.

Cissna misses studies, which demonstrate that groups do not progress through developmental phases. He alludes to unsuccessful studies and he wants to familiarize the reader with negative evidence. He also reveals essential definition problems: what is meant by group developmental stages? He presents six different perspectives. Or what type of group is I question? There are many kinds. Cissna reviews numerous studies and claims that there are serious flaws in almost every one, even though he
admits that two studies do offer support to phase theory. He criticizes the reliability and conclusions of the studies. He presents possible interpretations of the results. (Cissna, 1984)

First of all there many be mistakes in the method, but the phases do actually exist. Secondly some aspect in a group may change and others not. The third interpretation is connected to the analysis of the material. The fourth possibility is that some groups develop in a unique way specific to those groups. The fifth possibility is that some groups change and develop, and some do not. The final possible interpretation is that groups do not change and do not develop. Cissna also shares an example, in which two researchers analyzed the same group and ended up with different conclusions, though they did have different departure suppositions. (Ibid)

Many writers note that the phases are not separate and distinct. Cissna is looking for theoretical arguments in support of phase theory. According to him a group may be in some respect similar to all other groups, in some respect similar to some groups and nonetheless perhaps most of all different from any other group. Cissna also notes that groups, which know their task very well, develop quickly and bypass phases. (Ibid)

5.2 Reality or illusion

In this review I have tried to find studies, which challenge classical group development models. With Cissna (1984) I have succeeded. Wheelan et al (2003) show promise (from my point of view) in titling their study by asking, is the development of groups over time reality or illusion. It becomes quickly clear however, that the framework for their research is the integrated model of group development derived from the classical models (see 3.4). They also refer to Gersick’s (1988) model, which has led to many questions about the validity of the development view of the traditional group. Because Gersick has met with criticism, Wheelan et al wanted to avoid the shortcoming, of which Gersick’s research is accused: a larger sample of natural groups, which have been together for varying lengths of time; and credible and competent perception.

Wheelan et al (2003) studied the relation of a group’s length of being together to verbal behavioral patterns and to the group’s members’ perceptions of the group. The results showed that the length of a group’s togetherness and verbal behavioral patterns
have a significant connection. The perceptions of the members about the group were connected to the group’s development within the framework of the integrated model. The researchers concluded that the study’s findings are congruent with traditional development models and that the findings cast a shadow of doubt on other models, like on Gersick’s (1988). The researchers thus hold development phases to be the truth and suggest that this phenomenon should be taken into account in research done on groups. (Wheelan et al, 2003)

5.3 Project team development and creativity

I have also come across another study with a promising title, where the promise is made to present an alternative to Tuckman’s phase model. Rickards and Moger (2000) have studied the development of project teams, which engage in creative work. They lead into the theme through the concept of “barriers to team development.” These are externally determined restrictions (environmental pressures) and internally generated restrictions (socially created barriers). The researchers also introduce the concept “benign structures,” which encourage the performance of individuals and teams. Capable facilitation exercised as a leadership skill is central in these structures. These structures are said to be particularly favorable to change as opposed to structures, which aim to preserve the situation. (Ibid)

Once again the variation of the classical model of Tuckman and Jensen (1977) is the starting point for these researchers. They do raise two critical questions, to which this model does not give answers: “What mechanism causes the team to fail in achieving the expected performance?” and “Which mechanisms lead to an overwhelming performance?” These questions led the researchers to the two-barrier model. The first is a weak behavioral barrier and the second is a strong performance barrier. The first barrier follows on the forming and storming phases, which are one box according to this new model. Most teams overcome this barrier and reach a level of conventional performance. The second barrier follows on the norming and performing phases, which are also one box in this model. After this barrier a new phase begins: outperforming processes. Only very few teams achieve this phase. These teams exhibit an exceptionally creative performance, which is easy to recognize when comparing to conventional performance. The benign structures mentioned above may help a team to achieve this kind of performance. (Rickards & Moger, 2000)
6 Reflection and conclusion

We have to give up on simple truth. This study has produced a diverse but not a uniform review of the development of groups. The separation of phases from one another is by no means clear. The classical models give the picture of the distinctiveness of the phases, but some studies observe overlapping (Morgan et al, 1993). Some models give the straightforward picture that there is only a forward going progression (Tuckman, 1965). A return or setback to earlier phases does happen however, either through difficulties (Johnson et al, 2002; Sarker & Sahay, 2002) or in the form of a new round (Hare, 1973; McGrath, 1984, 158 – 162).

Particular crisis points between the phases are not generally reported. Something like this is found in the form of barriers to development of creative project teams (Rickards & Moger, 2000). Carlisle and Parker (1991, 154 – 167) also speak of the threshold between phases – that is, crisis points.

Project teams under pressure do not necessarily follow the development path proscribed by classical models. This view is presented most clearly in Gersick’s (1998) equilibrium model. If a model recalls the classical model, it should be reshaped and expanded (Rickards & Moger, 2000).

For virtual teams we find in an interesting way both a process near to the classical models (Johnson et al, 2002) and a totally different process (Sarker & Sahay, 2002). This is an excellent example of there being many truths. The pitfalls in the development process are mentioned in the literature. To name a few examples: the endless continuation of the storming phase (Rickards & Moger, 2000), the descent into a pseudo team (Katzenbach & Smith, 1993, 87 – 110) and slippage into the dorming phase (Adair, 2009, 71 – 73).

The development of real teams in our time is so profound that mechanical models like Tuckman’s (1965) do not do justice. Katzenbach and Smith (1993, 87 – 110) come closer, but this too falls short. It is a question of understanding the social identity. (Lembke & Wilson, 1998)

Due to a space limit this review has focused on the progression of the developmental processes of groups. Within and alongside these processes there are many others,
which offer themselves as the subject of a much larger review. These are, for example, leadership, decision-making, developing capabilities, conflict resolution and internal and external communication. Descriptions of these imbedded and parallel processes can be found in the literature. One example is the study referenced above, which examined the changes in the internal discourse of a group through phases (Wheelan et al, 2003). A built-in, phased developmental process of skills connected to target and group work can also be found in the TEAM-model (Morgan et al, 1993).

I have tried in this review to summarize the central characteristics of group development theories in this review. There is a huge amount of research on this topic, but I have tried to find the essential articles. My own view of the matter has grown very much. I have also tried to find studies, which offer support to my doubts about the validity of small group development models. They do exist, but are fewer in number than I expected. Tuckman in particular fares better than I expected and is cited in the lion’s share of my sources. I ask in the title of this article: “does it get any better than Tuckman?” Apparently it doesn’t, if indeed the measure is the number of references; the model is the default, taken for granted as the truth, and presented even without mentioning the source (Adair, 2009, 71 – 73). But there are others with an equal score!

In conclusion I cannot help wondering, based on my long experience, about the popularity of Tuckman. During the research on and writing of this article I am leading an international group, which is deepening its skills in organizational development and consulting. The group has been in existence for a year and has met together face-to-face for a total of 20 days; there are still five more to come. Research, work and virtual communication are part of the program between meetings. Project work activity and the exchange of experiences have a central role in the process. I have not recognized any features in the group, which fit with Tuckman’s phase theory. The group almost welded together already on the first day, the signs of this were visible in the first hour. I have led numerous similar groups. They are on the one hand similar to each other, on the other hand different form each other. My conclusion is that groups are highly individual. Each group develops in its own unique way, although similarities can be observed.
References


