Wired attraction: effects of ICT use on social cohesion in organizational groups

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In the previous chapter, we defined cohesion in organizational groups and discussed its value to the smooth functioning of organizations. This chapter presents a conceptual model of social cohesion in organizational groups outlining the different aspects related to the self-categorization process and the concept of cohesion itself. In formulating this model, we will address the second part of sub-question 1. This model is also intended to serve as a basis for the operationalization of cohesion in organizational groups. As mentioned in chapter 2, suitable measures for organizational research and practical application appear to be lacking. Most studies of cohesion focus on small groups whose members see each other regularly and know each other well. The measurements of cohesion most systematically addressed in the area of sports and exercise psychology, and in therapy groups, all measure some form of interpersonal attraction (Evans and Jarvis, 1986; Martens & Peterson, 1971; Schutz, 1966; Stokes, 1983; Widmeyer, Brawley and Carron, 1985; Yukelson, Weinberg and Jackson, 1984). Moreover, these measurements take little, if any, account of the impact of relationships between groups. This also applies to attempts to conceptualize and operationalize cohesion in organizational groups (e.g. Carless & DePaola, 2000; Kidwell, Mossholder & Bennet, 1997). Since they are geared exclusively towards small work groups, they too take very little account of intergroup relations and are, therefore, unsuitable for this study.

In formulating a conceptual model, we will explore the research on cohesion. As mentioned earlier, most of the literature regards cohesion as interpersonal attraction. Consequently, most studies into cohesion have also treated cohesion as interpersonal attraction, operationalized as “liking among members” or “intragroup liking.” However, these studies include no clear analysis of the actual process underlying the attraction. The studied “liking among [group] members” may be interpersonal - as well as social - attraction. In light of this, it is worthwhile to explore the results of these studies in conceptualizing cohesion or social attraction in organizations. Section 3.1 discusses these studies, presenting a list of antecedents and consequences of social cohesion, such as intragroup liking. Section 3.2 offers an interpretation of these antecedents and consequences – based on the perspective of cohesion as social attraction and taking account of characteristics of organizational groups.
One of the advantages to Hogg’s approach to cohesion is that it covers the role of intergroup behavior. Section 3.3 discusses ingroup and outgroup behavior, and the consequences for cohesion in organizational groups, in the light of Hogg’s approach. Finally, section 3.4 presents a conceptual model of cohesion (social attraction) in organizational groups.

3.1 Research of cohesion as intragroup liking

In their review - including data since the late 1940s on antecedents and consequences of cohesion, defined as “liking among group members” - Lott and Lott (1965) listed several antecedents and consequences of cohesion. They tried to document the findings of “investigations of real or simulated interaction among persons who are in association with one another on a relatively voluntary basis” (1965:260). (They did not, however, examine problems of methodology and measurement). Hogg (1992) summarized and updated their findings. Cartwright & Zander (1968) also presented a list of antecedents and consequences of cohesion, summarized by Steers (1991). In this section, we will examine these reviews closely and complement their findings with more recent findings in presenting a list of antecedents and consequences based on research into cohesion.

Antecedents of intragroup liking.

It would seem safe to assume that factors traditionally associated with group formation, (e.g. interaction, liking physical proximity, shared goals and threat, common history etc.) are related in some way to the development of cohesion. In fact, the reviews by Lott and Lott (1965) and Cartwright and Zander (1968), make regular mention of these factors. Several of the social phenomena discussed in the previous chapter were also referred to as antecedents of cohesion. However these “antecedents” are quite different from the antecedents or conditions under which cohesion can easily develop that we are examining in this section. In studying the possible effect of ICT on cohesion in organizational groups, we must identify situational factors important to the development or maintenance of cohesion that can be altered by the use of ICT. These factors are referred to as antecedents of cohesion.

In both reviews, propinquity and interaction between group members were listed as increasing attraction between group members. Lott and Lott (1965) listed 19 studies that showed this positive relationship. However, negative relationships have been found in cases of forced propinquity or interaction, especially among people of different ethnic and/or racial backgrounds (Festinger, 1953; Gundlach, 1956; Cook, 1978). According to Steers (1991), the positive effect of propinquity is related to time and shared experiences. Members of a group can develop a closeness born of shared experiences if they interact with each other continually over longer periods of time. This could also be referred to as group maturity. Lott & Lott did not mention group maturity as an antecedent. The influence of shared experiences, however, is seen in their review in different appearances. They listed ten studies, for instance, that
showed a positive relationship between the experience of threat or frustration by a group and liking among its members. Cartwright & Zander (1968) also argued that when a group senses an external threat or hostility, its members tend to bond more closely. More recently, Rothberger (1997) found that the external threat increased the perception of homogeneity by group members. Studies of shared experiences of failure or success resulted in different outcomes. In some cases, a positive relationship was found between liking among group members and the experience of failure (Berkowitz, Levy and Harvey, 1957; Thibaut, 1950; Shaw and Gilchrist, 1955). In other cases, no relationship was identified – either with experiences of failure or success (Burnstein and McRae, 1962; Zander, Stotland and Wolfe, 1960). Given that shared experiences over longer periods of time can lead to closeness between group members, it can be argued that sharing more extreme experiences, such as threat, failure or successes may accelerate this process. This explanation falls in line with the positive relationship found in a study by Schopler and Bates (1962) between liking and the severity of an unpleasant initiation to entry in a group.

Similarity or homogeneity between group members is also listed in both reviews. In many studies, however, the question remains unresolved as to whether similarity, especially with regard to attitudes or values, creates intragroup liking or whether intragroup liking results in (perceived) similarity between group members (Brown, 1984; Hogg, 1992). As regarding similarity in background (race, ethnicity, occupation, age), Lott & Lott listed 6 studies that report a positive relationship with intragroup liking. However, Hogg (1992) argues, based on studies by Seashore (1954), Lazarsfield & Merton (1954) and Byrne & Wong (1962), that certain interesting qualifications suggest that the question of whether these background variables influence cohesion depends on the importance of the variable to the group or to the individual member. Similarity of status is also of influence. In general, findings show that groups with a higher degree of status congruence are more cohesive (Hogg, 1992). Finally, similarity in personality traits may be of influence. Again, however, a distinction should be made between actual similarities and perceived similarities. The latter may also be a consequence of cohesion. Moreover, the results of studies into the role of similarity in personality vary. Lerner & Becker (1962) and Israel (1956), for instance, showed that in cooperative interaction, similarity in personality positively affects liking. By contrast, personality dissimilarity showed a positive effect in competitive interaction.

Naturally, behavioral or personality characteristics in general will also influence the degree to which an individual member is liked. People who display friendly and open behavior are more liked than group members who show opposite behaviors (Hogg, 1992). Once again, however, the causality remains unclear. Do people act friendly because they like the other members, or are they liked because of their friendly behavior? The same can be said for cooperation, which is listed by Lott and Lott as a special characteristic of the group situation, and which was found by six studies to be positively related to intragroup liking. Again, the question of whether cooperative behavior results from liking between group members or vice versa remains open.
If a group has a leader, his or her influence can be important. Within this context, Lott and Lott found two studies that reported a positive relationship between democracy and intragroup liking. More detailed analysis, however, indicates that the democratic character of a leader does not have to be the determining factor. Rather, it appears that groups who achieve their goals, due to any form of effective leadership regime, are characterized by more intragroup liking (Hogg, 1992). For instance, groups that are clearly told what to accomplish, may develop more intragroup liking, because of a shared sense of mission and the absence of conflict (Cartwright & Zander, 1968; Steers, 1991).

Finally, Porter & Lawler (1965) have reviewed a large number of studies of work groups in organizations and found that group size negatively affects group cohesion. In their review, Cartwright & Zander (1968) also mention group size. Smaller groups develop group cohesion more easily, possibly because of less complex interaction patterns (Steers, 1991). More recently, a study by Ellemers (1999) indicated a negative relationship between group size and self-categorization.

In summary, propinquity, interaction, group size, group maturity, shared experiences, similarity and any form of effective leadership were found to be related to intragroup liking. All of these factors have been argued to be antecedents of cohesion. However, in some cases, the question of causality remains unclear, especially with regard to (perceived) similarity, cooperation and personality traits. Secondly, the relationships found in research are sometimes contradictory, (e.g. the experience of failure or success). Propinquity and interaction, when forced between individuals of different (ethnic or racial) backgrounds, may have a negative effect on liking.

Consequences of intragroup liking
Several studies reported by Lott & Lott (1965) have found a relationship between cohesion and evaluation of self, the (group) situation and other group members. In cohesive groups one’s self-evaluation is influenced by liked group members. Over time, group members tend to develop a conception of self, which is consistent with their own evaluation of liked others. Thus, in cohesive groups, members tend to evaluate themselves in line with the group norms and standards. As regarding evaluation of the situation, studies show that liking among group members is associated with a positive evaluation of the ambient circumstances of the group interaction as well as the interaction itself (Lott & Lott, 1965; Hogg, 1992). Thus, members of cohesive groups tend to evaluate their own group positively and are satisfied with their situation. Liking among group members was found to accentuate perceptions of attitudinal, personality, and value similarity (Byrne, 1971). Other research in the field of evaluation of others in cohesive groups reveals that behaviors of liked members are evaluated more positively than that of less liked members and that liking among group members enhances interpersonal sensitivity to the needs, feelings and beliefs of group members (Hogg, 1992). With respect to members of other groups, cohesive groups that have experienced frustration, tend to show more hostility or aggression than less cohesive groups (Hogg, 1992).
People in cohesive groups tend to conform to group standards and produce intragroup uniformity of conduct. Individuals will typically submit to the will of the group, especially when the group is seen as highly instrumental to achieving personal goals (Cartwright & Zander, 1968; Steers, 1991). The most liked members generally have the greatest influence on members’ behaviors (Hogg, 1992). Members of a cohesive group reject and do not conform to deviates. They also appear to resist changing opinions that they share with the members of the group they like (are attracted to).

In groups characterized by greater interpersonal attraction more, less-inhibited, and better quality communication takes place (Hogg, 1992). Moreover, studies show that loyalty and participation exist in cohesive groups, a greater degree of participation in group activities, less absenteeism (related to satisfaction and member maintenance) and that members tend to be more cooperative (Steers, 1991). However, with regard to these forms of cooperative behavior, the question of causality remains open. This may be related to the personality traits discussed as an antecedent of liking among members, a discussion that gave rise to the question: “do people act friendly and open (cooperative) because they like the other members, or are they liked because of their friendly and open behavior?”

Finally Lott & Lott (1965), listed task performance and learning as consequences of intragroup liking, although in both cases, contradictory results were found. They found several studies that showed that the productivity of a group was increased by intragroup liking, while other studies reported no effect or the reverse effect (intragroup liking decreasing productivity). Hogg (1992) explains the contradictory findings by pointing out that attraction increases conformity to group standards and such standards do not necessarily specify good performance or high productivity. Research in the area of learning is concentrated in studies involving classroom settings. The findings are contradictory as well. Positive atmospheres and positive relationships with the teacher, or among subjects, sometimes produce an increase in learning. At other times, these have a diminishing effect, and on occasion, have no effect at all.

Evaluation of the self, the group and its situation, uniformity/conformity between group members, several forms of cooperative behavior (loyalty, participation, open communication), task performance, learning, and a negative attitude towards (members of) other groups were found to be consequences of intragroup liking or cohesion. With respect to task performance (productivity) and learning, however, contradictory results were found.

Table 3.1 lists both the antecedents and consequences of intragroup liking as discussed in this section. The factors, whose causality remains open to question, have (provisionally) been placed separately from both consequences and antecedents.
3.2 Antecedents and consequences of social attraction in organizational groups.

This section discusses and interprets the listed antecedents and consequences of “liking among members” from the perspective of cohesion as social attraction. This results in a list of situational factors (antecedents) that are important to the development of social attraction in organizational groups, and a list of consequences, forming the phenomenology of social attraction in these groups. Secondly, we will discuss identification with the group in relation to social attraction as a “special kind of antecedent” to social attraction. In chapter 2, this social phenomenon was referred to as a condition necessary to the development of cohesion (attraction). As such, it must be taken into consideration in conceptualizing cohesion in organizations.

**Interpretation of antecedents and consequences of cohesion**

Cohesion in organizational groups has been defined as a form of social attraction to a group, preceded by the process of self-categorization. Hogg describes antecedents of self-categorization as contextual cues of common membership. However, not all of the antecedents listed in Table 3.1 would appear to fit this description. Propinquity, similarity of background or status, and shared experiences can indeed serve as a cue of common membership. These antecedents can point to some form of belonging or recognition.
Similarity has been described as an antecedent as well as a consequence. Considering the SIT and SCT, which claim that people accentuate similarities between (liked) group members, a distinction should be made between actual similarities and perceived similarity/uniformity. The latter can be seen as a consequence of the self-categorization process, based on observations of group members. These observations often concern personality traits, since those are susceptible to subjective interpretations by fellow members. Actual similarities, such as the same background, age or function/tasks within a group, may serve as a contextual cue of common membership.

Group size or maturity, frequent interaction and leadership are actually better referred to as facilitators of liking among members. In Hogg’s terminology, these factors cannot be considered antecedents of cohesion. However, they do still influence and can increase or intensify liking among group members, and will therefore in this dissertation be treated as antecedents. A process of self-categorization that takes place in a group, based on similarities and shared experiences, can be facilitated or intensified by frequent interaction within the group or less complex social interaction patterns in smaller groups. Secondly, if a group exists for a long period of time, more experiences over a longer period can be shared, which in turn, can serve as a cue for self-categorization. Finally, leaders can create a climate in which self-categorization can take place, for instance by setting clear goals that members have to share or coordinating, facilitating or intensifying interaction between members.

Personality traits could also be referred to as an antecedent. Viewing personality traits as a contextual cue of common membership, involves interpreting or forming an opinion about a group member’s behavior. According to the SIT and SCT, that in turn, involves making a comparison with oneself and thus, with similarities or differences with group members. Therefore, it should be seen more as a part of the self-categorization process than as an antecedent. Still, some personality traits will cause certain individuals to be more easily attracted to a group (e.g. a stronger than average need to belong). From this perspective, certain personality traits can be considered as antecedents.

In the previous chapter, cohesion is referred to as one of the generators of social capital. Not surprisingly, consequences of cohesion can be seen as attitudes towards the group, resulting in or accompanied by a certain behavior. Or, as Hogg put it, “positive interindividual attitude, associated with an array of group behaviors” (1992:101). It is important to make a distinction between the consequences of cohesion that can be described as the phenomenology of social attraction (Hogg, 1992), and attitudes and/or behaviors that are merely related to cohesion. With respect to the first kind, one could say that these attitudes and behaviors are phenomenal/can be observed in cohesive groups and therefore can serve as a measure or indication for the degree of cohesion in a group. The second kind involves attitudes/behaviors that are often seen in cohesive groups, but do not necessarily occur. To formulate a conceptual model of cohesion also useful for operationalizing cohesion in organizational groups, the phenomenology of cohesion must be covered by this model.
According to the SIT, people try to make intergroup comparisons that favor their own group. In cohesive groups, members will, therefore, evaluate the group positively. Table 3.1 also presents the situation of the group. However, in Hogg's terminology (positive interindividual attitude), the positive evaluation only refers to fellow group members. Positive evaluations of other aspects of the group (satisfaction with the (group) situation) are fairly possible outcomes of cohesion than part of the phenomenology of cohesion. A "negative attitude towards other groups" is strongly related to the issue of intergroup relations, which will be discussed in the third section of this chapter. "Evaluation of the self" is an exception that proves the rule. In the self-categorization theory, the depersonalization of self-perception is the basic process underlying group phenomena. In cohesive groups, members categorize themselves as prototypical group members. From this perspective, self-evaluation must be considered to be part of the self-categorization process.

The degree to which group members are liked is considered to be a function of their perceived prototypicality, and of the degree of the positive attitude of the perceiver towards the group. Thus, we can expect similarities between group members in cohesive groups to be perceived (positive interpersonal attitude). This was also explained in our discussion of the antecedents to cohesion as social attraction. With respect to perceived similarity, Table 3.1 lists such terms as uniformity and conformity. By conforming to group standards or norms, members of cohesive groups produce some form of uniformity, which manifests itself in a similarity (perceived by the group members) in behavior and personality traits.

Liking among group members and a positive evaluation of the group, as is the case in cohesive groups, can manifest themselves in more open communication and loyalty between group members (positive interpersonal attitudes), as well as in cooperation (group behavior).

Finally "task performance" and "learning" are possible outcomes or aspects related to cohesion and not part of the phenomenology of cohesion. Hogg's explanation, in which he considers uniformity as an interim step that can reduce or increase productivity, also indicates this. In other words: cohesion, which involves a certain degree of uniformity, may but does not have to lead to more or less productivity or learning within a group.

This interpretation (from the perspectives of the SIT and SCT discussed by Hogg) of the research on cohesion (e.g. on intragroup liking) takes a first step towards constructing a conceptual model of cohesion as social attraction in organizational task-related groups. Table 3.2 summarizes the antecedents and consequences of cohesion as social attraction.
A Conceptual Model of Social Cohesion in Organizations

**Factors Important to the development of cohesion**

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Phenomenology of cohesion</th>
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<tbody>
<tr>
<td>Proximity</td>
<td>Consequences</td>
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<tr>
<td>Shared experiences</td>
<td>Evaluation of the group</td>
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<tr>
<td>Actual similarities</td>
<td>Perceived similarity</td>
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<tr>
<td>Interaction</td>
<td>Cooperative behavior</td>
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<tr>
<td>Effective Leadership</td>
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<td>Group size</td>
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<td>Group maturity</td>
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Table 3.2 Antecedents and consequences of cohesion as social attraction

The next step concerns a further explanation of the role of group identification with regard to cohesion as social attraction.

**Identification and social attraction**

Social identification, as described and defined by Ashforth & Meal (1989), is based on principles of the same theories (SIT and SCT) as the approach of cohesion as social attraction. This is not surprising considering the considerable role of social identity in explaining cohesion as social attraction. Similar to Hogg’s approach to cohesion, Ashforth & Meal point out that according to SIT, individuals try to make intergroup comparisons on dimensions that favor the group, because social categories contribute to the self-concept and are, therefore, useful to defining and evaluating “self.” Consequently, individuals identify with particular targets in part to fulfill their self-esteem and will gain satisfaction from the successes of those targets. From this perspective, they have defined social identification as a perception of oneness with the group. Organizational identification can be seen as a specific form of social identification in which the organization functions as a social category. Consequently, Ashforth & Meal define organizational identification as “the perceived oneness with an organization and the experience of the organization’s successes and failures as one’s own” (1989:103). Their approach introduces a self-definitional aspect of organizational identification (organizational identification as providing a partial answer to the question “who am I”). In this approach, they make a clear distinction between organizational identification and the closely related concept of organizational commitment, a concept some consider interchangeable.

Most research in the field of organizational identification focuses on identification with the organization as a whole. Over the past decade, however, other targets of identification in organizations, such as task groups, subgroups, departments, colleagues, occupations or professions have also been explored (i.e. Barker & Tomkins, 1994; Knippenberg & Schie, 2000; Scott 1997). As discussed with respect to cohesion in organizational groups, an individual can - simultaneously - be a member of the organization as a whole, of a division within the organization and of one or more workgroups within a division. The identification process can take place at each of these different levels of entities.
Thus, the definition of organizational identification as presented by Ashforth & Meal (1989), may be slightly adjusted to “the perceived oneness with a target within an organization and the experience of this target’s successes and failures as one’s own.”

This form of identification can be considered a condition necessary to the development of cohesion. This is most strikingly illustrated by Turner’s earlier cited statement (1982): “social identity is the cognitive mechanism which makes group behavior possible” (1982:21). Not surprisingly, several of the antecedents of cohesion as social attraction are also related to social identification. The set of earlier mentioned factors that are traditionally associated with group formation, also (partially) affect social identification. However, according to the SIT, perceiving a social category as psychologically real – as embodying characteristics thought prototypical of its members – an individual can identify with the category by definition. With regard to the aforementioned antecedents of cohesion as social attraction, research has shown that similarity between group members stimulates identification with that group (Turner et al. 1987) and that people are more likely to identify with relatively small groups (Brewer, 1991).

Moreover, shared experiences and identification are strongly related. To perceive a social category as psychologically real, a group must be distinctive or recognizable. One way to achieve a certain degree of distinctiveness is by sharing certain experiences with group members. This idea is incorporated in Ashforth & Meal’s definition of organizational identification and was later used for the operationalization of identification by Meal & Ashforth (1992) and Meal and Tetrick (1997), who emphasized the sharing of experiences, successes and failures of the focal organization. Considering identification as an antecedent of necessary condition for cohesion, the antecedent of shared experiences as in Table 3.2 no longer needs to be listed separately.

In summary, organizational identification is strongly related to cohesion and can even be considered a condition necessary to its development. Similar to cohesion, identification can take place with groups at any level of entities in the organization. Moreover, it incorporates the role of shared experiences as an antecedent of cohesion as social attraction. Factors traditionally associated with group formation can be related to identification, although their presence is not necessary for social identification to occur. Similarity between group members and group size can be considered antecedents of cohesion as well as identification.

The following section presents the last step towards constructing a conceptual model of cohesion as social attraction in a discussion of the role of intergroup relations.

### 3.3 Intergroup relations

It was argued that intergroup relations define the relative value of groups. People try to maintain a favorable evaluation of their own group(s). Consequently, intragroup attraction (social attraction for a ingroup member) may vary in terms of positiveness, but is usually not negative. Intergroup attraction, or social attraction for a (prototype of a) member of a different
group will be less positive, or even negative. Considering this idea, cohesion or social attraction is actually determined by two components: 1) ingroup attraction and 2) outgroup attraction. These interact with each other to some extent: in order to maintain a favorable evaluation of one’s own group, other groups will be evaluated less positively. The consequences of social attraction, listed in Table 3.2, can be measured for ingroup attraction as well as outgroup attraction. In other words, they can be measured with regard to one’s own group as well as with regard to a group’s environment consisting of other groups and/or larger entities of which the group forms part.

A closer look at this interaction between ingroup and outgroup attraction would reveal how outgroup attraction can influence intergroup relations. The stronger the ingroup attraction, the weaker any outgroup attraction is likely to be, and vice versa. This interaction can take place at any level of entity within an organization. There is, for instance, the level of the single group and the level of the division of which the group forms part. At both levels, interaction takes place between ingroup and outgroup attraction. At the smallest level of entities, the single work group, the outgroup attraction, is partly directed towards the other work groups that form the same division at the second level of entities. At this level, the outgroup attraction may be directed towards (groups) of other divisions, together forming the organization. If the outgroup attraction of a single group (first level) is stronger, the ingroup attraction of the larger entity to which the group belongs (second level) will be stronger as well. Thus, interaction also takes place between levels of entities. In summary, it can be argued that a negative relationship may exist between ingroup and outgroup attraction at any level of entity, and a positive relationship exists between the outgroup attraction and ingroup attraction between different levels of entities. This is outlined in Figure 3.1.

![Figure 3.1: Relations between ingroup and outgroup attraction](image)

The relationships presented in Figure 3.1 may imply that attraction towards more than one group is hardly possible. This is, however, not what is argued by this figure. It is only argued that if attraction towards group A is fairly strong, members will be less open (and not “not open”) to other groups. Other groups will not be evaluated as attractive as group A, but may still be seen as attractive.

With regard to social attraction to a group, this seems fairly logical. With regard to identification with a group, however, a positive relationship was found between two levels of
entities, that is, that of the group and the organization in a study by Simons, Van Wijk & De Ridder (2002). Apparently other factors, such as the perception of a single group as representing the organization as a whole, also play a role. However, the intergroup relations should be taken into consideration in discussing cohesion in organizational groups and manifest themselves - although possibly mediated by other factors - as a negative relationship between ingroup and outgroup attraction at the same level of entity and a positive relationship between outgroup and ingroup attraction at different levels of entities.

3.4 A conceptual model of cohesion in organizational groups

We have now discussed antecedents and consequences of cohesion as social attraction. We have also discussed and illustrated the role of social identification, arriving at the assumption that identification should be considered as a condition required for social attraction to occur. This also incorporates the role of shared experiences, listed as one of the antecedents of cohesion as social attraction. Section 3.3 focused in on the role of intergroup relations, and arrived at assumptions regarding the relationship between ingroup and outgroup attraction at the same level of entities and between different levels of entities. In Figure 3.2, cohesion as social attraction is conceptualized based on these three steps.

![Conceptual model of cohesion as social attraction in organizational task-related groups](image-url)
It must be noted again that this model does not claim to be exhaustive. The model is intended to serve as a theoretical framework for studying the effects of ICT on cohesion in organizational groups. For this reason, only antecedents that can be altered by changes in organizational structure or the introduction of other media for communication processes have been included. Social identification forms an exception. This aspect appeared to be so closely related to cohesion, that it could not be excluded from the model. This means, however, that possible effects of ICT use on social identification should also be taken into consideration, especially since this aspect incorporates the antecedent “shared experiences.” Size has been included because of the expectation that smaller groups may act different from larger groups (Chapter 1). Using this model, we answer the second part of the first sub-question. The consequences or phenomenology of social attraction form the basis for the operationalization of cohesion in organizational groups.

**Implications for operationalizing cohesion for empirical research**

Three measurable aspects of cohesion as social attraction have been distinguished: 1) evaluation of the group; 2) perceived similarity (in particular with respect to personality traits); and 3) cooperative behavior (including loyalty and open communication). These aspects can be operationalized and tested for use in smaller and larger organizational groups. By doing this, social attraction towards smaller and larger organizational groups experienced by individual group members is operationalized. Cohesion, however, is a group phenomenon. Aggregating scores of individual group members to the group level seems to be an inappropriate way to compute cohesion at the group level. As can be seen in the conceptual model, and as argued in the previous section, intergroup relations can play an important role within an organizational context. Thus, in computing cohesion at the group level, we must take account of outgroup attraction towards the group in the environment. For this study, measuring outgroup attraction may be somewhat too complicated. Since groups of different sizes (and thus, different levels of entities) are studied, the environment of a group can vary considerably. Considering these circumstances, it is advisable to operationalize and study ingroup attraction at an individual level as an indicator or strong predictor of social cohesion in organizational groups.

### 3.5 Summary

This chapter addresses the second part of the first sub-question. The discussion here began by examining the research into cohesion as intragroup liking. This was followed by an interpretation – based on Hogg’s approach to cohesion as social attraction and characteristics of organizational groups – of several previously mentioned antecedents and consequences of intragroup liking. This resulted in an adjusted list of antecedents and consequences of cohesion as social attraction, a list applicable to organizational groups. Identification with the
group was discussed separately as a special antecedent or condition necessary to the development of cohesion.

The next step towards a conceptual model concerned the role of intergroup relations. By discussing the interaction between ingroup and outgroup attraction, its role could be included in the final model of social attraction in organizational groups. It was assumed that a negative relationship exists between ingroup and outgroup attraction at any level of entity and a positive relationship between ingroup and outgroup attraction between different levels of entities.

Not all possible factors that may influence social cohesion were included in this model. The model was constructed to serve as a theoretical framework or as a basis for a theoretical exploration of the possible effects of ICT use on social cohesion in organizational groups. In other words, it serves to describe the possible effects of characteristics of ICT on the conditions (antecedents) important to the development of cohesion. The consequences listed had to meet the description of the phenomenology of social attraction, consisting of a positive interindividual attitude associated with an array of group behaviors, (as outlined by Hogg). This has resulted in three measurable aspects of social attraction: 1) evaluation of the group; 2) perceived similarity and 3) cooperative behavior.

It was argued that operationalizing cohesion for empirical research, ingroup attraction should be used as an indicator or strong predictor for social cohesion. Simply aggregating individual scores to the group level was assumed to be insufficient for computing cohesion, since the role of intergroup relations would not be included.