

See discussions, stats, and author profiles for this publication at:
<https://www.researchgate.net/publication/249963146>

Criteria for Assessing the Level of Group Development (LGD) of Work Groups: Groupness, Entitativity, and Groupal....

Article in *Small Group Research* · June 2008

DOI: 10.1177/1046496408319787

CITATIONS

30

READS

256

4 authors:



Rocío Meneses

University of Barcelona

22 PUBLICATIONS **95** CITATIONS

[SEE PROFILE](#)



Raul Ortega

National University of Costa Rica

3 PUBLICATIONS **30** CITATIONS

[SEE PROFILE](#)



Jose Navarro

University of Barcelona

201 PUBLICATIONS **632** CITATIONS

[SEE PROFILE](#)



Santiago D. de Quijano

University of Barcelona

50 PUBLICATIONS **232** CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Fomentar el raonament crític i analític en el treball individual i grupal en l'alumnat de Psicologia [View project](#)



Team Adaptation [View project](#)

Small Group Research

<http://sgr.sagepub.com>

Criteria for Assessing the Level of Group Development (LGD) of Work Groups: Groupness, Entitativity, and Groupality as Theoretical Perspectives

Rocío Meneses, Raúl Ortega, José Navarro and Santiago D. de Quijano
Small Group Research 2008; 39; 492
DOI: 10.1177/1046496408319787

The online version of this article can be found at:
<http://sgr.sagepub.com/cgi/content/abstract/39/4/492>

Published by:

 SAGE Publications

<http://www.sagepublications.com>

Additional services and information for *Small Group Research* can be found at:

Email Alerts: <http://sgr.sagepub.com/cgi/alerts>

Subscriptions: <http://sgr.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations (this article cites 30 articles hosted on the SAGE Journals Online and HighWire Press platforms):
<http://sgr.sagepub.com/cgi/content/refs/39/4/492>

Criteria for Assessing the Level of Group Development (LGD) of Work Groups

Groupness, Entitativity, and Groupality as Theoretical Perspectives

Rocío Meneses

Raúl Ortega

José Navarro

Santiago D. de Quijano

University of Barcelona

The main objective of this study is to identify criteria that would allow us to determine when a collection of people is a group. A bibliographic search of the psychological literature has yielded the terms groupness, entitativity, and groupality. These three constructs are then theoretically analyzed and compared, and are found to share two main aspects: (a) the conception of groups as a continuum varying in their level of group development (LGD) and (b) most of the central criteria that have been considered to define a group as a group. Regarding these central criteria, we categorize them as determining elements, LGD criteria, and group results trying to respect their different epistemological positions. The theoretical proposal outlined here provides a basis on which to develop tools that will enrich organizational assessment.

Keywords: *level of group development; groupality; groupness; entitativity*

The existence of new work relations, the increasing demand for productive work groups and teams, and the need for excellent performance in highly competitive environments set new challenges and constraints on groups and teams that need to be studied in situ (Alcover, 2003; Brief & Weiss, 2002; Wilpert, 1995). Moreover, not all so-called work groups or

Authors' Note: We are grateful to N. Roca, R. Rico, M^a. P. González, J. M^a. Peiró, S. Ayestarán and two anonymous reviewers who have enriched this work with their comments. Correspondence concerning this article should be addressed to José Navarro, Department of Social Psychology, University of Barcelona, Paseo Valle de Hebron 171 s/n, 08035 Barcelona, Spain; e-mail: j.navarro@ub.edu.

teams actually fit this description. In addition, the formation of a work group must consider other aspects, such as the nature of the task to be carried out because not all tasks demand group work.

Given the increasing importance of organizational evaluation in the search for quality (Quijano & Navarro, 1999), some organizations also require psychological assessment instruments that are practical, valid, and reliable and that are relevant to any subsequent intervention. Studying the level of group development (LGD) is thus of high diagnostic and intervention value for organizations because it focuses on the essential characteristics of a group. In this regard, it provides a basis for developing a future instrument that can determine when a group is a group and that, when combined with the nature of the task, will be useful in developing models of group effectiveness. It is reasonable to assume that the tasks that require interdependency, for example, will be better performed by well-functioning groups.

The present study extends current research by seeking to improve our understanding of LGD in work groups and develop better models of organizational evaluation and intervention. Specifically, the research addresses the following questions: (a) What are the criteria that enable a set of people working together in an organization to be defined as a group? and (b) Should groups be considered as a continuous or dichotomous phenomenon?

To answer these questions, a retrospective study of the psychological literature (PsycInfo and Psycodoc databases) covering a period of 15 years (1990-2004) was carried out. Although the initial search was restricted to this period, it was subsequently extended to the 1950s as a result of the references initially obtained. The key words *level of group development* and *groupality* and other related keywords (e.g., *group cohesion*) were for the search terms. After examining the retrieved documents, we then enlarged the search to include new authors, references, and keywords that appeared relevant. In this way, we found the keywords *entitativity* and *groupness*—keywords that had not initially been considered. In parallel, a review of classical group psychology handbooks was conducted to explore how the topic of the present study had been labeled and addressed. Useful references were also identified from these sources.

Table 1 identifies the main authors in different periods and displays the relationships among groupness, entitativity, and groupality. Summary tables for each concept were also developed according to keyword, concept definition, dimensions, and position regarding the phenomenon as a continuum. Taking this information as a baseline, comparative tables across authors were developed within each single theoretical line and, subsequently, for the three lines compared to one another.

Table 1
Theoretical Development of Groupness, Entitativity, and Groupality

	Groupness	Entitativity	Groupality
Main theoretical approaches	General System Theory and Sociocognitivism	Gestalt psychology	Soviet social psychology
Precursors (1920-1950)	Cattell (1948), Bion (1951), Lorge (1955), Borgatta and Cottrell (1956), Torrance (1956)	Allport (1924), Wertheimer (1923/1938), Newcomb (1943), Lewin (1951), Deutsch (1954), Asch (1952),	Makarenko (1922/1990)
Main authors who begin to develop the concept	McGrath (1984)	Campbell (1958)	Petrovsky (1977/1983a, 1973/1983b)
Representative authors at present	McGrath, Argote, Arrow, Berdhal, Andriessen, Meier	Wilder, Hamilton, Sherman, Lickel, Dasgupta, Banaji, Abelson, Carpenter, Radhakrishnan	Umansky, Fuentes (1986), Roca

The information thus collected enabled us to present a literature review of the three theoretical lines that have addressed the topic, under the headings groupness, entitativity, and groupality. Their propositions are analyzed and compared to identify points of agreement and difference between them. To conclude, we offer a number of comments, suggestions, and considerations on the basis of the information obtained and discuss the relevance of this process.

Theoretical Contributions

During the great boom of group research within social psychology in the 1950s, one of the most frequently posed questions was when does a set of people become a group? What makes a group a different entity to a set of people or an individual?

Groupness

Groupness has been studied from different perspectives and in different contexts and historical periods. It is useful to distinguish between two large research blocks in different historical periods. The first block starts in the

1950s and includes the work of (a) Bion (1951) with its therapeutic roots in psychoanalysis, (b) Lorge (1955) with a background in educational psychology, (c) Torrance (1956) with documentation of indexes used to measure groupness, and (d) Borgatta and Cottrell (1956) with a factor-based approach. The second research block on groupness appears in the 1980s, when the construct is again introduced by McGrath (1984) under the direct influence of Newcomb and Lewin including systems theory and mathematical approaches.

In the first research block, a common definition of groupness is not present; furthermore, the concept is not clearly conceptualized, and its dimensions are poorly described. In general terms, and following the proposals of Lorge (1955) and Borgatta and Cottrell (1956), the process of groupness can be linked, albeit in a rather diffuse way, to three dimensions: One is related to resources (e.g., experience, knowledge), another to processes (e.g., identification, belonging, leadership, communication), and the third one to structure (e.g., roles, norms, hierarchy, task). These authors classified groupness as a fundamental process for the existence of a group and one that explains the extent to which a set of people can be characterized by specific variables that enable it to be perceived as a group or an aggregate. All these authors considered it important that groupness be generated, promoted, and maintained at high levels if one wishes to speak of a group.

By the late 1950s there were two notable aspects regarding the evolution of the study of groupness. One was an obvious break in research on groupness lasting nearly three decades from the late 1950s to the early 1980s, when the term was used again by McGrath (1984). The second aspect is that groupness seems to have been redefined by Campbell (1958) through the term entitativity, thus giving rise to another branch of research that will be discussed later.

As already noted, it was McGrath (1984) who reintroduced the construct of groupness adding greater clarity to it by starting from a conception of the group as a fuzzy set. Group fuzzyness would be revealed through the degree of awareness about belonging to a group, the number of members, the range of behavior and situations in which members are interdependent, and the age or history of the group that has an impact on its relationship patterns. A work group would be a system in which a complex, repeating pattern of dynamic relationships between members occur using a set of technologies (tools) to achieve a set of common goals (tasks; Argote & McGrath, 1993).

Based on this definition of a group with fuzzy boundaries, McGrath addressed the traditional question regarding what is and what is not a group from a different perspective, namely, by considering it as a matter of degree rather than as a matter of absence or presence. He specified

certain characteristics that, when present in a given set of people, made this set more of a group than another set, or made the group more *groupy* than other groups because it better exemplifies the defining characteristics. He also considered that some groups have some of these characteristics but not all of them or that groups vary in the degree to which these characteristics are present. Thus, he focused on the usefulness of the concepts for observation purposes and their suitability within theoretical and empirical frameworks (Argote & McGrath, 1993; McGrath, 1984).

This approach offered a new alternative of wide epistemological scope, and it can be used to identify a group, to think about it, and to build it conceptually. It also suggests new methods of diagnosis and intervention that are consistent with the emerging paradigm of complexity (see Munné, 1995). This approach was further developed by Arrow, McGrath, and Berdhal (2000).

Therefore, in McGrath's view (1984), the question as to whether certain sets of people constitute a group involves what he has labeled the level of groupness and the same group characteristics as a fuzzy set. Size, interdependence, and time pattern reflect the level of groupness of a given group. In this sense, for a set of people to be a group, a relatively small size is needed so that all its members can be mutually aware and thus, potentially, be able to interact with one another. This mutual awareness and potential interaction generates at least a minimum degree of interdependence that, in turn, implies certain continuity over time, a degree of history and, to some extent, a sense of the future.

Arrow and McGrath (1995) proposed five criteria based on member–group–task–technology–organization relationships to determine the level of groupness in a group. These have been revised and further developed by Arrow et al. (2000) into the following six criteria: (a) people consider themselves as members of a group, (b) they acknowledge others as members and they distinguish between members and nonmembers, (c) members feel connected to each other and to the group's projects, (d) members coordinate their behaviors to carry out collective projects, (e) members coordinate the use of tools, knowledge, and other resources, and (f) members obtain collective products that are based on interdependent activities.

These criteria imply a sociotechnical approach to the topic. The first three criteria can be understood as social elements, specifically in terms of social identity; the others can be regarded as a technical aspect because they refer to the coordination of people and resources as well as to the requirements of interdependence for the task and to the achievement of a collective product. For these researchers, work groups do not exist by themselves

but must be situated in a physical, temporal, and sociocultural context as well as generally being embedded in an organizational setting. Thus, one of the shared goals is the production of a service or product for another system (Argote & McGrath, 1993).

In summary, in the view of McGrath and his collaborators, a fundamental aspect of groups is that they are complex systems with fuzzy boundaries within an organizational and social system, whose members are interrelated and develop a range of tasks to achieve a group project using resources, technology, and a coordinated combination of both. The notion of level of groupness is useful for identifying how much of a group a group is, and it can be observed through reference to the many criteria drawn up for this purpose.

The construct has also been studied by Andriessen (2002) and Meier (2003), both of whom were interested in the study of virtual teams. Andriessen used the term groupness and defined it as a multidimensional variable characterized by six dimensions: (a) the interdependence of goal and task performance, (b) interaction intensity, (c) interaction duration, (d) formality of the team's membership, (e) continuity of the group's membership, and (f) the group's size and number of people involved in it. Their perspective implies the idea of a continuum in the types of groupality (groupings), which, theoretically, suggests an infinite number of structures. By way of a simplified illustration it is possible to distinguish three types of aggregates: mass or crowd (equivalent to an aggregate), communities, and teams (task oriented, that is, an aggregate with high groupness).

Meier (2003) conceptualized groupness as a social fact achieved by group participants, which is acknowledged by both group members and nonmembers. He sought to emphasize how difficult it is to establish groupness in a spatially distributed group (virtual teams) connected by video-conference because videoconferencing imposes a particular context for interaction and its own dynamics with which group members have to work and adapt to, in their efforts to establish groupness. The idea of continuum may also be inferred from Meier's ideas because he saw groupness as a social fact that is not given but achieved and that which is present in different groups and harder to achieve in virtual ones.

In summary, authors agree that groupness is a multidimensional process that indicates that the LGD in different kinds of aggregates is important for group performance. Groupness takes place within the group, and its qualities can be perceived by both group members and external observers.

Entitativity

In the 1950s, the question about which characteristics enable a set of people to be regarded as a group was also addressed through the term entitativity that was coined by Campbell (1958). This concept gave rise to a different theoretical line that continues to the present day (see Lickel et al., 2000). Campbell, from within the field of animal psychology and like Borgatta and Cottrell (1956), had his roots in a factor-based approach, although he was more influenced by Cattell, Allport, Lewin, and Deutsch as well as by Gestalt psychology. Campbell (1958) introduced the term entitativity to refer specifically to the degree to which a group really exists, that is, the extent to which it exists as an entity. He pointed out that groups vary in the degree to which they seem to have entitativity, the psychological cohesion attributed to social groups in the presence of relevant perceptual indicators (e.g., physical similarity or spatial proximity).

Campbell's approach (1958) focused on the application of perceptual organization to understanding how the group's entitativity was perceived. This means that a person uses visual clues to identify when various stimulus elements are part of a single physical entity. For Campbell, the dimensions of entitativity were the same four gestalt principles of perceptual organization proposed by Wertheimer: proximity, similarity, common fate, and pregnance.

More recently, Hamilton and Sherman (1996) empirically developed the concept of entitativity as a way of explaining differences in the results of social cognition research in the area of impression formation in individuals and groups. Their theoretical position was also influenced by the work of Asch and Tajfel as well as that of Campbell (1958). Hamilton and Sherman focused on when and how sets of people are perceived as groups and examined which factors induce the perception of discrete elements as parts of an organized whole—that is, which variables contribute to the perception of entitativity. It is important to note that Hamilton and Sherman's studies did not use work groups but were based on large social categories. However, the different types of groups studied reflect different levels of entitativity, and the criteria used can be considered important for our purpose. These authors pointed out that entitativity is similar to what they labeled *perceived unity* (i.e., even in a very small group the true notion of groupness implies some idea of being united). If this was not the case, it would just be a set of people, and the observer would not think of them as a group (Hamilton & Sherman, 1996; Hamilton, Sherman, & Lickel, 1998; Lickel et al., 2000).

Entitativity is the degree to which groups are perceived as coherent entities (Hamilton et al., 1998; Lickel et al., 2000) and its occurrence depends

on five properties: (a) member interaction, (b) common goals among members, (c) common results, (d) similarities among group members, and (e) the group's importance for its members. According to Lickel et al., the first three properties reflect the perception of a group as interdependent.

These studies are the first to provide empirical evidence of the variation among groups regarding the degree to which they are perceived as coherent entities, that is, entitative ones and to identify the criteria most strongly associated with entitativity. In this regard, interaction among members proved to be the most important property. According to the findings of Lickel et al. (2000), group duration correlated very little with entitativity, and the permeability of group boundaries and its size showed no correlation. The authors pointed out that size can influence entitativity as has been suggested by other authors but argued that this occurs more indirectly through the interaction among group members. These relationships were found in entitativity perceived by both group members and by observers.

When these researchers state that groups vary in the degree to which they seem to have entitativity, they also introduce the idea of a continuum in terms of the degree to which a perceiver assumes there to be unity and coherence among group members (Hamilton & Sherman, 1996; Hamilton et al., 1998). The perception of a group's position along this continuum will determine the nature of information processing regarding how the observer acquires, processes, and uses information about groups and their members.

Hamilton et al. (1998) proposed that the most useful indicator of a group's position along a continuum of entitativity is the degree to which the group is perceived as having organization and structure among members. The presence of organization is revealed through the hierarchical structure; role differentiation and functions among members; differences in leadership, power, status, and responsibility; established norms; and performance in an organized and coordinated way. Groups having an organization, interdependence, and a defined goal are distinctively high in entitativity, and they believe perceivers perceive them as such. These properties can be manifested in different ways in different groups. In fact, these authors introduced the term *groupy* to refer to the structural relationships within the group.

Representative authors from the groupness line of research also use the term *groupy* but they differ in their scope of the criteria to define it. The criteria proposed by Arrow et al. (2000) are more inclusive because they refer to structure, process, and results, and use the terms *groupness* and *groupy* interchangeably. In contrast, Hamilton et al. (1998) used them only for structural elements.

It should be noted that Hamilton et al. (1998) referred to the ongoing debate in the literature regarding what constitutes a group and argued that the entitativity continuum provides an alternative explanatory approach to this issue, one that seeks to explain how perceivers detect groupness in their perceptions of social aggregates. As can be observed, these authors frequently equated the terms entitativity and groupness. In addition, they distinguished the perception of a group's entitativity from other related concepts, among which *cohesion*, defined as the degree to which different groups are unified, coherent, and organized (Lickel et al., 2000) is particularly important.

In addition, through empirical research on theories of social categorization and stereotypes, Lickel et al. (2000) renewed interest in the nature and antecedents of perceived entitativity in social groups; they pointed out its importance and proposed the idea of an entitativity continuum along which human groups vary in the degree to which they are perceived as coherent units.

In a similar vein, other authors such as Dasgupta, Banaji, and Abelson (1999) also used the dimensions proposed by Campbell. They considered that a number of factors can determine how cohesive a group is perceived to be—one of the most important being physical similarity among members. Although their experimental study focused solely on this aspect (specifically, skin color) they extended Campbell's original idea by suggesting that physical properties can create a perception of groupness or psychological groupality, which has important consequences for the perception of the group as cohesive or noncohesive.

Carpenter and Radhakrishnan (2002) also equated groupness with entitativity and regarded it as the bond perceived by group members in terms of the degree of conformity, unity, or cohesion, and interdependence among themselves. Taking the work of Campbell (1958) and Wilder (1986) as a starting point, they considered that this notion can explain why some groups perceive themselves as coherent units, whereas others perceive themselves as mere aggregates of people. They defined and measured entitativity and homogeneity as different psychological constructs. Homogeneity was related to similarity, whereas entitativity was associated with interdependence and group structure.

Seen in this way, entitativity is similar to the proposals of Lickel et al. (2000) regarding those variables that are positively correlated to entitativity as well as the notion of group (Hamilton et al., 1998), except for the way in which they approach similarity. They separated belonging from entitativity and, according to their definition of groupness, cohesion is seen as part of entitativity but not as the same process; this departs from the view of Dasgupta et al. (1999).

From a different angle, Carpenter and Radhakrishnan (2002) compared relational groups with collective or categorical ones in terms of entitativity. The relational groups promote the attachment and closeness feeling within its members, reciprocal influence within them, a great knowledge and cohesion, and so on. The authors placed these relational groups on the same level as the intimacy groups proposed by Lickel et al. (2000). Examples of relational groups would be a family and a group of friends. However, categorical or collective groups are those groups where its members share some stable properties and facilitate the attachment to a particular social identity. They also include the social categories, such as ethnic or gender groups.

In line with the above-mentioned characteristics, relational groups will be perceived as more entitative and more homogeneous because they promote greater attachment among members; a greater feeling of closeness; more influence among members; and more opportunities for mutual knowledge, greater cohesion, and high-quality relationships. In this sense, being part of an entitative group provides a greater sense of belonging than does being part of an aggregate.

Therefore, Carpenter and Radhakrishnan (2002) also considered the perception of entitativity or groupness as an answer to the question of which characteristics define an aggregate of people as a group. However, although the three dimensions considered by these authors are derived from Campbell (1958) and Hamilton et al. (1998), they investigated similarity as homogeneity. For all the other authors mentioned, similarity is present as a dimension of entitativity.

In sum, all the authors included in this theoretical line studied the variables involved in the perception of groups as groups or as aggregates of people. With the exception of Wilder (1986), they presented entitativity as the explanatory concept for this question. To a greater or lesser extent, they used the work of Campbell (1958) as a starting point and equated entitativity with groupness. They differed in the descriptive dimensions of entitativity, although there are important points of agreement. Major empirical support is given to the five variables proposed by Lickel et al. (2000): (a) interaction, (b) common goals, (c) common results, (d) similarity among members of the group, and (e) importance of the group for its members. On the whole, the authors included in this line consider the existence of a continuum along which the different types of human aggregates can be located.

Groupality

The research question regarding what constitutes a group was, with certain variations, also addressed by Soviet psychology, mainly by Petrovsky

(1977/1983a, 1973/1983b) and gave rise to a separate theoretical development. This was taken up again by Fuentes (1986), who referred to it as LGD and more recently by Roca (1996), who studied the theoretical and empirical aspects of the area more deeply and used LGD as a synonym for groupality. In 1954, Bogardus, from his Western perspective, used the term groupality to refer to both the behavioral and structural characteristics of a group. However, further references of this kind were not found.

Petrovsky (1973/1983b), immersed in a society ruled by a Marxist ideology focused on the development of communism, sought to study whether all the processes that take place in small groups also occur in an aggregate of people. He argued that this question refers more to an ideological than a methodological difference between Soviet and bourgeois psychology, as he called it. The importance of a collective was thus based on the demands imposed by the communist party, "To seek and find adequate, scientifically valid ways of formation of the active life position . . . of the person through educating him in the collective and through the collective" (Petrovsky, 1977/1983a, p. 59). The collective creates a bond between a person and society by underlining the importance of social objectives in the joint action of group members. It is a kind of group whose relationships are mediated by the nature of the socially meaningful activity (common activity), which includes objectives, tasks, and its values.

In the 1970s, Petrovsky (1977/1983a, 1973/1983b,) developed the theory of the collective, according to which human groups show different levels of groupality. As groupality increases, the nature of interpersonal relationships also changes, from interpersonal attraction to functional maintenance and becomes an evaluative-objective unit that is expressed through individual activities and interpersonal evaluations that are mediated by shared values, opinions, and attitudes about the objective of the common activity. Achieving this objective implies a common activity in accordance with the level of development of groups: the collective. For this author, groups vary according to their degree of development, from those in the lowest level, called diffuse groups, to the collective conceived of as a kind of highly developed group. There are three characteristic elements of a collective: (a) collectivist self-determination, (b) effective and emotional group identification, and (c) cohesion as an evaluative and orientating unit (Munné, 1989; Petrovsky, 1977/1983a).

Petrovsky (1977/1983a,1973/1983b) argued that Western social psychology was mistaken to adopt laws from group dynamics because he considered small groups to be merely a vague microrepresentation of human communities; thus, regularities of interpersonal relationships in such small

groups cannot necessarily be generalized to any other group. Consequently, collective phenomena could not be discovered by Western social psychology in these groups with a low level of development. He also emphasized that the Western perspective failed to take into account the levels of development in groups or the multilevel structure of group processes regarding its activity, objectives, and principles.

Therefore, he considered that he had introduced “a new object of study previously unknown in traditional Western psychology” (Petrovsky, 1977/1983a, p. 69) by characterizing a collective as a group whose processes are mediated by the content of the socially valuable common activity. Further development of the theory of the collective was due mainly to the work of Umansky (1980) and Fuentes (1986) in Cuba.

It is important to point out the difference between the collective groups, mentioned by Carpenter and Radhakrishnan (2002) and the collective of Petrovsky (1977/1983a) because they aim to describe two very different types of group. In some ways, the collective is like a relational group because its members share objectives, goals, and values, but Petrovsky emphasized the power of the values and the social value of the activity developed.

By emphasizing the concept of levels of group development, Petrovsky established the basis for a continuum from noncollectivism to collectivism along which groups could be situated. Umansky (1980), who also referred to a continuum of collectivism, stated that as groups achieve a new degree of social maturity, they will also develop new forms of qualitative and quantitative expression that will be revealed through communication and the interaction between members. He also proposed a sequence of levels of group development.

Fuentes (1986), following Umansky (1980), explored the construct of levels of group development (LGD) in greater theoretical and methodological depth. She defined LGD as the different levels of social maturity that groups can achieve as a result of the interaction between a set of developmental parameters that have a certain impact according to the characteristics and nature of the group activity and, above all, to the views of members regarding the social effect of this activity. To evaluate it, she developed a quantitative method to explore the distinctive features of the different levels of social maturity that groups can achieve and conducted experimental studies in support of her statements.

The groupality concept of the collective theory was further developed by Roca (1996), who defined groupality as the characteristic attributes of a group that are present in personal interaction and that change both in quality and in intensity as a function of time and group activity. This enables the

formation of the group's social structure and its differentiated operations (Roca, 1998, 2001a, 2001b). Interaction between members changes according to the level of groupality. This implies that as groupality increases the nature of interpersonal relationships also changes, as was proposed by Petrovsky (1977/1983a, 1973/1983b). Thus, Roca (2001a) viewed groupality as a continuum from the grouping to the collective, and regarded it as being influenced by time; the first stages would be achieved faster, but as the groupality level increases, it takes longer to pass to the next stage.

Starting from the dimensions proposed by Fuentes (1986), Roca (2001b) measured LGD or the degree of groupality using five dimensions: (a) social value of activity content, (b) communication and interpersonal relationships, (c) group goals, (d) leadership and management, and (e) group organization and group influence over its members. These dimensions seek to include the interaction among affective, cognitive, and conative components in Marxist theory. It should be also noted that Roca (1998, 2001b) treated groupality and LGD as the same concept. In summary, the groupality theoretical line develops the concept of groupality and LGD. Taking collectivism theory as its base, it emphasizes the progressive nature of groupality development, including parameters of action and time as well as the strength of group influence on its members. All the authors in this line highlight the role of participation and the social value of the task as fundamental elements of the functioning of work groups. In addition, both Fuentes and Roca (2001b) developed an instrument for the study of LGD.

Criteria for Assessing LGD: Points of Agreement and Difference Between the Different Theoretical Lines

Table 2 summarizes groupness, entityity, and groupality relative to *interrelationship*, *shared goals*, *identification with the group*, *group coordination*, *shared results*, *task interdependence*, *social value of the task*, and *orientation to group goals*. This table includes only those authors who explicitly indicated the dimensions of the phenomena. The different criteria have been grouped into categories according to the similarities, whether explicit or not, among the scholars of different theoretical lines. The first four categories are shared by all three theoretical lines and, although they are expressed in different terms in each one of them, they share similarities in their meaning. In the category interrelationship, the different definitions refer to the relationship among group members, including both process elements (e.g., interaction between group members) and structural ones (e.g., repeating patterns).

Table 2
Comparison of Criteria Used by Main Authors to Characterize
Groupness, Entitativity, and Groupality

Criteria	Theoretical Perspective		
	Groupness	Entitativity	Groupality
Interrelationship	Recurrent patterns of interaction among elements (McGrath et al.) Intensity of interaction (Andriessen)	Interaction among group members (Hamilton et al.)	Interpersonal relationships (Roca)
Shared goals	Members pursuing collective projects (McGrath et al.)	Common fate (Campbell) Common goals (Hamilton et al.)	Members behavior is determined by group goals (Petrovsky) The group has a common goal (Roca)
Identification with the group	Members consider themselves as belonging to the group, recognize one another as members of the group, recognize one another as members and distinguish members from nonmembers (McGrath et al.)	Importance of the group to group members (Hamilton et al.) Unity, cohesiveness (Carpenter)	Effective and emotional group identification. Cohesion as an evaluative and orientating unit (Petrovsky) Group identification and influence on its members (Roca)
Group coordination	Coordinate their use of a shared set of tools, knowledge and other resources. Members coordinate their behaviour in pursuing collective projects (McGrath et al.)	Pregnance (spatial organization or pattern) (Campbell) Organized entity-structural relationships (leader, roles, functions and norms) (Hamilton et al.)	Organization (roles, leadership, rules) (Roca)
Shared results	Sharing of collective outcomes (McGrath et al.)	Common outcomes (Hamilton et al.)	Fundamental to define inner working of the group (Roca)
Task interdependence	Interdependent activity in the group (McGrath et al.) Interdependence of goal and task performance (Andriessen)	Interdependence (Hamilton et al.) Interdependence between group members (Carpenter)	Skills interdependence and the participation of group members (Roca)
Social value of the task	Production of a service or product for another system (McGrath et al.)	Emphasizes the importance of group or project welfare for the organization (Hamilton et al.)	Cohesion as an evaluative and orientating unit (Petrovsky) Social value of activity (Roca)
Orientation to group goals	Common commitment to reach established goals (McGrath et al.)	Shared mission and well-defined group purpose (Campbell; Hamilton et al.)	Collectivist self-determination (Petrovsky) Orientation to common goals (Roca)

The category shared goals indicates the importance of LGD for the definition of a common task and the setting of shared goals. Shared goals are perceived as such by the members. It should be noted that these shared goals have been differentiated from shared results that refer to the achievement of a specific product derived from the work of group members.

Identification with the group includes the social categorization processes considered under groupness, the cohesion and identification processes introduced in entitativity as well as emotional and cognitive identification and group influence proposed by groupality. The different lines indicate the relevance of group member identification in the study of LGD. It should be noted, however, that the criteria in the groupality line go beyond this because they also assume confluence of values among group members. This same category also includes unity or cohesion, as this term is frequently mentioned in the literature on this topic. Although it has been defined and measured in many different ways over the years, most authors (Cartwright & Zander, 1979; Shaw, 1994; see also Festinger, Schachter, & Back, 1950; Furnham, 1997; Goodman, Ravlin, & Schminke, 1987; Levine & Moreland, 1990; Lewin, 1951) define it according to the degree to which group members feel attracted to the group, are bonded to one another, and wish to remain in the group. However, the most important effect attributed to cohesion may be associated with group maintenance functions as a minimum degree of cohesion is required for the group to continue functioning as such (Carron et al., 2004; Shaw, 1994). Thus, cohesion is just one of the necessary components for entitativity, groupness, or groupality.

Group coordination refers to the synchronization and coordination of behaviors, tools, and resources among the members, which builds the particular organization of the group (differences in roles, functioning rules, etc.). It also includes the concept of pregnancy, following Campbell's (1958) definition that refers to the elements that are part of a pattern or spatial organization and that give the idea of structure.

Task Interdependence, although not explicitly mentioned in groupality, is fundamental for this line because the need for skills interdependence and the participation of group members (to deal with the task) are associated with the LGD required to achieve goals and well-being. Moreover, the interdependence concept is included in the definition of identity (self) in collectivist or interdependent cultures as opposed to individualistic or independent ones (see Markus & Kitayama, 1991).

Although the criteria discussed so far are all shared by the different theoretical lines, there are certain criteria that are proposed by only one of the lines. This is the case of group size and time pattern that are proposed only

in the theoretical line on groupness. Other examples are member similarity and proximity in the theoretical line on entitativity, and social value of the activity and orientation to group goals in groupality. Except for criteria from this last line, the others are regarded as important for the group but as secondary characteristics that affect the defining characteristics of the group as such. For instance, group size affects the possibility of interrelationship among members; the importance of similarity among group members with respect to achieving the goal will vary depending on the type and characteristics of the task.

The idea of social value of the task is similar to that in the groupness line because Argote and McGrath (1993) emphasized that work groups do not exist in a vacuum but are rather rooted in a physical, temporal, and socio-cultural context. Therefore, they considered that one of the shared purposes of the group is the production of some service or product for another system. The entitativity line does not deal explicitly with this matter but does consider it when it characterizes different types of groups and their level of entitativity (Hamilton et al., 1998). For example, there is mention of the importance that shared well-being in the group or that of the project underway has for a company, political party, or work group. In this regard, all three lines coincide in this category, although it should be noted that in the groupality line, the social appreciation of the task has a much greater bearing on the social impact of the shared activity and on the confluence of values, opinions, and attitudes regarding the group activity.

Orientation to group goals is distinguished from shared goals because a group with shared goals is not the same as a group whose members share a clear and decided approach to the achievement of these goals. They are thus different aspects. In fact, when Arrow et al. (2000) defined groups as open systems that are actively involved in a dual exchange with individuals, groups, and other entities, they made it clear that there must be a shared commitment, which takes the form of specific behaviors to achieve the established goal.

Proposal of LGD Criteria

So far, we have presented the criteria shared by the three reviewed theoretical lines (Table 2) to determine when a group is a group. In what follows, we propose a way of organizing these criteria based on a sociotechnical approach, the aim being to study the phenomena from a perspective that includes the contributions of each of the aforementioned lines. Specifically,

we classify the eight common criteria according to three aspects: determining variables, LGD criteria, and outcomes. Each aspect is considered in a space-time framework characteristic of each group. The existence of group-shared goals and task interdependence would be classified as determining variables, which means that certain antecedents are necessary for some LGD to occur. Interrelationship, group identification, social evaluation of the task, orientation to group goals, and group coordination would fall under aspects of LGD. Finally, shared results would be regarded as products. These final outcomes affect group processes and, therefore, its development level, but they are not, in our opinion, an LGD-defining criterion. In line with this proposal, the fundamental criteria to identify the existence of a group are reduced to five (interrelationship, shared goals, identification with the group, group coordination, and social value of the task).

Given the above, a number of other considerations should also be made. First, a high LGD is not always needed to carry out a task efficiently in a work group; moreover, it is not always desirable to have a high LGD in such groups. In this regard, both Petrovsky (1977/1983a) and McGrath (1984) pointed out the risks associated with a high level of groupness or the presence of a collective under certain conditions. At this point, it is worth noting the different ideological positions underlying each of the above approaches. Although McGrath (1984) said that healthy groups focus on the active maintenance of boundaries between group and members as regulators of the exchange between the two levels, Petrovsky (1977/1983a) argued that the most desirable group is one whose high level of solidarity unity with respect to both moral values and the goals of group activities lead toward the building of communism as result of social development. From a Western perspective, this can be interpreted as a loss of individuality and personal freedom (see also Munné, 1989).

Petrovsky (1977/1983a) classified small groups as prototypes of diffuse groups, due to the absence of social value in the mediating factors. However, the position of Western psychology has changed. Although it does not go as far as considering the social value of the activity as a basic defining characteristic of groups, McGrath (1984) did exclude diffuse groups (using Petrovsky's term) from the category of group. For example, he stated that statistical groups, created for research purposes with random members who do not necessarily have properties in common (i.e., the statistical groups do not involve relations among members) were suitable as comparison base nongroups. Furthermore, he highlighted the importance of a reduced number of members who enable mutual awareness and potential interaction, structuring, and organization.

As can be seen, even though the different authors representing the three theoretical lines of groupness, entitativity, and groupality differ in some of the elements considered as characteristic of a group, they coincide on eight criteria; five of them refer to processes and structure and could be considered fundamental to define LGD, whether this be termed groupness, entitativity, or groupality.

Conclusions

This study has sought to identify useful criteria for classifying an aggregate of people as a group by comparing statements from the various theoretical lines that have studied groupness, entitativity, and groupality. Analysis of the scholarship retrieved from databases obtained demonstrated that these constructs seek to explain the same phenomenon but from different theoretical perspectives. The analysis presented here revealed important points of coincidence among the reviewed lines, despite the well-known difference in terms of the terminology used and some of the proposed criteria.

Both groupness and entitativity developed around the defining characteristics that lead an aggregate of people to be perceived as group. The groupality line also refers to this but places greater emphasis on whether all the processes that take place in small groups also occur in the collective as well as on the importance of the group for its own members.

The three lines converge in two aspects: (a) the conception of the phenomenon as a continuum and (b) the majority of the criteria considered as being central for conceiving a group as a group. It has been shown that the three lines conceive group formation as a process that implies the movement of an aggregate of people along a progressive continuum that may increase in LGD, rather than it being considered as a dichotomous phenomenon involving the transformation of a nongroup into a group, which had been the basis of work conducted during previous decades. The question of whether this change is linear or jumps from one stage to other remains to be explored. It is also unclear whether teams lie at the top end of this progressive continuum.

Five essential criteria shared by the three theoretical lines in defining an aggregate of people as a group were identified, and according to our proposal these five criteria would be fundamental to define LGD. These were interrelationship, identification with the group, coordination, social value of the activity, and orientation to group goals. In addition, two other aspects were found to be important: determining elements, which include task interdependence

and common goals, and group results. Task (type and its characteristics) is a fundamental element but more in terms of one of the prior determining elements of the studied phenomenon. The product or outcome is also a crucial element for the group because it influences, through feedback loops, all group processes. Time and context are also relevant dimensions in terms of understanding LGD and promoting its development; however, rather than being defining elements they form part of the group setting.

This proposal seeks to respect the different epistemological positions represented by the three theoretical lines studied and aims to provide a more comprehensive view that makes room for valuable contributions from each one of them, thus deepening our knowledge of the area. Therefore, adopting the definition of a group as a fuzzy set (Argote & McGrath, 1993; Munné, 1995) paves the way for the study of groups using complexity theory, this being a new epistemological approach that is less reductionist in terms of psychological processes and social reality and that offers a new way of apprehending this reality (Munné, 1995, 2004). For instance, the classical distinction between the literature on teams and that on work groups, which is based on the argument that teams and work groups are very different, would, from this new point of view, be understood as a matter of degree. Indeed, it may be that our classical logical reasoning based on Aristotelian principles is not so useful for dealing with these kinds of question.

Regarding the limitations of this study, the most important one concerns the small amount of material from Soviet social psychology, due both to the difficulty in accessing it and to the cultural context of the researchers, in contrast with the wide coverage of theoretical contributions from Western psychology. Another limitation is that this study only reviewed psychological databases, excluding other sources that could have provided a broader perspective about the subject; this issue should be addressed in future research.

Thus, the present study provides a theoretical basis for future work, such as operationalizing the identified criteria; testing an instrument for measuring LGD (as used by Roca 1998, 2001b); examining the relationships among LGD, group effectiveness, and characteristics of the task; and studies of the relationship between LGD and the stages proposed by different models of group development (e.g., Gersick, 1988; Moreland & Levine, 1982; Wheelan, 1994; Wheelan, Davidson, & Tilin, 2004). To avoid confusion, it is necessary to emphasize here an important difference between the theoretical proposal presented in this work and models of group development. In those models, the question is whether there are typical stages to be followed by a group from formation to dissolution and thus a number of models are based on different possible stages. However, with the approach

presented here, the question is when does a group become a group, regardless of the stage it is currently at? Therefore, the criteria presented here as key to LGD will be present, at different levels of development, in any group (no matter its stage).

Finally, this study has sought to make a theoretical contribution to the group research area with an emphasis on work groups. Working in groups is a common feature of today's society and is required by organizations; however, not all tasks require group work, and not all work groups are actually work groups. Hence, identifying LGD-defining criteria and continuing this research line to the point of being able to measure such criteria could yield important contributions at a practical level.

References

- Allport, F. (1924). *Social psychology*. Boston: Houghton Mifflin.
- Andriessen, J. H. E. (2002). *Working with groupware. Understanding and evaluating collaboration technology*. London: Springer Verlag.
- Alcover, C. M. (2003). Equipos de trabajo y dinámicas grupales en contextos organizacionales [Teams and group dynamics in organizational settings]. In F. Gil Rodríguez & C. M. Alcover (Eds.) *Introducción a la psicología de las organizaciones* (pp. 201-228). Madrid: Alianza Editorial.
- Argote, L., & McGrath, J. E. (1993). Group processes in organizations: Continuity and change. *International Review of Industrial and Organizational Psychology*, 8, 333-389.
- Arrow, H., & McGrath, J. E. (1995). Membership dynamics in groups at work: A theoretical framework. *Research in Organizational Behavior*, 17, 373-411.
- Arrow, H., McGrath, J. E., & Berdhal, J. L. (2000). *Small groups as complex systems. Formation, coordination, development, and adaptation*. Thousand Oaks, CA: Sage.
- Asch, S. E. (1952). *Social psychology*. New York: Prentice Hall.
- Bion, W. R. (1951). Experiences in groups: 7. *Human Relations*, 4, 221-227.
- Bogardus, E. S. (1954). Group behavior and groupality. *Sociology and Social Research*, 38, 401-403.
- Borgatta, E. F., & Cottrell, L. S. Jr. (1956). On the classification of groups. *Sociometry*, 18, 665-678.
- Brief, A., & Weiss, H. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53, 279-307.
- Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral Science*, 3, 14-25.
- Carpenter, S., & Radhakrishnan, P. (2002). The relation between allocentrism and perceptions of ingroups. *Personality and Social Psychology Bulletin*, 28, 1528-1537.
- Carron, A. V., Brawley, L. R., Bray, S. R., Eys, M. A., Dorsch, K. D., Estabrooks, P. A., et al. (2004). Using consensus as a criterion for groupness. Implications for the cohesion-group success relationship. *Small Group Research*, 35, 466-491.
- Cartwright, D., & Zander, A. (1979). *Dinámica de grupos. Investigación y teoría* [Group dynamics. Research and theory] Mexico, DF: Trillas.

- Cattell, R. B. (1948). Concepts and methods in the measurement of group syntality. *Psychological Review*, 55, 48-63.
- Dasgupta, N., Banaji, M.R., & Abelson, R.P. (1999). Group entitativity and group perception: Associations between physical features and psychological judgment. *Journal of Personality and Social Psychology*, 77, 991-1003.
- Deutsch, K. W. (1954). *Political community at the international level*. Garden City: Doubleday.
- Festinger, L., Schachter, S., & Back, K. (1950). *Social pressures in informal groups*. New York: Harper.
- Fuentes, M. (1986). La indagación de los niveles de desarrollo del grupo a través de la metódica N. D. [Research of group development levels using N. D. methodology]. *Revista Cubana de Psicología*, 3, 17-29.
- Furnham, A. (1997). *The psychology of behaviour at work. The individual in the organization*. Hove East Sussex: Psychology Press.
- Gersick, C. J. G. (1988). Time and transition in work teams: Toward a new model of group development. *Academy of Management Journal*, 31, 9-41.
- Goodman, P. S., Ravlin, E. C., & Schminke, M. (1987). Understanding groups in organizations. In L. L. Cummings & B. M. Staw (Eds.). *Research in organizational behavior* (pp. 121-175). Greenwich, CT: JAI Press.
- Hamilton, D., & Sherman, S. (1996). Perceiving persons and groups. *Psychological Review*, 103, 336-355.
- Hamilton, D. L., Sherman, S. J., & Lickel, B. (1998). Perceiving social groups: The importance of the entitativity continuum. In C. Sedikides & J. Schopler (Eds.). *Intergroup cognition and intergroup behavior* (pp. 47-74). Mahwah, NJ: Erlbaum.
- Levine, J. M., & Moreland, R. L. (1990). Progress in small group research. *Annual Review of Psychology*, 41, 585-634.
- Lewin, K. (1951). *Field theory in social science*. New York: Harper & Row.
- Lickel, D., Hamilton, D., Lewis, A., Sherman, S., Wierzchowska, G., & Uhles, A. N. (2000). Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology*, 78, 223-246.
- Lorge, I. (1955). Groupness of the group. *Journal of Educational Psychology*, 46, 449-456.
- Makarenko, A. (1990). *Selected pedagogical works*. Moscow: Progress Publishers. [Original work published between 1922 and 1933].
- Markus, H., & Kitayama, S. (1991). Culture and the self. Implications for cognition, emotion and motivation. *Psychological Review*, 98, 224-253.
- McGrath, J. E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Meier, C. (2003). Doing groupness in a spatially distributed work group: The case of video-conferences at Technics. In L. R. Frey (Ed.), *Group communication in context: Studies of bona fide groups* (2nd ed., pp. 367-397). Mahwah, NJ: Erlbaum.
- Moreland, R. L., & Levine, J. M. (1982). Socialization in small group: Temporal changes in individual-group relations. *Advances in Experimental Social Psychology*, 15, 136-192.
- Munné, F. (1989). *Entre el individuo y la sociedad. Marcos y teorías actuales sobre el comportamiento interpersonal* [Between the individual and the society. Current frameworks and theories about interpersonal behavior]. Barcelona, Spain: PPU.
- Munné, F. (1995). Las teorías de la complejidad y sus implicaciones en las ciencias del comportamiento [Complexity theories and their implications in behavioral sciences]. *Revista Interamericana de Psicología*, 29, 1-12.

- Munné, F. (2004). El retorno de la complejidad y la nueva imagen del ser humano: hacia una psicología compleja [Return to complexity and the new image of human being: Towards a complex psychology]. *Revista Interamericana de Psicología, 38*, 21-29.
- Newcomb, T. M. (1943). *Personality and social change*. New York: Dryden.
- Petrovsky, A. V. (1983a). The new status of psychological theory concerning groups and collectives. *Soviet Psychology, 21*(4), 57-78. [Original work published in 1977].
- Petrovsky, A. V. (1983b) Toward the construction of social psychological theory of the collective. *Soviet Psychology, 21*(2), 3-21. [Original work published in 1973].
- Quijano, S., & Navarro, J. (1999). El ASH (Auditoría del Sistema Humano), los modelos de calidad y la evaluación organizativa [The ASH (Human System Assessment), the quality models and the organizational evaluation]. *Revista Psicología General y Aplicada, 52*, 301-328.
- Roca, C. N. (1996). *Context grupal i actituds creatives en el procés d'innovació. Estudi de grups de professorat* [Group context and creative attitudes in innovation process. Study of groups of teachers] Unpublished doctoral dissertation. Universidad de Barcelona, España.
- Roca, C. N. (1998). Perfiles de grupalidad de unidades laborales en organizaciones burocráticas profesionales. [Groupality profiles of working units in professional bureaucratic organizations]. *Revista de Psicología Social, 13*, 269-277.
- Roca, C. N. (2001a). Cambios en la actividad grupal de las fases de una innovación profesional [Changes in group activities of the phases of a professional innovation]. *Revista Psicologia: Organizações e Trabalho, 1*, 109-140.
- Roca, C. N. (2001b). Grupos mediadores de la innovación profesional: estudio comparativo de procesos [Mediators groups of professional innovation: Comparative study of processes]. *Revista de Psicología Social, 16*, 177-191.
- Shaw, M. E. (1994). *Dinámica de grupo. Psicología de la conducta de los pequeños grupos* [Group dynamics: Psychology of behavior of small groups] (5th ed.). Barcelona, Spain: Herder.
- Torrance, E. P. (1956). Sociometric techniques for diagnosing group ills. *Sociometry, 18*, 597-612.
- Umansky, L. I. (1980). *Indicadores de los niveles de madurez sociopsicológica del colectivo primario* [Indicators of sociopsychological maturity levels of the primary collective] Habana, Cuba: Impresiones Ligeras de la Universidad de la Habana.
- Wertheimer, M. (1938). Laws of organization in perceptual forms. In W. Ellis (Ed. & Trans.), *A source book of Gestalt psychology* (pp. 71-88). London: Routledge & Kegan Paul. [Original work published in 1923].
- Wheelan, S. A. (1994). *Group processes: A development perspective*. Boston: Allyn & Bacon.
- Wheelan, S. A., Davidson, B., & Tilin, F. (2004). Group development across time: Reality or illusion? *Small Group Research, 34*, 223-245.
- Wilder, D. A. (1986). Social categorization: Implications for creation and reduction of inter-group bias. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 291-355). New York: Academic Press.
- Wilpert, B. (1995). Organizational behavior. *Annual Review of Psychology, 46*, 59-90.

Rocío Meneses is a PhD candidate from the Faculty of Psychology at the Universidad de Barcelona (Doctorate in Work and Organizational Psychology). She received her MSc in Psychology from the Universidad Simón Bolívar, Venezuela, in 1994. Her current research interests are groups and teams performance in organizations and long-term project supervision.

Raúl Ortega is a senior consultant in MC Asociados. He a PhD from the Faculty of Psychology at the Universidad de Barcelona (doctorate in Organizations and Human Resources) and is also a PhD candidate from his work in the MC. His research interests are selection procedures and teams performance.

José Navarro is an associate professor in organizational psychology in the Social Psychology Department at University of Barcelona. He teaches in the Master Erasmus-Mundus on work, organizational and personnel psychology, and his research interests are complexity theory and its applications to understand organizational behavior (specially the work motivation and the group processes).

Santiago D. de Quijano completed his PhD in 1986 from the University of Barcelona and his master's degree in Organizational Development in 1998 from the GR Organizational Development Institute of Tel Aviv, Israel. He has been a professor and head of area of work and organizational psychology in Social Psychology Department of University of Barcelona. He has been Director, for 15 years, of Master in Human Resources Management and Organizational Consulting of this University. His research interests are in developing the HSA (human system audit) in organizations. The HSA is a theoretical model of organizational behavior and an integrated packet of instruments to measure different dimensions of organizations: human resources management systems quality, human resources quality, or people results or human internal capital assets. Currently is an emeritus professor of University of Barcelona.