

CIES e-Working Paper N.º 182/2014

A Universal Theory of Social Groups:
The Actor-System-Dynamics Approach to Agents, Rule Regimes,
and Interaction Processes

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ABSTRACT

Drawing on multi-level, dynamic systems theory in sociology which has been developed and applied in institutional, organizational, and societal analyses, we formulate a general theory of social groups. *This social systems approach has not been previously applied in the group area.* We claim that this particular systems approach can be systematically and fruitfully applied to small as well as large groups to understand and analyze their functioning and dynamics.

In this article, we refer to a group as an aggregation of persons/social agents that is characterized by (1) shared group identity, (2) a shared rule regime (collective culture) shaping and regulating their roles and role relationships and group behavioral outputs (3) its bases of membership and adherence or commitment to the group, its identity and rule regime, (4) its technologies and material resources used in group interactions,

performances, and productions (5) it shared places (situations for interaction), and (6) its times for gathering and interacting.

The theory identifies three universal bases on which any human group or social organization, including small groups, depends and which motivate, shape and regulate group activities and productions (Section II). The bases are group requisites – necessary for group “functioning” and interacting in more or less orderly or coherent ways, realizing group as well as possibly members’ goals and maintaining and reproducing the group. The group bases consist of, first, a rule regime or social structural base; second, an agential base of group members socialized or partially socialized carriers of and adherents to the group’s rule regime; of importance here are involvement/participation factors motivating member to adhere to, accept, and implement the rule regime; third, there is a resource base, technologies and resources self-produced and/or obtained from the environment, which are essential to key group activities.

In the theory presented here in Section II, a social group is not only characterized by its three universal bases but by its universal functions, group actions and outputs -- its interactions and productions/performances and their outcomes and developments including the impact of their productions on the group itself (reflexivity) and on its environment (see Figure 1). These outputs, among other things, maintain/adapt/develop core group Bases (or possibly unintentionally undermine/destroy them). Thus, groups can be understood as action/interaction systems producing goods, services, incidents and events, experiences, developments, etc. for themselves and possibly for the larger environment on which they depend for resources, recruits, goods and services, legitimation, etc. The theory identifies the six (6) universal system functions of groups.

A major distinctive feature in our systems approach is the theory of rule regimes, specifying the finite universal rule categories (ten distinct categories) that characterize every functioning social group or organization. A rule regime, while an abstraction is carried, applied, adapted, and transformed by concrete human agents, who interact, exchange, exercise power, and struggle within the group, in large part based on the rule regime which they maintain, adapt, and transform.

We emphasize not only the systemic character of all functioning groups – universally their three bases and their six output functions together with feedback dynamics -- but also the differentiating character of any given group’s *particular rule configuration*. The article ends with a discussion of two major theoretical implications: (1) the identification and analyses of any given group’s particular rule configuration which characterize that group and is sustained under relatively stable internal and external conditions (Section III); for illustrative purposes we present in Section IV a selection of few simple rule configurations that characterize several diverse types of groups. (2) the transformation of group bases and their interaction/production functions. The theory enables from a single framework the systematic description and comparative analysis of a wide diversity of groups, as illustrated in Sections III and IV.

Keywords: multi-level, dynamic systems theory, agents, rule regime, involvement/participation, resources, technologies, universal group bases and functions

I. POINT OF DEPARTURE

The study of human groups belongs to the core of sociology (Fine, 2012; Zelditch, 2013). Among others, Bales (1950:33), working in collaboration with Talcott Parsons and a leading group researcher in sociology, defined a small group as “any number of persons engaged in interaction with each other in a single face-to-face meeting or series of meetings in which each member receives some impression or perception of each other member distinct enough so that he (or she) can either at the time or in later questioning, give some reaction to each of the others as an individual persons). Fine (2012:160) provides a more contemporary conception: A group is an aggregation of persons/agents in a shared action space (place), with a common identity, temporal immediacy, collective culture or “idioculture,” and established social relations. He also distinguishes between enduring groups as opposed to momentary groups. For instance, experimental groups are evanescent group creations but without established identity, commitment, or a past (Fine, 2012).

Following Fine (2012), we refer to a group as an aggregation of persons/social agents that is characterized, generally speaking, by (1) shared group identity, (2) a shared rule regime (collective culture) shaping and regulating their roles and role relationship and group behavior and outputs, (3) bases of attachment or commitment to the group, its identity and rule regime, (4) its technologies and material resources used in their interactions, performances, and productions, and (5) shared places (situations for interaction), and (6) group times for meeting and interaction (“temporal immediacy”) (Fine, 2012).

Drawing on multi-level dynamic systems theory, which has been developed and applied in a wide variety of institutional as well as societal analyses (Buckley, 1967; Burns, 2006; Burns et al, 1985; Burns and Flam, 1987; Burns and Hall, 2012, among others), we formulate a theory of social groups, identifying the finite interdependent parts that constitute and characterize all groups – always within material and social contexts. We claim that this social systems approach can be fruitfully applied to conceptualizing small as well as large groups – their structures, key processes, and functioning.¹ It enables the characterization and comparative analysis of very diverse kinds of groups that are usually considered distinct and investigated by specialized and fragmented communities of scholars.

A group is conceptualized as a social system with a particular order and certain capabilities and functional powers, able to varying degrees to act or operate in and on the world and reflexively on itself. Its order and powers derive from three bases: a shared rule system, control over or access to resources used in its functioning, and a membership knowledgeable and capable of applying the rule regime, using available resources in these applications.² The bases

¹ Whether ASD qualifies as a “research program” (see Zelditch (2013) on research programs) remains to be seen, but it would seem that it does since it has persistently and coherently conducted theoretical and empirical research on the universal processes of human construction of, and participation in, systems and their evolution. And it has resulted in a variety of studies on social organization and institutions, socio-technical systems, meta-power and relational control, judgment theory and risk, sociological game theory, human consciousness and cognitive studies, socio-cultural evolutionary theory, public policy paradigms and their transformation, energy and environment, among others.

² This conception of group may seem to some unduly rigid, if not mechanical. Nonetheless, historically (see Zelditch (2013:7) but also in much of the sociological profession, the concept of “group” has been and is used all-too-loosely. Of course, those specializing in, let us say contemporary small group research, are much more precise and systematic (Zelditch, 2013). But it is noteworthy that a concept so central to sociology has so many different interpretations and is used to mean so many different things to most sociologists and their imitators in economics, management studies, political science, and anthropology.

enable the group membership to perform group actions and functions -- regulated by the group rule regime and deploying its resources. Every group has six qualitatively different and essential productive functions: production of material goods and services, group actions, symbolic displays and rituals including spiritual events; internal governance; collective judgment and decision procedures; external governance; and functions of adaptation and innovation (see Figure 1).

The three bases of a group's capabilities or powers with which it functions and produces outputs are briefly:

- A **shared rule regime** defines value orientations, group membership and recruitment, group relations including those of authority and status, interaction situations, appropriate resources for group activities, appropriate production functions, and more. Rule regimes consist of universal rule categories relating to agential factors, social relations, interaction and production function, resources essential to group functions, and time and space properties.³
- **Resources** (materials, technologies, and socio-technical systems) used in group activities, interactions and outputs, dealing with the group environment including agents in that environment, and conducting rituals and ceremonials. Resources are distinguishable in terms of their particular properties and their use in group activities and productions.
- An **aggregate of agents** making up group membership which – on the basis of the rule regime and available resources – act, operate, produce goods and services for themselves and for others, follow and change rules, select and socialize new members. Group members are distinguishable in terms of variation in their positions (including authority and status positions), their group knowledge and capabilities (including their knowledge about the group rule regime, knowledge about interaction in the group, and knowledge about the use of group resources in the actions and interactions), and their creativity and innovativeness.

The theory provides a single framework with which to describe and comparatively analyze functioning groups in all of their great diversity. Groups are characterizable and distinguishable (from one another) in terms of differences in their three capability bases (rule regime, resources, the agency of the membership) and their six group functions and outputs – the impact of these on groups themselves reflexively (self-organizing and self-reproducing/transformation) and on their social and ecological environments. Although these

³ The rule regime specifies key group norms, relationships, procedures, rituals and other practices characteristic of the group. A subset of the rule regime defines group interaction situations/ arenas including times and places for interaction; group purposes/values and its sacralities are also defined; other subsets of the regime define group membership – who are the members/what characteristics should they have; what are their roles, relationships, etc. (in short, what is the structure of the group); and what does the group and group members do, how, with what means, methods, and technologies, they do what they do; finally, what are key group interactions and processes including governance and powering interaction. That is, the regime implies a status and authority structure, role relationships, and distinguished inside from outside (through, for instance, inclusion/exclusion rules). Group members, and, in particular, its leadership also exercise power over individual members. A group to varying degrees exercises external influence, and impacts, on other agents or groups as well as material/ecological conditions.

universal features characterize all groups, any given group's *particular* rule configuration and output functions can be identified and analyzed and distinguishable from other similar and, of course differing, groups.

There is structure or architecture to a rule regime. It is not simply a “laundry list” of categories of rules applying to social groups. A rule regime consists of finite universal rule categories whose particular rules constitute and regulate group social organization and processes, and are sanctioned by group and leadership powers.

A group's regime may incorporate (or stand opposed to) more encompassing rule systems, e.g. rules discriminating against certain classes or categories of people (exclusion/inclusion rules) on grounds of religion, ethnicity, gender, age. Or, the group establishes and operates with rules opposed to other groups or categories of people in its environment or the larger cultural-institutional context. In general, groups with their particular rule regimes or cultures including values and norms, technologies, and material resources typically distinguish themselves from the prevailing regimes in the larger society and from one another.

In the paper we develop and apply to the description and analysis of groups the theory of group bases including rule regimes. This work is important for at least two reasons:

(1) The social systems framework used in the description and analysis of large-scale social systems and institutions is “tested” in a substantially different social science field. This promises to overcome some of the fragmentation characterizing sociology and social science generally (identified by, among others, Fligstein and McAdam, 2012). That is, this work contributes to “synthesis” in sociology and social science.

(2) Such a new approach in the area of groups and their behavior is likely to stimulate and challenge established approaches in group research which have developed very different theoretical and methodological foundations, in particular unrelated to sociological systems theory.

In sum, groups are characterized in our social systems framework by their three requisite bases as well as by the patterns and properties of their outputs including group production, reproduction and evolution patterns. Also, groups are distinguishable by their particular values, or their social structures, or their technologies, and their particular outputs and patterns of development. There is a logic to any group based on its value(s)/goals relating to group production/interaction and the division of labor (social structure) and the technologies and materials used in production/interaction. Production of certain “widgets” requires agents with particular knowledge (blueprints together with interaction or collaboration knowledge) and skills, a basis for members' accepting and applying a rule regime, and having access to or control over particular technologies, and materials.

As suggested in Figure 1, the systems approach identifies the finite interdependent parts that constitute and characterize all groups – always in their material and social contexts: the three core bases, the interactions and production outputs, the impact of these on groups themselves reflexively (self-organizing and self-reproducing/transforming) and on their social and ecological environments. The theoretical scheme enables us to describe, analyze, and explain the degree of integration and cohesion of the group, its functioning and effectiveness in accomplishing or realizing group values and goals.

II. SOCIAL GROUP THEORY IN SHORT

Generally speaking, a group is a social organizational arrangement with some degree of division of labor and characterized by group purposes and goals. It is structured by its context(s), and its three (3) group bases: an agential base (a population or aggregate of individuals and/or collectives), a shared rule regime/cultural base, and a resource base.⁴ A group, drawing on its three Bases, produces particular patterns of interaction orders and outputs/developments. The group bases/imperatives complement one another, they are to a greater or lesser extent compatible; however, they entail to varying degrees gaps and inconsistencies, in part because the construction and development of groups are typically piecemeal, historical processes. The pillars enable constituting a particular group in a given context and assuring group functioning and performance outputs according to their shared conceptions, values, and norms.

Our multi-level systems model (see Figure 1) distinguishes the context(s), the three essential group Bases or requisites, and the group productions and outputs (its “functions”).

A. **Context(s)**: Situations/domains in which the group acts and performs. Also, sources of resources on which a group depends. Obtaining access to appropriate interaction situation(s) and obtaining essential resources depends on group knowledge, strategies and powers based in part on the shared rule regime.

B. Group Social Action and Interaction Bases:

I. **Agential Base**: Agents, an aggregation of *group-socialized* individuals and/or collectives who are *carriers and reproducers of social structural (cultural/institutional) and involvement/commitment bases* and with knowledge about and capabilities to acquire establish and maintain the agential, resource, and social structural Bases of the group.

That is, agents of the group are knowledgeable and motivated participants in the group adhering to a greater or lesser extent to the group’s rule regime

Members’ involvement and acceptance of obedience to the group, its leadership, and its rule regime typically have be based on multiple factors, but one in particular may be especially characteristic -- this depends in part on the resources available to the group and the way in which the group had been established. The theory distinguishes between bases as diverse as affinity/intrinsic attraction, remuneration, and coercion as well as combinations of these. For instance, members may be oriented to and attracted to, and, indeed, committed to the group rule regime, its identity and status, the leader(s), and/or particular members. Or the role/status provided in the group, or other resources (goods and services) provided by the group attract and binds – these are *affinity groups*, A-groups. In other words, such groups are based on members experiencing some form of intrinsic attraction through for instance, friendship, kinship, ideology, pleasurable games, or “fun”, etc.⁵ Affinity groups provide to members identity and status, normative meaning, a sense of belonging, moral support, information, training, resources, aid, belonging. That is, through a variety of means and motivators, members’ attachments,

⁴ This conception derives from a general model of collective action systems and the necessary and sufficient conditions for collective action.

⁵ Some pressures for member involvement may be extrinsic to the group, based for instance on discrimination or threats.

adherence, and obedience may be generated (see Fine, 2010:166).⁶ Groups may also be constituted and sustained through remuneration and even coercion as a basis for members' acceptance of and adherence to the group order is, that is, R-groups and C-groups, respectively.

Members of a group possess to a greater or lesser extent agency. Typically, they are more than their roles and the rule complexes they are expected to follow. They have roles and attachments outside the group order. They also exhibit, develop appropriate intentionality within the group – but may retain intentionalities from their external engagements. They interpret rules, adapt, innovate, and reform the rule regime as well as agential and resource bases.

II. Rule regime Base (cultural/institutional rule factors) (Burns and Flam, 1987; Carson et al, 2009; Flam and Carson, 2008, among others): In any functioning group this is its shared rule regime (culture, relations, identity & symbols, symbol systems). The finite universal categories of rules that make up a rule regime are specified below in Tables 1 and 2 and concern, among other things, identity involvement/recruitment, roles, role relationships, norms, group procedures, leadership, authority.⁷ The shared, inter-subjective rule regimes serves multiple uses or functions, in particular (1) coordinating and directing/guiding the group, its agents in their roles and performances; (2) defining or specifying what is going on which members (and possibly some outsiders with regime knowledge) understand; (3) bases of group normative discourses about appropriate and inappropriate behavior. A “group rule regime” is constituted, develops and evolves over time as a result of agential, resource, and output developments.

A group's system of rules is a key subsystem of all functioning groups. Rules and rule systems serve at least three basic functions in all social life: (1) coordination/direction of social action and interaction; (2) understanding/simulation of what is going on or will go on in the future, and (3) referents in giving and asking for accounts, generating normative discourses, for instance of praise and of critique. The rules making up rules regimes consists of three qualitatively different kinds: descriptive or declarative rules describing or defining reality, action or directive/regulative rules, and evaluative rules defining what is worth-while, good, valuable (or their opposites, “bads”).

⁶ Another way of formulating this is to ask *what binds groups together and makes collaboration and social order possible or likely?* A group is not simply a collection of individuals or a network, it has an identity, a common culture or rule regime with roles, relationships, and procedures such as collective deliberation, decision-making, and common production functions. Rule regime theory raises the question: Why do persons and collective agents follow rules, show adherence/commitment to them, expect other members to adhere and show commitment to them; and act to enforce rules and to normatively promote adherence. There are, of course, multiple factors, among others: (i) Shared or convergent goals as in motivating business and political “deals”; (ii) Subjection to a normative order, e.g. family or friendship orders with potentially multiple and open-ended goals and rewards and penalties; (iii) internal sanctioning and regulation; (iv) external threat (combined with some minimal level of cohesiveness or solidarity or clear self-interest to survive (but there be, however, collective action problems and “free rider” difficulties) (see Burns and Flam, 1987; Burns, 2008).

⁷ Fine (1987:125) introduced a similar concept of “idioculture” consisting of a system of knowledge, beliefs, behaviors, and customs shared by members of an interacting group to which members can refer and that serves as the basis for further interaction...members recognize that they share experiences, and these experiences can be referred to with the expectation that they will be understood by other members, thus being used to construct a social reality for the participants. Fine (2012:168) points out, “This collective meaning system creating identification and control has been referred to as idioculture, microculture, and small-group culture. These cultural systems separate group action from untethered interaction, which lacks affiliation and history, and from large organizations in which social action and affiliation occur through a more formal process. Meaning derives not from interaction as such, but through continuing interaction, suggesting that commitment to the culture and the recognition of boundaries provide mechanisms by which idioculture builds order.”

Rule system theory provides a model which identifies key universal rule categories (ten (10) in all) which underlie or, when enacted, generate particular group or organizational properties: the rules concern a group's identity and particular participants, their relations and social structure, its values and goals, its activities and procedures and productions, its materials and technologies used in group activities and productions, and the times and places for group activities (see Tables 1 and 2).⁸ They concern the finite and universal rule base of group social action and interaction, its material, social structural, and agential conditions.⁹

While any particular group determines/establishes the rule content of its universal categories, the *complex of interdependent rules make a group rule configuration* which characterize the group and distinguish it from other groups. In other words, *diverse groups operate with distinctive rule configurations – although the rule categories for these contents are universal – thus distinguishing a terrorist gang, or a bridge club, or an R&D unit, or a monastic order* (see sections III and IV and Table 2). In other words, any given group can be uniquely characterized in such terms.

⁸ A rule regime does not necessarily consist of formal, explicit rules. It may be to a greater or lesser extent an implicit regime, on which members of a group do not reflect (unless or until there is a crisis or performance failings, “failed group processes”). The degree of institutionalization of the regime as well as its completeness are variables.

⁹ A rule regime, which is a subsystem of every functioning group, contains its own *sub-systems*. Each of these has one or more rule categories, whose contents motivate, coordinate, and organize group members but also provide meanings of group activities and definitions and interpretations of what is going on, and are referred to in group discourses and accounts.

Five sub-systems can be identified in the rule regime model with its ten rule categories concerning: agential base, resource base, rule regime base, production functions, resources (materials and technologies) essential to group functions, and time and space properties. Each subsystem has one or more rule categories – ten in all -- that are identified in Tables 1 and 2 (and Table 3 is in the Appendix).

- Agential subsystem: Five categories of rules concern group agency relating to: Identity (I), Group membership (II), Shared values, ideals, and goals (III), and Shared knowledge and beliefs (IV); Social relational subsystem (category V);
- Resource subsystem (category IX)
- Subsystem for production functions: category of rules VI (and the time and space rule category X);
- Subsystem of rules concerning interfacing and dealing with the environment, category VII
- Subsystem for changing the rule regime (with self-reference and meta-rules) and the core group bases, category VIII (along with the rule category of time and space X).

Table 1: Key Types of Rule Categories Specifying Group Conditions, Structures, and Processes ¹⁰
Type I. Identity rules – “Who are we?” “What symbolizes or defines us?”
Type II. Membership, Involvement, and Recruitment Rules – “Who belongs, who doesn’t?” “What characterizes members?” “How are they recruited, what criteria are used in their selection?”
Type III. Rules concerning shared value orientations and ideals – “What does the group consider good and bad?”
Type IV. Rules concerning shared beliefs and models – “What do we know and believe about ourselves, our group behavior, and our environment.”
Type V. Social relational and structural rules. “How do we relate to one another, what is our social structure?” “What are the authority and status differences characterizing the group?” “How do we interact and reciprocate with one another and with the leadership?”
Type VI. Procedures and production rules. “What are our characteristic activities, practices, production programs, ceremonies and rituals?” “How do we coordinate activities and make collective decisions?”
Type VII. Rules for dealing with environmental factors and agents. “How do we cope with, make gains in the environment, dominate, or avoid environment threats?”
Type VIII. Rules for changing core group bases, in particular the rule regime itself. “How should we go about changing group structures and processes, our goals, or our practices”?
Type IX. Technology and resource rules. “What are appropriate technologies and materials we should use in our activities (and possibly those that are excluded)?”
Type X. Time and Place Rules – “What are our appropriate places and times?”

In the Appendix we present in more detail these universal rule categories (10) that make up a group or organizational rule regime (also, see Sections III and IV).¹¹ The rule regime is a cognitive-normative framework defining among other things group identity, its purposes, structural architecture, role relations including status and authority relations, groups divisions, procedures, characteristic activities, and interaction patterns and productions/outputs.¹² The

¹⁰ Rules and rule regimes need not be explicit but may be tacit, or partially tacit. At the same time, group members and outsiders may have misconceptions about the rules and their application. Thus, group members may deceive themselves and others about what rules they are applying and what they mean in practice, deception may be institutionalized in the form of ready-made discourses defining or explain a regime as just or efficient or optimal – for example, a market regime – when it is not. Members as well as outsiders may see what they have been led to see and understand. There is always to some degree a “front stage” and “back stage” (Goffman, 19XX) to rule regime application and implementation, as there is for group life generally.

¹¹ The ten categories correspond to minimal descriptions social action and interaction conditions.

¹² This is not a “laundry list”, hence our emphasis on the structure or *architecture* of rule regimes (Carson et al, 2009). The specification and analysis of rule complexes making up architectures goes back more than 20 years and was the basis of a reconceptualization of the theory of games and human interaction, leading to a sociological theory of games (Burns and Gomolinska (1998, 2000); Burns, Gomolinska, and Meeker (2001), and Burns and Roszkowska (2005, 2007, 2008, among other articles).

regime may be understood as consisting of a collective codebook, cultural tools & social organizational principles. There is an architecture of any rule regime, the cognitive-normative basis of the formation and functioning of any group or organization.

Rules that are part of a group's rule regime are "known" to all or most members (some or many possibly tacitly); normally they are useable/implementable (provided requisite technologies and resources continue to be available to the actor(s)); and are considered appropriate or legitimate. This resource base is, of course, essential to rule application and the interaction performances. A group's regime provides the cognitive-normative basis of members to coordinate with one another, to collaborate and exchange in particular ways; to understand what is going on in the group, to simulate group interactions and developments, and to refer to in giving and asking for accounts and in making normative judgments, criticisms as well as eulogies (Burns and Flam, 1987).

The theory does not require that the participants in interaction are in agreement about the regime (or the particular content of its rule categories). Agents in diverse roles are expected to perform according to their different role grammars, but they may disagree and struggle over the appropriate contents of particular categories of rules, or even details of a particular rule, not to speak of the entire regime. There is at one time or another a politics (or potential politics) to social rules (see next section) concerning those rules that are supposed to apply generally as well as the rules associated with particular roles and role relationships and procedures and production arrangements.

The ten universal rule categories may not be fully specified in all group interaction situations. Typically, the process of "institutionalizing" a group entails a multi-phase history of specifying and elaborating rules in the different categories – and also revising and reforming them. Long established, highly institutionalized groups and organizations usually have rules specified in all categories. But, generally speaking, this is an empirical question. Disruptions in the evolution of a group may occur as a result of internal and/external political, economic, technological, or other social changes. Social rules in particular categories that were taken for granted earlier may no longer be accepted or applicable. Hierarchical relationships (with rule specifications appropriate to such relationships) may be transformed into more egalitarian relationships. Or the values and norms considered appropriate for the group (whether a family, religious community, work organization, or political association) may be shifted, or reformed and prioritized in substantially different ways.¹³ In general, the shifts occur in a group over time concerning values and goals, the agents defined or considered responsible, the appropriate means or strategies, production procedures, among other key rule changes.

Moreover, groups vary greatly in their degree of groupness:¹⁴ there are temporary groups, quasi-groups, unstable groups, weakly formed groups. In the early stages of group formation, the degree of completeness and the degree of institutionalization are typically limited. Group bases may be initially weak and may or may not be fortified over time.

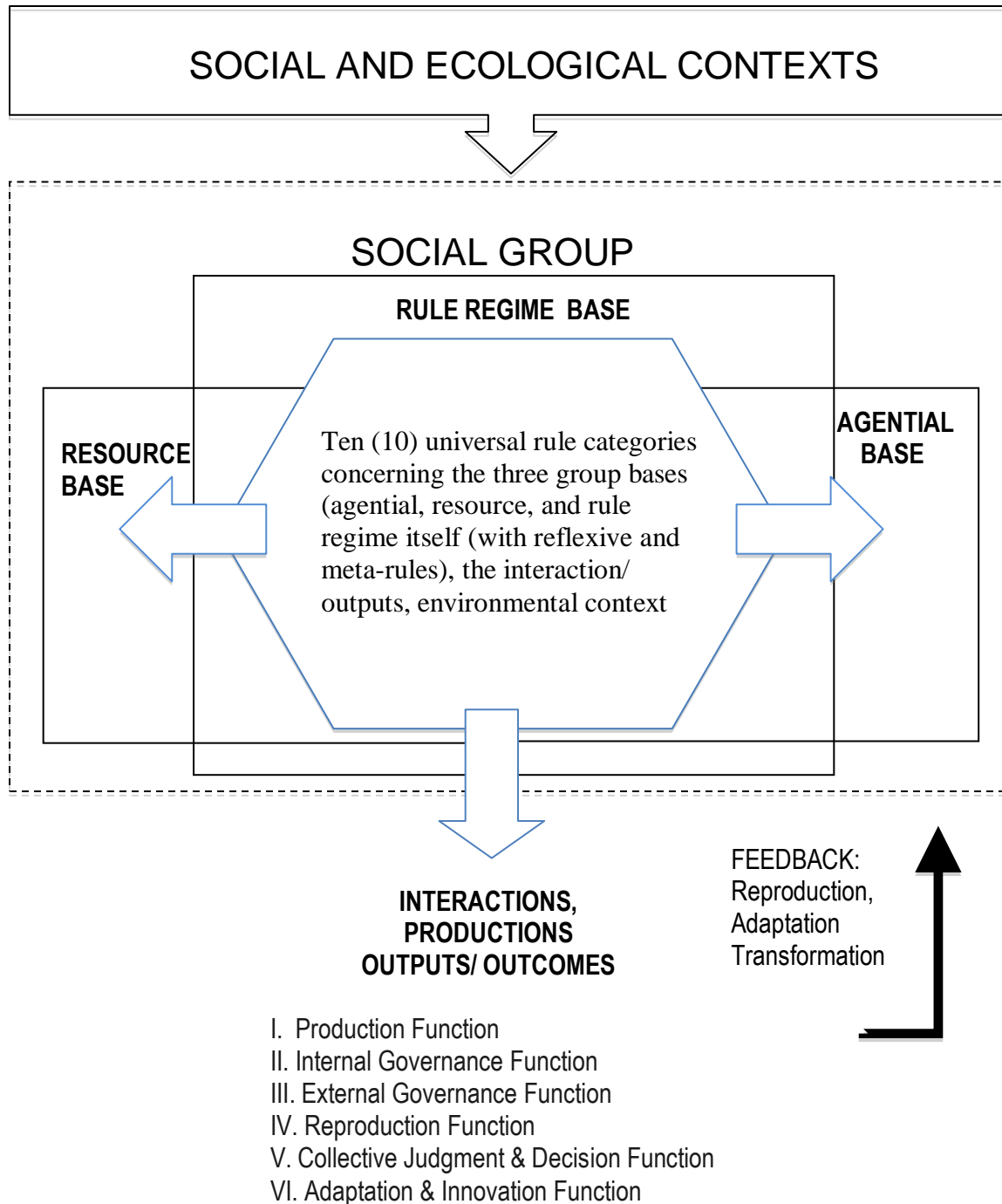
¹³ Shifts in the rules of public policy paradigms and their institutional arrangements governing particular areas of policy and regulation have been identified and investigated in Carson et al (2009).

¹⁴ In our conception, a group is an *ideal type*. Any empirical case can be located in a space between the ideal type and its counterpoint in practice, distances measured on multiple dimensions, although the notion of a "group" is a fuzzy concept -- any empirical group is an approximation to an *ideal type group*. It can usually be distinctly differentiated from its negation or opposite, a collection of non-related actors neither oriented nor committed to any social organizational regime regulating members' behavior and group behavior as a whole.

A group rule regime is not a single, fixed architecture, although for the purposes of a particular static analysis, we may treat it as such – it is a culture distributed among members (Hannerz (1992) speaks about “distributed culture”). There may be also multiple overlapping regimes in a group associated with sub-groupings within the group. For instance, there may be some variation in their value or goal complexes, in their level or quality of involvement/engagement, or in their conceptions of roles and role relationships, e.g., the degree of hierarchy or equality.

The rules, when applied and implemented, relate to concrete empirically observable actions and interactions. In general, a rule regime guides and regulates group behavior to a greater or lesser extent. But there are other factors that influence the behavior of a group and its members: material context, situational contingencies, members’ interpreting and adapting rules in their application or innovating and transforming them. And, the application and implementation of the regime in a given context may break down, the group falls apart or tries to revitalize itself through adapting or transforming the regime as well as the group agential and resource bases.

Figure 1. Actor-System-Dynamics Model of Social Groups



III. Group Resource Base: The group resource base consists of tools, materials, and other resources essential for the performance of key group activities including control and sanctioning activities and group reproduction. For instance, access to location(s)/appropriate situations for key activities; technologies for group assembly and performance (materials, tools, and symbols, and built environments (buildings, waterways, stadiums, arenas) for the group to do what it is committed to doing, realizing its identity, its key meanings, meeting demands from the environment). Resources are defined/conceptualized and their exploitation and use entail rules integrated in the rule regime knowledge.

The resource Base may be either self-mobilized or provided by an encompassing organization, e.g. a corporation or political party in relation to its purposes, its activities and particular procedures. Group members control resources some of which they regularly pool (for instance, in time of a crisis). Some resources are controlled by the collective (in practice by its leadership or collective decision):¹⁵

- The group's members are human resources and the group itself is a resource: sources of expertise, skills, individual and collective knowledge of the group itself, its interactions and production processes, and its environment.
- Material or economic resources which the group possesses or has access to; socio-technical systems, built environments, technologies and material resources
- Environmental resources (land, water, etc.) including appropriate settings or locations. Capabilities to assure a level of integration, resolve conflicts (cohesiveness, solidarity, mutual support, tolerance)

C. Output or Production Functions (including maintaining/reproducing and adapting or changing the group).¹⁶

¹⁵ Corte (2013), drawing on resource mobilization theory (McCarthy and Zald 1977; Edwards and McCarthy 2004), refers to (1) human resources (labor experience, expertise, skills); (2) material resources (money, equipment); (3) moral resources (solidarity, support, tolerance); (4) locational resources (climate, local economy, cultural history and symbolic significance of the place). However, human resources are part and parcel of the agential base. Material resources are part of a group's resource base along with appropriate technologies, socio-technical systems. Moral resources are part of the commitment/involvement base of the members along with strength of ties, solidarity, and group integration. But normative and moral factors such as norms of tolerance and fair play, values of creativity, readiness to recognize another's good performance are part of the rule regime (the social structural base). Locational resources such as action space(s) are part of the group resource base obtained through choice of place(s) (or the choice is made for the group).

¹⁶ An earlier model of group or social system functioning was formulated by Talcott Parsons (1951): the well-known AGIL model which specified four universal functions of groups and social systems: (A) economic and material production or "adaptation", (G) goal-orientation which entailed group or social system selection of goals and values, (I) integration or group maintenance, and (L) "latency" or cultural and rule patterns. A more abstract model of systems, "self-reproducing automata," was formulated by von Neumann (1966). It had only two or possibly three production functions: manufacturing, copying, and reading/implementing the rule regime (or code book); the "codebook" could be interpreted as corresponding to Parsons' Latency function. Neither took into account the natural environment as a factor, but von Neumann assumed a given resource "sea" with essential raw materials, spare parts, construction and repair robots (capable of manufacturing all the machines that compose the automata). However, Parsons gave more attention than von Neumann to "change", even if he never developed this. Parsons had an explicit "adaptation" function as well as "goal-orientation" that could, in principle, result in societal shifts in goals. Von Neumann's system was designed to follow a *fixed* codebook, but then he was concerned only with modeling reproduction. It is worth noting parallels between von Neumann's and Parson's systems:

A social group is not only characterized by its three bases but by its “outputs”, its interactions and productions/performances and their outcomes, developments including the impact of their of their productions on the group itself (reflexivity) and on its environment (see Figure 1). These outputs, among other things, maintain/adapt/develop core group Bases (or possibly unintentionally undermine/destroy them). Thus, groups can be understood as action/interaction systems producing goods, services, incidents and events, experiences, developments, etc. for themselves and possibly for the larger environment on which they depend for resources, recruits, goods and services, legitimation, etc.

In general, group productions must produce and maintain and reproduce the group and its agential, rule regime and material resource bases. This entails at least six (6) core system functions and outputs: (1) production function that generates materials, products, goods and services; (2) internal governance and regulatory function; (3) external or environmental governance function; (4) the function of maintenance and reproduction of core group Bases; (5) the collective judgment and decision function; (6) an adaptive/innovative function.

These distinctions in group functions or operations are analytic ones. In practice, the activities and performance associated with these functions may be combined, for instance, when internal group regulation is combined with external actions such as exercising power or engaging in conflict. Socialization associated with reproduction is typically combined with internal governance and even production function activities.

Group interactions and productions are discussed in more detail in the following paragraphs the analytic distinctions (six) in group functions and outputs(see Figure 1) -- they are often combined, in practice, so that two or more functions may inter-linked in productions, and several considerations (values, purposes, goals) are taken into account in the activities at the same time.

(1) **Production function.** Group production (and interactions essential to this production) is oriented, on the one hand, to realizing group values, ideals, and purposes prescribed in the group rule regime and, on the other hand, to meeting environmental demands and needs through extraction of essential resources from the environment and exchange with others (whether through reciprocal exchange or coerced exchange) to obtain materials, technologies and artifacts for key group activities (and group sustainability).

(i) That is, this production function concerns material resources as well as “goods and services” for the group itself (and its members) and for others with whom they exchange in the

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- Parsons has no explicit rule regime. Von Neumann has a codebook/rule system.
 - Parsons and von Neumann have production systems: “factory” for von Neumann, “adaption” function in Parsons but there is no explicit production as in von Neumann..
 - Von Neumann has the function of “copying of the codebook”/rule system. Parsons has nothing so specific but refers to “latency” which entails renewing, maintaining cultural patterns and can be loosely interpreted as copying rules.
 - Von Neumann has a “governor” (a type of leadership) function that reads the codes and feeds the information into the manufacturing and copying activities.
 - While Parsons does not have resources and technologies explicitly in the picture except, von Neumann has technologies of “copying” and manufacturing.
 - Parsons has explicit goal orientation or achievement, while this is tacit in von Neumann. In the latter’s model, reproduction is the object, and he models what he considers the basic logic of self-reproduction.

environment, that is, for group consumption as well as to meet the expectations, demands of outside groups (customers, tax authorities, communities and NGOs and other stakeholders).

(ii) Production of group interactions. The function entails also the production of characteristic group interactions: powering, leadership and involvement, coordination, exchange, mobilization and application of knowledge, conflict and other activities dealing with internal as well as external issues and problems.

(iii) Production of identity: group representations (among other things, logos), clothing, hair, materials, technologies, rituals and other symbolic actions as well as necessary materials and technologies.

(iv) Production of spiritual and symbolic goods (representations and means) and performances through dance, music, theatre, and diverse rituals, “fun and games.”

(v) Production for self-consumption and enjoyment but not necessarily related to core group productions or sustainability: fun, jokes, games, internal discourses, collective therapy, education, training, special artifacts and technologies.

(2) Governance, regulatory, and management function (of resources, agents, productions, and the rule regime). Agents involved in the group are regulated to be able and ready to activate and implement the rule regime, for instance to enforce rules concerning group interactions and production activities

(i) Internal regulation and governance is a type of production oriented to regulation and sustaining appropriate involvement in production and reproduction activities. In particular, it concerns regulating key forms of production and interaction, insuring cooperation, resolving conflict, regulating interrelationships in ways consistent with group identity and rule regime imperatives.

(ii) Group activities mediating involvement and commitment do so through providing diverse forms of sanctioning, including material rewards and punishments as well as group reputation and status recognition, associated with group identity, transformation of self (as in therapy), and rewards of socialability.

(iii) Regulation of strategic group interactions: (a) Leadership processes (and the question of power and authority); (b) competition, conflict and conflict resolution may be mediated through group procedures and/or leadership intervention; (c) coordination & cooperation processes, possibly negotiation procedures.¹⁷

¹⁷Among the multiple processes of internal governance according to the rule regime are: (i) Governance/regulation of production processes; (ii) Governance of socialization and social control processes (normative regulation, adherence, integration); (iii) Governance/regulation of interpretation and application of rule regime; (iv) Governance of the copying or rewriting of a rule regime; (v) Governance/regulation as conflict resolution (vi) Governance/regulation as leadership (vii) Governance as boundary maintenance (determining participation, monitoring and regulating the interface with external agents and material conditions, monitoring and regulating subgroups or systems within the group).

(3) **Governance Function of Environmental Interfaces.** A group produces activities, goods, and services in order to be able to deal with its material/ecological environment as well as its social environment (the latter in terms of military action, economic and political exchange, and ideological and religious discourses).

(i) A group attempts to maintain control not only over the internal environment but over group-environment interactions to assure proper functioning, reproducibility and sustainability.

(ii) Key activities concern defense, alliance formation, exchange for and mobilization of key resources. The group operates to maintain, even to expand, and certainly to avoid losing key resources on which it depends. Groups mobilize to exercise external power – whether coercive, political or legal, expert, or use of group resources, material or spiritual or cultural.

(iii) When it comes to control of the external environment, the group may lack sufficient power to protect itself or to manage its dependencies – and so must adapt and be capable of withdrawing or hiding.

(iv) Related activities entail the group adapting its responses to the environment, see function (6).

(4) **Function of reproduction and maintenance of core group bases:**

The group engages in activities to maintain or reproduce its agential, rule regime, and resource bases – the core bases of group life and its productions in time. (4A) **Resource reproduction.** This entails not only its carrying on activities to obtain and/or produce resources essential to group life as in the production function. But it entails engaging in activities to maintain access to – or to have the capacity to produce -- necessary technologies (including built environments and group places for meetings), materials (energy, minerals, building materials), that is the reproduction of the resource base or the access to necessary resources (for production maintenance and reproduction). (4B) **Reproduction of agents** -- or more precisely, the actors who are to continue the production and reproduction of group bases and activities:

(i) Reproduction of agents biologically or through recruitment outside the group but combined with socialization of recruited members. Socialization concerns knowledge (in particular, the group rule regime and its application in practice) as well as motivation and adherence (so that new members are prepared to activate and implement the rule regime – or the specific sub-complexes applying to them). This means performing in their roles according to group directives including the directives of those in positions of authority.

(ii) The group induces in its members to a greater or lesser extent motivation and adherence/commitment through socialization, ritualing, bonding strategies, sanctioning, and other group control processes. This dovetails with function (2) that entails the operation of regulatory and sanctioning mechanisms.

(4C) **Rule regime reproduction** entails maintaining copies as well as copying of rule regimes into new documents and into new members.

- Part of this relates to education
- But it relates also to the performance of stories, theatre, dance and other group rituals and ceremonies which contribute to maintaining people's awareness of norms, roles, and institutional arrangements.

(5) **Collective Judgment, Decision, and Value-orientation Function.** An established group makes key collective (or group) decisions: selecting leaders, setting priorities, shifting goals as the group encounters new problems and issues (this relates closely to the innovation/adaptation function (6)), making reforms and bringing about transformations, e.g. in group bases). The group collective judgment, decisions, and actions include:¹⁸

- Collective deliberation, judgment and choice.
- Collectively reprioritizing goals, legislating new rules, adapting, modifying rule regimes, and institutional arrangements (“politics”).
- Thus, there are forms of internal group politics and policy production – these processes may be treated analytically as different from governance proper, but are typically linked or combined since the forms of collective choice and action entail also governance and regulation.¹⁹

(6) **Innovation and Adaptation Function.** In general, a group engages to a greater or lesser extent in producing adaptations or innovations in its group bases and, in particular, of its rules and procedures in the face of internal and/or external challenges, failings, or crises.

(i) Groups are driven to try to adapt their knowledge, strategies, norms, roles, and institutional arrangements in response to internal changes and/or external changes. These attempts can evoke group tensions, conflicts, and struggles but may be necessary for sustainability in the given context.

(ii) The adaptation usually entails mobilizing within the group for purposes of innovation, change a norm, procedure, or role arrangements (including one's own). Groups differ significantly in their willingness or capacity to innovate, as discussed later.

Below we discuss variation in the content rules of the universal categories, illustrating the great diversity of groups. Section III follows up on this.

¹⁸ **Collective judgment and decision-making** (that is, there are procedures (“group algorithms”) to follow in any group or organization. There are also other forms of Collective action. Aggregates or crowds or “publics” may react in similar or parallel ways – and in this sense are “coordinated” by their common judgments and repertoires of strategies (the individuals involved apply a shared or common normative order). Similarly, markets or “public opinion” may entail forms coordinating judgments and decisions of participants, for example through prices or mimetic behavior but their actions are not collectively organized as in the groups or organizations considered here.

¹⁹ There may be multiple processes of “group politics” or as part of the change of governance or change in the rule regime: (i) Adapt or change value orientations, strategies, membership, production rules, technologies, governance arrangements, etc. (ii) Negotiating changes of agential power or status relations within the group.

III. DIVERSITY OF GROUPS CHARACTERIZED AND DIFFERENTIATED IN TERMS OF THEIR RULE REGIME CONTENT

Our general systems model enables us to distinguish groups in terms of their contexts, the three group bases and their outputs. Thus, groups are distinguishable in terms of their particular rule regimes which constitute and regulate group life, for instances about who makes or should make rules (and change them): a single leader, a group of leaders, or the men of the group, or all adults, who participate in a deliberative and decision-making procedures; or, norms regulate group activities concerning innovative initiatives in the group: how much “openness”, tolerance of deviance there is in particular areas.

As exemplified below, membership rules (inclusion/exclusion) belong to a key category (I) of the rule regime. Members with certain characteristics are accepted, included: for instance in the case of all male or all female clubs. Or group recruitment (“discrimination”) may concern religion: no Jews in this group, or no Muslims. Similarly for those because of their ethnicity or educational background. Or the rules of the group may be very open to all adults or to large groups of people with certain types of jobs or work experiences, etc.

As pointed out earlier, rule regimes may or may not be consistently formalized. And the rules include not only directives but evaluations and descriptions. Most importantly, *the theory specifies the universal categories and the types of production outputs, but leaves the contents open. Groups themselves determine or select the particular rule category contents.* Below we illustrate for each universal rule category some of the variation in rule contents.

(I). **Group Identity Rules.** Among groups, rules concerning identity properties vary considerably. Some stress visible symbols: clothes,²⁰ hair styles, tattoos, gestures, speech (accents), and styles of behavior. Similarly, particular technologies (rings, lapel pens, the doctor’s stethoscope, the bishop’s staff) may be emphasized in certain groups, others not. Some groups find the physical structures (built environment) in which they associate or meet essential, yet others do not. Group names may be local, a street or ethnicity area (“Irish Club”), or the name might include a type of task, expertise, or sport. It is not uncommon that the name of a charismatic leader is taken by a group. The variation in the content of Category I is very wide-ranging and reflects human imagination and ingenuity.

Identity markers are as much for the members themselves as for “outsiders”. At the same time, many particular rules and sub-systems of the group rule-regime may define or contribute to defining a group or constructing its identity, for instance, particular norms and rituals, leadership roles, types of social relationships, characteristics of membership, particular places where the group gathers and the particular times they do it.

(II). **Membership and Participation/Involvement rules.** Rules here specify criteria of recruitment, selection and membership. The criteria may be based, for instance, on family or friendship connections, ethnicity, gender, religion, education, profession, etc. Such differences establish some of the particularities of the membership base.

²⁰ Some ethnic, religious, professional, and other groups are consistently dressed for public presentation of identity: many Islamic groups, nuns, priests, monks, military, police, etc.

In any case, group members are expected to varying degrees to accept and abide by group rules. Involvement concerns motivations, emotions, identification with the group and its agential, regime, and social structure features.

The number in a group is not critically important except for the small numbers (2,3,5) discussed by Simmel (1898); also, see Fine (2010, 2012) concerning face-to-face interaction). More important is the varying frequency and qualities (for instance, multi-modal) of interaction which occur even in sizeable communities. Obviously, large groups do not provide opportunities for all members to interact face-to-face, although such a possibility is a part of group imagination. Large scale groups are a particular challenge when it comes to recruitment/involvement and maintaining/reproducing and regulating their agential, resource, and rule regime bases.

The nature and quality of member involvement in groups varies considerably. Some groups expect and try to enforce strict adherence to the group, its regime, its leadership (for instance, elite military and police groups, terrorist groups, some extremist religious or political groups); other groups are laissez faire about the stringency and enforcement of their standards, norms and roles, allowing for considerable personal interpretation and choice about the degree and quality of engagement: many clubs, professional associations, and voluntary organizations, among others, provide examples of such laissez faire arrangements. This concerns not only the degree or intensity of involvement but the control mechanisms used or applicable. Regime descriptive and normative rules may specify in the governance function the coercive, remunerative, or normative mechanisms (in the latter case, through appealing to particular group norms or ideology).

Involvement/participation rules for group members typically correspond to group production rules concerning recruitment and governance (see below or Table 2). In an agential base, not all “members” need to be fully socialized but non-socialized members must be controlled/controllable so that the group functions properly and effectively.

Typically *there are multiple mechanisms which motivate/compel members of a group to adhere to/commit themselves to the group, its rules, and its leaders*. People may be recruited to a technical or scientific group because of the resources provided for the group, or the attraction of the prestige of the group or the high remuneration, or all of these. Often the motivation is overdetermined and, therefore, hyper-stable (Burns, 2008): (i) Strong affinity to the group itself, its leadership, particular members and/or the rule regime; (ii) Identity, status from association with the group. For instance, professional association involving attachment to a prestigious group or group leadership; (iii) Group symbolism and status defines an attractive group and its identity; (iv) common belief, ideology, values fit with the group’s image, behavior, and identity (“normative fits”); (v) Ritual processes bind members to the group and to one another and provide experiences of belonging, mutual feelings, reciprocity; (vi) Remuneration: Rewards such as payment, career, respect, consideration, good reputation, expectation of future help (that is, **potential** help), access to group or leader resources. But also protection from outsiders as well as from some insiders; (vii) The group has strong norms of reciprocity among members (and with the leadership); (viii) As Durkheim (1912) understood, groups produce collective effervescence, creating passion and ecstasy in shared spaces. The challenge is to sustain that emotional attachment in the face of routine and external demands (Fine, 2012:166). (ix) Force: Deviance in word or deed results in severe physical or psychological punishment;

Strength of group ties is a variable stressed by Fine (2010:163) and Granovetter (1975) referring to an earlier sociological distinction between primary groups (strong ties) and secondary groups and networks (weak ties). In our model, the involvement-adherence factor encompasses variables that are a matter of degree. Members' ties (attachments, sentiments) may be to the group as a whole, to its particular rule regime, to its leadership, and/or to particular members. These diverse orientations are often conflated, but they make a difference in the quality and stability of involvement. For instance, involvement is weakened or collapses for members attached to the particular group leader (a person) when that leader leaves or dies. Similarly, if attachment of some is to particular members, and these leave, then involvement and commitment to the group is eroded or collapses. Moreover, strength of ties is a matter of degree, and this tends to vary among members (it is a distributed pattern (Hannerz, 1992)). Groups that consist of members who are attached to the rule regime (group identity, ideology, practices) and to the leadership as well as to many members are involved in a different way and to a different degree than members who are involved because a few of their friends are involved. In some groups constructed on the basis of charismatic leadership, members may be "in love with" the leader.

Many groups are built not on any attraction or genuine attachments but on remuneration (payment for group involvement and production) or even on coercion (task-oriented work teams constructed and functioned, as in durable slave systems and in the Nazi and Soviet camps using forced labor. These R-groups and C-groups, respectively, are distinct from affinity groups, A-groups. All of these are, however, are ideal types. Most functioning groups make use of mixtures of engagement/involvement and social controls.

In general, motives for group involvement may be complex: friendship, status, fun, flow experiences/collective effervescence, normative/spiritual motives. Fine (2012:161) points out that members of, for instance, a religious group may be more oriented to the group – increased life satisfaction – than to the religious system of faith (Fine, 2012:164)... "commitment to other seekers is often as powerful – or more so – as one's relationship with the divine" (or the system of belief).

(III). Shared Value orientations and goals. These rules specify what values and goals the group and its members are to orient to in the context of group performances and productions. They vary greatly among groups from "having fun" of some sort or engaging in a sport, providing mutual psychological or material support, making money/becoming rich, producing new knowledge, helping/serving clients, successfully stealing from or robbing others, defending or "liberating" their community, terrorizing particular groups or communities. These values are realized – or implicated – in the production rules and procedures of the group, the division of labor, and the resources mobilized.

Typically, the group itself is a value, and members are expected to treat it with respect. Groups set value on – and arrange in practice – hierarchical relations or, to the contrary, egalitarian relations (see category V below). Also, group values may concern private property – supporting it or possibly opposing it. In the latter case, groups may expect members to share most of what was their private property with the group. A group and its members may consider themselves better than other groups or populations.

As pointed out earlier, the level of adherence and involvement expected of members varies significantly.

(IV). **Shared beliefs.** Members of a group typically share beliefs about, among other things, particular concepts about themselves, others and their social and material environment. In the case it is a professional group, it is likely to see itself as in large part ethical and competent; perhaps, it also sees its clients as genuinely needy, although some are difficult, sometimes ungrateful. Beliefs among many groups concern the environment, whether it is threatening or supportive, whether it can or cannot be changed, and, if changeable, how the group might go about doing it.

(V). **Social structural and relational rules.** The group rule regime defines relations among group members, their roles and role relationships, norms about reciprocity, competition and conflict.

Groups vary in the degree to which they stress hierarchy (authority, status differentiation) or equality; or the degree of emphasis put on reciprocity and mutual obligations; and the degree of tolerance of deviance.

(i) What determines the “strength” of the group’s social structure – and integration -- is the rule regime and group control over power resources (in part constituted and regulated by the regime) with which a regime can be maintained, realized, and reproduced.

(ii) What is the basis of group members to orient to, adhere to, comply with the rule regime. Above, we identified multiple (often over-determined factors in members’ commitment and compliance, although varying among members to some extent (Burns, 2008).

(iii) Integration of a group may occur because of external threat or challenge which members feel requires cooperation/collaboration to deal with.

(iv) When members, particularly key members, lose their orientation and commitment to the group, the group is destabilized and is likely to erode or disintegrate, unless a revitalization can be set in motion effectively.

(v) It is not only motivation and adherence which is critical. Group functioning and stability depend on effective coordination, leadership, and conflict resolution as well as maintenance of group agential and resource bases. A group leader may manage to synthesize or integrate a group as part of her leadership or governance functions.

(vi) Any group may, in general, consist of some degree, even extreme degrees, of weak ties. This is apparent in the case of groups built up on the basis of coercion or employment based on low remuneration and exploitation. Some elements of groupness (compared to ideal type solidary or strong-tie groups) are missing or undefined.

- In general, in many groups, member commitment to the group, its norms, and its leadership are weak. Indeed, there may be no clarity about who is a member and who is not, who is “controllable” and who is not.

- When people from a work place get together for a drink after work, they make up a group of sorts, but the ties are often weak. Their purpose is none other than socializing. There are weak shared norms and possibly vague role differences, but not

necessarily friendships or close affinities. Similar remarks apply to variation in the degree-of-strength in dyads, triads, etc.

■ Weak-tie groups have weak controls over members, and members have relatively weak controls over one another and over the group as a whole. This makes for feeble and uncertain collective action and mobilization of resources.

The degree of attraction and integration (degree of strong ties to the group) may depend on the group's status, power resources, symbols as well as interpersonal links (for instance, a candidate or potential member wants to be in the group and accepts the group's regime because she is friends with or attracted to j, who is a key member of the group. Or, she is strongly attracted to the group and/or its leader. Hence, those relatively frequent cases of a strongly adherent-committed group membership derived from a charismatic/attractive leader.

Groups differ significantly in the degree they establish and develop strong ties and patterns of reciprocity and cooperation among members. Our theory distinguishes between the degree of strength of ties of members to any group (Granovetter, 1973) – “weak-tie groups” and “strong-tie groups” are simply based on a dichotomization of a variable which is a continuum distinguishing groups.

(VI). Production and Procedural Rules

Groups regularly produce *organized collective action* with membership participation, division of labor, leadership, and resources. But they vary greatly in their particular arrangements (based on their group rule configurations) and in their patterns of symbolic interaction – although their outputs may in some cases be similar.

Rules and rule complex in this category specify how one is to produce (or acquire) specific materials, objects, services, performances, etc. in accordance with particular specifications and standards. The group may produce these for its own use and consumption and/or for external exchange and consumption. Given a group's value orientations, certain productions can be expected: groups oriented to money gains engage in exchange activities from which they expect to make money. “Liberation” groups engage in what they believe are liberating for others, for instance, particular communities and populations to which they are oriented. Terrorist groups produce acts of terrorism directed at meaningful targets in their scheme of things.

Production rules and procedures are designed and implemented on the assumption of appropriate or expected levels of member involvement/engagement. There are often roles designed for purposes of monitoring and regulating group activities and productions (but all members may contribute). Internal governance and regulation are rule based and produced to accomplish group integration, stability, and effectiveness.

In general, groups vary in their production of internal governance, powering processes and reciprocity.

(i) Group members translate rule regimes and their rule categories -- whose contents vary greatly among groups -- into particular interaction patterns, social control and regulation, including maintaining role patterns, leadership, and group performances.

(ii) Social control and socialization are based on group specific agential and group procedural mechanisms: forms of recruitment, expulsion, controlling role performances (for instance males and females, leaders and subordinates)

(iii) Patterns of agential powering vary among groups. Traditional (conventional) versus formal-legal patterns (in case of registered and publicly legitimized group, e.g., a condominium's self-governance)

(iv) There are greater or lesser possibilities for any group member to exercise mutual influence through reference to group norms and the rule regime generally.

(VII). Rules for the Interface with the Environment

Production in relation to the larger social and material/ecological environment varies greatly among groups. In general, there are external relations to other groups, networks, organization, e.g. a work group connects to a professional network or network of students, or more formalized organizations including state agencies.

(i) Boundary maintenance, a key group function, is produced through the effective application of recruitment and involvement rules and through effective strategies of procuring materials and technologies in the environment.

(ii) Groups function in networks and larger organizations as nodes in clusters (Fine, 2010). "These segments of networks in which weak ties (secondary ties) are replaced with a set of strong and intimate ties (primary), at least in some cases. Not all functioning small groups can be characterized by primary ties, as indicated elsewhere in this article.

(iii) Powerful groups develop rules and strategies for controlling the environment to be compatible, supportive, enabling group sustainability and evolution. Indeed, given sufficient power, the group changes the environment so it fits, or responds as it wants (Burns and Hall, 2012). The possession of such powers differs greatly among groups.

A group oriented to control or coercive exploitation of its environment would try to acquire or develop the capabilities for such actions – and recruit and involve appropriate members to play the necessary roles and also acquire the appropriate technologies and other resources for such purposes. This would contrast to a group that is oriented to isolating itself as much as possible from its social environment ("withdrawal"), requiring the development of certain context relevant strategies and capabilities.

(VIII). Rules for Changing Rules and Group Core Bases

Groups collectively adapt/transform their models, action repertoires, value complexes, judgment systems, technologies, the agential base. A group draws on algorithms and heuristics to adapt and innovate producing new agential, rule regime, and resource bases as well as changing/controlling the environment, that is, group circumstances.

Groups provide "cultural arenas" for collective innovation and development, appropriating and interpreting of meanings and cultural objects (Fine, 2012: 318).

- For instance, masculinity and femininity are performative variables, as are performing key rituals, and avoiding the enactment of proscribed behaviors

Groups are settings for creation and production of groups discourses, reflections, and representations (in part, *collective consciousness*)

- For example, groups form for the purpose of transforming members' status (ethnic or gap price for status enhancement)

- Gangs, cliques, clubs, or other voluntary organizations often have the *dual function of providing identity as well as status to members*. For example, wearing certain clothes, hats, shoes, hajib, tatooes; eating or not eating certain foods and beverages; participating in certain rituals and ceremonies, other activities; rejecting association (particularly ritualistic occasions) with members of other groups (again boundary maintenance)

The adaptation/innovation process may also be facilitated or blocked at the group level – in the latter case reflecting collective inertia, rigidity or ignorance. Groups vary greatly in their subjection to internal and/or external pressures to adapt or innovate and in their willingness or capacity to innovate (see (VI). *What motivates a group to be innovative or creative (prepared to make changes), on the one hand, or oriented to sticking close, conservatively, to the established social order with its routines and rituals, on the other hand*. For instance, norms of creativity and innovation are part and parcel of a research group's rule regime/culture, that is, they are institutionalized in the group – possibly in particular roles and sub-groups and their practices. Other groups, for instance, those oriented to producing standardized products (whether goods or services) or those oriented to having “fun and games” tend to acquire or develop other goals and norms, appropriate roles, and practices.

(i) There are internal value and governance mechanisms: those in dynamic groups stressing learning, competition, the value of experimentation and innovation, on the one hand, versus those in static groups stressing stability and reproduction, adherence to routines and rituals, and minimization of competition and conflict.

(ii) External processes, however, may produce pressures, threats, pressures, hazardous events, shocks evoking under some conditions efforts at adaptation and innovation among most groups. The pressures may come from, for instance, natural catastrophes or from the actions or growing threats from established powerful agents or new powerful agents emerging in a group's context.

(IX). Technology and resource rules.

All groups operate with particular resources, materials as well as technologies. The group's resource base concerns the particularities of resources essential to group functioning and performance. Also important are resources available for recruitment purposes, for example, to attract and socialize new members. For instance, a group set up as a science and technology group will not only entail appropriate recruitment of group participants but also materials and equipment essential to their task. A “street corner gang” interested in sports needs whatever equipment the sport entails and access to or ownership of essential places or built environment of

performance. A predatory or defensive gang would need to possess or access to appropriate weapons.

In the past, land and slaves were particularly important as critical resources. In the contemporary world, highly developed technologies, specialized knowledge, and access to critical information are particularly strategic. In any case, groups must obtain necessary resources for group functioning and performance – whether this concerns material resources or particular technologies, knowledge/expertise, or even legitimacy in the perspective of key agents in the environment:

- Some groups may obtain the resources they require on the basis of property rights or authority over resources, i.e. rules of access to and use of critical group resources. Other sources of power including normative and coercive may play a critical role.

- To obtain resources in the environment, groups typically have to deal with agents possessing or controlling access to some of these resources. These activities often entail dealing with external challenges and threats. In general, a group develops external governance functions for these purposes.

- Collective resources belong to the group – possibly collected from group members or simply belonging to the group or community (through tradition, exchange, coercion). There are group procedures for deciding how to deploy the resources, for instance, through collective direction (leadership), or collective decision-making, or application of group norms.

- The group itself and its members (or particular members) are themselves key resources – for themselves and their productions including dealing with external agents.

(X). Time and place rules

Groups are distinguishable in terms of their rules about times and places for their activities. For example, the three “text” religions specify different day of worship: Friday (Muslims), Saturday (Jews), Sunday (Christians).

Spatial or domain rules define: Where? Where not? For example, can one set up a market in this place? Or initiate here public debate activity? Or is it a space reserved for religious practice. Many spaces are "zoned", defining the types of social and other activities such as economic activities which are permitted or forbidden. There may be spaces defined as multi-functional but where the functional activities are differentiated in time. For instance, is the time appropriate for the group to engage in a religious, market or other type of social activity.

Time rules indicate when, when not? Or, when maybe?

IV. DISCUSSION

The theory presented here implies and enables the identification and analyses of: (1) any given group’s rule configurations which characterize the group in particular ways and persist

under relatively stable internal and external conditions; (2) the transformation of group bases and their interaction/production functions.

A. Group Rule Configurations

Content rules in the universal rule categories relate to one another systemically. For any given group in its context, its different content rules make up stable sub-complexes linking for instance particular value/goal rules to involvement/recruitment rules and to production function and resource rules. In other words, any given group fills up the contents of the universal rule categories in its own particular ways. There is a group logic, a matrix of interdependencies. We refer to such interrelationships as *group rule configurations* (which for an established, enduring group are often social equilibria (Burns and Roszkowska, 2006).²¹ An important class of configurations entail linkages among value/goal rules (III), involvement/recruitment rules for recruiting and establishing committed and capable actors (II), appropriate production functions for realizing or accomplishing group goals/values (VI), appropriate resources (materials and technologies) for the production functions (IX), an appropriate set of relations and roles for accomplishing group productions/performances (V), and appropriate/legitimate time and places to conduct these for group activities (X).

The basis of inter-linkage may vary. For instance, it may start with the founder of a group – a charismatic leader who attracts followers and defines group goals, social relationships, and strategies. Or a company executive sets up an R&D group or a sales unit defining goals, resources available, production plans and arrangements. Or the rule content of the universal category regime emerges through spontaneous interactions and negotiations in a network or among an aggregation of agents.

Groups are distinguishable according to their value orientations and purpose(s) (spiritual, economic gain, use of force or coercion, artistic creation), social structure (for instance, hierarchical, egalitarian, mixed), degree of commitment (degree of affinity), resource dependence, characteristic activities, impact on the environment. Group research can enable the systematic identification and specification of the major contents of universal rule categories.

Illustrations

- Family group of a particular culture
- Professional groups (in which members exchange information, knowledge, and collaborate to varying degrees, etc.)
- Workgroup or task force (part of a production system, a cooperative). Production may be largely mechanical – making widgets, or making them efficiently, or may be aesthetic (as in the case of a dance or theatre group) or spiritual (religious and church groups). Work groups vary in their degree of task orientation (versus those that are only weakly task-oriented and principally *innovate* in ways to avoid monitoring and supervisory control)
- Informal play groups (cards, games, having fun versus performance)
- Therapy groups (Alcoholics Anonymous, community therapy groups)

²¹ The linkages may vary in the tightness (or looseness) of their couplings. In a loosely coupled configuration, a disturbance or shift in the rules of one category may not spread to the rules of other categories. On the other hand, in a tightly coupled configuration, a disturbance in the rules of one category tend to destabilize others.

- Local gangs oriented to dominating their environment
- Terrorist groups

For illustrative purposes we present in Table 2 a few simple group rule configurations that characterize diverse types of groups. The cases are selected for their diversity and illustrate eight rule categories. We distinguish self-organizing groups (e.g., gangs, many terrorist groups, cliques, friendship groups, and many recreational groups (as well as research teams and business “partnerships”), from prescribed or “legislated” groups (military units, business divisions, research institutes, administrative groups, sections, etc. at workplaces), established and maintained by a more encompassing organization and leadership. Groups including alliances, intergroup, and similar entities may be formed through negotiation among agents.

The illustrations are neither ideal types nor empirical cases. As suggested earlier, any given configuration will have a history and evolutionary dynamic driven and shaped by internal and external forces.

Table 2. Simple Illustrations of Group Rule Configurations

	Professional Army Unit (Illustration)	Recreational, e.g. a club (Illustration)	Business Enterprise (Illustration)	R&D Institute (Illustration)	Terrorist Group (Illustration)
Defining Identity (I)	Unit's name, logo or insignia and markings of rank. Particular military uniform as dress code. Possibly a particular location. Identity in part defined by the goal orientation and the means used (military power) (see rule categories (III) and (VI))	Group name (e.g. club name), possibly has logo. Minimal or no dress code. Identity associated in part with the particular group activity and its location.	Trade name, logo; possibly badges, dress code, even uniform. Likely a particular location or building(s). Identity also defined by the goal orientation to economic gain (which often trumps other goals) (category III)	Institute name, possibly logo. Minimal or no dress code. Identity associated with the research goals, typically in a particular area and possibly with the methods or equipment used.	Group name, possibly logo. Identity associated with the terrorist goals and possibly with the particular methods or strategies used. "Negative" dress code to conceal identity
Recruitment (IIA)	Formal recruitment and training of able and willing unit members to obey and perform violent acts (based on honor, payment (mercenaries), conscription (coerced involvement))	Affinity group of friends, relatives or people with common interest in the recreation ("buffs") and being together.	Skill-based recruitment; Search for persons & groups sufficiently oriented to and acceptant of remuneration level	Recruitment based on formal education/training and/or achievements of individuals or groups in the relevant field or domain	Recruitment & training of capable and committed members, willing and able to carry out terror acts
Membership & Participation/ Involvement (IIB)	Highly codified, harsh punishment for breaking key rules, in particular those concerning loyalty and obedience to the leadership and its symbols	Informal, relatively lax sanctioning for breaking group norms and values	Contractual engagement. Loyalty to the business brand and leadership. Sanctioning for deviance through acts of disloyalty or disobedience.	Informal, relatively lax sanctioning for breaking group norms and values. Loyalty to the knowledge production cause and the professional code of ethics – sanctioning for deviance from these	Covert participation. Dress code and code of silence to conceal identity. Strict obedience to leaders and group rules.
Goals/Values (III)	Defense/ Offense (external); also, orientation to possibly exercise control internal to the society (coups)	Mutual pleasure, getting together, "having fun"	Pursuit of money-making; possibly also values of making quality goods and services, satisfying clients	Produce new knowledge or technology. Innovate/create and experience "flow", possibly also to achieve symbolic power and scientific prestige	Orientation to carry out deadly attacks against designated categories of targets; accomplish destabilizing actions, create terror
Production & Output Functions (VI)	Deployment and exercise of armed force or its threat, for instance in	Engagement in particular sport activity (amateur)	Economically gain from production and commercial activities	Initiate & accomplish potentially innovative or creative projects.	Deployment and use of terrorist weapons; action to conceal

	territorial defense or offensive action.				identity and operations. Procurement of weapons, safe houses, financing.
Group Relations of Reciprocity & Leadership (V)	Strict hierarchy and possibly high reciprocity and support among members	Minimally hierarchical (yet possibly with status differences), Someone or some members expected to plan and coordinate meetings	Hierarchical social order. Supervisor planning and monitoring of production activities; regulating and sanctioning inappropriate deviance	Symbolic hierarchical order and likely status differences. Exchange, reciprocity, and competition	Strict hierarchy, maintenance of strict separation among members (thus, independent cells).
Relations with the Environment (VII)	Rules and algorithms for dealing with external enemies or threats Maintaining strict boundaries. Acting to obtain funding	Loose boundaries	Orient dynamically to goods and services markets; rules for strategically dealing with financiers, suppliers, competitors, and regulators	Strategies vis-à-vis funders, competitors, relevant professional communities	Identification of enemies and targets; concealment, avoiding detection and monitoring
Production Resources (IX)	Armaments, military equipment Sufficient funding base	Specified equipment for activities, access to activity space	Specified appropriate materials, technologies used in production and commercial activities; Sufficient financial resources (capital)	Appropriate resources and equipment for research and development in the group's domain (e.g., computers, laboratories). Sufficient funding base	Weapons of destruction; safe houses Sufficient funding.
Times & Places for Group Activities (X)	24-7 readiness, military camps and offensive and defensive positions	Free time of members; identity of places accessible to members or the group as a corporate entity (club)	Specified times and places (factory, office) for production	Arbitrary or loose times and places for research (work)	24-7 readiness, available safe group spaces, training camps

In conclusion, we should emphasize not only the universal systemic character of all functioning groups – their three bases and their five performance/output functions together with feedback dynamics -- but also the *differentiating* character of each group’s particular rule configuration. Typically, the group rule regime operates with categories of particular problems/challenges, causal relations and relevant solutions, e.g. deal with potential group vulnerabilities and external threats such as problems of making decisions, coordinating, and resolving conflicts; or any issues in dealing with boundary problems and solving them.

B. Group Adaptations and Transformations: Analytic Suggestions

Our theory enables us to understand and predict some features of group behavior and the vulnerabilities and development potentialities of groups.

(1) Many social groups are structurally and process-wise stable – that is, in a type of equilibrium -- as long as their contexts and their three bases and group outputs are stable. Changes in context affects outputs and/or Group Bases and lead to disequilibria and social change in the group or its transformation (including possible collapse) (see Figure 2). Contextual changes may impact directly on one or more group Bases and change group properties and behavior (output patterns)

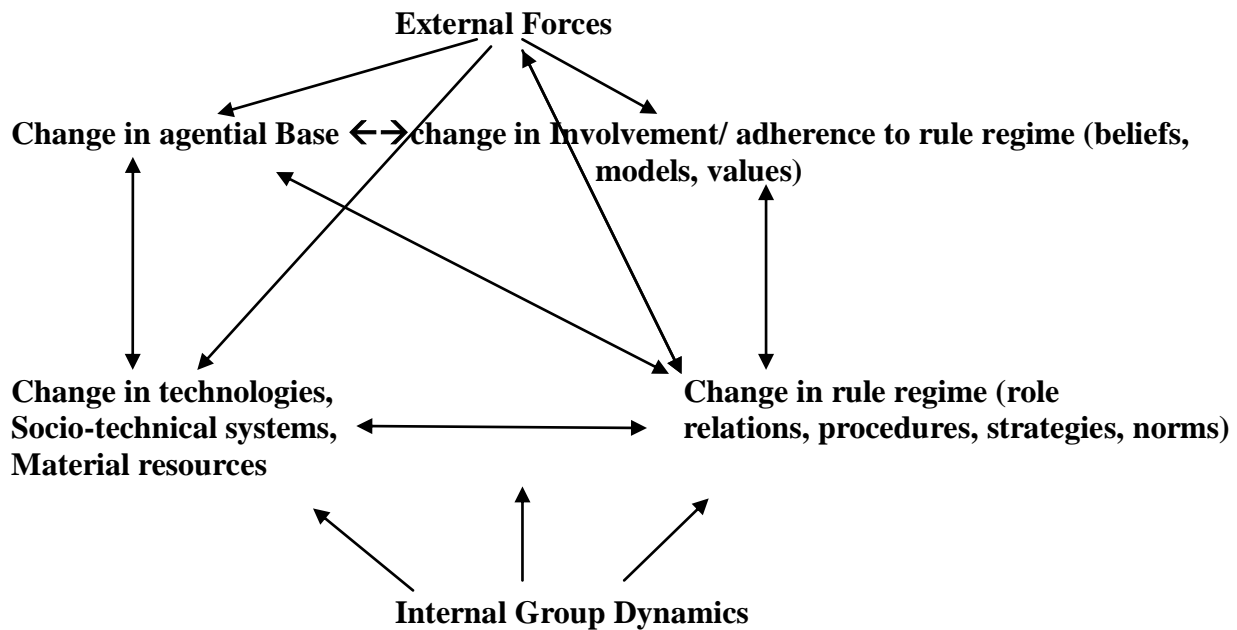


Figure 2. The Nexus of Group Adaptations and Transformations

(2) Contextual factors may interfere with, block, or change the Agential Base, e.g. the availability of group agents for involvement (or influencing the degree or quality of involvement prescribed by their roles in the group); or, the unavailability of new recruits with the necessary normative and cognitive orientations for the group (potential new recruits are constrained from being recruited, or have inappropriate education and training would undermine the group as originally constituted. Or, for instance, a major change in many established groups in the rules of

recruitment and involvement has concerned gender and ethnicity. A particular force in relation to the agential base may operate to reduce members' commitment and involvement and, as a result, group integration and adherence to rules and roles decline. Members' and the group's performance become less reliable or trustworthy.

(3) Or, contextual changes may interfere with, erode, or destroy the technologies or resources in the group's Resource Base essential for key group activities and relationships. For instance, the group or key members no longer have access to possibilities of exchange or commandeering with respect to key material resources and technologies. Group cannot perform its right and proper activities. Group maintenance and reproduction fail.

(4) The group overuses (or uses them at a rate faster than the replacement rate) key resources essential to core group activities and relationships, including reproduction of the group – it does this without proper replacements or alternatives to the over-exploited resources. As a result, not only group performance/production are likely to fail (or fail to meet critical goals/values) but group maintenance and reproduction are ineffective.

(5) A rule regime other than the group regime is activated by the group leader, key members, or powerful outsiders, and it interferes with the established performance of group norms, roles, relationships, procedures including those essential to group maintenance and reproduction.

(6) Members disagree about the rule regime, for instance about rules for memberships or recruitment or about roles such as that of the leadership. And group conflict resolution procedures fail to function effectively. The leadership itself cannot properly resolve....

(7) Degree of boundary control declines. If the involvement/commitment is compromised – for instance, because of loyalties to outside agents, that is, a situation of divided loyalties emerges. This is why some groups that “require” a high degree of adherence/obedience to the rule regime may try to limit or block “external contacts” (through which members might obtain valuable resources for themselves or develop loyalties to “others” outside the group).

(8) Changes in the environment – threats, opportunities relative to the three pillars – which are not recognized or incorporated into the Agential, Social Relational, and Resource Bases; and groups fail to adapt or change rules, train members or recruit new members with appropriate knowledge and skills so that in the case of such threats, the group become vulnerable and the likelihood of undermining one or more bases and group performances/outputs increases. In the case of opportunities missed, competitor group may seize the opportunities and

(9) Groups that are usually weak-tie groups may change to a relatively strong-tie group because of external threat, new charismatic leadership, strengthening attachment to the group and/or its norms and social order. Or the threat evokes a free-rider mechanism, and group controls weaken further, and the group disintegrates in the face of serious challenges and threats.

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²² Forces operating to weaken group coherence and integration include the disappearance of an external threat or challenge. Group leader who “divides and rules” in relation to group members or subgroups or divisive members

(10) In our perspective, one is required to make distinctions in contexts and assess their impact on group bases and output functions: stable environment versus unstable/turbulent correlate with mechanical versus organic task-oriented group. Supportive vs threatening environment elicits the articulation of corresponding goals and activities (functions).

V. SUMMING UP

A group is a social system with an order and capabilities/power consisting of an aggregate of persons (and/or collective agents) that is constituted and regulated by a particular shared culture to which the members of the group are oriented and committed to a greater and lesser extent, and which binds them together and provides a common name, identity, rule regime (ideology for political and religious groups), internal and group sanctioning and controls their behavior in the group as well as group collective behavior vis-à-vis external agents. Members are mutually aware of their shared orientation and identification; their regime specifies members or membership (doing this either by naming or by application of a principle (for instance membership possible if one has appropriate degrees or the right gender or ethnicity).

In our theoretical perspective, a group operates as a system in the context of other groups and ecological and material systems. Our general systems model enables us from a single perspective to define and distinguish all functioning groups in terms of their contexts, the three core group bases and their outputs as well as particular group rule configurations, that is specific contents of the rule regime (see Tables 2 and 3). The model enables us to describe, analyze, and explain group functioning, the degree of integration and cohesion of the group, its effectiveness in accomplishing or realizing group goals or purposes – and the systemic factors underlying these. Key properties of groups are systematically distinguishable: for instance group size, degree of integration or strength of ties, degree of differentiation, degree of boundary maintenance (exclusivity). For instance, the distinction in Parsons, Bales, and Shils (1953) between task-oriented and expressive-oriented groups relates to the *dimensions of group purposes, activities, and performances/outputs*. These dimensions correlate, of course, with other dimensions in the regime such as definitions of roles, authority and status relationships. Group members may experience pleasure and satisfaction in both task-oriented and expressive-oriented groups, but in the case of the former, it is the performance and the outputs that are decisive in assessments, while in expressive-oriented group, assessments derives from the pleasure and enjoyment of group activities, for instance, in group “fun and games”, or talking among themselves, or “non-competitive” sports activities. Winning or super-achievement is not the point in contrast to task-oriented groups (in war, commerce, science, or professional sports).

What is valuable about the social systems theory of groups outlined here. Fundamentally, it makes use of a common language and major social science concepts used to describe and analyze groups in terms of human agents, their social relationships and structures, their interactions and exchange and control mechanisms, their resources including technologies, and functions and impacts in a given social and ecological context. In addition, the theory provides universal theorizing (group capability bases and functions) combined with

who contribute to conflict and instability in the group. There may be differences among members about values and beliefs, which threaten group functioning and sustainability, as in the case of ideological divergence in political groups or parties, or religious movements. One strategy is for divisive members, heretics to be kicked out.

-- Differentiation in internal perspective: professional vs bureaucratic orientation among members

differentiating, particularistic theorizing (the unique rule configurations of groups). Also, from a single perspective, similarities and differences among social groups can be identified, compared, and analyzed by means of:

- The universal bases of groups
- The universal character of rule regimes and their rule categories.
- Universal production functions.
- The universality as well as the particularities of group rule configurations that provide a systematic basis to distinguish and compare analytically all functioning groups.

In sum, the theory is applied and, arguably, helps to represent and explain differences in group structures and processes, and in changes in group structures and processes. It orients us to new research questions and issues.

Scope and theory limitations: The theory presented here is appropriate for groups constituted and functioning in terms of capability bases and group functions/outputs. Experimental and artificial groups are not readily covered by the theory because they are characterized by weak or non-existent bases (agential, resource, or rule regime bases) -- even if they may have some outputs corresponding somewhat to established groups. Similarly, it has little to say about fleeting aggregates, momentary groups, and crowds as well as networks; nor is it of much relevance to situationally-conditioned “group” processes (Zelditch, 2013:13)

In general, in our framework any aggregation of individuals or agents without a shared identity and rule regime (with its category systems, norms, conceptions of roles and role relations) and without common group interactions and functions would not be considered a functioning group; they might be at best acquaintances or a crowd. There is neither a group system with its three bases and its coordinated, organized productions/outputs nor is there the subsystem of group rule configuration with a history and definable future potentialities.

APPENDIX:

Table 3. Universal rule categories of social group and organizational rule regimes²³

TYPE OF RULE	FUNCTION	COMMENTS
<p>IA. Group or Common Identity Rules:</p> <p>Who are we? And How are we identified?</p>	<p>Name & naming the group</p>	<p>The group shares a rule(s) about what the group is to be called, often also share rules about elaborating names and being sure to use names distinguishing it from other groups</p>
<p>IB. Group or Common Identity Rules:</p> <p>Who are we and how are we identified – to ourselves and possibly to others (some groups have rules of secrecy so that they cannot be identified by external agents).</p>	<p>Defining and regulating right and proper group symbols, dress, shoes, food, drink, etc.</p> <p>Also specifying the performance of rituals characteristic of the group – either individually or collectively performed</p> <p>In general, a group differentiates itself from other groups and from its environment</p>	<p>Symbols including hats, hairstyles, beard styles, shoes, clothing; foods, also associated with particular interaction patterns and rituals; and possibly the regime itself. Some groups do not identify themselves by their clothing, food, etc. but their membership in a group with a particular name.</p>
<p>II. Membership & participation/involvement rules</p> <p>Who belongs and doesn't belong? What level of adherence to and involvement in the group is expected?</p> <p>Group recruitment pattern of persons who fit group identity, level of expected adherence and involvement, and tasks to be performed</p>	<p>Rules concerning inclusion/exclusion – also recruitment and removal/exit. In the universe of possible participants, only those in a certain subpopulation or category may join and participate. Up to the 19th – and well into the 20th century in many societies – women were not allowed to be “citizens” with the right to vote or hold public office. They were not allowed to be ministers and still are not allowed to be priests in the Catholic Church.</p> <p>Group norms define roughly the appropriate level of commitment to or involvement in the group that membership should have or exhibit in general as well as in particular activities.²⁴ Those belonging to the group or organization are expected (should) involve themselves to an appropriate degree and in expected ways – specified by group rules.</p>	<p>Of course, recruitment may be discriminatory based on religion, class, gender, age, education.</p> <p>There are highly differing levels of commitment expected in diverse groups.</p>

²³ Talcott Parsons (1951) proposed universal “pattern variables” (for instance, universalism vs particularism, affective neutrality vs affectivity; achievement versus ascription, collectivity vs self, specificity vs diffuseness). Other conceptions of universal social organizational dimensions are: hierarchy, degree of institutionalization and degree of formalization. While all of this is compatible with the rule regime concept, rules, rule complexes, and rule regimes as well as rule regime formation and transformation are, in our view, more fundamental concepts in the social sciences.

²⁴ This applies even in group activities such as “fun and games”. Participants may be criticized if they do not engage appropriately, either “not trying hard enough” or exhibiting “over-enthusiasm” or “inappropriate competitiveness.”

<p>III. Shared Value orientations & ideals and goals.</p> <p>What does the group consider good and bad? What does it stand for?</p>	<p>These rules define relevant values, purposes, and priorities regarding group activities as well as outcomes and developments. Appropriate values for the group: concerning group relations, relative value of in-group and others, spirituality and the sacred.</p> <p>Distributive justice rules, for instance, rewards/payments and penalties for collective and individual performances with respect to general value as well as role performance.</p>	<p>Value(s) like that of creativity or of money are expressions of the group's ability to command proper orientations and obedience. Group values as socially precious or sacred objects through time.</p>
<p>IV. Shared belief/model rules</p> <p>How do we view ourselves and the world, our cognitive orientations, distinctions and models of causality and dealing with causal forces?</p> <p>What are our beliefs about our powers and capabilities vis-à-vis others?</p>	<p>Shared group beliefs/models of appropriate or relevant "situations", definitions of the situation, causality, and causal attribution.</p> <p>Framing and conceptualizing types of problems and their causes and solutions. Problem solving rules and algorithms (the right means to deal with the problems). For instance, making distinctions about outside groups, dividing them into "races", attributing to them properties and potentialities/capabilities.</p>	<p>Shared beliefs/models are expressions of the group's ability to command proper orientations and obedience</p>
<p>V. Social relational and structural rules</p> <p>How do we relate to one another? What is our internal order?</p>	<p>Rules of position define roles and appropriate role occupants and role relationships including control relationships</p> <p>Rules define authority & leadership rights as well as property rights (ownership rules) – what the group owns or control and who decides over their allocation.²⁵</p> <p>Relations of the group and individual members of possessions (property). What may actors do or not do with group and individual property in the group context. Group may appropriate individual's property. Or individual retains rights to certain properties. In general, a groups has a subcomplex of rules relating to what actors may or may not do, must do, or are forbidden to do with the possessions in the group context, for instance a particular property may or may not be permissible in the group context, or it may not be sold or transferred to outsiders, or it may be transferred only after a collective decision.²⁶</p>	<p>Roles are not only "internal". In some groups, the same person may play multiple roles, e.g. internally in leading the group and resolving conflicts and externally in negotiations or in cooperation or conflict (see IX below).</p>

²⁵ Concerning actors in their particular positions and the roles they play, those in positions of high status and power are allowed, even expected to act in particular ways, which are not permitted for subordinate or ordinary actors. Husbands in many "advanced countries" such as the USA had a right to physically punish their wives so long as "the rod was no thicker than a thumb." Women could not speak publicly – and, in particular, could not preach in most churches (which still obtains for most of the Jewish, Muslim, and Christian faiths).

²⁶ Of particular importance in social life are *distributive rules* (Burns et al. 2014). Rules about appropriate/required/forbidden distribution of resources to actors in group situations, for instance rewards/payments and penalties for collective and individual performances. (1) with respect to general values and norms, laws and sanctioning; (2) with respect to role and sub-group performance.

	Group norms define appropriate emotions for relationships, for instance, the degree of respect or obsequiousness, emotional control vis-à-vis a group leader, someone or something sacred to the group, toward group members and outsiders.	
VI. Production and procedural rules/algorithms What are our characteristic practices, production activities, our ceremonies and rituals?	<p>Rules define what are right and proper activities for the group and group members to engage in. Members might be expected to cooperate with one another generally or in particular areas of activity, to make “sacrifices” for the group, to demonstrate solidarity through actions for the group and its members.</p> <p>Production rules and processes in particular group situations, including internal governance and enforcement and sanctioning. Also, there are sub-complexes relating to structuring incentive arrangements for establishing and maintaining member involvement-adherence to the group, its leadership, and rule regime.</p> <p>Communication rules, rules about scripts and discourses as well as rules about who may or may not initiate communication, or particular types of communications such as directives or evaluations</p> <p>Procedures/algorithms for deliberating and deciding as a group, that is collective choices.²⁷ In what ways are collective judgments and decisions to be made: through an authoritarian leadership, negotiation, democratic voting, etc.</p> <p>Rules for defining problems and problem-solution, resolving conflicts and accomplishing distributive justice.</p>	Not all group activities are prescribed by the regime, some are spontaneous and outside the core domains, possibly outside of group times and places.
VII. Rules for dealing with factors and other agents in the environment	Group orientations and strategies derive from group beliefs and models about agents and factors in the environment. (this category is a particular category of group production rules)	Typically, one or more members deal with external groups and agents. The group may recruit a member to meet and negotiate with an external authority.
VIII. Rules for changing rules and group cores	Group values and beliefs enter in regulating change, innovation, creativity	
IX. Technology & resource rules	Rules define necessary and appropriate technologies and resources for group activities.	As indicated elsewhere in the text, the group either controls essential technologies and

²⁷ Collective Choice Rules and procedures concerning the linking, coordinating, collectivizing of actions of the different actors: (i) the ways in which roles are interlocked (as superordinate-subordinate interaction in Burns and Flam (1987); also, see Burns et al. (1985) on differing models of such relationships; (ii) ways in which collective judgments and decisions are to be made: negotiation, adjudication, democratic voting, etc.

<p>What are the characteristic technologies and materials which we utilize? And those that are excluded?</p>	<p>That is, there are appropriate/permitted/required/forbidden techniques and technologies as well as materials. For instance, the acceptable technologies used by physicians in dealing with their patients in particular areas of illness.</p>	<p>resources (for instance, through physical or ownership control, or must have access to and obtain them from external agents)</p>
<p>X. Time and place rules</p> <p>What are “our” places and times?</p>	<p>Rules define times and places for group activity or activities.</p> <p>Appropriate times and situations for the group to be activated and functioning as “the group.”</p> <p>Answers the question if a particular situation is one appropriate for group activity.</p>	<p>The group must have access to (rights, ownership, control) the places (and times) appropriate for group activities</p>

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