ABSTRACT
        A theoretically-derived, easily employable, and
widely applicable coding system for processing analysis of small
group discussions is described. The system was constructed from
established social influence theory, and pilot results from
application of the system to group therapy interactions were
presented. Eighty percent of all group communications were found to
be either influence-related or direct influence attempts.
Influence-related probes, disclosures, and reinterpretations were
employed significantly more by both therapists and patients than
overt or manipulational influence categories. Therapists, however,
used influence-related communications less than did their patients.
No sex differences in influence usage were disclosed. (Author)

A Social Influence Rating Method for Group Interaction and Some Pilot Results on Group Therapy Process

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Group dynamics research has historically taken two general directions. The first is that treating the group as an ecological-observational setting within which experimental treatments are structured (e.g., Shaw, 1971). The second has been termed process analysis, and is comprised of efforts in which group output (usually verbal) from discussion is partialled into some set of categories for analysis. The most extensively developed examples of the latter are the coding schemes of Bales (1950, 1971) and Leary (1957). The former offers an ingenious participant identification system, and a set of 12 categories into which group utterances may be distributed as regards content (e.g., asks an opinion). The latter presents a multidimensional circumplex of 16 participant and statement types ranging around two orthogonal (dominance-submission and love-hate) dimensions.

Unfortunately, neither the employment of nor the findings generated from either process scheme have heavily impacted on current social-personality efforts for a number of reasons. These include a conceptual vagueness common to most pioneering efforts, operational ambiguity in assigning process to categories, the artifactual production of. large "catch-all" classes in each system, and the intensive training requirements for would-be employers. The most important reason, however, is that both schemas are essentially atheoretical creations; their initial formulation relied heavily on each author's intuition, clinical experience, and "personal reality" system, rather than deriving from any coherent theoretical stance. Though both authors (esp. Bales, 1971) have attempted to move toward theory development in reformulations, such a "method before theory" attack does not appear to be maximally conducive to the understanding of group process. Rather, a more parsimonious approach might involve an initial focus on some limited class variables already identified as theoretically salient by existing theory, with further expansion of the schema only if group process does not allow itself to be partitioned in the theoretically dictated manner. The purpose of this paper is to describe the development of and report pilot results using a process scheme derived from social influence theory (Tedeschi et al., 1973) in experimental social psychology. The theory views interaction primarily as occurring between individuals motivated to maximize personal utility/disutility ratios; hence, conflict and influence attempts are frequent and salient interactive occurrences. Influence theory proffers a typology of modes by which one individual can attempt to "get his way" in interaction; these modes were taken as a starting point for our system.

Construction, Training, Employment

The Social Influence Rating System (SIRS) uses Bales' method for identification of source-target communications. Each participant is assigned a number, the group a designation of 0, and coder simply records two or more numbers with a directional vector for communications. Our operationalization for message units, however, departs radically from Bales. We employ a notion termed the "intended speech sequence (ISS)," which defines a standard unit not of speech length, but of completed thought sequence. An attempt is thus made to psychologically, rather than grammatically, partial contiguous verbal output; high reliabilities (median for five replications = .89) were obtained from coders judging ISS unit partitions.

The coder has 4 major options and a number of sub-options within each assignment category for any ISS. Overt Influence categorizes threats, promises, warnings and mendations as explicit ISS statements. Warnings and mendations are analogical complements to threats and promises, but refer to persuasive (i.e., informational) rather than direct influence attempts. These 4 types are cross-cut by whether a message specifies a contingency for target (e.g., "If you don't stop that, I'll leave") or is noncontingently

delivered ("I'm leaving"). Rewards and punishments appended to such messages are coded into three categories: primary, secondary-material, and secondary-social, as well as with regard to direction (positive-punishing). Target compliance-noncompliance to exerted overt influence is also codable, given longitudinal observation.

Manipulational influence refers to messages others have called "cue" or "behavior" controls. That is, and in the absence of verbal messages about reinforcement provision, source attempts to modify target's behavior through the imposition of (usually verbal) reinforcements. These are coded in the same manner as are reinforcers connected with overt influence. Influence-related behaviors serve as attempts by source to gain information about target for future influence attempts, or to influence target in roundabout fashion. The coding system includes reinterpretations of other's statements and probing questions from influence theory, as well as a sub-category of self-disclosures demanded by previous pilot work. Finally, non-influence messages are ISS units which cannot be construed or are ambiguously interpretable as any other category. Coders are instructed to interpret this category broadly, assigning statements to its declarative, question or answer sub-categories if there is any doubt about an ISS assignment. Thus, this category represents an intentionally-structured residual, and serves as a check on the relative efficacy of the remaining partitions. Coders can be fully trained in system use in approximately 6 hours, and produce reliable assignments after only one transcript experience.

Subjects and Method

Five inpatient and outpatient group sessions (2 & 3, respectively) were observed at the Illinois State Psychiatric Institute. Group size varied from 5-10, with approximately equal proportions of males and females for both therapist and patient classes. One coder sat behind a one-way mirror and recorded participant identification information on one channel of a tape, while the entire group interaction was taped on the other channel. Tapes were transcribed and coded independently on the SIRS by the observer as well as by a second, newly trained coder who personally observed no groups. Reliability checks indicated that reliability of assigning statements to categories was satisfactory (r's = .63-.78; median = .71), but not extremely high. Disagreements were resolved by discussion, with the second author providing additional input. No specific hypotheses were advanced, but preliminary significant results are presented below.

Results

TABLE 1: Proportion of Messages by Category Within Group

Message \ Group	I n = 8	II n = 6	III n = 5	IV n = 8	V n = 10	Overall Mean
Overt Influence	.07	.13	.09	.13	.05	$.09_{ab}$
Manipulation Influence	.19	.09	.17	.11	.13	$.14_{ab}$
Influence-Related Messages	.57	.50	.57	.48	.55	$.53_c$
Non-Influence Messages	.16	.28	.17	.28	.23	$.22_b$
Total ISS Coded	295	389	334	330	291	328

Proportional (i.e., number of statements in category/total number for group) measures of influence use by group are presented in Table 1, with a summary of dependent t's on overall means in column 6--means with a common subscript do not differ at $p < .01$, all df = 4. The overt modes (threats, promises, warnings, mendations) account for only

10% of overall message emission, and this represents a significantly lower proportion than the manipulational class ($t = 4.62$). Both overt and manipulational influence is exerted less often than influence-related probes, disclosures and reinterpretations (t's = 14.4 overt; 7.45 manip.), and influence-related classes show a significantly greater frequency than any other classification. This probably argues for further partition of the influence-related category, though our results bear a striking resemblance to those of Bales (1971; p. 96) using a different method. These preliminary findings argue that therapy is generally a covert, manipulational process, composed mainly of influence-related rather than overt influence gestures. However, it can also be said that 80% of all therapy communications were of an influence-related, manipulational or overt influence categorization.

Chi-square contingency tables were used to check whether relationships existed between (1) sex of a member and type of ISS emitted, and (b) client-therapist status and influence use. Results indicated only a marginal ($x^2 = 7.38$, $.15 < p < .10$) relationship of sex and influence, but a strong ($x^2 = 52.1$, 4 df, $p < .001$) relationship between role and usage. Therapists emitted only 1/2 (3%) the proportional number of overt and one-third (3%) the number of manipulations as did patients (6% and 10%, respectively), and used less influence-related probes, disclosures and reinterpretations (22%) than did patients (31%). These proportional results are not due to differential emission rates, and run exactly counter to current accounts of therapeutic process. Finally, the proportion of uncodable messages across groups was uniform and low, suggesting that the SIRS does a satisfactory job of partialling verbal output in groups.

In conclusion, the SIRS represents a conceptually coherent, theoretically-derived, easily operationalizable and unambiguous method for assessments of group process. SIRS's theoretical derivation adds one further advantage not usually encountered--previously impossible cross-comparison studies can now be undertaken between experimental and process researches with the same conceptual model. The pilot therapy data are no less than highly intriguing, and we are currently pursuing more extensive analyses. The SIRS is not limited to therapeutic applications, of course, and would appear to be well-suited for most group situations in which the unstructured nature of interaction has been a barrier to research in the past.

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