

Checking Your Community's Temperature With An Alaskan Thermometer

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Abstract

Beyond considering simply the "wellness" of a community, the Community Transaction Analysis (CTA) is a pragmatic tool for checking the social climate of a community. The CTA measures community members' energy invested in three activity dimensions: viability, economic exchange and cohesiveness. Within a multidimensional theoretical context, the obtained CTA profile provides a change agent with valuable clues for selecting intervention strategies congruent with a community's social climate.

Sometimes mental health workers can identify the "ills" of a community and can see what makes a community "fall apart." But what enhances the well-being of an existing community? A principal rationale for the existence of the national mental health program was to treat "ills" and make therapeutic services accessible and affordable to the population

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(Community Mental Health Centers Act, 1963). Also a concerted effort has been made to direct attention, research and funds to primary prevention (Caplan, 1964; Humes-Noyes, 1980). To this end, communities have been studied and evaluated on a number of variables: organized/disorganized (Faris, 1955), integrated/disintegrated (Leighton, Harding, Macklin, MacMillan & Leighton, 1963), coherent/incoherent (Mazer, 1976), open/closed (Murrell, 1973). Each of these researchers has considered, "the patterning of relationships" within the environmental setting (Leighton et al., 1963, pp. 393) emphasizing a particularly important variable.

It is interesting to consider a community upon a functional continuum of "wellness"; however, a pragmatic approach to primary prevention is needed in which a temperature reading is taken of the social climate of a community. Community members have differing levels of energy and various kinds of transactions requiring a multidimensional reading of the community. Forrester (1969) pointed out that a community is often viewed from an intuitive, unidimensional viewpoint denying interactive complexity which must be considered if the well-being of a community is to be enhanced.


Community has been defined as a set of social, economic and political processes operating in a relatively open (adaptive) system (Holder, Kennedy & Johnson, 1970; Mann, 1978). Working from that definition, Drewes (1969) identified three goals of a community: viability, economic exchange and cohesiveness. These goals translated into activities show the energy invested in various activities by community members. It is the balanced interaction of these activities that prevents entropy (i.e., taking energy away from useful work in a system). Too much energy invested in viability causes disintegration of a community as members diverge in many directions pursuing self-serving activities. Total involvement in economic activity disallows time for recreation. Economic and viability activities evidently supersede cohesive activities necessary to keep a community together. Paradoxically, activities in both seem to be a prerequisite to generate energy for cohesiveness. Drewes (1969) provided the theoretical framework from which the transactional efforts of families, businesses, rural, city and state organizations could be mapped. Using the Community Transaction Analysis to map interactions, intervention strategies could be tailored to meet the specific needs of a community and avoid entropic slide.

Community Transaction Analysis (CTA)

Systematic recording of human behaviors or behavioral mapping has

been used by such researchers as Barker (1968, 1969); Twardosz, Caltado and Risley (1974)); Sommers (1980); and Ittelson, Rivlin and Proshansky (1976). The CTA uses behavioral mapping to measure the activities of community members on the three variables described by Drewes (1969): *Viability (V)* includes self-serving activities (recreation, school, family, church); *Economic Exchange (E)* includes buying, selling, trading, working; *Cohesiveness (C)* includes political activities such as planning sessions, committee work, group projects. Designed so that high school students and non-professional persons could collect data (Doyle, 1975), CTA procedures obviate problems often encountered by “outsiders” (Biddle & Biddle, 1965; Mann, 1978) as well as those of social control (Orne, 1965). The CTA requires interviewers to record transactions made with others during the past 3 days on a Data Collection Sheet (see Figure 1). The 3-day time frame was chosen after a pilot study revealed that most people could remember their activities that long. Instructions for interviewers can be found in Doyle and Brown (1975). Interviewers were students within the community who volunteered to conduct interviews within their neighborhoods with 4 individuals — 2 females, 1 over 30 years of age and 1 under 30, and 2 males, 1 over 30 and 1 under 30. Using students allowed the researchers to collect data through unbiased community members, and enabled the students to learn about research by participation. Some of the hypotheses the students generated are discussed in Doyle and Brown (1975).

Transactions are activities which fall into 18 categories (six each for the V, E, and C dimensions) based upon Drewes’ (1969) community goals and the examples he gave for each. Names are not recorded. Interviewees are informed that there are no right or wrong answers and read the following instructions:

This task will take 5 minutes of your time. Show each contact you made with another person during the past 3 days by drawing a line from YOU to the situation in which you contacted another person. By *contact* we mean the times you asked someone for something and the person *answered*, or someone *said* something to you and you *responded*. Contacts can be verbal, like “turn the TV off” to someone in your family, and the person might say “Okay”. Contacts can be nonverbal, like when a friend pats you on the back and you smile at the friend. When you have gone to a meeting where you make many contacts, count that as only one contact. For people with whom you’ve had too many contacts to count during the last 3 days (like a brother, maybe, or your spouse perhaps) just draw a squiggle line (). If you have trouble deciding *where* a contact line would go (was the meeting a family get-together or a planning session) draw a line to whichever is more important to you. Now it’s

.(state time and day of the week). Start back (state time and day of the week 3 days before), and mark the contacts that you made starting here with "store". (Any part of the instructions may be repeated.) Continue on all around the wheel until each category has been considered. (Doyle, 1975).

The number of transactions for each dimension are totaled and divided by the number of subjects; the three resulting means provide the community profile.

CTA dimensions have relatively consistent score ranges. Several Alaskan communities have been measured, and their CTA profiles are shown in Table 1.

A test-retest reliability measure of the CTA for an urban population over a 4-year period was 0.39, significantly different from chance, but of little use for predictive validity. The high variability of a CTA profile is in and of itself an indication of a healthy population. Generally, however, Viability (V) evidences the greatest number of transactions and Cohesiveness (C) the least with Economic Exchange (E) consistently higher than C. The average V:E:C profile is 3.82:2.56:1.28, but urban and rural profiles differ somewhat. Rural people have higher V to E ratios (V:3.82; E:2.22; C:1.28) than city dwellers (V:3.85; E:3.22; C:1.28) who accomplish more business activities.

The overall community profile gives insight into the social climate of a community. It appears that communities with V above 3.5, E at 2.5 or above, and C at 1.5 are likely to be open, adaptable systems where members work together to successfully problem solve, resolve conflicts, and achieve community goals. The following examples show interventions employed for differing community profiles (one must keep in mind that the profiles give only an impression of the community, since the variability encountered in small samples is often too high for statistical reliability).

High Viability, Low Economic Exchange, Low Cohesiveness

If V is very high and E and C low, it will probably be difficult to unite a community for action without discovery of a superordinate goal. Seldovia is such a community (see Table 1). Although there are many social pursuits (V), there is little organized political activity (C).

For years, and particularly after the 1964 earthquake, people in Seldovia had not been able to reach agreement on a proposal for a much-needed school for grades one through 12. Although the old school had been condemned, it was not until the Kenai Superintendent of

Figure 1.

**Community Transaction Analysis (CTA)
Data Collection Sheet**

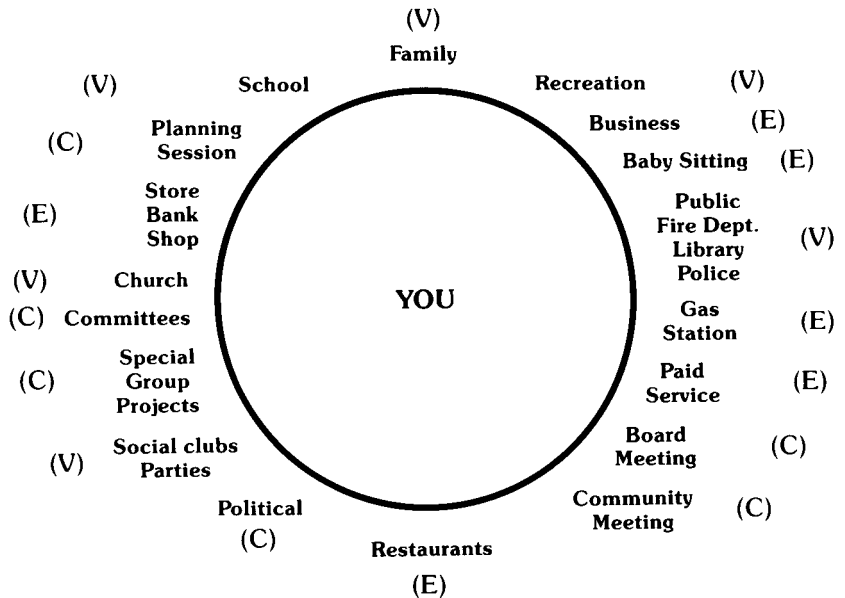


Table 1**Viability (V), Economic Exchange (E)
and Cohesiveness (C) Profiles**

	V	E	C
Urban:			
Anchorage	3.43	3.06	1.20
Dillingham	3.34	3.67	1.63
Fairbanks	3.93	2.11	1.32
Seward	5.32	3.14	1.49
Valdez	3.21	4.14	0.78
Mean	3.85	3.22	1.28
Rural:			
Bethel	3.43	2.46	0.90
Homer	3.68	1.94	1.70
Henai	4.23	2.31	1.88
Ketchikan	4.68	2.22	2.79
Kotzebue	3.43	2.46	0.93
Nome	3.13	2.17	0.63
Point Barrow	2.41	2.13	0.87
Seldovia	4.70	1.42	0.19
Soldotna	3.89	2.22	0.67
Unalaklett	4.63	2.88	2.29
Mean	3.82	2.22	1.28

Schools threatened to close it and literally ship the children across 17 miles of open sea that community leaders agreed to work with National Training Laboratory (NTL) workers to solve the problem. During the assessment process, the two NTL workers learned from the Mayor that the major cause of accidental death in Seldovia was drowning. When it was suggested that a swimming pool (and water safety skills program) be incorporated into the plan, almost every adult in the village became actively engaged in the planning process. Twenty-seven people flew to Soldotna for a successful Kenai Borough School Board meeting (no one from Seldovia had ever attended a school board meeting before), and were able to convince the Borough to pay twice as much money for the school with a pool as originally planned.

Three years later, the Seldovia profile showed low Cohesiveness eliciting an interesting question or two: Can Cohesiveness be raised and maintained without outside intervention? Secondly, is high Cohesiveness necessary for general well-being? It may be that, in a community as involved in social/self-serving activities (V, 4.7) as Seldovia, politics are not as important to members' sense of well-being (Hirsch, 1981) evidently necessitating the identification of a superordinate goal in order to bring about change.

High Viability, Average Economic Exchange, Mixed Cohesiveness

Clayton Brockel, Director of the Kenai Extension Service, invited the senior author to work with two communities 12 miles apart, Kenai and Soldotna, whose members were interested in establishing a community college in their areas. The change agent was to facilitate a needs assessment and program planning session. Both Kenai and Soldotna are composed of people with adequate viability as evidenced by their Viability scores (4.23 and 3.89, respectively); the problem lay in the fact that Kenai seemed to be a more organized/cohesive group (C:1.88) than Soldotna (C:0.67). Brainstorming, problem solving and resolution of value differences were structured so that the participants from both communities worked together in small mixed groups where collaboration was essential. By processing the interaction, the change agent ensured that the cohesive Kenai group did not overwhelm or exclude the less organized Soldotna members of the planning group.

Many brilliant and creative ideas resulted from this collaboration, not the least of which is the Associate Degree in Petrochemical Industries, supported by grants, scholarships and jobs from the nearby Tesoro petrochemical plant. The program plan was approved by the Board of Re-

gents, and the college, now located on a beautiful site (offered by Soldotna) overlooking the Kenai River, is a success.

Low Viability, Average Economic Exchange, Low Cohesiveness

When Viability is low, Economic Exchange Average, and Cohesiveness low, chances are one will not be a welcome visitor, and the least that might happen, if one is making unwanted changes, is the sudden disappearance of heating oil in the home where one is staying when the mercury hits 40 below.

Students at the Arnie Beltz High School in Nome, 1974, helped collect CTA data in their community (see Table 1). While we were looking at the resulting flat profile, the impact, a small, cohesive, highly visible group can have upon a community, was discussed. The students invited me (the change agent) to their teen center, a run-down, abandoned house they had managed to reclaim. The acting director at the Center worked with the change agent and the 14 Eskimo, Caucasian, and Cosmopolitan (or mixed ethnic background) teenagers to develop their plan to tape record the oral history of the "Old Ones" living in the Pioneer Home. Not long after I left, Alaskans were reading about the Nome teenagers' oral history project in the daily papers. The teenagers were awarded an Historical and Fine Arts Grant to continue their project. Two years later they were given a \$750,000 state grant to build a teen center focused around a variety of craft and social activities where alcohol was not to be a part of the scene (a major problem for people in Nome).

High visibility can sometimes work too well. It is well-known that the political power controlling Nome is in the hands of another small cohesive group, six bar owners, one of whom owns the *Board of Trade*, where Eskimos are traded a few bottles of whiskey for their entire winter's ivory carving. The idea of Nome teenagers (future potential customers) sanctioning sobriety must have been too threatening. Less than 2 years after its construction, an arsonist burned the Center to the ground. It would appear that when V and C tend to be low, a system closed to change possibly exists.

High Viability, Average Economic Exchange, High Cohesiveness

Sometimes one's role as a change agent in a community is suspect, and establishing one's credibility requires making one's self known as a

person to be trusted and relied upon in culturally appropriate ways. When the first state-grant-supported mental health center opened in Ketchikan, members of the predominantly Tlinket native group were reluctant to come to the center. Along with the very different spiritual values, their collective experience made them wary of mental health professionals. More often than not, those with problems had been shipped to the Alaska Psychiatric Institute in Anchorage or to one of the dreaded Bureau of Indian Affairs Hospitals "outside" for an indefinite stay. The senior author spent several hours meeting with native leaders in their lodge learning their history back through generations to the beginning of time and building a sense of trust. Not long after the meeting people came to the Center workshops, referred themselves for help, and generally supported the idea of a center.

The average score on Economic Exchange with the very high scores on both Viability and Cohesiveness on the CTA indicated a community having the energy to take action and the community involvement to risk bringing into the community system a new component for change.

Discussion

The possibility that Cohesiveness, required by Drewes's (1969) theoretical model to avoid entropy, can be raised by having a superordinate goal is suggested by the Seldovia example. Divergent energies were focused upon providing the school with a swimming pool where water safety skills could be learned. The most difficult part of this change strategy is to identify a constructive superordinate goal through which trust can be built and effort directed.

In the Kenai-Soldotna example, a problem identified by Caplan (1964) was resolved. The tendency for a highly cohesive group to often unknowingly exclude members of a less cohesive group was confronted by purposefully having small groups of mixed participants collaborate during the planning process. The CTA had shown different levels of Cohesiveness, hard to diagnose early on, that could have disintegrated united effort (Leighton, Harding, Macklin, MacMillan & Leighton, 1963) had differences not been identified and dealt with from the start. Preconceived ideas based upon interviews with members of a community before a group meeting may be confirmed or disconfirmed by administering the CTA at the initial meeting and discussing implications of differing profiles and ameliorative steps to be taken to use divergence to enhance creativity.

In Nome, the Sol Alinsky strategy of encouraging a "core group" to bring about "creative surprise" (Rappaport, 1977, p. 198) went up in

smoke. Change in a closed system requires breaking through barriers of distrust, exploitation, and abuse maintained by a powerful elite. When energy is low and alternatives limited, one of the better solutions is to leave the system (Doyle, 1975), but that entails risking the unknown, and with a flat CTA profile the energy to do so is not often available. The most difficult task for a change agent encountering a flat CTA profile is to confront the power brokers, so they will want to open the system. If that fails, one needs to withdraw their power by environmental manipulation. In Nome, it would mean encouraging community dwellers to vote for a dry community and close the bars.

Faris (1955) identified Ketchikan as a highly organized community. The high level of organization is shown by the CTA profile (V:4.68; E:2.22; C:2.79). Community members not only have the energy to pursue their own social interests, but also maintain an adequate level of economic exchange and an outstanding level of community building activities. A CTA profile like that of Ketchikan is encouraging to any change agent.

Despite negative experiences in the past, with the mental health establishment, Ketchikan people were soon willing to make a new mental health center a part of their community.

The CTA may prove to be a useful tool for the change agent to employ in reading the social climate of a community, and a tool to employ in planning appropriate interventions. Several questions remain to be answered such as the required level of cohesiveness for community change (Hirsch, 1981), the accuracy of specific categories to represent dimensions (Is a board meeting a cohesiveness activity?), and whether the CTA can be used to measure community growth.

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