APPROACHING SOCIAL CHANGE AS A COMPLEX PROBLEM IN A WORLD THAT TREATS IT AS A COMPLICATED ONE:

THE CASE OF PUNTOS DE ENCUENTRO, NICARAGUA*
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RESUMEN

El presente estudio de caso usa principios de la Ciencia de la Complejidad como marco teórico para el análisis de la estrategia de comunicación implementada por Puntos de Encuentro, así como para explorar algunas de las críticas más recientes a las teorías y modelos de evaluación de provectos para el cambio social. Los resultados de este estudio sugieren que Puntos de Encuentro ha aplicado de manera intuitiva varios principios de la Ciencia de la Complejidad en el diseño, implementación y evaluación de su estrategia de comunicación: la dependencia histórica y contextual del cambio social, su aspecto no lineal v paradójico, la superioridad del todo sobre la suma de las partes, la relevancia de la calidad de las relaciones y las interacciones, los beneficios del control descentralizado para el surgimiento de un nuevo orden y para la auto-organización social, y la importancia de un flujo libre, diverso y participativo de información relevante al sistema para que este pueda cambiar. Como conclusión, el artículo sugiere el uso de la comunicación para el cambio social basadas en los principios de la Ciencia de la Complejidad como estrategia alternativa para promover el cambio.

PALABRAS CLAVE: Comunicación para el cambio social, ciencia de la complejidad, sistemas complejos, control descentralizado y procesos sociales auto-organizados.

ABSTRACT

Puntos de Encuentro, a Nicaraguan feminist non-profit organization, is implementing an innovative approach to designing communication strategies to foster social change. This case study uses Complexity Science's principles as a framework to analyze Puntos de Encuentro's communication strategy and to explore some of the emerging critics to the traditional communication for social change theories and evaluation methods. The findings suggest that Puntos has intuitively applied basic principles of Complex Systems in its work and it is mindful of several of the Complexity Science tenets: history and context dependency, non-linearity and paradoxes, the supremacy of the whole over the sum of its parts, the relevance of the quality of the relationships and interactions, the benefit of decentralized control for order emergence and self-organization, and the importance of a free, diverse and participatory flow of meaningful information for the system to change and evolve. The authors conclude that a communication for social change approach framed in Complexity-based concepts can be an alternative to our array approaches to promote change.

KEY WORDS: Communication for social change, complexity science, complex systems, decentralized control and self-organizing processes.

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C cholars and practitioners of communication and social change, Despecially those who have muddied their feet on the ground, tend to agree that social change² is often a non-linear, uncertain, unpredictable and long-term enterprise, embodying multiple levels of complexity and mutual causalities (Singhal, 2008; Alfaro, 2006; Bradshaw et al, 2006; Papa, Singhal & Papa, 2006; Rodriguez, 2006; Deane, 2001; Deane & Grey-Felder, 1999). Paradoxically, if not surprisingly, why then do most organizations and individuals involved in communication for social change continue to frame their strategies in linear, measurable, and causative terms? What drives them to hopelessly attempt to isolate the effects of their programs, and that too with a high degree of statistical significance, to present claims that, at best, are partial and partisan, riddled with the so-called threats to validity, external and internal? What is it about the nature of the communication and social change enterprise that continues to perpetuate such misguided assumptions, despite voices from the field which cry out for the contrary?

The present paper raises and addresses "difficult" questions such as the above, and suggests alternative ways to frame scholarship and practice in communication for social change to more authentically capture the complexities of social change.

WHO ARE WE AND WHY THIS PIECE?

For twelve years (1992 to 2004), the first author of this paper worked at a Nicaraguan NGO called *Puntos de Encuentro* ("Meeting Points" or "Common Grounds"), a feminist non-profit organization

² For the purposes of this paper, the concept of "social change" has been defined as a long term, complex, contradictory, and collective –rather than individually focused– process through which people define who they are, what they want and need, and how they will work together to get what they need to improve their lives (Gumucio-Dragon & Tufte, 2006; Puntos de Encuentro, 2004; and Hernandez, T. and Campanille. 2000). While the concept can also be applied to individual behavioural change in a group or community as well, the notion used here is related to the interaction of both individual and collective changes made for and by engaged groups. A more detailed definition of the concept is developed later in the paper.

which believes in the role of communication, research, and education in fostering social change. The other two authors, cumulatively, have dabbled in "grounded" communication and social change scholarship for over 30 years in an estimated 50 countries of Asia, Africa, and Latin America, including 15 years of ongoing collaborative work. Both are well-versed (through direct and indirect exposure) with *Puntos de Encuentro's* (Puntos hereafter) work, including its innovative approach to designing communication strategies to promote social change.

Puntos believes that "while societies have to change, they have to decide for themselves how to change. Rather than seeking to change individual behavior, its work seeks to influence the social context in which individuals act and in which discussion about different aspects of daily life [public and private] occurs" (Bradshaw et al, 2006, p.1). Toward this end, Puntos uses its weekly television social soap series *Sexto Sentido*³ [Sixth Sense] as a launching pad for a multi-media, multi-level communication for social change strategy called *Somos Diferentes, Somos Iguales* (SDSI hereafter) [We're Different, We're Equal]. The strategy combines entertainment-education programming, youth leadership training, strategic alliances between multi-sectoral partners, and strengthening of ground-based social movements to promote change in Nicaragua.

In spite of its growing recognition as a cutting-edge social change organization,⁴ Puntos has struggled to theoretically frame

³ Sexto Sentido is the first Nicaraguan-produced "social soap" television series popular in Nicaragua and in the rest of the Central America. Its last episode was broadcast in Nicaragua in June 2005. Currently the series is being repeated in its entirety (80 episodes) on local television stations around Nicaragua, several other Central American nations, and the U.S. through Dish Net Latino, a satellite television service. The program is also now available for viewing, in Spanish, on broadband from the Puntos' website.

⁴ Puntos de Encuentro's communication strategy and its Sexto Sentido television series has won numerous international awards and recognitions including the 2002 "Freedom Award" at the Gay and Lesbian International Film Festival in Los Angeles; and the 2004 Hollywood "SHINE Award" for its excellence and its positive approach to sexual health and rights. Puntos' strategy "Somos Diferentes, Somos Iguales (SDSI)" has being

and justify its outreach strategy. Traditional log frames, planning models, impact indicators, and research methods used and required by donor agencies to evaluate the impact of social change initiatives are steeped in behavior change communication (BCC) theories and methods, and respond to the often unquestioned, standard criteria that many scholars, researchers, and grantors have established to measure, and thus legitimize, project outcomes and by proxy, their own agenda. However, rarely do these "given" tools, models, or framework question the linear assumptions guiding social change processes.

Despite the existence of numerous theories documenting how social change occurs (e.g. Rogers, 2003; Chirot, 1994; Smith, 1993; Boudon, 1983), there is no general agreement about what we mean when we say "social change," how we define *desirable* change, how change happens, how it should be promoted, and how best to measure it. As a result, contradictions arise when organizations such as Puntos approach social change as a non-linear, messy and *complex* process while most donors, social scientists, and practitioners approach it as if it were predictable, linear and prescriptive⁵.

But, as long as the hegemony of behavior change theories and models persists, and despite ongoing debates that have led to a search for new approaches to facilitate change, organizations that use communication for social change strategies struggle with the pressure to survive, be sustainable, and to continually demonstrate—with legitimized standards and indicators—their "success" in order to compete for funds necessary for their work. Therefore, needed are new theories and methodologies that respond to the notion of

endorsed by IDB, UNIFEM, World Bank, USAID, and UNFPA as an effective means to address youth and social issues around the world, and several of Puntos' media and lifeskills materials are being used and adapted in several Latin American countries.

⁵ For more on this debate and alternative approaches to communication for social change, visit the Communication for Social Change Consortium's website: www.communicationforsocialchange.org and the Communication Initiative' website http://www.comminit.com

social change as a complex, nonlinear, contradictory, emergent and self-organizing process, instead of address it as a complicated one.

To understand the messy process of social change, we turn to Complexity Science for it provides insights that are not so easily derivable from traditional, behavioral social science conceptions of social change. Complexity Science includes the study of complex social phenomena, especially those that involve multiple interactions between various agents and actors over time, with less than predictable outcomes. Since Complexity Science is increasingly used as a framework to analyze complex interactions between various actors in systems such as stock markets, human bodies, forest ecosystems, manufacturing businesses, immune systems, termite colonies, and hospitals (Singhal 2006; Stroebel et al., 2005; Singhal, 2005; Allen, 2003; Brockman, 2003; Plexus, 1998; Rainey, 1997; Kickert, Klijn, and Koppenjan, 1997), we argue that Complexity Science can also provide a theoretical framework to analyze Puntos' communication approach to social change.

This paper seeks to contribute to a deeper understanding of the workings of Puntos by providing an alternative way to frame its quest and strategy. In so doing, it raises questions for development organizations, grant makers, and researchers to think out of the box –and from a new perspective– about the complexity of communication for social change processes and interventions. The paper is organized in five sections. First, we describe the challenges raised by theories and methodologies that drive the work of most development agencies and organizations. Second, a brief introduction is provided to key tenets of Complex Adaptive Systems that guide this analysis, contextualized to Puntos de Encuentro's establishment and mission. Third, we discuss our data collection method and the case studied. Fourth, we analyze how Puntos' work intersects with the key tenets of complex systems. The concluding section summarizes the insights gleaned from this analysis, and raises questions and reflections for communication and social change scholarship and practice.

CHALLENGES POSED BY THE DOMINANT DISCOURSE ON SOCIAL CHANGE

Communication for social change strategies that use narrative formats (such as television and radio soap operas) have become increasingly popular in Latin America, Africa, and Asia (Tufte, 2005; Singhal et al., 2004). They have been instrumental in educating people about sexual and reproductive health (Mai, Do & Kincaid, 2005; Piotrow et al, 1997), gender inequality (Goldstein et al., 2005; Shefner-Rogers & Sood, 2004), and basic and nonformal literacy (Singhal and Rogers, 2002; 1999). Most of these strategies, commonly-referred to as entertainment-education, have for the most part been guided by a dominant behavioral change approach to health promotion (Sood, Mennard & Witte, 2004) premised on the thesis that "over time the beliefs and behavior of individuals who share the same information will change and converge toward a state of 'greater cultural uniformity'"(see Kincaid, 2000).

According to Bradshaw (2006), the behavioral change models used by many development agencies come from health organizations that primarily use cause-effect (linear) approaches to solve population problems. Many are premised on the Theory of Social Learning and Cognition (Bandura, 1986, 1977), the Theory of Reasoned Action (Fishbein and Ajzen, 1975, 1981), the Health Belief Model (Janz and Becker, 1984), and the Theory of Planned Behavior (Hale, Householder, & Greene, 2002; Institute of Medicine, 2002; Ajzen, 1991, 1985), which are often combined in health communication interventions (Waisbord, 2001; Airhihenbuwa and Obregon, 2000; Rimer & Glanz, 1995) and pledge predictable and controllable changes.

Positive results —even if modest, conditional, and partial—suggested by program evaluations that were guided by these frameworks have created expectations of regularity and predictability about social change. That is, the prevailing notion has been that there are "effective" ways to change societies. Consequently,

many organizations (especially international aid organizations and donor foundations) use such concepts as "best practices" to reinforce the idea that successful experiences in one setting can be replicated in different settings. Traditional cause-effect approaches in communication for social change conceive change *for*, and not *by*, the community targeted for change (Dutta, 2006). As Bradshaw et al. (2006, p.4) state:

The notion of change being promoted appears to be one agreed to be a good thing for the majority, if not agreed as good by the majority {...} Viswanath and Demers (1999: 15) have likened the notion of change underlying early communication initiatives as akin to that inherent within Modernization Theory.

Actually, there might be value in understanding entertainment-education initiatives that have "not gone as well" —as per the accepted standards of "success" —as has been the case, for instance, for projects addressing complex issues such as gender inequalities, domestic violence or HIV prevention— that have produced contradictory results (Bradshaw et al. 2006; Dutta 2006; Papa, Singhal, & Papa, 2006; Usdin et. al., 2006; Muirhead, et al. 2001; Singhal & Rogers 1999; Yoder, 1996). A closer look at these experiences could provide us with deeper clues about how social change happens (or does not happen).

Complex Adaptive Systems are history and context dependent; they learn new strategies from experience and are shaped and influenced by where they have been. While it is important to recognize *what works* to promote social change and use it as an inspiration for other interventions, it is risky to scale up and/or replicate successful interventions it in a new context. Even in the same locality, a single intervention would unlikely have the same results twice⁶. The environment and the community

⁶ Over the past 20 years the field of public health has been driven by the notion of evidence-based interventions. However, Kemm (2005) warns that in some cases this

are constantly changing and social actors, unlike robots, do not react in exactly the same way. So instead of looking for *the* formula for social change, it may be more helpful to understand the *processes* that led to interventions that produced positive results (Plexus, 1998, p.9).

Boudon (1983) notes that the "impressive" array of cases, where prediction derived from theories of social change failed to yield expected outcomes, have led to a general disenchantment with such theories. Scientists have developed theories based on mental constructs derived from the study of macroscopic regularities, but erroneously these mental constructs are operationalized as empirical "laws" about social change. Instead, Boudon argues, they should be taken as models that can be applied to social systems while being open to the possibility of contradictions, inconsistencies, and paradoxes.

Complex problems like social change disturb us "because their characteristics are not reducible to their constitutive parts. When solved, the solutions do not function as recipes, which can be applied to other like problems" (Glouberman & Zimmerman, 2002. p.7). Wholeness matters. As Complex Adaptive Systems, societies—made up of unpredictable and uncontrollable people—do not respond to general laws. Yet, while social change is complex and incoherent, it is not unintelligible.

SIMPLE, COMPLICATED AND COMPLEX PROBLEMS: WHAT COMPLEXITY SCIENCE CAN CONTRIBUTE?

Complexity Science is not a single theory; it is a combination of various theories and concepts from different disciplines (biology,

approach must be qualified to accommodate relevant dimensions of public health that could not be controlled in some of the most commonly used research methods used in clinical practice and medicine. Kemm emphasizes the importance of context, whereby evidence-based interventions might be effective or not depending upon the context in which they are introduced and the type of issue addressed through an intervention and calls our attention to the challenges of taking "communities rather than individuals as our unit of analysis" (p.322).

anthropology, economy, sociology, management, and others) that deals with the study of Complex Adaptive Systems (CAS). All terms in CAS are highly significant: 'Complex' implies diversity —a great number of connections between a wide variety of elements. 'Adaptive' suggests the capacity to alter or change—the ability to learn from experience. A 'system' is a set of connected or interdependent things. From this definition it is possible to approach organizations, communities and societies as Complex Adaptive Systems.

According to Complexity theories, there is a difference between *Simple*, *Complicated* and *Complex* Systems. Glouberman & Zimmerman note that for addressing *simple* problems –take cooking for instance— a recipe of various ingredients is essential: "It is often tested to assure easy replication without the need for any particular expertise. Recipes produce standardized products and the best recipes give good results every time" (2002, p.6). Furthermore, to address *complicated* problems, like sending a rocket to the moon, they argue that formulae or recipes are critical and necessary, but are often not sufficient. "High levels of expertise in a variety of fields are necessary for success. Sending one rocket increases assurance that the next mission will be a success. In some critical ways, rockets are similar to each other and because of this there can be a relatively high degree of certainty of outcome" (p. 6).

By contrast, raising a child is defined as a *complex* problem:

Here, formulae have a much more limited application. Raising one child provides experience but no assurance of success with the next. Although expertise can contribute to the process in valuable ways, it provides neither necessary nor sufficient conditions to assure success. To some extent this is because every child is unique and must be understood as an individual. As a result there is always some uncertainty of the outcome. However, the complexity of the process and the lack of certainty do not lead us to the conclusion that it is impossible to raise a child (p. 6).

Complexity Science seeks to understand how CAS work, the patterns of relationships within them, how they are sustained, how they self-organize and how outcomes emerge. It provides us with insights to better understand how complex social systems work and change, and invites us to examine the unpredictable, disorderly and unstable aspects of organizations and societies. So instead of describing how systems *should* behave, Complexity Science focuses the analysis on the interdependencies and interrelationships among their elements to describe how systems *actually* behave (Flynn, 2004). In this sense, it addresses aspects of living systems that are neglected or understated in traditional social change approaches. The questions asked by Complexity Science do not seek to find a way to predict and control, but to understand how living systems work thus enhancing their potential for change. (Plexus Institute, 1998)

There are several principles shared by Complex Adaptive Systems that help us to understand how complex systems work and change. The key tenets of Complexity Science include (1) the whole is greater than the sum of the parts; thus living phenomena cannot be understood by studying the parts; (2) that living units —e.g. social systems— are adaptive systems that are unpredictable and highly history and context dependent. Yet we can comprehend social systems through the patterns of behavior (principles) they seem to share. Some of these principles are: (1) Order is emergent and self-organizing, (2) The system changes when it chooses to be disturbed, (3) Free flow of diverse and meaningful information is essential for the system to evolve, and (4) Life is cluttered, full of paradoxes, and seldom does the either/or binary logic hold water in social systems⁷.

As noted previously, to understand the unpredictable nature of social change and explore how a particular living system behaves,

⁷ For the purpose of this paper, we have listed those that we found more useful to illustrate the notion of social change promoted by Puntos and its intuitively application of complexity-based approaches. Each of these principles is broadly described and discussed in the results section of the paper.

we analyze the experience of Puntos de Encuentro in Nicaragua. Given Puntos' mission, the organization affords an opportunity to illustrate the processes associated with communication interventions designed to facilitate social change. The following questions frame our inquiry: 1) What are the main challenges faced by Puntos in justifying its social change theoretical framework and strategy? 2) What additional (or different) insights does Complexity Science provide us to understand and explain social change processes based on Puntos' case? And 3) To what extent is the Complexity Science view of social change apparent and/or reflected in Puntos' discourse and work?

A CASE STUDY OF PUNTOS

We use the case study method to analyze Puntos' work. Several scholars argue that the case study approach is appropriate for exploratory, descriptive, or explanatory purposes. Case studies have been used to describe processes (Lawrence & Hardy, 1999), generate theory (Brown & Eisenhardt, 1997), and test theory (Yin, 1989). Complexity theorists also favor the case study approach as it enables the researcher to study a phenomenon as an integrated whole, looking at the various agents and their interactions over time (Anderson et al., 2005).

Our study draws upon a variety of data collection techniques. It included a desk review and analysis of Complexity Science's literature, and academic renderings of similar communication for social change initiatives. One of the present authors, and former member of Puntos, conducted ten semi-structured interviews⁸ and six focus group discussions in Managua, Nicaragua (Puntos' headquarters) with members of Puntos' programmatic teams (coordinator of *La Boletina* publication, the radio magazine, the television program *Sexto Sentido*, youth camps, strategic partnerships,

⁸ All translations were made by the main author of this paper.

and monitoring and evaluation), in-depth and informal interviews with the heads of the programmatic areas, and participant observation at Puntos' headquarters. Our study also includes an analysis of relevant internal documentation (internal essays, conceptual framework, grant proposals and institutional reports), and strategic plans, project reports, and external evaluations. Most importantly, this author could bring in her own unique reflections and experiences from the perspective of being a Puntos "insider" for over a dozen years, and an "outsider" during the past three years. The other authors could view Puntos' communication for social change approach in the larger context of existing literature, including the limitations therein.

Due to the active role of one of the first authors in the design and implementation of Puntos' communication strategy⁹, the present analysis is primarily one of an "insider" or *emic*¹⁰ (Agar, 2005). Her close relationship with Puntos and its officials allowed her to create a safe and trusting space to explore and debate sensitive issues, and to facilitate collective reflections about the gaps and challenges in the implementation and evaluation of Puntos' strategic vision and strategies that otherwise might have been difficult to achieve. To have greater assurance about the claims in this paper and a minimum level of validity and reliability of our analysis and findings, key informants from Puntos and three academic peers¹¹ were asked to review the draft case study report.

⁹ In 1992 Virginia Lacayo was involved in co-creating, co-producing, and hosting Puntos' radio talk show (today called Sexto Sentido Radio). She also co-created and became executive producer and director of the television series, Sexto Sentido (Sixth Sense). Later, she coordinated and directed Puntos' many activities including the design and implementation of the whole communication strategy.

¹⁰ Emic and Etic are common terms in anthropology which permit the distinction of the insider's and the outsider's perspectives, respectively, and which Agar (2005) interprets as "the differences that make a difference" to the insider (emic), vs. differences that the outsider believes matter (etc).

¹¹ Sara Bradshaw, PhD and a professor at Middlesex University, UK, Andrea Lynch, graduate student at Institute of Development Studies, University of Sussex, Brighton, England; and Yerina Rock, M.A in social anthropology at Cambridge University, UK are collaborating with Puntos' systematization process, and kindly revised the draft of this paper.

While a set of questions that attempted to explore how Complexity Science was reflected in Puntos work were developed, each discussion took a form of its own in order to allow a free-flow of ideas and let participants dictate the direction of the discussion. Warm-up, break-the-ice questions were asked to engage participants before moving on to more specifics issues. Guiding questions focused on the interviewees' description of their role in *Somos Diferentes, Somos Iguales* (SDSI); the "vision" and "mission" of their programmatic area; main achievements, although not necessarily those reported in Puntos' reports; achievements that made Puntos proud, especially those unplanned achievements or achievements not necessarily reported to donors; specific contributions of each unit to SDSI (different from their prescribed role in SDSI); and key moments of crisis/learning.

One of the challenges for the participants was to avoid the use of an institutional discourse. The fact that the interviewer was an insider turned out to be an advantage; she could identify institutional language as such, and could thus broaden the scope of the discussion. Participants were encouraged to more profoundly reflect on their work, explore new angles, and question issues and circumstances normally taken for granted. Whenever participants made references to issues, processes, contradictions that connected with elements of Complexity Science, then probing questions were asked to explore more in-depth these issues. Notes taken after each session were reviewed and questions that allowed further exploration of complexity principles were formulated in subsequent sessions. In certain cases, informal interviews with team members were conducted to explore some of these issues individually. Interviews with the cofounder and the executive director were less structured. Rather, they were open conversations to discuss some of the preliminary findings –contradictions; reflections- and explore more in-depth the presence of complexity insights in Puntos' work.

Data analysis followed several steps, in line with interpretative analysis of qualitative data. It included a combination of options.

Complexity Science principles were organized into key thematic areas, illustrated by "examples" of Puntos' work, and examples of Puntos' work in turn helped to shed light on the complexity principle. A preliminary version of the analysis was circulated to a group of three external reviewers who provided valuable feedback, some of which was incorporated into a second version. This was followed by several rounds of reflection and revisions by the present authors.

PUNTOS DE ENCUENTRO: VISION, MISSION, AND COMPLEXITY-BASED STRATEGIES

Puntos was formally established in 1991 as a feminist social change organization working in the realm of communication, research, and education, and dedicated to promote individual and collective autonomy as also empowerment of young people and women (Hernández and Campanile, 2000). Its institutional strategies were designed to: (1) promote social dialogue to influence the issues being discussed, influence the way those issues were being discussed, and influence who participates in the discussion; (2) link the personal and public sphere in ways that the analysis of personal experiences could feed and improve collective actions; (3) strengthen individual and organizational leadership capacities, especially of women and youth; (4) promote social movement building through the creation and strengthening of alliances between organizations and foster collective actions; (5) promote formal and informal systems of social support for individual and collective actions; and (6) design, create, and implement its own mass media programs to influence public opinion, promote critical thinking, and bring about attitude and behavioral change toward more equitable relationships (Bank, 1997; Puntos de Encuentro, 2006).

Puntos' social change strategy works on the ground in the following manner: Consider a young woman living in northern Nicaragua who watches *Sexto Sentido*, a weekly television soap opera

broadcast on weekends on the national TV station, then watches again the re-broadcast of the program on the local channel, then listens to, and calls in to, Puntos' radio show during a weekday to express her felt opinions and exchange ideas with other young people on issues that concern her. Through the radio show and billboards prominently displayed in her locality, she finds out about organizations that address these social issues, is motivated to participate in their activities, and seeks needed services within her community. She talks more about social issues that concern her with her classmates, especially when the cast of Sexto Sentido radio and TV programs visit her school as part of its regular tours. Finally, as a member of a youth organization, she participates in one or more of the workshops and/or camps led by Puntos around the country. Here she is involved in deeper discussions on the topic, and acquires skills and materials to take these issues back to her local community. The community, meanwhile, has likely developed, over time, a more favorable public opinion on the social issues given the coverage it received on the national and local media, and the buzz arising from the collaborative efforts of partner organizations on the ground¹².

Change is a Nonlinear, Contradictory, Messy, and Long-Term Process

For Puntos, change happens, when it does, as the result of the interaction of multiple elements in the system. Individual behavioral change is only one kind of change. Change in policies, social organizing, strengthening of civil society, individual and collective self-efficacy, and other areas represent a complex web of variables influencing the process of change. For Puntos, "social

¹² Sexto Sentido TV captured 70% of the TV watching audience during its timeslot during the whole four seasons. Sexto Sentido Radio (originally called "A young program without name") was the first radio talk show targeting young people in Nicaragua at it reached the number one position of audience rating in its first year on air.

change must be a goal beyond achieving personal change and personal change must also be a goal for social movements [and their mission] is to help people make the links and meet these challenges" (Puntos de Encuentro. 2004, p.11). Puntos' goal then is to promote new values, attitudes, and patterns of social and interpersonal relationships based on the principles of inclusion, respect, solidarity, non-violence, cooperation, and diversity with equity. It firmly believes that people and societies can decide by themselves the kind of change they want, and fully participate in the debate and decision-making processes that affect their life (Puntos de Encuentro, 2004).

COMPLEXITY SCIENCE AND PUNTOS' EXPERIENCES

Complexity idea N° 1 The Whole is Greater than the Sum of the Parts

Puntos started its communication activities by producing its own media outlets: a feminist magazine, a youth radio show, and then more integrated mass media and communication campaigns to address social issues. However, according to Bank (2002), *Somos Diferentes, Somos Iguales (SDSI)* evolved as a result of lessons learned by Puntos in its first ten years of work. From such reflections Puntos grasped that short-term, single-issue campaigns although "very useful and often the best way to raise initial awareness and break the silence on difficult topics — such as violence and reproductive health — were not necessarily the surest way to achieve deep and sustainable individual and social change" (p.2). This approach is not only a matter of cost-effectiveness, but also of realism (Bank, 2006).

In the "We need to be able to talk" campaign, we were not only unknotting issues like HIV/AIDS and sexual abuse, accompanying our young audience through the process of denial, decision making and social support network building, but also we were promoting "acts of courage" (like denouncing

the abusive grand father or speaking out about being HIV positive) and linking these issues with sexism and other forms of oppressive power relationship as part of our vision that everything is interconnected and that we can not approach one form of discrimination and oppression with out approaching all the others (Bank, 2006, p3).

It was in this poly-thematic and methodological integration that Puntos' found its "aha!" moments. Puntos saw first-hand the value-added benefits of having media and communication campaigns accompanied by training materials, on-the-ground collaboration with organizations, and partnerships with local media and services providers in targeted locations (Bank, 2002). The fact that Puntos emphasizes the importance of social movement building and alliances also reinforces the complexity idea that the quality of the relationships is more important for the evolution of healthy system than the quality of the individual agents.

This complexity-based idea is often seen in team sports. "The team with the best individual players can lose to a team of poorer players. The second team cannot rely on one or two stars but instead has to create possibilities that go beyond the talents of any one individual. They create outcomes based on the interrelationships between the players, while not being dismissive of individual excellence. Individual abilities are thus not perceived as a complete explanation of success or failure." (Plexus Institute, 1998, p. 7).

In this sense, Puntos believes that social change results from both individual and collective change. Individual leadership is critical to push change forward, but Puntos also knows that "One robin doesn't make spring" and social change won't happen without collective action. According to Cortez and Jirón, two members of Puntos, the continual exchange of material and information, the bilateral and multilateral support between Puntos, its allies, and other organizations strengthen the capacity of the social movements to make a deeper analysis of the political and social context, to improve their own performance and outcomes through

feedback, to lobby for changes in existing policies and laws, and to implement nationwide campaigns and interventions.

Based on these premises, Puntos' strategy of Somos Diferentes, Somos Iguales (SDSI) combines popular mass media appeal, on-going coverage and environment-enabling benefits of television and radio shows, support of the local media, community mobilization and coordination of alliances with over 200 organizations, training activities, interpersonal reinforcement mechanisms and links with service delivery, ongoing monitoring and evaluation, and dissemination of results (Bradshaw et al., 2006; Bank, 2006). "We believe the magic is in the mix", Bank concludes, "because then you have both individual AND social change catalysts operating simultaneously and over time. You get the benefits of both big scale and more concentrated face-to-face reinforcement at the local level. And, you can still do specific thematic campaigns for awareness rising. The results is that the synergy of the integrated whole is definitely more than the sum of the parts" (Bank, 2002, p. 4).

Complexity Science Idea N° 2 Order is Emergent and Self-Organizing.

An example of a complexity principle applied to Puntos' work is the case of the distribution network of *La Boletina*, the organization's national feminist magazine designed to share news and promote dialogue within the growing Women's Movement in Nicaragua. *La Boletina*'s circulation has gradually increased from an initial printrun of 500 copies in 1991 to the present 26,000 copies, making it the largest circulation magazine in Nicaragua. This growth may be explained because *La Boletina* is free of charge and it is distributed by hundred of volunteers that travel long distances in buses and canoes to Managua to pick up packages of the magazine, and they hand carry them to towns and villages all over the country to be distributed to local groups. These groups then distribute the magazine to smaller groups in their communities.

The distribution network of La Boletina is a unique phenomenon of self-organization. It works on the principle of solidarity and is sustained by mutually supportive relationships between women's groups. Existing women's organizations in the community took the initiative to photocopy and distribute La Boletina. Distribution was no longer in Puntos' control. What began as a haphazard handing out of "bootleg" copies of La Boletina evolved into a large, complex and continuously adapting network. This absence of centralized control in the distribution of La Boletina provides a lot of freedom for emergence, but it also has ironically jeopardized its own existence. The lack of control exerted by Puntos over the delivery and use of La Boletina makes it hard to demonstrate its impact as per the indicators established by donors. Donors have pressured Puntos to increase its level of control over the magazine by, for instance, charging a price. It has been difficult for Puntos to justify to its donors how this action might actually "kill" the most important distinctiveness of La Boletina: its volunteer-self-organized distribution network and the self-acclaimed collective ownership that women's group have over the magazine.

Complexity Science values this lack of centralized control as an essential quality of healthy systems. The most illuminating paradox of all is that in Complex

Adaptive Systems, order is emergent and self-organizing. In a healthy Complex

Adaptive System, control is distributed rather than centralized which means that the outcomes emerge from a process of self-organization rather than being assigned and controlled externally by a centralized body. Order emerges from the interactions among the individuals. It results as a function of the patterns of interrelationships between the agents, and it is characterized by unpredictability, and an inability to state precisely how the interrelationships between the parts will evolve.

Complexity idea N° 3 The System Changes when it Chooses to be Disturbed.

Another principle of Complex Adaptive Systems —the system changes when it chooses to be disturbed by the information it receives— is appealing. The system will choose to be disturbed when the information adds new meaning to what exists. In other words, the system becomes different because it understands the world differently. It is not just the intensity or frequency of the message that gets our attention; but mostly how meaningful the message is to us personally. The key word here is "choice"; the system "chooses" to be disturbed by something it considers meaningful. People do not want to be bossed; they want information so they can, when they can, make their own choices and decisions.

That is where Puntos' strategy is fundamentally different from most other behavior change communication initiatives. First, instead of following the general advice "keep it short and simple," Puntos believes in making it "long and complicated." This allows Puntos to show how social issues are closely interrelated with each other, and how people often engage in contradictory behaviors. For instance, during the first season of Sexto Sentido, we saw Sofia, a main character, dealing with an unplanned pregnancy and deciding to keep the baby even though she rejected her boyfriend's offer to marry her. In the same season, Alejandra, another main character, is desperate to lose her virginity as a reaction to her over-controlling parents. Alejandra engages in unprotected sex while drunk and the storyline was used to bring in the emergency contraceptive pill as an alternative in those situations. Two episodes later Frankie, another female character, is raped by a stranger in the street. As a consequence, she becomes pregnant and has to contend with everyone's opinions before deciding to get an abortion. Sofia, the one who chose to keep the unwanted pregnancy, supports Frankie, showing how each woman and each decision is different, and should be analyzed in all its complexity and uniqueness. Also, the story of the emergency contraceptive pill intersected with Frankie's

rape and abortion story when Sofia helped Frankie to analyze her options until they both realized that it was too late.

This example illustrates how Puntos applies its conviction that people have the right to decide what kind of change they want/ need in their life, so rather than presenting behaviors as 'good' (modeling them as "socially desirable" or advancing them because they are endorsed by international donors and population control organizations), Puntos promotes the right of each individual to make informed decisions and to take responsibility for these choices. Puntos does this by providing a variety of ways to analyze and deal with different realities and issues.

Complexity Idea N° 4 Free Flow of Diverse and Meaningful Information is Essential for the System to Evolve

In order to make decisions about their life, people need to reflect on their condition. Bringing in diverse and meaningful information about alternatives is essential to this process. Providing information alone is far from being enough to achieve social change. Yet, Complexity Science suggests that the relationship the system has with information, particularly to new and disturbing information, is essential for its evolution. (Wheatley, 1999). Diversity and participation are key elements to promote the kind of democratic and participatory change Puntos espouses. Diversity means not only to have different voices discussing an issue, but also to address issues that are generally considered taboo, or too sensitive to discuss. Participation means creating an environment so that everyone can feel comfortable sharing opinions and feelings. But it is not just about what information is being shared, but who is sharing it. The greater the variety of people who share ideas, the greater the opportunity exists for new associations to form, and new patterns of meanings to propagate (Wheatley, 1999).

Having its own media outlets gives Puntos the kind of autonomy it needs to promote dialogue and debate, and to provide a space for diverse and marginalized voices to be heard and legitimized, as well as to have a permanent space to share ideas and information without being tied to commercial considerations (Bank, 1997). This relative autonomy also has allowed Puntos to address sensitive issues (e.g. abortion) which commercial media do not touch for it goes against the dominant conservative ideology. Lynch (2006) describes this phenomenon in very simple words:

In Nicaragua, where a conservative government and a Catholic hierarchy, both deeply hostile to reproductive rights {...} Sexto Sentido broke all the rules of conventional development communication (Bradshaw et al, 2006), taking on the controversial topics of abortion, homosexuality, emergency contraception, rape domestic violence, racism, homophobia, disability rights, substance abuse, single motherhood by choice, and youth sexuality — all the while presenting positive images of young people fully engaged as competent, capable decision-makers in every aspect of their lives" (p. 1).

External evaluations of Puntos (Montoya et al. 2004; Carrión and CIET Internacional, 1996) suggest that this orientation of Puntos has positively influenced its audiences. By talking with peers that have different experiences and perspectives in life, young people can engage in a healthy debate and exchange of information about alternative approaches and solutions to their concerns. The same way, Puntos has trained young communicators in media production so they can start these kinds of debates in their own communities.

This multiplier effect, comprising of multiplied messages in multiple locations, contributes to fostering social change over time. "In nonlinear systems, iteration helps small differences grow into powerful and unpredictable effects" (Wheatley, 1999, p.122). Iterations are important as ongoing debates around important issues create a favorable public opinion toward discussing difficult topics. At the same time, the legitimization of such topics in the public sphere, contributes to the ground-based efforts of local organizations that work on those issues. "When the system is far from equilibrium, singular or small influences can have enormous

impact. It is not the law of large numbers or critical mass that creates change, but the presence of a small disturbances that gets into the system and is then amplified through the network" (Wheatley, 1999, p. 87).

Complexity Science Idea N° 5
Life is Cluttered, Full of Paradoxes, and the
Binary Either/Or Logic is Unhelpful

One of the questions communication practitioners commonly ask in strategy sessions is what's the right message to solve the problem? Is it this or that? Such binary thinking in a complexity framework is unproductive as both sides of many apparent contradictions can be true and equally valid (Plexus, 1998, p.14). Showing complex and contradictory behaviors, instead of stereotypical ones, may not make for a short-and-clear message, for example, bad guys lose, and good guys win. However, the complexities and contradictions allow audiences to reflect more deeply about their attitudes, behaviors, and options. It shows that people aren't good or bad, but often both. We all make mistakes and make bad decisions, but we can reflect on them, learn from them, and change.

Not having stereotyped characters in television or radio soap opera scripts doesn't mean that characters who make mistakes or hurt other people do not have to deal with consequences of their actions (Weinberg, 2006). In the case of Alejandra having unprotected sex, her 'un-healthful' actions were not 'rewarded', but they were not unduly 'punished' either. As Bradshaw et al. (2006) explain, "The storyline was used to promote [the idea that] young women [should] think more critically about their own aspirations, actions and decisions and to take control of their own lives" (p.11). So what matters most to Puntos is the reflective process that accompanies the characters' mistakes and decisions. The kind of mistakes that *Sexto Sentido's* characters make, are often the type of mistakes that real people make.

So Puntos deliberately put on the national agenda the issue of the emergency contraception pill (also called "morning after pill") as also the taboo topic of abortion. The purpose was not to convince people about what is right or wrong, but to urge people to think for themselves, and open their minds to new possibilities, other ways of living, and solving their problems. Puntos believes that people can make their own decisions. They don't have to let other people or social norms dictate what's right for them.

In this sense, the creation of the television soap opera Sexto Sentido, which became the centerpiece of Puntos' strategy Somos Diferentes, Somos Iguales (SDSI), was a key step. Entertainmenteducation formats such as television soap operas, given their rich multi-pronged narratives, represent effective means to address complex and interrelated issues (Singhal, et al. 2004). In line with elements of social learning theory, but applied in a different way, Bank (2002) argues that the engaging nature of mass media narratives assures audience popularity; emotional identification, role modeling that promotes efficacy; intertwined and on-going storylines that allow complex and layered treatment of multiple themes (like sexual abuse and machismo, or abortion and the emergency contraception pill); long-term, repeated exposure to different aspects of the same theme; and other gains. Further, Puntos adoption of engaging television narratives is consistent with the value that Complexity Science places on story telling as a way to understand complex social problems. As Wheatley (1999) states "any process that encourages nonlinear thinking and intuition, and uses alternatives forms of expression such as drama, art, stories and pictures [...] leads us to new ways of comprehending" (p. 143).

CONCLUSIONS

In this paper we discussed how Puntos de Encuentro, a Nicaraguan communication for social change organization, endorses the notion of social change being a nonlinear, contradictory, messy, emergent, self-organizing, and long-term process. Social change happens as the result of interaction of multiple elements in the system over a long period of time and at different levels (individual and

collective, local and national). Social change goes beyond achieving personal change, while personal change must also be a goal for social movements. Puntos' mission is to help people make this connection and find the tools and skills needed to achieve these challenges.

Toward this end Puntos uses a poly-thematic, multimedia and multi-method strategy to influence the social context in which individuals and communities act and in which discussion about different aspects of daily life –public and private—occurs. However, this approach is quite innovative in the field of communication for social change, and Puntos has to struggle with preconceived notions of social change as linear, controllable and predictable outcome. Such notions, endorsed by many donors and scholars, and supported by behavioral change and modernistic theories of social change as well as positivistic approaches to social research and impact evaluation, are legitimized by notions of "best practices" in the field.

The need for new theories and approaches that could help us better understand how social change happens, and what role communication plays in this process, is paramount. This paper has been an attempt to contribute to that effort by providing insights derived from Complexity Theory as a framework to analyze Puntos' strategy, and to examine how Puntos has intuitively applied basic principles of Complex Adaptive Systems in its work. This is particularly critical at a time when there is increasing recognition that short-term interventions can only produce short-term results and that what are needed are efforts that not only seek long-term change but also seek to tackle the underlying causes of underdevelopment (gender imbalances, social inequalities, unequal distribution of resources, to just name a few).

Our analysis suggested several ways in which Puntos understands and incorporates tenets of Complex Adaptive Systems in its work. It is mindful of history and context dependency, non-linearity and paradoxes, the supremacy of the whole over the sum of its parts, the relevance of the quality of the relationships and

interactions, the benefit of decentralized control for order emergence and self-organization, and the importance of a free, diverse and participatory flow and iteration of meaningful information for the system to change and evolve. In fact, some of the most profound social changes in human history have been at best unpredictable and disorderly. Therefore, a communication for social change approach framed in Complexity Science concepts should be an alternative to our array approaches to promote change.

The present authors are aware that some of the issues discussed here are not totally new. Indeed, some of the 'answers' proposed by Complexity Science are not new. But as some Complexity theorists state, "in many contexts, these 'answers' were not explainable by theory (Plexus 1998, Allen, 2003). They were the intuitive responses that were known by many but appeared illogical or at least idiosyncratic when viewed through our traditional scientific theories. Complexity Science provides the language, the metaphors, the conceptual frameworks, the models and the theories which help make the idiosyncrasies non-idiosyncratic and the illogical logical. It also provides a rigorous approach to study some of the key dimensions of organizational life (Plexus, 1998).

There is still much more to learn from, and understand about, Complex Adaptive Systems and Complexity Science, as well as much more to understand about social change. Complexity Science is still in development; perhaps even in infancy when applied to social systems. Debates about complexity-based indicators and research and evaluation methods are strongly needed in order to be able to provide communication for social change strategies and interventions with better instruments. However, Complexity Science applied to social change strategies (such as Puntos') can open our minds, and help us to look for different ways to do things; to ask different questions; to get different answers; to try different strategies; and to better understand what does work and what doesn't in each context. Above all, Complexity Science can help us understand how and why social change happens. Even if this study only sparks more questions -if they are new ones- that would be a good start.

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