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The ecology of communities in schools, businesses, societies and ecosystems

ABSTRACT

This article explores of the notion of community from a transcontextual perspective that includes the contexts of ecology, schooling, business, society and culture. Critical aspects of communities include diversity, relationships, interdependency, organization as hierarchy or holarchy, identity, epistemology or meaning and participation or function. The article also examines the healthy functioning of communities and how the pathological patterns in relationships can threaten the continuity of communities. In human societies, media and their associated communities play a key role in the flow of information that affects human communities as well as other biological and ecological communities.

KEYWORDS

community
diversity
relationships
interdependency
integrity
holarchy

> These beings '[…] are pursuing their own agendas and appear to be very much in favor of conciliation and equitable distribution of information and resources'.
>
> (Wohlleben 2015: 11)

Figure 1: Jeffrey W. Bloom, Temperate Forest Mushrooms, *1970. Photograph. Phoenix. Personal Collection.*

Who are these 'beings'? People? Apes? Dolphins? No, not in this case. The author is referring to fungi. Fungi not only aid in carrying messages and materials between trees and plants in forests, but also make decisions about how best to keep the forest community in optimal condition – both biologically and socially (see Figures 1 and 2).

In this article, I want to explore the features and dynamics of communities that serve as the contexts for the survival of life on Earth, as well as for the continuity of our social and cultural worlds. Certainly, the notion of 'community' appears in many contexts and at many levels of scale. As such, the exploration of community must be transcontextual – that is, we must examine community from the perspectives or lenses of biology, psychology, sociology, anthropology, education and so forth. At the same time, we may want to consider this notion of 'community' as what Gregory Bateson referred to as a metapattern or a pattern that connects (Bateson [1979] 2002). Ultimately, an informed notion of community may be helpful in coping with the changes that are bearing down upon us.

Diversity

The communities in forests, lakes, marshes, deserts and so forth are all composed of diverse species of bacteria, single-celled organisms, fungi, plants and animals. And, all of these species have different functions (i.e. niches) within the community or ecosystem ('ecosystem' is the biological community plus the non-living environment). Although certain species may be more common than others, no one species is (or group of species or their functions are) more important than any others. In other words, power and control (or 'importance') are distributed and shared among all species in the

community. There also is a certain degree of redundancy so that if one species disappears, another can fill in the gap. But the depth of that redundancy is an issue. If you have too many redundant species, there may be too much competition for limited resources. Too many redundancies also require more energy than are necessary to maintain a stable system. By the way, energy is the currency in biological and ecological systems. So energy resources are limited and will therefore limit features of the community. In general, biological communities and ecosystems cannot sustain the large numbers of extinctions that are occurring now with increasing frequency. The depth of redundancy is not great enough to fill in the gaps left by increases in extinction.

The degree of diversity has upper and lower limits. Too little diversity greatly limits a community's ability to adjust to changing circumstances. This effect of such lack of diversity is true not only of biological communities but of human social and professional communities of various kinds as well. In human social and professional communities, a diversity of perspectives, ideas and skills or abilities is important to creativity and the generation of a variety of possible solutions to problems. Too little diversity in human communities can hinder the abilities of these communities to cope with change and thus survive. Many people seem to have the mistaken idea that conformity and uniformity are 'good'. The religious right thinks life will be better if the whole country is white and Christian (whatever 'Christian' means). But reaching such a goal would ultimately be the death knell for society. On the flipside, people have already removed certain creatures from ecosystems, such as wolves. Farmers' cows and sheep may not fall prey to the wolves, but the entire ecosystem from which the wolves were removed starts to change and collapse. There is more flooding, fewer herbivores and so forth. When the wolves have been re-introduced, the rivers have changed course and damaging floods have been reduced. Herbivore populations have started to return to healthy levels (Gertz 2014; Tobin 2015).

Too much diversity, however, may be too expensive to maintain. Too many of any type of organism in a biological community can be problematic. Having too many types of predators or even too many predators in a community runs the risk of killing off too many prey so that both the prey and predator populations disappear, which then can lead to system collapse. There needs to be an optimal balance in diversity. In most cases, healthy ecosystems themselves maintain a healthy diversity within their communities.

Relationships and interdependency

Communities seem to be created by a need to be with others, a sort of hard-wired drive for social clustering. In ecosystem communities, all of the living things are complexly intertwined in a network of interdependency. In a forest ecosystem, the trees, other plants and fungi are all interconnected. They communicate and exchange nutrients with one another (Wohlleben 2015). If one of the trees is struggling to survive, others will help by sending food. The diversity of individuals within a species is important for the genetic integrity of future generations. However, the diversity of species within the community is important for an analogous reason: the healthy distribution of functions within the community and ecosystem. In a way, this distribution of functions or jobs is very much like assigning responsibilities to different individuals in a social context, such as a business.

Traditionally, most tribal communities made similar sorts of decisions about information and resource distribution among themselves. Such tribal

communities relied on some sense of inherent wisdom, which was often modelled after the nature of ecosystems (Maybury-Lewis 1992; *Millennium*: Tribal Wisdom in the Modern World 1992–present). Gregory Bateson also talked at length about the necessity for human thinking to model the thinking in ecosystems ([1979] 2002). But for the most part, human beings seem to have lost that connection to ecosystems. Greed, selfishness and an overall disconnection with our biological world have changed the way we live and the way we think.

At a fundamental level, we have trivialized the way we think about relationships. We only think about relationships in terms of our social connections and how we can get something from the other person – or how we are threatened by other people. We are stuck in an egocentric feedback loop in our relationships to relationships. We seem to have lost the ability to think about the way in which we live in a world of relationships. As Gregory Bateson pointed out, we 'live in a world that's only made of relationships' Bateson (2010) . From this perspective, everything in our world is in relationship with other 'things' in our world. We are enmeshed in relationships. Yet we do not teach 'relationships' in schools. The entire approach to learning is one of disconnections, where students 'learn' (maybe 'memorize' is a better term) a lot of fragmented pieces of knowledge with minimal connections to anything else. Students can recall enough to perform on tests, and then promptly forget about whatever it was they were supposed to be learning. Students do not learn about how a car is built on hundreds of relationships between different parts, let alone that these parts are related to various mining and processing practices that are done by people, who may be treated poorly and paid poorly, and that these practices are depleting the very resources we have become dependent upon. Students do not learn how cars have dramatically changed societies and global interrelationships. They do not learn how cars (and other fossil-fuel-using devices) have changed the biosphere's carbon cycle and what effect this has on climate, health, ecosystems and so forth.

Not only do we live in a world of relationships but we also live in a world of delicately intertwined interdependencies. If we bomb Syria, this action has cascading effects across numerous other interrelationships that include the psychological effects on Syrians and everyone else in the world; the biological, physical and chemical effects on ecosystems and the biosphere; effects on all sorts of international relationships; effects on the social dynamics within Syria and in other countries around the world; effects on economy, immigration, local and global politics; and so on. And all of these interconnections and ramifications impact the sense of community at all levels of scale. Even though we may be far from the event, we are affected. We hear the news and have an emotional reaction, which is unavoidable, no matter what we may think. The emotional reaction can affect how we relate to other situations and to others in whatever communities we belong. An act of aggression by others can heighten the probability for each of us that we might react aggressively or at least become more tolerant of aggression. Or maybe we may come to abhor aggression more. The point is that when we hear of aggression or any other major type of action, we are affected by such acts. The effects may be subtle, but we are still affected. We cannot dismiss our extensive web of interdependency.

In communities, we need pay special attention to relationships, including relationships with other community members. We should examine these relationships in terms of the purposes or functions of the community, of the

Figure 2: Jeffrey W. Bloom, Aspen Forest Community, *2005. Photograph. Phoenix, AZ. Personal Collection*.

meanings and knowledge of the community and of the contexts outside of and overlapping the community. Such examinations can allow us to get a glimpse of the community's interdependencies.

Developing good relationships can be challenging. Bateson ([1972] 2000, [1979] 2002) discussed three basic types of relationships: (a) symmetrical, or those that tend to be competitive and those that vie for control; (b) complementary, or those that involve dominant–submissive or similar behaviours; and (c) reciprocal, or those that are based on negotiation and equanimity. Both symmetrical and complementary relationships tend to lead to disconnects or schismogenesis, while reciprocal relationships tend to maintain a continuity in the relationship. While reciprocal relationships are the most workable, helping to maintain a healthy and functional community requires not only a manifestation of reciprocity but also a number of other skills and attributes such as empathy, compassion and an ability to mediate conflicts, consistency and so forth. The current partisan battles in the United States are symmetrical relationships that continue to intensify. The result of such battles, as in any other symmetrical relationship, is the collapse of the entire system, which is happening right in front of us. Such dissolutions and collapses do not necessarily occur all at once, but they gradually disintegrate over time.

In smaller community contexts, the same patterns of disintegration and dysfunction can occur. However, in smaller contexts, the effects of certain patterns of behaviour may be magnified. In a number of classes I taught at both the K–12 and university levels where I worked at developing classroom communities, if the number of students with negative (especially symmetrical) attitudes and behaviours was too large (maybe 15 per cent or above), the entire community could collapse, whereas in a large community (in the thousands or millions), the 15 per cent mark may not be sufficient to bring about collapse. In reverse, if 15 per cent of a class is gung-ho positive, they might have a positive effect on the community. But, again, at a large scale, if 15 per cent of the community was positive, this group may have a more difficult time impacting the entire community. However, as with all complex systems, a small action has the potential for much bigger effects. For instance, a friend who works for a national corporation and supervises a certain department across a region of the United States had to fly to another city with the original intent to fire someone. However, when she arrived and started digging into the situation, she found the person who was the 'target to fire' to be just a little irritatingly weird, but also very highly skilled in a particular area. So, instead of firing him, she moved him into a position where his skills could be utilized more fully. This move was skilful in that what was becoming a divisive set of relationships became of positive experience for everyone in that particular professional community.

I have seen how small changes affect classroom communities as well. One teacher thought she was doing the right thing when she moved two boys to separate desks while everyone else worked in groups. Every time she put the two boys in groups, they disrupted the group dynamic. She also gave the two boys the option to join a group at any time, if they felt like they could handle it. However, the boys never moved to a group. Although providing the students with a choice is a good strategy, it still was not addressing the issue of getting the two boys engaged in classroom activities. And it continued to ostracize the boys. However, after a few months, the teacher had a flash of insight. She asked, '[w]hat if I put the two boys together in their own group?'. One boy, who was good at math, had difficulty reading and seemed to act out to compensate for his difficulty. The other boy could read, but had difficulty with math and similarly acted out when faced with doing math in a group. The result was that the two boys were a perfect match. They compensated for each other's challenges and flourished at working problems together. As a result, the boys' learning increased dramatically and they stopped being the outsiders and became productive members of the classroom community.

Relationships in communities make up the basic fabric of any community. Dysfunctional relationships will destroy ecological communities, business communities, social communities and even the global human community. As Bateson discussed, reciprocal relationships are the basis of ongoing autopoietic systems. Even though such relationships may fall into symmetrical or complementary patterns from time to time, the overall pattern needs to be one of reciprocity. However, there are other characteristics of healthy relationships. After many years of my observations of dogs, I can say that one of the most important characteristics of canine friendships (with people and dogs) is *trust*. For most dogs, play is a process of developing trust. The more they trust one another, the more intense the play can become. If a new dog comes up to another dog and plays too intensely, the risk of a fight increases. Not only do dogs have to communicate that they are playing but they also have to

communicate that what appears to be fighting is really just play. This communication is quite abstract and can falter if not done with some skill (Bateson 1976; Bloom 2015). But, just like people, some dogs are much more socially astute and some much less astute. Socially astute people are needed especially in leadership or ecosystem boundary positions. At a global scale of human interactions, trust is difficult to acquire and difficult to maintain, especially as leadership changes and actions that destroy trust continue to occur.

Trust seems to be an extension of integrity. Without some sense of honesty and straightforwardness, trust cannot develop. This connection is true of dogs and true of global dynamics, as well as all the relationships in between and those in ecosystems.

When trust is compromised, we also lose integrity. It works both ways. And one of the biggest threats to the trust and integrity of relationships is when double binds are imposed. Bateson and his colleagues proposed the notion of 'double bind' as a description of the dynamic that occurs when someone or some group is put into some sort of no-win situation […] damned if you do and damned if you do not (Bateson [1972] 2000, [1979] 2002; Sluzki and Ransom 1976). In such situations, trust and integrity in the relationship is destroyed, and the person caught in these situations can find no reasonable resolution. No matter what they do, these people (or dogs or any other organisms) are put into the position of being wrong, being bad, or whatever untenably awful situation it may be. The dog owners who tell their dogs to do one thing, like go play with that dog, then yell at them for biting the neck of the dog they are playing with, put their dogs in double binds. Biting the neck of a dog is a basic play strategy. When dogs are encouraged to play, then reprimanded for playing, they are put into double binds, especially when this continues to happen. I see this all the time, and the dogs are a mess. They usually become very neurotic and decide to never play no matter what their owner does. They just withdraw further and may even become aggressive if other dogs try to play with them. People have similar reactions. Originally, the Bateson group thought double binds were an explanation for schizophrenia, which may be true in some cases (Gibney 2006), but at the very least, double binds destroy healthy relationships. And, like it or not, we all live in a world of double binds. Many work places, as well as our national political contexts, have taken on the characteristics of cultures of fear. We fear for our continued employment or actual freedom. We are afraid to speak up and take a stand, but we are also afraid of becoming subservient and losing our sense of autonomy. We are deeply in debt with student loans, mortgages, car loans and credit cards. We must continue working, despite awful working conditions, and are too afraid to quit. We are enslaved while being told we are free. And every time we think about taking any sort of action, we are faced with the high probability of dire consequences. Double binding situations are destroying communities of all kinds.

Hierarchy vs. holarchy

Ecologists have represented the energy distribution in biological communities as a hierarchy. The most energy per unit of mass or weight is found in plants. They convert sunlight into biochemical stores of energy. Herbivores, such as deer, mice and some birds, eat the plants, but lose some of the plants stored energy through the digestive processes. So herbivores occupy the next level of the energy hierarchy. The same pattern of energy reduction occurs at each

level up to the top-level carnivore. So if you want to eat something with the most 'energy bang for the buck', you need to eat plants or herbivores. If you eat carnivores, you could pretty easily use more energy in acquiring, eating and digesting the carnivores than you would get from eating the carnivore. Cannibalism has never worked as a primary diet, and it would lead to starvation over any extended period of time. In fact, cannibalism was more about symbol and ceremony than about nutrition (Eckholm 1986).

In contrast to the hierarchical nature of energy in biological communities, the social and functional dynamics of biological communities manifest in quite the opposite way. There are rarely any social hierarchies or functional hierarchies. Although it was widely and falsely believed that wolves lived in hierarchical packs, they actually behave cooperatively (Morell 2014). Cooperation appears to be a characteristic feature of biological communities. Even though some species compete for particular resources, when survival for any particular individual or species is at stake, the biological community tends to work to nurture the struggling organisms (Wohlleben 2015). The good of the community outweighs the good of the individual. However, there also is an implication here for the organizational characteristics of such communities. In most human communities, the organization is based on hierarchies, where there is one person or a small group of people at the top and everyone else falls within layers of decreasing power and control below that top layer. This organizational plan is evident in government, business, education, religion and pretty much the whole range of organizations (e.g. Boy Scouts, Girl Scouts, Salvation Army, Greenpeace). However, these biological communities, as well as a few exceptional human communities (mostly in the past, but some in the present), can be viewed as holarchies (Koestler 1979; Volk 1995; Bloom 2010). In hierarchies, the layering is often difficult to see, but the relationships between layers are quite apparent. In holarchies, the layering is embedded. The layers, such as those in the Earth that are visible in road cuts and the Grand Canyon, are usually easy to spot, but the relationships between one layer and another are not so easy to figure out. Biological communities, such as forests, are organized as holarchies. You can see the layers of the tallest trees, shorter trees, shrubs, grasses, mosses and lichens, down to the soil layer and below. In hierarchies, the top layer is the most important or most powerful. In holarchies, no layer is more important than another. The layers may be layers of function, participation or time, but all layers contribute to the whole. The bacteria, fungi, trees, squirrels, bobcats and birds of a forest community all contribute to the welfare of the forest community. Although such communities can adjust to the disappearance of one species, they have much greater difficulty adjusting to the disappearance of multiple species, or to the disappearance of too many individuals of a dominant species. The diversity of individuals within any particular species and the diversity of species in any such community is each critical to the health of the system and the community and to the very survival of both individuals and the community.

Holarchic communities are rare among people, although we do have a history of such organizational plans. In the 1990's documentary series *Millennium: Tribal Wisdom and the Modern World*, and the book by the same title (Maybury-Lewis 1992), most of the traditional tribal communities were organized more towards the holarchic end of the spectrum than towards the hierarchic end. The 'chief' or elders of the tribes were more models of how to be and sources of wisdom than some omnipotent leader(s). Others in the tribe shared in the responsibilities and leadership. Such holarchic communities

have been characterized by distributed leadership, distributed responsibility and a sense of distributed ownership. The present-day Dalai Lama engenders the same sort of distribution of responsibility, which is more consistent with the tenets of Buddhism. He is the model of 'how to be', but not the omnipotent leader. Although many Tibetans revere him as an omnipotent leader, which is always a problem with the human psyche (to have someone real or imagined tell us what to do), he seems to encourage people to take on responsibility for teaching meditation and for practising and spreading the notion of compassion.

However, holarchic communities exist in some classrooms, schools and businesses. In one such classroom, the teacher was the model of how to be a learner, inquirer, knowledge producer, artist, reader, scientist and so forth. Her students (fourth graders, when I visited her classroom) shared in the ownership and running of the classroom. In fact, the day before I arrived, the teacher had been absent and the principal mistakenly cancelled her substitute. So as the children began to gather on the carpet to begin the day, the teacher asked, 'I hear you didn't have a substitute yesterday. […] So, what did you do?'. One girl responded,

> After a while, we realized you weren't coming, so I took the attendance, then took it down to the office. When I got back, we all decided we'd continue reading [a book they were reading]. So we took turns reading, and then we discussed it.
>
> (Bloom 2006: 244)

The whole day became just another day of class, just without the teacher. The principal and other nearby teachers dropped in from time to time, but the kids just assumed control. After all, it was their classroom and their community. This was not some magical event with exceptional kids. Every year, the teacher worked very hard at developing a classroom community. She told me that if her absence had occurred in October, it would have been total chaos. She spent months helping kids develop as responsible co-owners of the classroom. Even as I was wandering around the room later in the day after their science investigation had been going on much longer than intended, I heard a boy ask his group, '[a]ren't we supposed to be doing social studies now?' Another boy responded, '[o]h yeah, we'll just do it tomorrow'.

An even more incredible event occurred later in the day when the teacher called them together for a 'science talk'. In science talks, the rule is no raising hands. So, the teacher began by asking, '[w]e've been investigating plants for a while. So, how do you think plants began?'. At once, all of the kids started talking, then in an instant they were all quiet except for one student. When that student was finished, they all started talking again, then one student got the floor and the rest immediately stopped talking. This pattern went on for 45 minutes. Some students would get the floor and hand it over to others who had not had a chance to talk. No student ever made fun of another student or their ideas, some of which were pretty 'out there'. However, the students would challenge other ideas and ask for evidence or some sort of support. Again, this type of conversation took a great deal of work to train students on how to challenge ideas without hurting others, how to know when someone has the floor, how to listen and how to know when the flow of ideas and differing perspectives are important (Bloom 2006).

In schools, holarchic communities can be totally transformative. Bullying, cliques, social isolation and disenfranchisement and other pathological patterns of social relationships can be systematically addressed. Such patterns are not dealt with by authoritarian mandates, but by the social contexts and the distributed ownership and participation among students, teachers and staff. The community takes action. In a school I taught at many years ago, one emphasis was on creating a school community where students shared in responsibilities, decision-making and so forth. On one occasion, I was the only teacher in the cafeteria and was sitting and eating with a few of my students. All of a sudden, two high school kids, who I did not know and who were bigger than me, started fighting a few feet away. By the time I said, '[o]h, shit!' to myself, a group of other students got up and broke up the fight. The two fighters ended up shaking hands and going about their day. In a public preschool I visited recently in England, the children, who ranged in ages from 2 to 4, moved about the school as they wished. Teachers and assistant teachers were stationed at various activities around the building. The children moved from one activity to another. Some stayed at an activity for a few seconds, while others stayed for quite some time (maybe 45 minutes or more). Not all activities, such as the micro-projector area, clay table or painting area, had teachers at them. These activities were always there for students to explore. Outsiders, especially those with official status, often thought of this school as contained chaos. However, if you watched and listened carefully, you found out just how much the children were learning. And the learning was not just about specific content, which was occurring, but also about how to relate to one another, how to be responsible, how to participate in the community, how to resolve conflicts, how to inquire and how to express oneself through many media, among many other skills and attitudes.

Hierarchies, at least in human social contexts, tend to stimulate and perpetuate problematic and dysfunctional relationships. For those people in the lower layers of the hierarchy, the dominant types of relationships are either complementary (dominant – submissive types of) relationships or symmetrical (competitive types of) relationships (Bateson [1972] 2000). As Bateson ([1972] 2000) suggested, both of these types of relationships tend to disconnect and crumble. Relating to lower level employees, supervisors tend to treat them as subservient. And for those at the same level, there is at least an implicit tendency to compete with one another for praise from supervisors or for promotions to higher levels.

Identity, epistemology – meaning and participation – function

Communities such as those found in similar classrooms and schools share characteristics and features with other communities in some professions and ecosystems. Jean Lave, Etienne Wenger, Barbara Rogoff and Patricia Calderwood have done considerable research into the nature and dynamics of communities in general and of communities in schools in particular (Calderwood 2000; Lave and Wenger 1991; Rogoff et al. 2001; Wenger 1998). From their points of view, especially Lave, Rogoff and Wenger's, communities imply participation in some sort of meaningful purpose for the community. And it implies that such participation – meaning – community contributes to the development of each member's identity as a participant in the community. A neighbourhood is not necessarily a community. A work place is not necessarily a community. However, both of these contexts could be communities.

Communities seem to require some buy-in on the part of their members. Lave and Wenger (1991) do point out that any particular community may be dysfunctional, even as it attempts to establish itself as a functional community. In classrooms, teachers may try to create communities, but they often inadvertently undermine their own efforts by sending out contradictory signals. In a Lave and Wenger type of community, teachers try to engage children in becoming full participants in the classroom community. However, if teachers keep asserting unilateral control directly or indirectly, they can undermine the very process they are trying to implement. The same sort of snag affects businesses that try to create communities. If the owner or manager continually undermines the community-building efforts, the whole community falls apart.

Many children and adults are very good at picking up on these contradictions and rebelling against the attempted community. A business manager who professes to be creating a community in the workplace but then continually micromanages and reprimands employees will destroy any possibility of creating a functional community. The same sort of issue arises when teachers flick the lights to get students' attention or criticize students who assert themselves. Students will not take the teacher's intentions of creating a community seriously. In such cases, the students may even undermine the efforts to build a community.

In all of these dysfunctional cases, someone (teacher, boss or other 'leader') steps out of the holarchic intention and steps into a hierarchic intention. Then the relationships are broken. Trust is destroyed and the integrity of the relationships fall apart.

For communities to work, the members must feel a sense of ownership over their community, as well as a sense of belonging and a sense of trust in the relationships. Such feelings of ownership, belonging and trust contribute to each person's sense of identity as a community member. A member's identity also is enhanced by feeling that one has a purpose and a valuable skill, perspective and/or area of knowledge to offer to the community. The meaning that is associated with the community is also closely intertwined with the participants' identities. In other words, communities in social contexts are similar to biological communities. However, we can reverse this statement and look at how social communities are ecosystems, where the artefacts, materials and products are part of such complex systems. From an ecological perspective of social communities, we can begin to understand (a) the nature of the interrelationships, (b) how certain processes loop through the systems, (c) the nature of feedback loops and recursive processes and (d) the nature of the functional aspects of the community. We also can see how the individual and shared epistemologies (knowledge-gathering systems) affect and are affected by the community.

Healthy communities

Healthy communities with no lasting pathological patterns can continue for long periods of time. Like any autopoietic system (self-generating, self-maintaining system), communities can renew themselves and deal with pathologies that may arise, just as organisms deal with illnesses. But, just like in relationships, such self-maintaining communities need to work at maintaining themselves, including the matrix of relationships.

Successful biological communities and human social communities are flexible and can adjust to changing conditions and circumstances. They thrive

on diversity (of species or types of people). The relationships are intertwined and reciprocal. Although members may compete, they also cooperate, especially when threats to individuals or the community as a whole occur.

However, most cases of human communities do not operate in ways that are consistent with the nature of successful communities in non-human ecologies. Most human communities are organized hierarchically with centralized leadership. While some people may feel like they are members of these communities, they do not feel a sense of ownership or of shared control. In fact, community members often feel powerless and tend to become complacent and accustomed to not even wanting any power. They just want to be told what to do so that they can function without thought or responsibility. In fact, hierarchical communities foster blind obedience, conformity and going-through-the-motions approaches to participation. Having spent almost four decades teaching in and researching schools at all levels (Kindergarten through university), I am sad to say that most students show all the signs of having been beaten into submission. Over the years, increasing numbers of students resist making decisions about what to do with assignments or anything else. They do not want to think and do not really want to learn. They are, for the most part, zombies of the non-flesh-eating type.

Figure 3: Jeffrey W. Bloom, Liminal Communities in Urban Settings, *1970. Photograph. Phoenix, AZ. Personal Collection.*

There are some thriving holarchic communities of people, but they are not at all common, especially in formal, established or institutional contexts. Most such communities are found in the cracks between formal contexts. Such liminal communities develop and flourish among people with common interests (Brandt 2009; Liminal City n.d.; Marshall 2011; Kinloch 2013). Like the small communities that hang out at neighbourhood delis (see Figure 3), liminal communities are self-generating and self-maintaining.

The neighbourhood deli or coffee shop as liminal community may not have any explicit productive purpose, but such venues serve to bring together people to share ideas and concerns. However, other liminal communities develop where they become breeding grounds for ways to take action on a variety of social, environmental and other concerns. Nora Bateson and the International Bateson Institute have found that their Warm Data Labs are creating 'liminal cities', where people from a wide variety of backgrounds (note the importance of diversity) are coming together to discuss common concerns and develop approaches to issues that they cannot address in their particular institutions (Bateson 2017a, 2017b).

Final thoughts

For years, I have worked at creating communities in school and university classrooms. The results were mixed. Most students have never really experienced communities that are based on shared and distributed responsibility and control, as well as on compassion, mutual appreciation, respect, diversity of ideas and backgrounds, equanimity, deep thinking and learning and so forth. On the other hand, it seems that forest communities do live in just these ways. For centuries, we have objectified the natural world. We have kept the natural world at arm's-length. And we have viewed the natural world as a mechanized system, completely separated from human beings. As a result, we are now seeing large-scale ecosystem collapse in forests, oceans and everything in between. At the same time, human societies are collapsing, as we perpetuate disconnections from one another and from our ecological contexts.

The media in democratic societies has been seen as crucial to a healthy society, where its diversity, relationships and communication of meaning were seen as essential to participation in a democratic society. However, the current status of media in most nations has lost its own diversity in ownership and consequently in its diversity of perspective. Like any community suffering from various pathological patterns, media communities, especially those concerned with news investigation, communication and commentary, are in danger. The media can educate and inform, but can also perpetuate bias, stimulate a range of harmful emotional reactions and create mass confusion and ignorance. Media communities suffer from the same dangers as their audiences: fragmented bits of information, hierarchical schismogenesis and dysfunctional relationships. The media's disconnectedness can manifest in its lack of connection with people, in its lack depth in its understanding of issues, in its lack of contextual embeddedness, and in its perpetuation of misinformation and bias.

Such disconnected thinking is the pathology of our time. We continue to make decisions that not only harm ecosystems but also harm human social systems. Unless we as a collective of all humanity (changing the way politicians think is probably a useless endeavour) start making changes to the way we think, act and interrelate (and make these changes quickly), we will be

facing the fate of global social and ecological collapse. Such a future will not be pretty (from our own perspectives) and will involve massive death.

We need to share leadership, what Nora Bateson calls 'liminal leadership' (Bateson 2017a), rather than look for one person or a group of people to save us. We have to raise ourselves above greed, hatred, fear and ignorance and start developing alternative ways to work and think together.

Now is the time.

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