Trust and Community on the Internet

Opportunities and Restrictions
for Online Cooperation

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Editorial

Early studies in the area of Internet Research emphasized the deficiencies that computer-mediated communication as opposed to face-to-face communication would have. The chances for the evolution of cooperative relationships on the Internet were assessed sceptically. Present research findings correct this point of view. In spite of a missing central authority, without formal controls and sanctions, with anonymity and easy-to-use exit options there is not only chaos and anomy on the Internet. Rather, there is a surprisingly large amount of cooperation and social order. There is a successful exchange of individual goods, public goods are produced, and there are stable social networks, reliable communities and effective social norms. If people interact online under certain conditions, there seem to be incentives that stimulate cooperation and social exchange. Additionally, under favourable conditions the Internet can be used for the establishing of cooperative relationships that would hardly be possible in the case of pure face-to-face communication. Such positive effects, however, are not a technical automatism. The failure of many online communities, as well as the discussion about the social consequences of the Internet for the social integration of its users is a warning against nave optimism.

In this volume the potential, the pre-conditions and the limits of the Internet for the emergence of trust and community building are discussed. Trust and community are social phenomena which are of utmost importance for social relationships and social order. The analysis of the Internet as a trust-building medium focuses on the conditions under which the Internet promotes social exchange and cooperation between individuals and between groups. The analysis of the Internet as an opportunity for community building focuses on the conditions under which it can be used for comprehensive forms of collective action and group living. Both questions are interrelated. Trust is a pre-condition for community building. At the same time, social bonds within a community facilitate the placement of trust under risky conditions.

Trust is a fundamental element of cooperative relations. It can be understood as the willingness to make one's own well-being to some degree dependent on other people or institutions. The advantages of mutual cooperation can often only be gained when individuals are willing to take risks and to expose themselves to the danger of being disadvantaged if others do not cooperate. This means: in such situations cooperation is possible only if trust is placed. In spite of the risks, individuals cooperate with each other on the Internet to a significant degree, as the examples on online markets and auctions show. These examples suggest that there is trust to a significant degree. Since trust-building mechanisms are an important foundation for different forms of cooperation, knowledge about the opportunities

and limitations for building trust on the Internet is crucial for assessing the possibilities for online cooperation and collaboration in general.

One important question to be analyzed is in which parts of the Internet does cooperation take place and through which mechanisms is trust established and secured. It should be examined whether and to what extent the Internet as a technical medium contributes to an extension of trusting relationships and interaction. Which technical, organizational, social, and legal conditions further the extension of trusting interaction and in which way do these conditions depend on and contribute to a satisfying short- or long-term interaction between the participants? Conditions that are conducive to the placement of trust can be

- direct or indirect exchange relations between participants: reciprocity;

- trustworthiness or reputation of the actors;

- one-sided prior contributions that initiate cooperation: gift-relations;

- common norms;

- communality through common goals or values;

- affective bonds between individuals.

The general limits to the emergence of trust-building conditions will be the limits to the placement of trust. In as far as such conditions prevail for online interaction, the Internet is a trust-building medium. If such conditions can be realized on the Internet for individuals or groups that could not build up *trusting* relations outside of the Internet—for example because of transaction costs being too high—, then the Internet is a trust-extending medium.

Communities are characterized by a special feeling of solidarity between their members. They consist of groups of people who traditionally interact in locally restricted environments and who develop durable social relationships. Communities provide opportunities for individual and collective action with far-reaching consequences for society. But usually membership in a community does not only have an instrumental value for the pursuit of the common goals of its members. Additionally, membership has a highly affective value. Communities satisfy fundamental human needs, such as group attachment, identification, security, solidarity, and mutual understanding. They give individuals the feeling of being esteemed, and they are an important source of trust and thus provide for the stabilization of cooperation since they transmit common values and promote affective bonds. Communities have a pivotal function in integrating society and also produce social capital. The increasing mobility of modern societies contributes to the diminishing of traditional communities that are based on personal exchanges and the geographical closeness of their members. At the same time, mobility contributes to the popularity of communication media such as telephone and electronic mail that allow for interpersonal communication over long distances.

It is an important question whether and to what extent communities exist on the Internet and what their emergence and continuation depend on. In this context, it is of special interest to analyze whether the Internet provides opportunities for the development of new communities that are as valuable for individuals as the traditional communities whose existence is endangered. An additional issue to be discussed is about the quality of online relationships and online groups. Under which conditions can relationships that were developed on the Internet acquire a satisfying quality for individuals and groups? The task of Internet research is to examine in how far conditions can be realized in online groups that are known to be community-advancing in general. Such conditions are

- common goals and values;

- special relational interests of the group members;

- a high degree of interdependence among the members;

- multiplexity of the relationships;

- durability of the relationships;

- easy accessibility of the members to each other.

Traditional communities ensure the existence of (some of) these conditions usually by their local embeddedness. Since such a local anchoring of communities is not the rule for online groups, the question emerges as to the other mechanisms which help the Internet to promote the existence of favourable conditions for community development.

Social, economical, psychological, legal and technical conditions have to be taken into account to examine the potential as well as the limitations of the Internet for the development of trust and communities. The evolution of the Internet is influenced by a variety of factors which suggests that a discussion cutting across the usual disciplinary borders is necessary and useful. This conviction was the background for an international and interdisciplinary conference on *Trust and Community on the Internet. Opportunities and Restrictions for Online Cooperation.* The conference took place from 31 July to 2 August 2003 at the *Centre for Interdisciplinary Research* (ZiF) at the University of Bielefeld and was organized by Michael Baurmann, Bernd Lahno and Uwe Matzat. The meeting was financed by the ZiF and the *Deutsche Forschungsgemeinschaft* (DFG). The organizers greatly appreciate this support and express their thanks to both institutions. The articles in this volume are all based on papers which were presented at the conference.

The first group of articles consider *Concepts and Backgrounds*. They discuss general theoretical models and empirical analyses of conditions for the development of trust and communities and examine whether such conditions can be found in certain parts of the Internet or to what extent they can be created. *Henk de Vos* explicates the fundamental sociological concept of community. He points out that

communal living has deep connections with human social nature and is strongly associated with well-being and health. Structural conditions for the emergence and maintenance of communities are specified and it is discussed in which way the Internet affects these conditions. *Bernd Lahno* differentiates between a behavioral, a cognitive, and an affective dimension of trust. He argues that affective aspects of trust must be included in any adequate account of the role of trust in social dilemma situations involving multiple equilibria. The design of institutions that can foster trustful cooperation in the context of the Internet is analyzed under this perspective. The article by *Hans-Werner Bierhoff* and *Bernd Vornefeld* deals with the social psychology of trust. Three levels of trust are delineated: trust in a specific person, trust in people in general and trust in abstract systems. The authors assume that, in the case of the Internet, trust in the Internet as a system is of crucial importance. Several possibilities for strengthening the trustworthiness of the Internet as a system are presented. *Uwe Matzat* gives an overview of the present state of theoretical-empirical Internet research. He emphasizes the fact that recent insights suggest that the Internet should no longer be regarded as a constant that has uniform effects but that the social consequences of Internet use depend on a number of contextual conditions. Some hypotheses as to which conditions and features of online groups could facilitate bilateral or group-level cooperation are discussed.

The second section of articles focuses on *The Internet as an Environment for Trust*. *Victoria McGeer* argues that the Internet provides conditions in which rational individuals can in principle initiate and maintain relationships of interpersonal trust. But she underlines the importance of developing mature capacities for trust in an Internet context since immature trusters are particularly vulnerable to the liablities of Internet trust. *Philip Pettit* expresses his fundamental scepticism of the idea that trust between people can be formed on the basis of Internet contact alone. According to his view, a necessary precondition for the development of trust in a rich sense of the term is not given when people are related only via the Internet and their personal identity remains invisible to others. *Russell Hardin* analyzes the Internet as a form of social capital that is not reducible in its characteristics to other forms of social capital: it enables us to do many things with radically greater efficiency than is possible without it. But Hardin suggests that relationships on the Internet are too thin to back trust and cooperation among those who do not have relationships off-line with each other. In their joint contribution, *Geoffrey Brennan* and *Philip Pettit* deal with the role of esteem in Internet relations. They argue that the desire for esteem not only serves an important function in ordinary social life but that Internet relations are also susceptible to esteem-related incentives. For them there is every reason to believe that a good e-reputation is an object of desire for real agents and therefore an important driving force in disciplining interactions on the Internet and supporting the operation of social norms.

The next group of articles under the heading *Reputation and Online Auctions* analyze empirically the mechanisms that further the building of trust on the Internet especially in the field of economic transactions. *Chris Snijders* and *Richard*

Zijedeman investigate the phenomenon that transactions in online auctions such as eBay and Ricardo seem to work relatively smoothly. In an attempt to replicate the results of recent research on online auctions, they study the conditions under which eBay's reputation mechanisms can prevent opportunistic behaviour. *Gary E. Bolton, Elena Katok* and *Axel Ockenfels* report on experiments suggesting that it is the interaction of social preferences and cleverly designed reputation mechanisms that solve the trust problem on Internet market platforms to a large extent. The experiments show that the seller's intrinsic motivation to be trustworthy is not sufficient to sustain trade when not complemented by a feedback system. *Werner Güth* and *Hartmut Kliemt* compare traits of an organizational design to promote trustworthiness as suggested by economic reasoning with those that have actually emerged on the Internet. They ask whether institutions like eBay will increasingly have to 'economize on virtue' although they have so far been able to rely on its spontaneous provision.

The subject of the next four articles is *Groups and Networks*. *Coye Cheshire* and *Karen S. Cook* comment on the application of experimental sociological research to different types of computer-mediated social interactions, with particular attention to the emergence of 'trust networks'. They develop a classification system that helps to integrate the existing research on trust in experimental social psychology with the field of computer-mediated exchange. *Anabel Quan-Haase* and *Barry Wellman* state that the role of groups in networked organizations has remained unclear and that little is known about how computer-mediated communication is used to bridge group and organizational boundaries. They examine how employees of a high-tech company communicate with members of the work group, other colleagues in the organization, and colleagues outside the organization to understand their boundary-spanning communications better. The paper by *Andreas Flache* addresses the question of how virtual communication may affect cooperation in work teams theoretically. A formal social exchange model is used and the degree of team virtualization, i.e. the extent to which interaction between team members occurs online, is related to parameters of the exchange. Simulation results suggest both positive and negative effects of team virtualization on work-cooperation. *Margit Osterloh* and *Sandra Roth* investigate under which conditions open source models—such as the open source software production—may be successful in general. They show that a complex interplay of situational, motivational, and institutional factors have to be taken into account. It is argued that the success of the open source model is greatly facilitated by well-balanced intrinsic and extrinsic motivation and low costs for contributions and governance mechanisms.

The last article in this volume by *Eric Hilgendorf* deals with *Law and the Internet*. The main forms of datanet crime on the Internet are described and some of the most important Internet-cases of the last decade are discussed. As one of the main problems of datanet crime is its global scope, a transnational criminal law for the Internet seems to be desirable and possible. But Hilgendorf points out that the problems of computer-related crime on the Internet cannot be solved by criminal law alone.

The volume is completed by the Internet-hymn. The lyrics of the hymn were written by *Geoffrey Brennan* to the tune of the famous song *Edelweiss* by *Richard Rodgers* and *Oscar Hammerstein II* from the musical *The Sound of Music*. The Internet-hymn was performed for the first (and, so far, last) time at the *Centre of Interdisciplinary Research* at the final session of the conference. Geoffrey Brennan as the solo-singer was strongly supported by the chorus of the conference participants.

Finally we wish to express our personal thanks to the staff of the ZiF for their exceptionally friendly and professional support, especially to *Marina Hoffmann, Daniela Mietz* and *Trixi Valentin* who were in charge of the organization of the conference and the well being of the participants. Not least because of their invaluable assistance the conference was a pleasure for all.

Michael Baurmann, Bernd Lahno, Uwe Matzat

Henk de Vos

Community and Human Social Nature in Contemporary Society*

Abstract: Although community is a core sociological concept, its meaning is often left vague. In this article it is pointed out that it is a social form that has deep connections with human social nature. Human social life and human social history can be seen as unflagging struggles between two contradictory behavioral modes: reciprocity and status competition. Relative to hunter-gatherer societies, present society is a social environment that strongly seduces to engage in status competition. But at the same time evidence increases that communal living is strongly associated with well being and health. A large part of human behavior and of societal processes are individual and collective expressions of on the one hand succumbing to the seductions of status competition and one the other hand attempts to build and maintain community. In this article some contemporary examples of community maintaining, enrichment and building are discussed. The article concludes with a specification of structural conditions for community living and a short overview of ways in which the Internet affects these conditions.

0. Introduction

Community is brought back in social scientific discourse. Social scientists and even economists increasingly begin to warn against the dwindling of community with all kinds of negative consequences (Etzioni, Putnam, Fukyama, Lane, Frank, Easterlin, Layard). Often it is unclear what their messages precisely are. Community is a widely used concept, but it is rarely precisely defined. Also, while some take for granted that community is a positive thing, others associate the concept with backwardness and conformity. Neither of these parties shows much interest in a precise specification of the advantages and disadvantages of community. Also not much attention is paid to how community relates to human social nature and to the structural conditions for viable communities.

    This article starts with a short overview of the development of the idea of community in twentieth century sociology (Section 1). In Section 2 community is defined as a group of people who are connected to each other by way of *reciprocity relations*. Given that community provides well being and health benefits, it should be expected that people are motivated to maintain and enhance community living, and that these efforts are more or less successful. Therefore in

Section 3 some examples of contemporary forms of community are discussed.
The article concludes with a specification of the structural conditions for com-
munity (Section 4), a discussion of how the Internet affects these conditions
(Section 5) and with a general conclusion and discussion (Section 6).

1. The Concept Of Community In Twentieth Century Sociology

Community was an important concept in the work of both Durkheim and We-
ber. Durkheim described the old forms of community as the small, homogeneous
settlements of the agrarian society and the bands or clans of 'primitive' society.
He saw these forms of group living as based on a social bond (mechanical soli-
darity) that resulted from: in-group similarity of traditions, beliefs, skills, and
activities; between-group dissimilarities (segmentation), and positive sentiments
towards in-group members (altruism) and negative sentiments towards others.
With the rise of the market, mechanical solidarity could not be preserved, be-
cause segmentation strongly decreased. Durkheim first counted on the market to
produce a network of interests (of mutual obligations, of rights and duties) that
would function as a substitute for the community of the past. At first he was
quite positive about this new so-called organic solidarity. But he also stressed
that social bonds could not be based on egoism alone: they are too superficial
and only create external ties. In fact, he believed that men have a need for being
interdependent with others:

> "Men cannot live together without acknowledging, and, consequently,
> making mutual sacrifices, without tying themselves to one another
> with strong, durable bonds. ... Because the individual is not suf-
> ficient unto himself, it is from society that he receives everything
> necessary to him, as it is for society that he works. Thus is formed
> a very strong sentiment of the state of dependence in which he finds
> himself." (Durkheim 1964, 228)

Therefore he expected that occupational organizations would evolve into the
required new forms of community, because they would be based on new sim-
ilarities and interdependencies (expertise, norms). Next to that, it should be
the task of schools to inculcate similarities and a sense of interdependency on
the societal level. In short, Durkheim (1) equated the old form of community
(living) with similarity and segmentation, (2) hoped that new forms could be
based on the similarities and interdependencies inside occupational groups, or
on society-wide similarities and a sense of interdependency that are inculcated
by way of moral education, and (3) believed that the bonds of community need
altruistic sentiments (Durkheim 1964).

The distinction between altruism and egoism returns in Weber's distinction
between the communal type of social relationship and the associative type. In
the first type individuals orient their actions to a subjective feeling that they
belong together, whereas in the second case they are oriented to their individ-

ual interests. Community can have several affective, emotional or traditional bases: "eine pneumatische Brüdergemeinschaft, eine erotische Beziehung, ein Pietätsverhältnis, eine 'nationale' Gemeinschaft, eine kameradschaftlich zusammenhaltende Truppe" (Weber 1922, 22). Weber considered the family as closest to the ideal type of community. He emphasized that by far the most of contemporary social relations are partly communal and partly associational. Next to the household community, he analyzed other forms, such as the ethnic community and the community of neighbors. The community of neighbors is described as relatively new: the feeling of belonging together is only based on the realization that neighbors are dependent on provision of help on special occasions and in cases of emergencies and danger. Exchange of help is mostly delayed, and if not, than the conditions of exchange are chosen on the basis of what is considered reasonable and fair. This implies that communal relations are durable and personal, contrary to the impersonal (and partly anonymous) relations on the market and in bureaucracies. Weber stressed that similarity of qualities, of situational contexts and of behavior, is not a sufficient basis for community. The latter is only present if "eine gefühlte Zusammengehörigkeit" (ibid.) exists on the basis of a similarity.

After Durkheim and Weber, sociology went through a period in which it was considered to be important to develop into an autonomous discipline. This was accomplished by stressing the social-cultural aspects of social life that are seen as determining perceptions, cognitions and behavior, putting aside altruistic and egoistic motivations (human social nature) as 'psychology' or 'economics'. In this way of thinking community was seen as a group of people who share perceptions and cognitions about common identity and mutual obligations, largely ignoring motivations (e.g. Gusfield 1975).

At the end of the previous century some sociologists associated themselves with economics and its theoretical toolbox. This led to the emergence of so-called rational-choice sociology. Precisely within this paradigm much attention was given to the concept of community. For example, Taylor (1982) emphasizes the economic aspects of community: the possibilities to increase collective welfare by way of reciprocity and by way of producing social order. He explicitly designates 'psychological' aspects (friendship and sense of belonging) as things that are often connected with community, but are not an indispensable part of it. And Bowles and Gintis (1998) see communities as special governance structures that solve coordination problems, by way of low costs of information and punishment, and restrictions on interaction and migration. Community is again considered solely from an economic perspective, that is, under the assumption of a simple version of self-interest. Largely the same happens in many contributions that use the (economic) term of 'social capital' in stead of community (e.g. Coleman 1990).

Finally, the social network approach defined community by way of formal network characteristics such as density and multiplexity. Density refers to the extent to which all possible links among members of a network are in fact present, that is, the degree to which everyone knows everyone else. Multiplexity refers to the extent to which individuals who are linked in one type of relationships—

say kinship—are also linked in other types—say co-residence. This approach is indeed extremely 'formal'. Motivations, egoistic or altruistic, do not enter the picture.

Concluding, it seems that after Durkheim and Weber sociologists approached community either without referring to human social nature (egoistic or altruistic motivations) or exclusively from the perspective of egoistic motivations. This development can be understood against the background of two different intellectual fashions that dominated the social sciences during most of the twentieth century. Traditional sociology's emphasis on social-cultural aspects is an expression of social determinism: the idea that human behavior results from social-culturally determined perceptions, cognitions and attitudes. The social network approach was easy to reconcile with this model, because of its total neglect of individual motivations. This intellectual fashion, known as the Social Science Standard Model (Cosmides/Tooby 1992) faded away in the second half of the twentieth century. The more recent approach of rational-choice theory had as a positive point that (self-interested) motivations re-entered the scene. But it was also part of the more general social-scientific fashion that reigned for most of the twentieth century, namely: to ignore (altruistic) emotions as proper objects of scientific research. This wave also faded away, starting in psychology (with the rise of evolutionary psychology).

In fact, what happened at the end of the twentieth century is that human nature was brought back into sociology. After Durkheim and Weber (and Marx) frankly spoke about human social nature, sociology entered into a period in which the assumption of the 'blank slate' reigned (Pinker 2002). It was taken for granted that humans are able to learn everything that is offered to learn ('equipotentiality'). The withering away of this assumption was an important development within the social sciences and allowed for a more realistic perspective on community.

2. Community and Reciprocity

Two late twentieth century developments within the social sciences made the return of human social nature possible. First, evidence accumulated for the designation of a limited set of human modes of interpersonal behavioral patterns and relationships. Second, a profusion of findings about the beneficial effects of 'social support' showed that reciprocity relationships enhance human well being and health. In the following two paragraphs sets of evidence are shortly summarized and interpreted in terms of human social nature. In the third paragraph this information is used to show that community can and should be defined by way of grounding it in human social nature.

2.1 Modes of Interpersonal Behavior: Status Competition and Reciprocity

Following an earlier made distinction between economic and social exchange, Clark and Mills in a series of experiments provided evidence for humans enter-

ing into either an exchange or a communal mode of relationship (Mills/Clark 1994). In an exchange mode partners have mutual expectations of monitoring, calculativeness and concern with equity. They expect a service in return without delay or if this is not possible at a contractually agreed future moment. People's orientation resembles the Tit-for-Tat strategy in a sequential two-persons Prisoner's Dilemma Game. Real life expressions would be market and bargaining relations, in general: relations with strangers. Typical for the exchange mode is the interpersonal expectation of an instrumental orientation towards the relationship. In contrast with this, the communal (or reciprocity) relation is seen as a value in itself. Also, partners are vague about the moment that help should be returned and they don't mind very much about the equivalence of values of help given and help returned. They have positive feelings about this mutual non-calculating attitude. A would get angry in case B responded to his receiving help by insisting on balancing the books immediately. The underlying idea is that partners are oriented towards each other's needs. That's why transfers are seen as 'help' instead of 'services'. This orientation towards each other's needs also points to the phenomenon of feeling betrayed when help is not provided and of feeling guilty when failed to help (both without good reasons). The reciprocity mode exists for example in relations between family and friends.

The distinction between the exchange and reciprocity modes became well known in the social-scientific and primatological literature (see Smaniotto 2004 and Silk 2003 for overviews). Others suggested that more than these two modes (or algorithms) should be distinguished (e.g. Fiske 1992). The search for these patterns soon becomes arbitrary if structuring principles are lacking. A way to structure the search is to start with well-known biological mechanisms for social behavior. This has the advantage that not only perhaps uniquely human patterns can enter the picture, but also those patterns that humans share with other animals. In fact, the neurochemical basis of much of human social behavior is similar to that of animal social behavior (Panksepp 1998).

Modern biology has three biological mechanisms to offer for structuring the study of social behavior: status competition, kin altruism and reciprocal altruism. The first one was already well known and researched by social ethologists, e.g. Tinbergen (1965); the other two are products of neo-Darwinian evolutionary theory (Hamilton 1964; Trivers 1971).

Status competition refers to the selection for those motivations and abilities that help in competing with conspecifics over resources (food, territory, mates). Status competition behavior is a complex set of patterns comprising assessment, (ritual or real) fight and eventually flight and avoidance (Parker 1974). It also exists in the form of stable dominance-submission relations or hierarchies, if parties 'agree' who wins and who loses (Chase 1982). The winner acts dominating and the loser submissively. Parties who are involved in a status competition are totally enmeshed in it: all attention is devoted to the ritual or real fight. Of course a fight goes along with a high degree of tension. But also in the stable dominance-submission relation parties still are predominantly oriented towards each other's behavior. The winner continuously verifies whether the loser acts sufficiently submissive, and the loser continuously verifies whether the winner is

sufficiently reassured by his (the loser's) submissive behavior. Both states are full of tension, leaving little room for play and exploration. The state parties are in is called the agonic mode (Chance 1988).

The kin altruism mechanism refers to the selection for motivations and abilities that further altruistic behavior (care) towards offspring and other related individuals. Caring behavior comprises feeding, protecting, sharing and, especially in humans: coaching and instruction. It creates circumstances that promote selection for attachment behavior: to stay close to caregivers and to act in ways that further receiving care (Bowlby 1982; Bell/Richards 2000). Adult expressions of care and attachment probably form the human pair bond, in which partners care for and feel attached to each other (Zeifman/Hazan 1997).

Reciprocal altruism was suggested as a possible explanation of altruistic behavior towards nonkin. Altruistic or helping behavior (that is, behavior with positive fitness consequences for Alter and negative consequences for Ego) could be a viable strategy under the provision that at a later time Alter returns help to Ego, with net fitness advantages for both (see e.g. De Vos/Smaniotto/Elsas 2000). If humans are selected for motivations and abilities to perform this kind of behavior, this does not necessarily imply that the proximate motivation of the behavior involves the explicit expectation on Ego's side of future return nor a calculating attitude towards help given and received. More plausible is that humans were selected for extending their care and attachment emotions to nonkin, thereby producing conditions that put the ultimate mechanism of reciprocal altruism into operation (De Vos/Smaniotto/Elsas 2000; Bell 2001; Smaniotto 2004). For a good understanding of this possibility it is essential to distinguish between the proximate motivations for altruistic behavior towards nonkin (care and attachment) and the resulting effect that relations of mutual help develop. The fact that such relations, and the individuals within these relations, exist can potentially be explained by the ultimate mechanism of reciprocal altruism. This shows that it is wrong to associate reciprocal altruism automatically with (proximate) bookkeeping expectations and attitude, as often happens (e.g. Gintis/Bowles/Boyd/Fehr 2003).

Kin altruism and reciprocal altruism make relationships possible with a completely different neurochemical basis and with different emotions (care and attachment) than dominance-submission relationships. The parties involved are provided with a safe haven, the experience of which promotes playfulness and exploration (Panksepp 1998). Therefore Chance (1988) called the state the parties are in, the hedonic mode. This type of relationship can be called communal (cf. Mills/Clark 1994) or reciprocal (cf. De Vos/Wielers 2003).

The three biological mechanisms underscore that there exist two behavioral patterns and relationships for which humans are biologically prepared, in the sense that these patterns are easily and spontaneously learned in a 'normal' social environment (Cummins/Cummins 1999): status competition (ritual or real fight, dominance and submission) on the one hand and reciprocity (care/attachment) behavior on the other hand. Until now we do not know of other mechanisms that could provide similar arguments for distinguishing more than these two patterns. Of course humans are able to act and interact in other ways. For example, they

can be calculative and bookkeeping oriented, such as in an exchange relationship as studied by Mills and Clark (1994). This is the kind of behavior that is often required in contemporary society with a well-developed market. But at the same time it seems that market behavior is not so easily learned and that market participants often fall back upon either status competition or reciprocity (De Vos/Wielers 2003). Along the same line it can be argued that (Weberian-like) bureaucratic and citizenship behavior is difficult to learn and to perform because people are continuously tempted to shift to either status competition or reciprocity.

2.2 Reciprocity, Status Competition, Well-Being and Health

A second set of evidence about human social nature is provided by research findings pointing to positive effects on well being and health of social support and of communal life ambitions.

An array of findings shows that social support directly enhances well being and health, specifically related to beneficial aspects of the cardiovascular, endocrine and immune system (Uchino/Cacioppo/Kiecolt-Glaser 1996). At the same time these findings strongly suggest that social support consists of a state of being embedded in a network of reciprocity relations larger than the own household (e.g. Weiss 1980), that not only provides instrumental but also emotional support (e.g. Hobfoll/Stokes 1988), and that not only provides opportunities to receive but also to give support (Antonucci/Fuhrer/Jackson 1990). This constitutes evidence for reciprocity behavior and the maintenance of reciprocity relations not only being easy to learn, but also being a kind of 'natural' way of interpersonal behavior that contributes to overall functioning of the human organism.

A similar set of evidence does not exist pertaining to status competition. Should this be interpreted as contrary evidence for status competition being a natural behavioral pattern? Probably not. Findings about the well-being and health consequences of different life ambitions shed light on this issue. Kasser, Ryan and others empirically distinguished two clusters of life ambitions that people endorse: a communal and a status competitive cluster. The communal cluster consists of aspirations such as having good relations with others, helping the world become a better place and personal growth, and the status competitive cluster of aspirations such as financial success, fame and keeping up with fashions. These different ambitions are associated with different levels of well being and health. People who more endorse communal ambitions report more self-actualization and vitality and less depressive symptoms. Also they report less physical symptoms, such as headaches and backaches, and less use of tobacco, alcohol and drugs. And they are less narcissistic (see Kasser 2000 for a review of findings).

This is in line with the evidence about the beneficial consequences of social support. But then, why do a certain number of people choose to endorse status competitive life ambitions? A possible answer is that the nature of people's ambitions depends on the nature of their social environment. Hypothetically, the

degree to which endorsing communal ambitions has beneficial consequences for someone is not only determined by the degree to which this person himself acts according to these ambitions, but also by how many others in his environment do so. If you have communal ambitions and act accordingly, but if at the same time all others in your environment act according to the status competitive mode, your outcomes in terms of well-being and health may differ considerably from a situation in which these others also have communal ambitions and act accordingly. It seems plausible that your worst outcomes are the ones in which you are the only one in your local environment who endorses a specific set of ambitions. So if you expect or observe others to choose for status competition, your will be better off doing the same. Hypothetically, just as in an N-persons Prisoner's Dilemma Game, all of you would have been better off if everyone had chosen for the communal alternative.

Now what does it mean that Kasser (2000) found that 'communals' (those who have communal ambitions and act accordingly) as well as 'competitors' (those who have status competition ambitions and act accordingly) both exist? Probably that these groups differ in the nature of their local environment: the communals are more embedded in networks of reciprocity relationships (consisting of communals) than competitors. And competitors have more a local environment consisting of competitors. This arrangement will have emerged by way of each individual reacting to the proportion of communals and reciprocals in his environment and by altering this proportion by this reaction. The process may result in equilibrium, but probably this is not guaranteed.

The main point is that status competition may be a natural mode of human interpersonal behavior. Actually, status competition is present in all mammals and reptiles, and therefore is evolutionary much older than the reciprocity mode. But it is triggered in special circumstances, namely by a social environment mainly consisting of competitors. In non-human mammals and reptiles this is the normal social environment. That humans were selected for the motivations and abilities of the reciprocity mode, without the status competition mode being erased, implies that the human social environment can be heterogeneous. A mainly competitive social environment triggers status competition. This will bring the competitors low levels of well being and health, but (hypothetically) higher than in the case that they unilaterally acted communally. Of course the same would apply to reciprocity behavior: it is a natural mode of interpersonal behavior, but it is triggered in an environment of many communals. To the degree that communals cluster, they are predicted to have higher degrees of well being and health than competitors, a prediction that is in agreement with the findings of Kasser c.s. To the degree that they do not cluster, the prediction would be that they shift to the status competitive mode. If they would fail to do so, they would be continuously harassed and exploited by competitors, with of course negative effects on their well being and health. The two modes probably are frequency-dependent strategies, that is, strategies that are enacted dependent on how many others (in the local environment) do the same. This should not suggest that they are consciously chosen. The triggering of a mode probably is a complex process, consisting of two stages. First, although the

disposition to learn a mode is innate, the actual learning of it needs a social environment in which the individual is engaged and socialized. This is triggering in the sense that a potential to learn is realized and a specific mode of behavior is added to the behavioral repertoire. Second, in the future the learned mode of behavior is triggered or not, dependent on the nature of the local environment.

This reasoning implies that altruism, as part of the reciprocity mode, should not be considered and studied as an individual process but as a social process. This is precisely in accordance with a conclusion drawn from an overview of studies of prosocial behavior, namely that the level of community should be the unit of analysis instead of the level of the individual (Bierhoff 2002).

2.3 Community Defined

We now arrive at a point at which a definition of community is easy to come up with: a community is *a group of individuals with an internal structure of reciprocity relations.* The foregoing implies that a community consists of communals, that is, of individuals who act in the communal mode. But at the same time it should be realized that a precondition for people enacting this mode is the existence of the community, that is, the existence of many other communals in one's local environment. The individual and the group level are deeply connected. Also we should realize that the status competition mode is not erased from individuals constituting a community. The mode may be asleep, but there may arise occasions in which it wakes up. This points to the well-known phenomena that individual tendencies to domineer are always strongly reacted to by community members, by way of ridiculing and belittlement, or stronger, ostracizing or even violence (Boehm 1999). For a moment returning to the issue of human social nature: perhaps humans have an innate disposition to punish (within a community context!), even if this is costly, those who cannot withstand the temptations to shift to the status competition mode (cf. Fehr/Gächter 2002).

According to this definition the reciprocity relation is the building block of the social system of community. Just as the dominance-submission relation is the building block of hierarchies and the exchange relation is the building block of markets.

The deep connectedness of individual and group level in a community implies that a community is more than a simple aggregation of reciprocity relations, that is, the whole is more than the sum of its parts. This points to the fact that a community makes generalized exchange possible: A helps B and at a later moment help is returned not by B but by C. Because all individuals are connected to each other, the identity of the person who returns help doesn't matter any more. This is an important element of the 'efficiency' of a community compared to a single reciprocity relation (cf. Takagi 1999). In a single relationship the probability that help can be returned at the moment that A needs help is much lower than in a community with generalized exchange. The process of generalized exchange makes the group a special entity. It generates a common interest in the continuing existence of the group as a whole.

3. Community in Contemporary Society

3.1 The Quest For Community Emerging

No doubt community was much more prevalent in the societies of the past than in contemporary society. In the remote past, in the long period that humans did not produce food but gathered it on a day-to-day basis, this way of living most probably was essential for their survival and reproduction. Division of tasks and sharing of resources by way of maintaining reciprocity relations probably were the human solution to the challenges of a risky and poorly predictable environment. This solution also involved typical human phenomenon as egalitarianism, empathy, pair bonding, paternal care, extended period of juvenile dependency, long lifespan, and large group size (e.g. Deacon 1997).

This communal way of living was deeply modified when humans started to produce their food, by way of domestication of plants and animals. Although the process took thousands of generations, it eroded community and let markets arise, first on a local basis, then regional, and nowadays global. This process is often studied as an exclusively economic one, but it had (and has) a tremendous impact on social life. Reduced to its essentials, it meant that the communal structure disappeared, at least in its pure form. By profiting from economic processes such as specialization, monetarization, and economies of scale, meeting material needs became possible to a formerly unknown degree. But at the same time, social environments of exclusively or mainly communals became less and less a normal thing. The domain of reciprocity relations fragmented into nuclear families and scattered remains of the communities of the past. This went along with an increase of the domain of anonymous and impersonal relationships between people who have at best an interest in a good reputation. Economic welfare, everything you can procure by spending money, increased. But *social welfare*, the well being and health that you receive by way of being a communal between communals, decreased. This large-scale historical process resulted in societies with low degrees of communal living and social support. And in which overall happiness does not or hardly increase in spite of the tremendous increase of economic welfare (e.g. Lane 2000).

Nowadays people are born in a social environment that does not unequivocally guide to communal action. This is not saying that reciprocity behavior is not learned. In general, children's potential to learn reciprocity behavior is realized step by step from early childhood to adolescence, within the confines of family and friendship relations (Laursen/Hartup 2002; Clark/Jordan 2002). But at the same time the large domain of impersonal and anonymous relations becomes part of daily life while growing up. And this domain easy triggers the status competition mode. Assuming that people have at least a rudimentary notion of the beneficial effects of communal living, we should observe individual and collective efforts to maintain and extend their communal domain. For a large part, these efforts require consciousness and explicit attention. In the past, communal life could be taken for granted, but nowadays it is a sort of profession (Willmott/Young 1967, 112).

It should be noted that this quest for community (Nisbet 1953) does not contradict that people also value freedom and autonomy. A popular opinion is that the communities of the past were oppressive, clinging to outdated traditions and hostile to individual creativity and development. This picture applies to the very specific kind of 'communities' that existed in agrarian societies, with their often high degrees of inequality and oppression. Since it is not so long ago that people lived in these circumstances, the concept of community is easily associated with this specific social form. But agrarian societies only existed for a very short period relative to the existence of humankind. Communal living in the long period before the beginning of food production was very egalitarian. And creativity and autonomy must have been strongly encouraged because they were important communal assets in the struggle for survival. Nowadays people who endorse communal ambitions still are the ones who value personal growth, in contradistinction to those who are engaged in status competition (Kasser 2000).

People in contemporary societies have two non-exclusive options for contributing to community living. First they can try to maintain and enrich the remains of community life that are transmitted from the past or that are based on existing long-term relationships. People grow up in a family and make friends in the neighborhood or the village of their youth. They can keep in contact with family and friends, even if distances increase because they and/or the others relocate. And they can try to build a community life if they find themselves surrounded by others with whom they share an expectation of keeping in each other's company in the future. This opportunity arises for example if a person arrives in a neighborhood or village with co-residents who intend to stay for a considerable while, or if he accepts a new job in a company with a low turn-over of staff members. In all these cases the individual finds himself in an environment of already existing long-term relations or he shares with others the expectation of possible future long-term relations.

Second, there may be occasions for building community more or less from scratch. This is for example the case if people who are socially isolated happen to meet each other and become friends. Or in a neighborhood without much contact between residents, one or a few persons start to facilitate contacts by announcing a neighborhood party and mobilizing others to contribute to its organization. Or a few persons with a specific need for exchange of information and social support, that is not easy provided by family and friends, start a self-help group and mobilize partners in adversity to join. Or unemployed people with poor financial means but a lot of time find each other and start a barter system. Of course, in cases of successful community building, the resulting communities provide opportunities for others to join. For the joiners the option to join is similar to the first option mentioned above. The difference is that in this second case the long-term relationships or the expectation of long-term relationship are not residual, but are intentionally generated.

In the following section I discuss some examples of forms of community that belong to either the first or the second option. The examples were chosen so as to have a high degree of diversity of life domains.

3.2 Maintaining and Enriching Community Life

Some well known examples of opportunities for maintaining and enriching community are: family, neighborhood and village, organizational community, and civil society. If applicable, attention is paid to the contribution that communication technologies, the Internet in particular, make or can make.

Families

In general, families are socially isolated to a high degree. They may be somewhat integrated in their neighborhood or village (see below), but often neighborly relations are non-existent or of limited intimacy and intensity. Because friends often live spatially separated, meetings are infrequent and need planning and coordination. Also members of the wider family often live at other locations. Households themselves became smaller, among other things by way of a strong decrease of coresident adults sharing a home and responsibilities for children (Goldscheider/Hogan/Bures 2000). Nevertheless, quite naturally people try to maintain family relationships even if geographically dispersed. Until far in the twentieth century the exchange of letters was an important medium (Thomas/Znaniecki 1958). Later the telephone had a tremendous social impact (Fischer 1992), just as the automobile. And nowadays, the use of electronic mail for maintaining family contact increases fast. On the one hand, geographical dispersion enhances the demand for these facilities. But on the other hand, the existence of these facilities makes it easier to disperse, and still keep in contact.

Although families are less economically interdependent than in the past, there is still a lot of (mutual) support and care (e.g. Marks 1996). And people's well being increases if they care when levels of work-family conflict are held constant across caregiving and noncaregiving employed adults. Caregiving contributes to having more positive relations with others, to feelings of personal growth and of having a purpose in life (Marks 1998).

Most caregiving requires physical contact. Often this is not feasible, but it seems that decisions to move or stay are influenced to a considerable degree by the wish to live close to family members. With larger distances, communication by electronic mail may fulfil an important function for keeping in touch and for giving emotional support. Compared with the telephone, and of course face-to-face meetings, the advantage of electronic mail is its asynchronicity. On the other hand, the telephone will remain an important facility for sociability and for reassurance (Dimmick/Kline/Stafford 2000).

Neighborhoods and villages

Neighborhoods and villages have in general a low average length of residence and a low degree of interdependency of its residents. Sheer spatial vicinity of living places has low social significance. Even in the more recent past there existed much community life in some stable neighborhoods, working-class quarters in particular (e.g. Young/Willmott 1977), and in some villages with a high proportion of agrarian occupations. There is no systematic evidence, but probably the number of stable neighborhoods strongly decreased. And apart from that,

neighborhood community life is hampered by the increase of adults with paid work and by sprawl, that is the increase of transport time as proportion of time spent to work, education, household work and leisure (Putnam 2000; De Vos 2003).

Communal life in villages has been strongly harmed by the decrease of people working in agrarian occupations. This transformed many villages that formerly had an abundance of economic activities, in sheer living places, for the old, or in dormitory places, for commuters.

The spread of the automobile during the second half of the former century was of course a most important factor. First, it contributed to the concentration of economic activities, which, in turn, contributed to sprawl. This must have been an important cause of the decreasing density and multiplexity of social networks. And second, it contributed to the concentration and scaling up of retailing. Shops and hawkers disappeared from neighborhoods and villages. Meeting opportunities and places disappeared, and the sphere of personal relations between the local shopkeepers and their clients, with informal credit, became a phenomenon of the past.

In short, local community life is not a thing that people find ready-to-use. Nevertheless, people use the few possibilities that the local environment still has for maintaining a communal life. First, people who live in neighborhoods with higher residential stability do more participate in local communal activities (Sampson/Morenoff/Earls 1999). Second, local interdependency may foster communal life and often is explicitly sought. In the United States residential community associations (RCA's) increased vastly (Kennedy 1995). Also local self-governing communities can be quite successful (Ostrom 1995; Ellickson 1994). This suggests that delegating some governmental authority to a more local level could bring about some degree of communal revival of localities. A further development in this direction would require quick and easy ways of communication, deliberation and decision making, such as by way of local online communities (e.g. Cohill/Kavanaugh 1997).

Organizational communities

Some considerations suggest that organizations can have a community character, but there are also reasons to expect severe limitations.

Two considerations suggest that organizations function as communities to some degree. First, many firms have to deal with complex production processes and therefore highly interdependent task structures. This generates a need for employees with high contextual performance and affective commitment to the organization, and because of that a need for long-term relations with employees. Second, it is well known that your colleagues may be also your friends. This suggests that the work place can be a source of communal life. This is confirmed by evidence showing that becoming unemployed not only has negative financial, but also severe negative social-emotional consequences (cf. De Vos 1990).

On the other hand, three observations point to the limitations of organizational community building. First, there are and will remain organizations with rather simple production processes with a low need for contextual performance

and for long-term relations. In these organizations there is not much to be expected of a communal life. Second, one important ingredient of communal life, the multiplexity of relations, can hardly be attained within the context of an organization. Social life on the job and at home mostly are strongly separated, because of work-home distance (sprawl). Third, organizations are hierarchies and therefore easily induce competition for promotion possibilities, which triggers status competition.

The nation-state and citizenship

The increase of the nation-state, and especially the welfare state, is of course furthered by the decline of community. Tasks and functions that originally belonged to communities were taken over by governments (social security, social order, education). This inspired the idea of citizenship and civil society: the nation-state was, or should be, a social form in which individuals' rights and obligations find expression in a way that is similar, although more abstract, to authentic community (Marshall 1964). More concretely it is hypothesized that citizens experience their relation with government as a reciprocity relation, albeit an imagined one. They would not be (very) calculative and consumeristic towards governmental arrangements, not engaging e.g. in tax evasion and fraud. Many countries indeed know a high degree of tax compliance. And more than eighty percent of Dutch citizens agreed with statements that clearly express a reciprocity perspective towards their government (Ester/Halman 1994). Nevertheless, in the Netherlands the expansion of the welfare state was accompanied by increasing concerns about a too consumerist attitude of citizens toward governmental provisions. Indications of an increasing abuse of these provisions piled up. Legislation and implementation were readjusted in order to keep abuse under control. This more strict policy had as a negative side effect that the signaling of the communal mode got even weaker.

There are of course serious impediments to the functioning of a nation-state as a community. The nation-state is a highly abstract social construction and some mental effort is required to discern the effects of governmental policies on one's daily life and the consequences of one's own actions on governmental arrangements. It is really somewhat difficult to see oneself standing in a reciprocity relationships with the nation-state. That so many people nevertheless tend to have this view testifies to the strength of their need for community. But it should also be noted that the rise of mass media had important consequences. Television made it easier for voters to develop 'parasocial' relationships (cf. Rubin/Perse/Powell 1985) with politicians. And computer-mediated communication has high potentials for citizen-with-government and citizen-with-citizen communication.

3.3 Building Community Anew

For people who are born and who grow up in contemporary society, it is difficult to realize that their social environment is rather strange seen from the perspective of the history of humankind. Personal experiences with a more communal way of living have disappeared within a few generations, handing down nothing

else than stories about 'the good old days' and 'paradise lost', that are difficult to grasp. Nevertheless feelings of something being wrong can lead to attempts to intentionally build community anew. They exist of initiatives to bring people together with the aim of building a communal way of living on their own, with varying degrees of exclusion of outsiders, and with varying degrees of efforts to propagandize this way of living to the wider world. In general, these phenomena are less visible, but they do definitely exist in recent periods of modern history. Some forms in which they exist are communes and utopias, self-help groups and local exchange trading systems (LETS).

Communes and utopias

Societies in upheaval have always been a breeding-place for communes and utopias, or, as they are often called: intentional communities. The greatest wave of community building in America occurred in the middle of the nineteenth century. Well-known examples are the Shakers, the Oneida Community, the Amana, and the Hutterites, of which the last two exist until the present day (Smith 1999). Their strivings for building a communal life were concisely described as: "They attempt to repersonalize a society that they regard as depersonalizing and impersonal, making person-to-person relations the core of their existence." (Kanter 1972, 213) A second wave of community building in the United States occurred in the 1960s and 1970s.

Kanter (1972) extensively studied both waves. She found that the successful communities succeeded in instilling a high degree of commitment in their members. Her description of the meaning of commitment deserves to be quoted at some length. "A person is committed to a group or a relationship when he himself is fully invested in it, so that the maintenance of his own internal being requires behavior that supports the social order. A committed person is loyal and involved; he has a sense of belonging, a feeling that the group is an extension of himself and he is an extension of the group. ... Commitment thus refers to the willingness of people to do what will help maintain the group because it provides what they need. In sociological terms, commitment means the attachment of the self to the requirements of social relations that are seen as self-expressive." (Kanter 1972, 66) This clearly is a picture of a social environment that overwhelmingly triggers the reciprocity mode. A special problem is that these intentional communities have to found and maintain a community within a predominantly competitive society. This requires a radical departure from the rest of society. Indeed, communes and utopias represent the most radical and encompassing ways of trying to realize the ideals of community living. Other ways to build community anew are easier to reconcile with living in contemporary society.

Self-help groups

The development of self-help groups is generally ascribed to Alcoholic Anonymous, which was initiated in 1935. Since then such groups spread and evolved (Lieberman/Snowden 1993). Self-help groups are cost free, member governed, and peer led and made up of people who share the same problem and who pro-

vide mutual help and support. They are an alternative or an addition to professional services. Services provided vary widely. Examples are: phone help, buddy systems, home visiting programs, peer counseling, training of peer counselors, transportation facilities, newsletters, public education, speaker bureau, and prevention programs for the community at large (Lieberman/Snowden 1993).

People join self-help groups mainly for two reasons (Katz/Bender 1976). First, in a society with a low level of community living many of those people who happen to run into a serious individual problem, are not embedded in a network of reciprocity relations. For them it is difficult to find support in their own social vicinity. A self-help group offers the opportunity to meet others with the same problems. This not only gives them access to others who can provide information, advice and support, but also provides opportunities to inform, advice and support others. So they do not only meet others who are useful to them, but also they can make themselves useful. And because they share the same problem, they will easily understand each other.

Second, professional services are inevitably always more or less bureaucratic and impersonal. Although these services may meet the latest scientific and professional insights, their way of deliverance is always highly impersonal, and the services may be poor in terms of empathy and emotional support. Joining a self-help group therefore often is chosen as an important addition. In fact, many self-help groups are professionally initiated and supported.

This suggests that self-help groups are an important source of the benefits of community. Running into an individual problem of some sort may be the immediate cause for joining a group, but the consequences of joining may be positive for general well being and health.

Are self-help groups indeed much more than an oddity? Lieberman and Snowden (1993) estimate that in 1992 7.5 million Americans participated in a self-help group. Wuthnow (1994) found that in the 1990s forty percent of the adult population claimed to be involved in "a small group that meets regularly and provides caring and support for those who participate in it".

In general, members of self-help groups somehow must have found each other. Probably the real demand for self-help groups is larger than the supply, because of an information problem. Clearinghouses can offer some combination of the following services: compilation and distribution of self-help group listings, information and referral to groups, technical existence to existing groups, assistance to persons starting new groups, public awareness, professional education (Meissen/Warren 1993). The rise of computer mediated communication is highly relevant for this information problem. Probably Internet and electronic mail boosted up the development of use of self-help groups during the 1990s.

Another problem for self-help groups is that it that (potential) members do not live close to each other, for example because their particular problem is a rare phenomenon. For this reason many groups already used the telephone as a main communication medium. Computer mediated communication facilitates accessibility and alleviates problems of social stigmatization (Dunham/Hurshman/Litwin/Gusella/Ellsworth 1998; Davison/Pennebaker/Dickerson 2000).

Local Exchange Trading Systems (LETS)

LETS are self-organized local exchange systems based on generalized reciprocity, formalized by being recorded in a local currency. The systems are generalized, or multilateral, in the sense that a debt can be repaid to anyone else in the system, not only to the person from whom it was incurred. Starting with a local initiative in Canada, the phenomenon spread to the United Kingdom, Australia, New Zealand, the Netherlands, and to other European countries. In 2000 there existed about 90 LETS in the Netherlands, with a total number of participants of about 6500 persons (Hoeben 2003). In 1994 there were over 300 LETS in the United Kingdom, with a membership of more than 20,000 (Pacione 1998).

A LETS is run by a steering group that provides for a bookkeeper who records the transactions (Pacione 1989). Members indicate which goods and services they can offer and they receive a directory that lists all the goods and services available in the system. They can then arrange to trade with each other, paying in the local currency, although no member is obliged to accept any particular invitation to trade. No warranty as to the value, condition, or quality of services or items exchanged is expressed or implied by virtue of the introduction of members to each other through the directory. An open statement of each member's credit or debit balance is provided to all members on a regular basis, and any member is entitled to know the balance and turnover of another member's account. An individual's credit/debit balance does not affect ability to trade. No interest is charged. Prices are a matter of agreement between the parties. Goods and services that are traded are for example: arts and crafts, painting, plumbing, decorating, childminding, dogwalking, baking, gardening, massage, haircutting, shopping, legal advice, car maintenance, tuition, and so on.

Many members see LETS as collective effort to build a personalized economy, as an explicit alternative to the official, impersonal, and anonymous market. The phenomenon can indeed be considered as a social invention that reintegrates the economy into a system of reciprocity relations. It is however yet too early to ascertain the degree to which these efforts will be able to continue their initial success. It seems that LETS have low levels of trading activity as a persistent problem (Pacione 1998; Hoeben 2003). Probably LETS could profit considerably from computer mediated communication.

4. Conditions Favoring Communities

The foregoing provides several suggestions regarding conditions that are favorable to the viability of communities in present society. In short: the more people are interdependent, the more they have and/or expect to have long-term relationships, the more they have multiplex relationships and the easier they are mutually accessible, the more they will develop mutual reciprocity relations (which means: the more they are a community).

Probably community needs all four of these conditions for its (successful)

existence, but present knowledge is not sufficient to be able to specify the relative contributions (cf. Fischer 1984).

The interdependency condition

People more develop reciprocity relations, the more they expect to have 'things' (goods, help, advice) to offer to each other that lend themselves to delayed exchange. That is: in the long run everyone is expected: (1) to be sometimes in a position of having something to offer that has value for at least one other member, and (2) to be sometimes in a position of needing something that is offered by at least one other member. For example, villagers and neighbors in less developed market societies were more interdependent than they are nowadays, with all the facilities of the market, with money to spend, and with a government sponsored social security system. The awareness of interdependency triggers the communal mode.

The condition of (expected) long-term relationships

People develop more reciprocity relations, the more they expect to have a common future, that is, the more they expect, per relevant time period, small proportions of exit from the group and small proportions of entrance into the group. Actually this condition seems already to be implied by the interdependency condition. But (expected) long-term relationships may exist without much (or any) interdependencies. However, the sheer existence of (expected) durability induces people to deliberately create interdependencies, with the aim of widening one's circle of reciprocity relations. In those cases it is less the material interests that one aims at, than the well-being and health effects of having reciprocity relations. This happens for example by way of trying to find out what you can do to make yourself useful to others. Or you invite others, for example your new neighbors after you moved. In these cases the sheer existence of expectations of long-term relationships induces to signaling the communal mode.

The multiplexity condition

People develop more reciprocity relations, the more dimensions their relationships have. This is so because with more dimensions, there are more opportunities for helping each other. If people are only related to each other as colleagues, they have only the domain of work tasks as a source of opportunities. If they are also neighbors, or members of the same family, or friends, or members of the same association, assistance rendered on one dimension can be returned on another dimension. So the frequency of help exchanged will be much higher than on a one-dimensional basis. Multiplexity is related to interdependency: the more dimensions a relationship has, the higher the potential interdependency of the partners.

The easy accessibility condition

The more easily people who need something and people who offer something find each other, the more they develop reciprocity relations. Easy accessibility refers to low transaction costs relative to the value of help given. Accessibility

has cognitive, spatial as well as technical aspects. The cognitive aspects refer to easy mutual understanding. People may be in each other's vicinity, but if they don't speak the same language, they may have difficulties in exchanging information about needs, resources and intentions. But even if there is easy mutual understanding, interaction may be hindered by geographic distance (the spatial aspect). On the other hand, the relevance of distance diminishes with cheap facilities for transport and long-distance communication, such as the telephone and electronic mail (the technical aspect).

5. Internet and Community

I already mentioned some ways in which computer-mediated communication can help in maintaining, enriching or building community. A more systematic view on the potentials and limitations of the Internet for community living can be obtained by looking at the ways in which the existence of the Internet influences the degree to which the conditions for community are satisfied. Than it is immediately clear that the only effect the introduction of the Internet has is that mutual accessibility becomes easier. On itself the Internet does not change the degrees to which people are interdependent, to which they expect long-term relationships and to which their relations are multiplex. Nevertheless the decrease of costs of accessibility may have significant consequences for maintaining, enriching and building community.

For maintaining and enriching community the introduction of the Internet provided an added communication device in the form of electronic mail. The new element in electronic mail is its fast asynchronicity, as compared to the slow asynchronicity of the exchange of postal letters and the synchronicity of the telephone and of course face-to-face communication. This asynchronicity makes communication easier because direct contact is increasingly difficult to bring about under circumstances of high mobility and sprawl. This on itself is favorable to community maintenance and enrichment. Additionally, it may be that the relaxation of time constraints makes communication via electronic mail richer in content and in self-disclosure and empathic connection than face-to-face communication (Davison/Pennebaker/Dickerson 2000; Dimmick/Kline/Stafford 2000). It is also possible that simply the act of writing about personal experiences and problems, to which the sheer existence of email invites, has favorable consequences for the participants and their relationships (Pennebaker 1997). Nevertheless, the empirical evidence about the effects of electronic mail on community is scarce and sometimes negative (Kraut/Patterson/Lundmark et al. 1998).

Possibly more important is the potential of the Internet for community building. Although the Internet does not affect the interdependency between people, it strongly enhances the probability that people who are interdependent, in the sense that they could help each other, learn about each other and eventually start a relationship. In this way an existing potential for community is realized by people getting to know each other. Of course the nature of the interdependencies is restricted to what can be communicated by way of writing: exchange of valued

information, sharing of personal experiences and emotional support. Probably
the Internet strongly stimulated participation in illness support groups (Davi-
son/Pennebaker/Dickerson 2000). Other examples are newsgroups and bulletin
boards, although these often are much less personal and communal than sup-
port groups. Finally, local online-communities may contribute to vitalization of
neighborhood communities (Cohill/Kavanaugh 1997).

6. Discussion

Although community is a core sociological concept, its precise meaning is often
left vague. In this article it is pointed out that it is a social form that has deep
connections with human social nature. Human social life and human social his-
tory can be seen as unflagging struggles between two contradictory modes of
human social nature: reciprocity and status competition. Relative to hunter-
gatherer societies, present society is a social environment that strongly seduces
to engage in status competition. But at the same time evidence increases that
communal living is strongly associated with well being and health. A large part
of human behavior and of societal processes are individual and collective expres-
sions of on the one hand succumbing to the seductions of status competition
and one the other hand attempts to build and maintain community. This is
not only a big individual challenge, but also a collective one, and therefore an
important policy problem. Government policy is predominantly influenced by
economic considerations. This leads to policies that strongly rely on the market
mechanism as the main source of everything that people value. But the growth
of the market makes people less personally interdependent. And it increases
mobility and sprawl and therefore is detrimental to long-term relationships and
multiplexity. This points to negative effects of policies to further economic de-
velopment on the conditions for community. It also points to the fact that a
considerable part of economic growth is spent on attempts to maintain and re-
install community, such as transport and communication, by way of increasing
accessibility. So economic growth is partly used, by way of earning and spending
money, to 'procure' a certain degree of community that was for free earlier.

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