

Abstract

This article shows that business ethics is not capable of explaining the responsibility of limited organized collectives such as chains, sectors and industries. The responsibility of the pharmaceutical industry to make AIDS-blockers available for patients in Africa is an example of such a sector responsibility. By using system theory it is possible to understand responsibility at the level of a social system. The Integrative Social Contract Theory has been extended to determine this system's responsibility.

Industry and chain responsibilities and Integrative Social Contract Theory

Introduction

These must be golden days for business ethicists with ample issues screaming for an ethical business analysis. Take for instance the financial crisis. Many analysts describe this as essentially an issue of morality. The French president, Nicolas Sarkozy, has even vowed to transform the world economic crisis into an opportunity by reinventing capitalism with a strong dose of morality¹. People like Sarkozy perceive this crisis to be the result of unbridled greed. The executive payments and the six-digit bonus culture are seen as having led to perverse incentives. All the rating agencies' incentives were to increase their valuation of companies. Everyone had an interest in ever-higher valuations. Other examples calling out for ethical analysis are the climate crisis and the related inability of governments, companies and the wider public to reduce their energy consumption. According to Al Gore, in his movie "An Inconvenient Truth", the climate crisis in the end boils down to a moral issue: that it is the duty of our generation to solve the climate problem for future generations. The fraud scandals of the last decade, such as those involving Enron, Ahold and Parmalat, the problem of chain responsibility for wood and illegal logging and the poor labour conditions in

coffee and textile production² are further examples of the issues within and around companies that have important moral sides to them.

Ethics is now generally accepted by business people, politicians and the media as relevant when considering these issues. During the 1980s, the rationale of business ethics was still under discussion. Under the motto “The social responsibility of business is to increase its profits”, Milton Friedman opposed the view that a company should be guided by any motives other than profit³. However, ever since the Brent Spar disaster and the major climate conferences in Rio de Janeiro (1992) and Johannesburg (2002), companies have begun to accept that they may have social responsibilities.

Nevertheless, the contribution of business ethicists to the aforementioned major societal issues is still remarkably muted. Business ethicists do not seem to know how to capitalise on the attention that these issues are now receiving. The golden days have yet to start for the business ethicists. In this article, I want to emphasise that the silence from the business ethicists is primarily one of a conceptual nature. The corporate responsibility concept that was developed in the 1980s and the early 1990s does not measure up when analysing the current large social issues.

It is my opinion that the cause of this problem lies in the fact that we relate moral responsibility only to (1) actions of natural persons or formal organised collectives, (2) that can be considered as responsible for an undesired effect in a causal sense and (3) that can be judged by applying universal norms. As such, only natural persons or formal, organised collectives qualify for a moral assessment. It is only possible to hold these natural persons or formal collectives accountable in retrospect for behaviour that leads to undesired effects. Furthermore, it is only possible to evaluate behaviour if it is possible to apply universal norms.

However, the major social issues of today in which companies play a role demand a richer concept of responsibility. Many actions reflect the norms of the chain involved, the industry, the sector or other comprehensive social systems to which the individual or the well-organised collective belong. One should not restrict the concept of responsibility to individuals and well-

structured organisations, it is also possible and useful to hold a comprehensive social system responsible for those results that go beyond the intentions and responsibilities of the agents within that social system. Responsible behaviour should not only be based on a minimum standard that must be met, but should also be concerned with the question of how to contribute to the success of the community. With this, the concept of responsibility becomes defined from the perspective of the community. Here, we leave the idea of the universal applicability of norms behind us. What role does the person or organisation fill within the community? This is a new way of looking at social issues, a new paradigm, a new ethics. In this article, I would like to outline the contours of this new approach to ethics.

To some extent, Integrative Social Contract Theory (ISCT) offers a solution to the problems for which current business ethics have no answer. This theory offers the possibility of formulating standards from the perspective of a community. Within this theory, it is also possible to define new communities, such as an industry or a chain, and to develop standards for these new 'communities'. However, ISCT needs to go farther: it is not sufficient to develop standards and to retrospectively assess the conduct of the members of a community based upon that standard. It is also important to be able to determine in what communities a person or organisation plays a role, how decisions are made about a community's goals and how members of that community are able to contribute to these goals.

Let me start my line of reasoning with an analysis of a case that clarifies the character of the demands on firms and how the standards in this area have developed enormously over the course of barely twenty years. The case concerns the role of pharmaceutical companies in the fight against HIV/AIDS and other life-threatening diseases in developing countries. This will be compared to a very similar case that played out in the 1980s: Merck's commitment to the fight against River Blindness. The comparison between the two situations illustrates how our expectations of businesses have

changed enormously over the last twenty years. As a consequence, we need to rethink the standards that we apply to companies.

AIDS blockers for Africa

Recently, a discussion arose about the provision of AIDS blockers to developing countries. The South African government pressured a number of pharmaceutical companies to make these medicines available in South Africa at below market price. HIV/AIDS is a serious problem in Africa. Many people are infected and, apart from the serious suffering that this disease causes, it is also an economic disaster for Africa. Employees who are infected with HIV translate into a high dropout rate for companies. The large number of deaths among adults in their prime means a loss in production capacity. African societies have to contend with many orphans. Initially, the large pharmaceutical companies refused to acknowledge the request from the South African government that they offer AIDS blockers to the South African markets at much lower prices. The multinationals were particularly afraid that medicines that were offered cheaply to South Africa would reach the western markets through the black market. High prices for new medicines, and their protection through patent rights, are necessary for the pharmaceutical companies to recoup the huge investment costs in research and product development. South Africa then threatened to no longer recognise the patent rights for the AIDS blockers and to make it possible for these medicines to be bought for a fraction of the existing costs using so-called parallel imports. These involve producers who copy branded, patented products without having invested any money in research and development. Many of these companies are based in India because of favourable local legislation: according to Indian law, a drug only qualifies for a patent when it is a new invention or a significant improvement on an existing one. The law denies patent protection to new versions of drugs invented before 1995. With this situation, India is sometimes called the pharmacy of developing countries.

This problem does not only concern HIV/AIDS medicines; it concerns all medicines that are developed to cure life-threatening diseases. In the 1990s,

there was much debate about this problem. A major reason for the debate was the adoption of the TRIPS agreement (Agreement on Trade-Related aspects of Intellectual Property Rights) in 1994. This agreement dealt with the protection of intellectual property, including patents on medicines. The agreement appeared to have devastating effects on access to medicines for developing countries. The pharmaceutical companies were using this agreement to ban generic medicines from local markets and, by doing so, creating *de facto* monopolies and keeping the prices of their medicines high. Forced by the developing countries and public opinion, the World Trade Organization (WTO) addressed this critical issue as part of the launch of a new round of global trade negotiations. In 2001, the Doha Declaration on the TRIPS Agreement and Public Health was adopted, stating that intellectual property rules should not prevent countries protecting public health. The Declaration affirmed that developing countries could introduce public health safeguards through price reductions using generic competition. It also directed member countries to facilitate access to generic medicines for poor countries with insufficient drug manufacturing capacity.⁴ However, five years after the adoption of the Doha Declaration, in 2006, virtually no progress was visible. The large pharmaceutical companies were against this agreement and Western governments, particularly the US, supported their pharmaceutical companies in opposing the Doha declaration by forcing developing countries into bilateral agreements to leave the patents of the pharmaceutical companies unaffected.

An important legal case involved a high-level appeal by the Swiss pharmaceutical company Novartis. This multinational wanted to determine whether an Indian court had been correct to deny a patent to a modified form of a leukaemia drug known as Glivec. Novartis lost this appeal. The Indian court rejected the application on the grounds that the new drug was insufficiently different from the previous version.⁵ The Indian Government and many NGOs welcomed the ruling. It was seen as an exemplary case for the possibility of producing other medicines for life threatening diseases by Indian pharmaceutical companies. The court case brought by Novartis

effectively challenged India's ability to produce cheap AIDS drugs. According to Novartis' head of research, Paul Herrling, there were clear inadequacies in India's patent laws. These would have negative consequences for patients and public health in India. "Medical progress occurs through incremental innovation. If Indian patent law does not recognise these important advances, patients will be denied new and better medicines." A spokeswoman for the company said Novartis thought it had "advanced the debate" with this court case and now wanted to combine forces with other interested parties in continuing its campaign.⁶

What is interesting is the change in the way people view this situation compared with how they viewed a very similar instance twenty years earlier. At that time, the pharmaceutical company Merck decided to develop a cure for river blindness in its own research laboratory and to make it freely available worldwide. River blindness is a disease that is caused by small worms that enter the body through the skin and eventually harm the optic nerve. This disease only occurs in developing countries, especially in the poorest areas, where there would not have been the means to buy these new medicines. Merck's actions created the possibility to completely eradicate the disease. Because of this, Merck was regarded for many years as the most ethical company in the world and was presented by business ethicists in the media, and in university classrooms, as a good example of corporate social responsibility. What is striking is the difference in the general public's attitude towards this issue in contrast to the issue of AIDS blockers. Merck was praised for its contribution to solving a major social issue: its behaviour was seen as above and beyond what was expected. In comparison, the pharmaceutical companies that are active in Africa today are being called to account to live up to their 'duty' and deliver a social contribution. It is nowadays regarded as improper for these companies to make a profit at the expense of the suffering of the African population who are unable to afford these expensive medicines.⁷ Today, the public expects more of pharmaceutical companies.

Fundamental questions for business ethics

Four characteristics of this case attract attention:

- First, there is no clear agent that we can hold accountable for the failure to make AIDS blockers available at an affordable price in Africa. Each pharmaceutical company can point to the responsibilities of a large number of other parties, competitors as well as governments, clients, shareholders and non-governmental organisations. The issues described point beyond the responsibility of individual companies. They concern a multitude of companies, organisations and individuals that have a *joint responsibility*.
- Second, there is no clear moral norm that is being infringed. The pharmaceutical companies point to the fact that they are fulfilling their obligations. They are not doing anything illegal, and they are not philanthropic institutions. The pharmaceutical companies also highlight a *social interest* that, in their opinion, justifies their actions: a price reduction for HIV/AIDS blockers in Africa might limit their possibilities to invest in R&D and, with this, develop new medicines in the future.
- Next, the company is only an element of a larger system. There are factors that lie beyond a company's control and limit to a large extent *the level of responsibility* that the individual companies can take. The pharmaceutical companies feel pressured by the markets. If they sold the HIV/AIDS blockers in Africa at less than the market price, then the reduced profits would have to be recovered elsewhere. Further, in the western markets, they face competitors who will exploit this advantage. The possibilities for individual companies to take steps to contribute to solving the HIV/AIDS problem is largely determined by what the markets allow.
- Finally, there is a shift taking place from the question of assigning responsibility to a company, or holding a company later accountable, to the question of how companies can contribute to solving social issues. What is it reasonable to expect from an individual

pharmaceutical company in terms of its social contribution to solving the HIV/AIDS problem in Africa?

These characteristics of current social issues raise fundamental questions regarding business ethics.

1. The idea of shared responsibility forces a rethink of the collective responsibility concept. How can a company's responsibility be understood when it is shared with other companies and other social actors? Do the pharmaceutical companies have a shared responsibility for solving the HIV/AIDS problem in Africa? If so, what does that imply for the responsibility of individual pharmaceutical companies? Is there a difference in responsibility between those companies with markets in Africa and those without African operations?
2. The change, from thinking in terms of minimum obligations to thinking in terms of an obligation to contribute to a social cause (achieving a public good), also has far-reaching consequences for the conceptual development of business ethics. What are the responsibilities of pharmaceutical companies in general for solving the AIDS problem in Africa?

Collective responsibility reconsidered

The responsibility of collectives is a difficult issue that has not been extensively analysed. In ancient times and during the Middle Ages, thinking in terms of collective responsibility was not seen as problematic. In fact, it has only become problematic in relatively recent times. The individual, as the subject of rights and duties, became increasingly central during the 17th and 18th centuries. The most important theoretical movements in ethics, the deontological ethics building on the work of Immanuel Kant, and utilitarianism based on the ideas of Jeremy Bentham and John Stuart Mill, rely strongly on the idea of individual responsibility.

During the Vietnam War, a discussion started on the responsibility of collectives. The massacre at My Lai by American soldiers was an important

factor in this discussion. Can you hold individual soldiers responsible for crimes they commit while under orders from their superiors? Is it then the superiors, or the superiors of the superiors, as natural persons, who should be held responsible for such actions? Thinking only in terms of individual responsibility seemed to be inadequate for conceptualising the responsibility for the committed crimes. The role of the organisation within which these individuals function is relevant.

In the 1980s and 1990s, the responsibility of companies, as collectives, was seen as one of the most important fundamental questions for business ethics. What is the responsibility of German companies today for the prisoners that were used by them during the war? The scope of the question has widened. Attention is now paid to the responsibility for damage caused by a company in the distant past. What is the responsibility of a company for the health problems of their former employees resulting from using asbestos during the production process? What is the responsibility of a company for the environmental damage resulting from the dumping of poisonous waste? What if none of the managers who made the irresponsible decisions are still active in the company? What if the company has new owners? Whereas you can call a war criminal to account for his crimes years later, it does not seem so fair to do the same with a company. Who are you punishing? In addition, with a company, whether the people were aware at the time of the health or environmental risks plays a part as well. To judge the actions of an individual in moral terms there must be intent, which means that actions were taken knowingly and willingly. How, then, do you know that a company is aware of the risks it is taking, and that these were therefore taken willingly?

Until 1983, the dominant standpoint among the first generation of business ethicists was that company responsibility was primarily a concise way of speaking. They were reacting to Milton Friedman who sees no room for morality within the company context⁸. Responsibility, for those business ethicists, was the personal responsibility of managers. This standpoint was expressed, among others, by Manuel Velasquez in his 'Why corporations are

not responsible for anything they do'.⁹ When a person acts on behalf of a company it is possible to assess their actions in moral terms, but one cannot involve the role of the company context in that assessment. According to Velasquez, moral responsibility is bound to natural persons. Velasquez' approach offers no solution for locating responsibility in complex and unclear situations in which several officials could be held responsible, or rather responsibility is spread among various people, or in situations in which responsibility stretches over a lengthy period. In these situations, it is not possible to equate responsibility to the responsibilities of natural persons.

Two key events saw a turning point in the way of thinking about the responsibility of companies as a collective responsibility: the publication of Peter French's *Individual and Collective Responsibility*¹⁰ in 1983, and Royal Dutch Shell's decision in 1995 not to sink the Brent Spar oil platform to the bottom of the ocean¹¹, which was seen as giving in to wide social criticism. The publication of French's book started a discussion among business ethicists about whether the company, as a collective actor, could also be held responsible. The Brent Spar affair, to some extent, terminated this debate: not because there were no longer any differences in opinion, but because Shell was the first multinational to accept a collective responsibility. With this, the debate seemed outmoded.

Due especially to Peter French's publication, it has become largely accepted that a company's actions cannot be regarded as only the sum of individual actions. Precisely through collaborating, an advantage is realised, which means that the responsibility for the effects of the company's actions cannot be distributed among managers or employees without losing some responsibility: the overall responsibility is more than the sum of the individual responsibilities. According to French, a company can act in the secondary sense. It is possible to make a distinction between the physical act and the meaning of that act¹². A person can sign a contract. Signing the contract is the physical act: it is an act of a natural person. This is acting in a

primary sense. When the director, following the correct procedure, signs a contract on behalf of the company, the company is acting in an indirect, or secondary, manner. When actions are guided by formal decision-making procedures, and are in line with the company's culture, there is intentional action by the company, which means that actions are taken willingly and knowingly on behalf of the company. The company is therefore not only a legal agent but also a moral agent. By considering the company to be a moral agent, it becomes possible to also use the moral criteria that can be applied to natural persons for the assessment of a company's actions. If natural persons are not allowed to litter the streets, then Shell should not be allowed to dump the Brent Spar in the ocean.

People have long opposed the idea of collective responsibility. This rejection is primarily inspired by the fear that accepting the idea of collective responsibility would lead to a decrease in individual responsibility. The assumption being that responsibility for a given event is a quantity that can be established in precise terms. According to this school of thought, the acceptance of collective responsibility automatically leads to a diminishing of individual responsibility. However, this is not necessarily so: the acceptance of collective responsibility does not imply that individual responsibility is inevitably diminished. In a number of cases, the opposite occurs. Where a result is achieved through cooperation, total responsibility increases. Each member of a collective who is able to influence that collective is responsible for the overall result. Take, for example, two people who jointly kill somebody – they are both responsible for the murder. If only one of the two people committed the murder but the other was able to stop the murderer, then the second person is also to an extent responsible for the crime. This last example shows that more is at stake in the responsibility of people who are cooperating with each other. Cooperation creates the possibility to correct other members of the group, and this implies responsibility.

In the 1980s and 1990s, a number of articles and books on the issue of the collective responsibility of companies were published.¹³ This seemed to

reflect an endless debate between believers and non-believers. Surprisingly perhaps, the discussion faded away at the end of the 1990s without a clear conclusion. A key factor is that many large multinational companies, such as Shell, accepted some form of collective responsibility. During that time, certain companies were accused of irresponsible behaviour, and philosophers debated the topic of collective responsibility, however this was not accepted as a valid concept by the multinationals. The term responsibility in connection to a company was seen as a sloppy way of speaking: in the end, it had to be the executives or employees who had acted irresponsibly. Often it was seen as purely a question of legal liability: who has to pay? The criticisms of their intention to sink the Brent Spar oil platform led to a reversal in the thinking of the company. Shell recognised that it had a social responsibility. It was no longer only niche players like the Body Shop and Fair Trade that profiled themselves with ethical products. Mainstream companies acknowledged that they had a social role and tried to shape that under the title of Corporate Social Responsibility. The question for these companies was no longer whether they fulfilled a social role, but what moral standards they should apply and how far their social responsibilities stretched. Business ethicists started to develop all kind of instruments to help these companies implement ethical policies. The concept of Corporate Social Responsibility was embraced by business ethicists. Business ethics was cast in a new jacket.

Since then, much energy has been put into the development of codes of conduct, the integration of ethics in business, moral and ethical audits and sustainability reporting. It is precisely the structure of a company that has made it possible to understand company activities as deliberate acts, and to judge these in moral terms. The same structure offers opportunities to steer the company in an ethical manner.

Currently, we are facing a new problem concerning collective responsibility. We now have to think about the responsibility of non-formalised or less formalised forms of organisations such as sectors of industry, branches and chains.

The questions raised about the responsibility of pharmaceutical companies for the availability of AIDS medicines in Africa means that the issue of collective responsibility must be reconsidered. We are, just as in the 1980s and 1990s, confronting the boundaries of our conceptual framework. We are able to understand the activities of a well-organised company as moral actions, but many activities of a company are to an extent forced. Companies are part of a chain and may have little influence over how their raw materials and consumables are produced and supplied. Ultimately, they also need to comply with the requirements of customers and final consumers. Companies are part of an industry or sector. Investors constantly compare them with their competitors. It is difficult not to adhere to all the practices that are seen as normal in the sector or industry. Companies that ignore the 'norm' will be priced out of the market, will no longer attract employees or will be unable to attract shareholder capital. This is the problem faced by the pharmaceutical companies that sought a solution to the question of the affordability of AIDS medicines for patients in Africa. Companies cannot escape the comprehensive systems of which they are a part. Shareholders of pharmaceutical companies base the valuation of these companies on the value of the patents and the degree of innovativeness in the business. For shareholders, it is important to know whether patents also mean revenue in the future. The shareholders will include pension funds, and such institutional shareholders experience a duty to protect the funds entrusted to them by making profitable investments. What does this dependence on shareholders and customers imply for the moral responsibility of a pharmaceutical company? Does this reduce the responsibility? Where there is no freedom there can be no responsibility.

Many social organisations, such as an industrial chain, an industry or a sector have a very limited structure. They perform no actions and there is nobody who acts (in a secondary sense) on behalf of that chain, a sector or industry. The chair of a trade association is not the manager of that industry. There is also no formal structure laid down in articles of

association, further developed in an organisational chart, in which duties and responsibilities have been documented and which are supported by performance interviews.

In recent years, within various disciplines, research has been conducted into forms of organisation that lack a hierarchical structure and a leader, a director or a management team that steers the organisation using rules and procedures or through personal guidance. This research is based on fundamental ideas taken from systems theory.

The systems approach

The systems approach was introduced by the biologist Ludwig von Bertalanffy. For him, it was clear that the mechanistic and reductionist methods of analysis, that were developed in the pure sciences, failed to explain biological phenomena. A characteristic of science is that physical systems are often treated as closed systems. A physicist can describe an atom or the solar system, he can link the mass of an object to the force exerted by that object. The assumption, in all such cases, is that all the relevant elements of the system are included in the model. The symptoms are reduced to linear relationships, or derivatives thereof: the relationship between distance, speed and time is a good example. With such a model, the physicist is able to make statements and even forecasts. This reductionist and mechanistic way of analysing physical phenomena works well within the sciences, but Bertalanffy realised that within biology it is not possible to abstract a biological system from its environment. A biological organism uses oxygen, water and food, it grows, it sometimes moves and sometimes it dies, it produces carbon dioxide, and leaves metabolic waste and organic residues behind. A biological organism is an open system, it interacts with other systems in the area. It receives inputs, processes the inputs and delivers outputs. The biological organism, together with the environment of that organism, forms a comprehensive system.

We often try to understand social issues and determine how to handle them in a similar way to physical issues. We reduce the issues to a few simple linear relationships and make decisions based on the resulting linear models. This approach ignores many aspects. Economic theory therefore often uses the *ceteris paribus* get-out clause in such situations. Where there is a difference between theory and practice, economists are able to refer to the premises behind the model. In many cases, the approach that is used in physics fails when it is applied to social and socioeconomic systems. In many cases, the argument advanced by Bertalanffy is also applicable here: as in biology, adopting a systems approach can often lead to a better understanding of social issues.

A system is seen as an organised whole. It includes a collection of entities, both real and abstract, which influence each other. Every element of a system has an influential relationship with at least one other element in the system. A social system consists of people, or organisations of people. We often call this a community. A system can also involve abstract elements. Take for example a legal or a moral system. A legal system includes laws and regulations, and also institutions. A moral system contains values and norms: the moral aspects of a culture, and its structure and moral institutions, are incorporated. A moral system entails values and norms and also the way in which these values and norms are institutionalised in rules, procedures and institutions, and incorporated within a culture.

Systems can be nested, in other words a system can be an element of a larger, more comprehensive, system. In such a situation, we have to deal with subsystems. The subsystem is in itself a system that might consist of interrelated elements while, at the same time, it is an element of a comprehensive system. Elements taken from various systems are collectively able to function as a system in themselves. A good example is the public transport system within a city. This is a subsystem of the city system. However, together with the provincial, national and international public transport systems, it forms a new system.

Adaptive systems are able to respond to changes in their environment. By adapting to changes, they are better able to survive. Interestingly, such changes do occur without any administrative body. Such action is seen in bees: through dance movements, a bee is able to give information about sources of nectar to other bees. This exchange of information takes place without the intervention of a “chief” who collates information and takes decisions. The term Queen Bee is misleading in this sense.

Within complex adaptive systems, ‘emergence’ can occur. Emergence is “the movement from low-level rules to higher-level sophistication”¹⁴. Due to the interactions between the elements of a system, or different systems, unintended and unpredictable processes can start. Ants, for example, will build a collective anthill. A large number of ants respond to each other's activities. Each activity is guided by simple rules. The anthill arises from all these actions without any awareness of the result to be achieved and without any steering from a governing body. Ants stop building the anthill when they have reached the right size for the colony. If there is a large number of interactions between a multitude of elements then emergence is more likely to occur. Feedback loops lead to a situation where small changes can have a major impact.

Public transport in rural areas is an example of such an emergent process. If people feel that they can rely on public transport, they will be less inclined to buy a car. This will lead to a more effective use of public transport. The opportunities for system innovation are reduced when the interaction between systems and system elements is obstructed, and this comes with certain risks. It is possible that an interaction between different elements will put negative processes into motion. In a large gathering, mass hysteria might occur. A small change in the climate might lead to changes in nature which, in turn, will lead to a new equilibrium. A cutback in public transport in rural areas can launch a negative spiral. Once people feel that they can no longer

can rely on public transport, they will possibly buy a car. When the car has been purchased, more journeys will be made.

When looking for a solution to major social issues, it is important to consider these emergent processes. In many cases, social issues are a result of unintended negative emergent processes. Emergence can also be used in system renewal and can help in finding appropriate solutions to large social problems. In what circumstances will emergence within social systems occur, and what factors stimulate emergence that leads to a form of self-organisation that contributes to resolving the social issues?

The coordinated response of elements of a system can lead to changes: a sound vibration can lead to an avalanche. Intelligent change in systems is possible if the actors within a system recognise patterns in the behaviour of other actors, respond to these signals and function as a interactive source for other actors. The behaviour of car drivers caught in a traffic jam is an example of this. The behaviour of brokers on the stock market also offers a superb example of a system in which actors respond to other actors within that system. In this respect, social systems differ from physical or biological systems. It is knowledge of the functioning of a system¹⁵ and of its control mechanism that makes this possible. People, as part of a social system, can be aware of how the system works and how desired effects can be promoted.

Information about traffic jams displayed on signs or broadcast on the radio enables car drivers to respond in an intelligent way. People who have yet to start out will probably delay their journey. Those who are already on the way will, if possible, adapt their behaviour, maybe by changing their planned route. Drivers stuck in a jam will be able to inform the people they were planning to visit about the delay. Generally, information on the stock exchange will promote rational behaviour. Through rules imposed on all companies listed on the stock exchange, traders are able to trust the information provided by the companies. Due to these rules, they know that everyone is informed simultaneously, which also promotes rational

behaviour. To prevent irrational behaviour on the stock exchange, it is sometimes desirable that the trading in a share is stopped. When information about a company is unclear, or not all the parties are equally informed, then one party selling shares might lead to the sale of shares by others. The stock market rules limit the risk of panic.

According to the Dutch politic philosopher Herman van Gunsteren¹⁶, there are four principles that further the self-organisation of systems: diversity, remembrance of patterns of earlier reactions to an event, selection and indirect control. These are not the mechanisms of the self-organisation process itself, which involves feedback mechanisms etc.. The principles that stimulate self-organisation reflect the conditions under which self-organisation is activated. Diversity ensures that a variety of new solutions to social issues are tried. People look at each other's behavioural patterns and are encouraged to learn from one another. Thanks to the remembrance principle, it is possible to compare a reaction to the patterns of behaviour in response to an earlier similar event. Selection makes it possible to choose intelligent solutions. Due to the diversity principle, multiple patterns are developed. Memory makes it possible to compare different patterns of behaviour. Selection makes it possible to choose the best pattern of behaviour. Indirect control, for instance through changes in the feedback rules, helps the agents within a system to formulate goals and to prevent negative emergence. The SEC rules are an example of this. Control has to be indirect, to guarantee diversity.

Once we believe that we understand the working of social systems and we accept that actors within these systems are able to use the mechanisms to steer the system, we have to ask ourselves whether such knowledge and the ability to indirectly steer implies a moral responsibility? Is it possible to understand this responsibility as a responsibility of the individual agents, or as a responsibility of the social system itself? In my opinion, it is justified and useful to hold a social system responsible for those results that go beyond the intentions and responsibilities of the agents within the social system.

An important characteristic of emergence is that the action of an individual agent is not a sufficient condition for a certain result. Some agents have sufficient power to influence the behaviour of other agents within the system through the applied rules. This does not guarantee, however, that the desired behaviour will be shown. It is often not possible in advance to identify, within the social system, causal relationships that ensure that the desired effect is achieved. There are too many mechanisms that may influence the result.

Emergence amounts to that system behaviour which cannot be understood as the sum of the actions of the actors within the system. Within a social system, it is possible for actors to have an understanding of the functioning of that system. This can become a shared understanding of the social issue by the actors within that system. The climate issue is a good example. There are many sources of CO₂ emissions that have an impact on the CO₂ balance in the atmosphere. The energy consumed by humans is one of them. We are, however, only responsible for a small part of global CO₂ emissions and the absorption of CO₂. The absorption and emissions of CO₂ by the oceans are many times larger. Many scientists have studied this but it has only recently been recognised by the IPCC that the disruption of the CO₂ balance has been caused by human intervention. Al Gore with his movie "An Inconvenient Truth" got the general public to pay attention to climate change. The world community is now much more inclined to accept that human behaviour is an important part of the climate system. This understanding may open the way for governments to intervene and create conditions where they can install mechanisms directed at guaranteeing a careful use of energy and developing renewable energy sources.

When such social issues are analysed at the systems level, system errors become apparent and the sub-optimisation can be tackled, leading to solutions at the subsystem level. However, on the higher levels the best solutions are not achieved. It also becomes clear that adverse effects are often passed to other systems.

At the level of a system, it is possible to understand the functioning of the system as behaviour, and to describe the awareness of that behaviour as a form of collective consciousness. People within the system can have knowledge about the way the system functions and may be able to influence and if necessary create the conditions that steer the system in the appropriate way, This is essentially the argument advanced by Al Gore. In his address to the Bali Summit about the renewal of the Kyoto protocol, Gore warned the 11,000 delegates about the cost of not solving the biggest challenge facing society at large. Gore said: "Our children will ask us – what were you thinking? Didn't you hear the IPCC? Didn't you see the glaciers and the north polar ice cap melt? Didn't you see the many more droughts and storms and floods? Didn't you see the sea level rise? Didn't you care? Or they can ask us – how did you find the moral courage to successfully confront the biggest challenge that faces the earth?"¹⁷

Due to the lack of control by a leader or governing body, it is impossible to describe this behaviour as willing and knowing acting. There is no boss, as it were, where the organisation's awareness is located, and it is only the coordination between the actions of individual actors that ensures that the goals of the social system are realised. Nevertheless, self-organisation, as a form of organisation, also brings with it responsibility. The theories of collective action make a clear distinction between organised collectives and the actions of individuals within an aggregate. When natural persons have a will and knowledge of what they are doing, they are morally responsible for everything they do. Organised collectives can willingly and knowingly act, and are therefore also morally responsible. The systems approach shows us that there are multiple levels of organisation in a collective and, as a consequence of this, that there are various levels of moral responsibility. It is possible and useful to understand the functioning of a social system as acting. Social systems can have important social consequences, and actors within the system can be aware of the role that they play within the social system. Therefore, it is justified to describe the behaviour of the social

system as the responsibility of that social system. The question then is what this responsibility entails, and how does this system responsibility relate to the responsibility of the elements of that system, or rather the actors that function within it.

The responsibility of social systems

The responsibility of a social system or a community can be understood as a collective one. A social system can be held responsible when the social system causes a social problem and/or is able to contribute to the solution and fails to do so. The moral responsibility of a social system or a community is embodied in the actors that have roles within the system. Effectively, the responsibility of the actors is a derivative of the system's responsibility. The role that each actor plays determines their contribution to the good functioning of the social system. This expectation implies a moral norm for the actors and is, at the same time, a part of the system's responsibility. The moral expectations of actors within a social system are interlinked, influence each other and form a moral system. These actors can be individual actors as well as collectives. When we recognise the responsibility of the system, this does not diminish the individual responsibility of the agents. In fact, system responsibility implies an extra level of responsibility. Furthermore, corporate responsibility is a special form of system responsibility. This system has additional well-defined roles and, due to this, more precisely defined responsibilities.

In a sense, a company is a special form of social system. The responsibility of a company can be conceptualised in the same way as that of a social system. In both cases, it is possible to translate the responsibility of the collective to the roles that the various actors within the business community fulfil. All employees and stakeholders contribute to the good functioning of the company, and each actor embodies some of the responsibility of the company. The concrete content of that role depends on the function that the actor fulfils within the firm. In a well functioning company, these roles are clearly defined and coordinated. Based on the role of the various

stakeholders, the responsibility for the success or failure of the company can be translated into responsibilities of certain departments, business units and officials.

The concept of moral responsibility can also be applied to a social system that is less structured. This could be an industry, a sector for example, a chain or companies within a particular district or region. Within social systems (communities), certain types of issues that require joint action might be at stake. The case outlined in this article about the responsibility of the pharmaceutical industry for making affordable AIDS medicines the available in Africa is a good example of a less-structured social system.

Actors within such a less-structured social system can use the following steps to understand the responsibility of that system, and to determine the role they play within the system and, from that, how they contribute to the system's responsibility:

1. Step #1: In order to determine the responsibility of a system for a social problem it is important that the borders of that social system are clearly defined. You could say that all the actors that are needed to find a solution to a problem belong to the relevant social system. In general, the borders of the system should be drawn as tightly as possible: the smaller the system, the easier it is to find a solution. If a solution involves passing the burden to actors outside the system, for example to people who are depending on the development of new drugs, then the boundaries have been drawn too narrowly. In such a situation, it is desirable to determine which parties need to be involved to find a solution to the social problem. Parties within the system have to actively mobilise other relevant parties. One might expect societal actors to adopt an open attitude towards major social issues and, where appropriate, contribute to their solution. However, when is it desirable and appropriate for them to contribute to solving a social problem? With this approach, a dynamic that can lead to entirely new ways of organising the chain, sector or industry will emerge.

2. Step #2: Subsequently, roles should be defined. What can be expected of each actor? The tendency will be to limit one's responsibility and to put it on the shoulders of others. The new way of understanding responsibility, that is necessary to solve the major social issues, requires actors to think more in terms of contributing to a solution. What contribution can each actor deliver to help resolve the issue? It is important that actors within a social system are only satisfied when the system is operating smoothly and solutions to any problems have been found. This also means for the actors that the conditions have to be such that they are able to make the desired contributions.
3. Step #3: To resolve system errors, the principles of system governance should be used: i.e., the promotion of diversity, the comparison of patterns behind the solution methods, the selection of the best patterns and the encouragement of the use of indirect control.

ISCT and the responsibility of communities

What is the content of that responsibility in a social system? Here, Integrative Social Contracts Theory (ISCT) offers a way forward. Tom Donaldson and Tom Dunfee's¹⁸ ISCT provides, in some respects, an attractive conceptual framework for further development of a moral theory of social systems. ISCT tries to find a middle way between the extremes of relativism and absolutism. Internationally operating companies are especially faced with a variety of standards in different countries and cultures. Should one rely on the 'superiority' of the standards in one's own culture, or should you respect the moral norms of the host country, even if they conflict in a fundamental way with your own standards? ISCT offers a solution to this dilemma by grounding the norms that are applicable in local communities in two types of social contracts: the hypothetical but universally valid macrosocial contract, and the factually valid microsocial contract of local communities.

An important concept in Donaldson and Dunfee's theory is the notion of moral free space. Local economic and political communities have the right to choose distinctive conceptions of appropriate economic behaviour within

certain boundaries. These are the so-called microsocial contracts. An example of norms that are established by such a microsocial contract is the binding effect of agreements in various markets. The settlement terms in buying a house are different from those operating in a cattle market.

Hypernorms are generally applicable norms that restrict the moral free space of communities to agree on norms using microsocial contracts. In this respect, Donaldson and Dunfee refer to norms such as respect for human dignity and keeping promises.

ISCT can be developed further into a moral theory of social systems. By making a distinction between micro- and macro- social contracts, ISCT presupposes a stratification of social systems and their associated standards. Communities that rely on a microsocial contract have the right, within the frameworks of the hypernorms, to develop their own moral framework and formulate appropriate standards for the actors within that community. In this way, the community or social system is seen as a moral subject: that is, as a bearer of moral qualities. It therefore becomes possible to conceptualise the morality of a social system or community. ISCT also offers insights into the relationship between the moral contract embedded in the microsocial contract and the moral contract that is part of the comprehensive macrosocial system.

A second feature of ISCT is that it allows the responsibility of the community to be translated into standards for the players within it. Thinking concerning the roles of the actors in the microsocial system, and the relationships between them, can be part of the contents of the microsocial contract.

Despite the apparent attractiveness of applying ISCT to social systems, it fails in some respects to develop moral standards for systems. Within ISCT, the definition of the community is excluded from the discussion. In fact, ISCT assumes that the community is a given and is stable. However, it is precisely in its application to industries, sectors and chains that it is important to create space for the dynamics within and between the different social systems. New social issues force agents to develop new social systems. It is

desirable to develop ISCT and formulate criteria for determining which actors have to be involved in the microsocial system and should contribute to solving the social issue. Such a more comprehensive social system will include not only businesses but also government and civil society organisations.

A second adjustment to the ISCT concerns the character of the standards that are developed as part of the microsocial contract. ISCT simply argues that these norms should not be in conflict with the hypernorms. It is important that the standards for acting within the microsocial system are coordinated, that the actors contribute to the good functioning of the microsocial system and that the standards which the actors develop not only limit the action (defines what is not acceptable), but also formulate how these rules will contribute to the comprehensive social system.

It is important that ISCT addresses how nested social systems can be governed. This is not only possible through hierarchical steering but also, and more effectively, by self-organisation. Therefore, ISCT needs to rethink the principles of self-organisation.

Back to the case

The pharmaceutical companies rightly emphasise their role in the development of new medicines. Patents are necessary to make it financially attractive to innovate. At the same time, the African governments, on behalf of their poor citizens needing AIDS medicines, and the Indian government, on behalf of the producers of generic medicines, are also right to expect affordable vital medicines for people in developing countries. You could argue that the World Trade Organization (WTO), the pharmaceutical companies and governments have failed to establish a microsocial contract in which not only the social issue is taken into account, but also the conditions under which pharmaceutical companies must operate. Lawsuits do not do more than minimise the contribution of the actors to the solution of the

social problem. Cooperation, the only way to resolve the issue, will not be achieved.

As part of World Health Organization's recently adopted Global Strategy on Public Health, Innovation and Intellectual Property, a form of a microsocial contract has been developed to assure access to medicines by people in developing countries. This microsocial contract includes a patent pool. This is a mechanism whereby a number of patents held by different entities, such as companies, universities and research institutes, are made available to others for production or further development. The patent holders receive royalties that are paid by those who use the patents. A patent pool can help speed up the availability of generic versions of new medicines because development can start well before the twenty-year patent term expires¹⁹.

Finally

Important social issues make it necessary to think about developing a new approach to ethics. To analyse the major social issues that we are facing it is necessary to develop ethical concepts that can be used to evaluate less-structured collectives such as chains, sectors and industries. During the 1980s and 1990s, ethicists developed concepts for the analysis of structured hierarchical collectives. Thinking in terms of collective responsibility needs to be reconsidered. Adopting the systems approach and theories about self-organisation can help in this. It will also be necessary to think about the norms that can be applied to less-structured social systems. Provided a social system is understood as a microsocial contract, and ISCT provides a good basis for this. However, ISCT needs to be developed further. In particular, ISCT should be able to deal with the dynamics between the various social systems. Furthermore, the moral norms that we need to apply to systems should explain how actors have to contribute to the good functioning of the microsocial system, and how the microsocial system should contribute to the successful operation of the comprehensive social systems.

The seriousness of the major social issues we face makes such a development of business ethics most urgent. A further development of ISCT could play an important role in this new approach to (business) ethics.

J.F.D.B. Wempe, professor Governance

Saxion University of Applied Science

www.saxion.nl/leefomgeving

¹ E. Vucheva, 'Laissez-faire' capitalism is finished, says France, EUobserver.com. See: <http://euobserver.com>. Consulted on Jan 9, 2009.

² In 2000, the UN identified seven global issues and adopted seven millennium goals to solve these issues: end poverty and hunger, universal education, gender equality, child health, maternal health, combat HIV/AIDS and environmental sustainability. A solution to these large societal problems is only possible if all the involved parties, governments, companies and civil society cooperate and contribute to the solution of the issues. The eighth millennium goal is therefore to create a global partnership to achieve these goals. See: <http://www.un.org/millenniumgoals>, consulted on January 1, 2009.

³ M. Friedman, The Social Responsibility of Business is to Increase its Profits, *The New York Times Magazine*, 13th September 1970. Also included in W.M. Hoffman & J. Mills Moore, *Business Ethics: Readings and Cases in Corporate Morality*, New York: McGraw-Hill Book Company, 1984.

⁴ See: Oxfam Briefing Paper, *Patents versus patients. Five years after the Doha Declaration*, Oxfam, 2006.

⁵ See: <http://www.msf-azg.be/nl/main-menu/actueel/dossiers/dossier-detail/table/3.html>. Consulted on January 1, 2009.

⁶ New York Times, August 7, 2007. See:

<http://www.nytimes.com/2007/08/07/business/worldbusiness/07drug.html>. Consulted on January 1, 2009.

⁷ I limit myself here to the way in which the behaviour of the pharmaceutical companies was judged 15 years ago and now. Of course, there are major differences. For example, in the Merck case, there was no risk that the freely available medicines would end up on the western market since there was no demand for them. It was this concern that led to the pharmaceutical companies resisting a reduction in the price of AIDS blockers for African markets.

⁸ M. Friedman, The Social Responsibility of Business is to Increase its Profits, *The New York Times Magazine*, 13th September 1970. Also included in W.M. Hoffman & J. Mills Moore, *Business Ethics: Readings and Cases in Corporate Morality*, New York: McGraw-Hill Book Company, 1984.

⁹ M. Velasquez, Why corporations are not responsible for anything they do, *Journal of Business and Professional Ethics*, 1983 (3): 1- 18.

¹⁰ French, P.A. 1984. *Collective and Corporate Responsibility*. New York: Columbia University Press.

¹¹ M. Kaptein & Wempe J., *The Balanced Company. A Theory of Corporate Integrity.*, Oxford University Press, 2002, 6-13.

¹² D. Copp, Collective Actions and Secondary Actions, *American Philosophical Quarterly*, 16 (3): 177

¹³ Donaldson, Werhane, Lary May and many others.

¹⁴ S. Johnson, *Emergence: The connected lives of Ants, Brains, Cities, and Software*, Scribner, New York, 2001, 18.

¹⁵ Steve Johnson describes four principles that further local interaction and by that emergence within systems. See S. Johnson, *Emergence: The connected Lives of Ants, Brains, Cities, and Software*, Scribner, New York, 2001.

¹⁶ H. Van Gunsteren, *Vertrouwen in Democratie. Over de principes van zelforganisatie.[Confidence in Democracy. About the principles of self organization]*, Amsterdam, Van Gennep, 2008, 87 – 92.

¹⁷ A. Gore, *Climate Change and Responsibility*, Speech for the United Nations International Climate Change Conference, Bali Indonesia, December 13, 2007. See: www.irregularartimes.com/gorebalispeech.html. The IPCC is the Intergovernmental Panel on Climate Change: a group of scientist that advises governments about climate change. Recently it concluded that global warming is partly caused by human activity.

¹⁸ See, Donaldson, T., & Dunfee, T. 1999. *Ties that Bind: A social contracts approach to business ethics*. Boston: Harvard Business School Press.

¹⁹ WHO, Global Strategy and plan of action on public health, innovation and intellectual property. See the website of the WHO. http://www.who.int/gb/ebwha/pdf_files/A61/A61_R21-en.pdf.. Consulted on Jan 9, 2009.