Group model building;  
From stakeholder theory to stakeholder practice

Abstract
Stakeholder theory has grown into a rich genre of theories and branched out into a wide variety of disciplines. As a consequence the field is plagued by much ambiguity and the translation into managerial practices is still awaited. In this paper we argue that clarity can only be obtained when three questions are explicitly answered and when the strong relation between the three answers is recognized: which stakeholders should be taken into account, why should those stakeholders be taken into account and how should they be taken into account. Group model building is suggested as a method that can bridge the gap between stakeholder theory and stakeholder practice. We show the gaps in stakeholder theory that can be filled by group model building. Furthermore we show how the design of a group model building project depends on an organization’s stakeholder ambition.

Introduction: The genre of stakeholder theories
Since the seminal work by Freeman (1984) stakeholder theory, rather than being a single theory, has grown into a ‘research tradition’ (Trevino & Weaver, 1999) that encompasses a rich ‘genre of theories’ (Freeman, 1994) that put emphasis on stakeholders. A widely used definition of stakeholders is “groups and individuals who can affect, or are affected by, the achievement of an organization’s mission” (Freeman, 1984, p. 52). By putting emphasis on stakeholders this genre sets itself aside from those that state that shareholders are the only stakeholders that business managers should take into account (Friedman, 1970). The field of stakeholder theory has progressed enormously in the last couple of decades and has branched out into a variety of disciplines including business ethics, strategic management, finance, accounting, marketing, and management (Parmar et al., 2010).

As you could expect from a field that has progressed so fast in so many directions, theories that position themselves in the field of stakeholder theory have more differences than commonalities. One consequence of this is that stakeholder theory is still plagued by ambiguity and a lack of translations into managerial guidelines, as observed amongst others by Donaldson & Preston (1995, p. 66), Marens & Wicks (1999, p. 288) and McVea & Freeman (2005, p.59). While some early attempts have been made to converge the different directions that stakeholder theory has developed into (Jones &Wicks, 1999), others find it much too early for such an undertaking (Freeman, 1999). Donaldson and Preston (1995, p. 66-67) helped clarifying different types of stakeholder theory by making a distinction between aspects of stakeholder theory that are descriptive (how are stakeholders taken into account), instrumental (taking stakeholders into account leads to positive outcomes), normative (stakeholders should be taken into account) and managerial (how can we take stakeholders into account). They conclude that all
stakeholder theories have a normative core and that future research should focus on clarifying these different normative cores. Their paper still is one of the most widely cited pieces of work in stakeholder theory and since then researchers devoted a lot of their efforts to answering their call (Freeman, 1994, p. 413; Donald & Preston, 1995).

We agree with Donaldson & Preston (1995) that much has been ambiguous in stakeholder theory because of researchers have not been explicit about whether their contributions are descriptive, instrumental, normative or managerial. Like them we adopt the view that stakeholder theorizing unavoidably consists of answering a diverse set of questions. However, instead of concluding that there is a single most important question that serves as the core of stakeholder theory, we conclude that there are different questions that are strongly related; that you cannot answer the questions sequentially, that by answering one of them you are answering the others as well. In this paper we focus on three questions: which stakeholders should be taken into account, why should they be taken into account and how should we take them into account. We argue that a lot of ambiguity in stakeholder theory stems from researchers trying to answer one question while their answer to the other questions remains implicit. Furthermore, an explicit answer to these three questions is necessary to provide a base on which managerial translations can build on. The remainder of this paper starts with defining stakeholder ambition as a central element to the three questions. Then, the questions are elaborated one by one, ending in a framework in which the relation between those questions is hypothesized. Afterwards group model building is presented as a method to bridge the gap between stakeholder theory and stakeholder practice.

The illusion of a dichotomy
Stakeholder theory research often starts with dividing all organizations into two types: the organizations that fully adopt stakeholder theory and the organizations that do not adopt stakeholder theory at all. Freeman states that organizations either base their philosophy of management on opportunism or on voluntarism (1984, p. 74). Blair states that organizations either maximize share price in the short run or strive to serve a larger social purpose by maximizing wealth creation for the society (1995, p. 202-204; 1998, p. 200). Evan & Freeman state that organizations either adopt an instrumental view in their self-interest or the view that “each stakeholder group has a right to be treated as an end in itself, and not as means to some other end” (1988, p. 97, in Donaldson & Preston, 1995, p. 73). Kochan & Rubinstein state that organizations either maximize shareholder wealth or pursue multiple objectives of parties with different interests (2000, p. 369).

We reject the suggestion, be it explicit or implicit, in much of the stakeholder theory literature, that some organizations adopt stakeholder theory (have an ‘external orientation’, apply ‘stakeholder thinking’, Freeman, 1984, p. 67) and other organizations do not. Instead, we adopt the view that every organization can be characterized by the extent in which they value different stakeholders. By adopting this view we ask the question how ambitious an organization is in
adopting stakeholder theory. For this purpose we use the term ‘stakeholder ambition’. Every organization develops a strategy towards stakeholders. To give an example: every publicly owned organization diverts a certain amount of the revenue to the salaries of employees and another amount to the dividend of shareholders (see for example Blair, 1998, p. 197: “the employees’ share of the rents can always be increased at the expense of the shareholders and vice versa: share value can always be increased at the expense of employees”). The only thing that differs between organizations is the weight that they give to one stakeholder in respect to the other. Even managers that decide to pay attention only to shareholders make themselves guilty of stakeholder management, by deciding to assign the lowest weight possible to all stakeholders (including themselves) other than its shareholders. We argue that the stakeholder ambition is leading when answering questions central in stakeholder theory: why stakeholders should be taken into account, which stakeholders should be taken into account and how they should be taken into account. We argue that every organization can be placed on a continuous scale of how ambitious they are in adopting stakeholder theory. Other authors often identified these scales as dichotomies. In this paper we adopt a view that conflicts with what we see as an ‘illusion of dichotomy’. We are not the first to conceptualize the extent in which an organization adopts stakeholder theory as a continuum (see for example Jones et al., 2007). Our contribution consists of showing that this continuum has three strongly related dimensions namely the three questions just mentioned. Below we investigate these three questions one by one followed by hypothesizing the relation between the answers.

**Which stakeholders should be taken into account**

Since the origin of stakeholder theory, many answers have been given to the question which stakeholders should be taken into account. Freeman and Reed (1983) refer to a Stanford memo from 1963 that defined stakeholders as “those groups without whose support the organization would cease to exist”. Furthermore, they make a distinction between a wide and a narrow sense of stakeholders (Freeman & Reed, 1983, p. 91):

- The narrow sense of stakeholder: any identifiable group or individual on which the organization is dependent for its continued survival. (Employees, customer segments, certain suppliers, key government agencies, shareowners, certain financial institutions, as well as others are all stakeholders in the narrow sense of the term.)

- The wide sense of stakeholder: any identifiable group or individual who can affect the achievement of an organization’s objectives or who is affected by the achievement of an organization’s objectives. (Public interest groups, protest groups, government agencies, trade associations, competitors, unions, as well as employees, customer segments, shareowners, and others are stakeholders, in this sense.)

The latter definition became widely used in the form of “groups and individuals who can affect, or are affected by, the achievement of an organization’s mission” (Freeman, 1984, p. 52).
Mitchell et al. give a chronological overview of 28 definitions of stakeholders (1997, p. 858). They contribute to answering the stakeholder identification question by making a distinction between three characteristics that stakeholder may possess: power, legitimacy and urgency. Power is defined as “the ability of those who possess power to bring about the outcomes they desire” (Salancik & Pfeffer, 1974, p. 3 in Mitchell et al., 1997, p. 865). Legitimacy is defined as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574, in Mitchell et al., 1997, p. 866). Urgency is defined as “the degree to which stakeholder claims call for immediate attention”, based on “the following two attributes: (1) time sensitivity – the degree to which managerial delay in attending to the claim or relationship is unacceptable to the stakeholder, and (2) criticality – the importance of the claim or the relationship to the stakeholder” (based on Jones, 1991, in Mitchell et al., 1997, p. 867). Based on a Venn diagram using these three characteristics they define eight types of stakeholders that differ in their amount of salience: “the degree to which managers give priority to competing stakeholder claims” (Mitchell et al., 1997, p. 854).

For now we conclude that there is no unity in the answer to the question which stakeholder should be taken into account. Narrow and broad stakeholder definitions coexist in the stakeholder literature. The concept of stakeholder salience as suggested by Mitchell et al. (1997) seems especially useful because their stakeholder definition can be seen as a continuum.

Why should stakeholders be taken into account
A wide variety of reasons can be found in stakeholder theory literature where organizations can base their decision on to take stakeholders into account. Below we try to provide a summary of these reasons.

Legal arguments
A first reason to take stakeholders into account is because organizations see this as the only way to abide the law. The most cited case in this respect is Dodge v. Ford Motor Co. in 1919 (see for example Blair, 1995, p. 209; Goodpaster, 1991 and Boatright, 1994 in Marens & Wicks, 1999). Henry Ford was planning to invest the profit of Ford Motor Co. back into its business. The Dodge brothers, however, as shareholders, wanted Ford to pay part of those profits out and the court agreed. This could prove the point that at least shareholders form a stakeholder that should be taken into account because of a legal argument. Marens & Wick, though, show that the context of the statement and the circumstance of the lawsuit “make it clear that this perspective was not meant to empower the shareholder at the expense of managerial discretion” (1999, p. 278). Ford Motors was a privately held corporation, one of the most profitable companies in the world, and the verdict was based on the suspicion that Ford Motors did not pay out “to prevent the Dodge Brothers from creating their own rival auto manufacturing company, which, in fact, they eventually did” (Marens & Wick, 1999, p. 279). Marens & Wick conclude that “managers are not compelled to choose between the law and stakeholder ethics” (1999, p. 289). It can be said that the proposition that the stakeholder concept is
implicit in current legal trends is controversial (Donaldson & Preston, 1995, p. 76-77). Phillips et al. stress that it is a misinterpretation that stakeholder theory requires changes to current law (2003, p. 490-491).

**Economic arguments**

A second reason to take stakeholders into account is because it could be in the self-interest of the organization. Different arguments are given in the stakeholder theory to support this argument. All of these arguments can be interpreted as part of an organization pursuing its own interest, either by lowering costs or by other ways of gaining competitive advantage.

Freeman uses a stakeholder version of the ‘prisoners’ dilemma game’ (Luce & Raiffa, 1957) to explain that voluntarily adopting a posture of negotiation with stakeholder groups is the only way to keep from having a solution imposed from outside (Freeman, 1984, p. 77). On the short term an organization may improve its position by making a decision that harms a stakeholder. The organization, however, has to deal with the same stakeholder in the future and when the harm has been done this may start a process of conflict escalation, in its turn harming the organization. Furthermore, negotiation with stakeholders leads to avoiding enforcement costs of adversarial proceedings of ‘playing hard ball’. Stakeholder theory in this sense aligns with non-market strategies as discussed by Baron (1995a; 1995b).

Blair extends the ‘team production problem’ (Alchian & Demsetz, 1972) to explain that “corporate resources should be used to enhance the goals and serve the purposes of all those who truly have something invested and at risk in the enterprise” (Blair, 1995, p. 232, Blair, 1998, p. 196). The team production problem comes down to the idea that team work may be much more efficient than individual work, but that team members may fall short of their responsibility when shirking is not monitored careful enough. A solution for the team production problem is to pay all team members their opportunity cost, and that the monitor, who looks after shirking, receives all of the extra created value. In the view of Blair stakeholders have invested in the organization and costs of shirking could be minimized by the organization serving the purposes of those stakeholders.

Jones (1995) also refers to team production problems, and adds two other sources of potential costs: agency costs (based on agency theory: Eisenhardt, 1989; Mitnick, 1982) and transaction costs (based on transaction cost economics: Williamson, 1984). Agency theory addresses those situations where “one party (the principal) delegates work to another (the agent), who performs that work” (Eisenhardt, 1989, p. 58 in Jones, 1995, p. 409). Two problems arise in these situations. “First, the agent and the principal have conflicting goals, and it is difficult and/or expensive for the principal to verify the agent’s activities. Second, the principal and the agent have different propensities to accept risk” (Jones, 1995, p. 409). Stakeholder theory in this light is seen as a way to align principal and agent. Transaction cost economics is concerned with decisions to organize either by “contracting externally (markets) or internally (hierarchies)” (Jones, 1995, p. 410). The theory suggests that this choice for one of those two contracting forms is
guided by the transaction costs being lower for one contracting form over the other for a certain issue. Transaction costs "stem from the need to negotiate, monitor, and enforce the implicit and explicit contracts required to bring resources together and utilize them efficiently" (Jones, 1995, p. 410). Adopting stakeholder theory could help in lowering transactions costs “through the use of hierarchy (merging consumer and producer), although hierarchies have governance costs that cannot be ignored” (Jones, 1995, p. 411). Jones summarizes that team production problems, agency theory, and transaction cost economics have in common that they describe how opportunism is a hazard for efficiency (1995, p. 411). Seeing stakeholder theory as a way to reduce opportunism, we find an economic argument to adopt stakeholder theory.

Asher et al. (2005) use property rights (Coase, 1937) as a foundation for stakeholder theory. They argue that when implicit contracts and incomplete contracting are recognized, stakeholders can be identified as residual claimants that may need to be protected. They include all stakeholders that capture economic surplus because all of those stakeholders may be willing to invest in the implicit contract because of that. Management then should maintain a reputation of fair treatment of stakeholders because otherwise these stakeholders will stop investing into the relation.

**Moral arguments**
A third reason to take stakeholders into account is because an organization sees stakeholders as having an intrinsic value and the organization accepts taking stakeholders into account as its moral obligation. Again, several arguments can be found in the stakeholder theory. These arguments can be seen as forming the normative cores as stressed by Donaldson & Preston (1995).

Freeman & Evan (1990) extend the transaction costs approach as described by Williamson (1984) to argue that stakeholder theory is in line with the transaction costs approach. While Jones (1995) makes this into an economic argument of lowering transaction costs, Freeman & Evan (1990) make this into a moral argument. Their firm-as-contract analysis argues that all stakeholders, especially those with asset specific stakes, have a right to bargain and deserve a “fair contract” (Freeman & Evans, 1990, p. 352). More specifically, they state that “managers administer contracts among employees, owners, suppliers, customers, and the community. Since each of these groups can invest in asset specific transactions which affect the other groups, methods of conflict resolution, or safeguards must be found” (Freeman & Evan, 1990, p. 352).

Property rights form another foundation that is both used as an economic (Asher et al., 2005) as well as a moral argument. Donaldson & Preston use what they call a pluralistic theory of property rights to argue that stakeholder theory is normatively justified by the need, ability, effort, and mutual agreement between an organization and its stakeholders (1995, p. 81-84). They show that property rights are always embedded in hum rights. Property rights are never unlimited, the interest of other stakeholders will always impose restrictions included in those property rights.
Another foundation for a moral argument is the principle of stakeholder fairness (Phillips, 1997). Phillips argues that an obligation of fairness arises whenever an organization accepts the benefits of a mutually beneficial scheme of co-operation requiring sacrifice or contribution on the parts of the participants and there exists the possibility of free-riding (Phillips, 1997, p. 57). The size of the obligation of fairness is in proportion to the benefits accepted.

The moral arguments for adopting stakeholder theory mentioned above should not be seen as an exhaustive overview. We merely named the arguments that are the most widely used. As mentioned before, the search for normative cores (Donaldson & Preston, 1995) is an ongoing process that deserves and gets a lot of attention from researchers. For a recent overview of normative cores we refer to Phillips et al. (2003, p. 481). Besides property rights and the principle of fairness mentioned above, they list the following foundations for moral stakeholder arguments: common good, feminist ethics, risk, integrative social contracts theory, Kantianism and doctrine of fair contracts.

There is disagreement in the stakeholder literature on the question whether it makes sense to make a distinction between economic and moral arguments. Goodpaster (1991) is a good example of authors that do make the distinction. He makes a distinction between a ‘strategic interpretation’ of stakeholder analysis and a ‘multi-fiduciary interpretation’ (Goodpaster, 1991). Following his line of thought, organizations adopting the strategic interpretation manage stakeholder relationships because it makes good business sense “in narrow economic (profit-maximizing) terms”. Organizations adopting the multi-fiduciary interpretation manage stakeholder relationships because they see it “morally required” (Goodpaster, 1991 in Freeman, 1994, p. 410). Freeman (1994), on the other side, argues that there is no sense in making a distinction between ‘business without ethics’ and ‘ethics without business’ because all business decisions and actions have a moral ground. Furthermore, research shows that it can be problematic to find out whether behavior is actually based on moral grounds, or that this behavior is based on ‘self interest with guile’ (Jones, 1995, p. 419). For now, the entanglement of economic and moral reasons is not problematic, because we are interested in them merely as reasons that organizations do or do not use as a basis for adopting stakeholder theory.

We can conclude that three answers exist to the question why stakeholders should be taken into account: because it’s the law, because it is in the interest of the organization, and because stakeholders have a value on their own. Furthermore, the point is made that these arguments can coexist.

**How should stakeholders be taken into account**

Stakeholder theory is said to be *managerial* (Donaldson and Preston, 1995, p 87): it “recommends the attitudes, structures, and practices that, taken together, constitute a *stakeholder* management philosophy” (italics original). The question how stakeholders should be taken into account, however, is not the question that
A second way of taking stakeholders into account is by actively approaching those stakeholders. If managers do nothing more than standing in the shoes of stakeholders, it may well be that these stakeholders never find out that they are taken into account. Therefore, organizations can use communication techniques like presenting the way that they came to their decisions to show the stakeholders that they are accounted for (Freeman, 1984, p. 78). Hill & Jones suggest installing monitoring devices that have the effect of reducing information asymmetry (1992, in Donaldson & Preston, 1995).

A third way of taking stakeholders into account is by actually involving them in the decision making process. Freeman mentions two techniques that fall in this category, namely negotiation and making voluntary agreements (1984, p. 78). Freeman stresses that involving stakeholders is the only way to cope with what he calls the congruence problem, which is the problem that the perception that an organization has concerning its stakeholders does not have to be in line with reality. “The congruence problem is a real one in most companies for there are few organizational processes to check the assumptions that managers make every day about their stakeholder” (Freeman, 1984, p. 64). Hill & Jones suggest installing enforcement mechanisms, including law, ‘exit’ and ‘voice’ (1992, in Donaldson & Person, 1995). Stakeholder involvement is the only technique that has the potential of not only dividing the pie in a better way, but also of increasing the size of the pie. This would be true for situations where the process of stakeholder involvement results in insights of potential ways to better serve the goal of one stakeholder without harming the goals of other stakeholders. Standing in the shoes of stakeholders and presenting have the drawback of making stakeholder management a zero-sum game. It seems worthwhile to avoid this drawback (Preston & Sapienza, 1990, in Donaldson and Preston, 1995, p. 78).

We conclude that although stakeholder theory is said to be managerial, techniques of taking stakeholders into account are not getting the attention that they deserve. Three main types of taking stakeholders into account can be distinguished:
managers standing in the shoes of stakeholders, communicating with stakeholders and actually involving stakeholders in the decision making process.

**Towards a stakeholder ambition theory of the firm**
The answers to three questions have been identified: *which* stakeholders should be taken into account, *why* should they be taken into account and *how* should we take them into account. These questions do not stand on their own. You cannot answer the questions sequentially, answering one of them implies answering the others as well. The link between these answers is formed by an organization’s stakeholder ambition; the extent to which they adopt stakeholder theory.

We argue that answering the question which stakeholders should be taken into account depends on the stakeholder ambition that an organization has. Depending on why an organization takes stakeholders into account they will use a definition more to the narrow or more to the broad side of the continuum. An organization that is not so ambitious in applying stakeholder theory takes few stakeholders into account and focuses mainly on shareholders (narrow definition of stakeholders). An organization that is more ambitious in applying stakeholder theory takes more stakeholders into account and focuses on employees, suppliers, consumers and even the media, competition, potential terrorists, etc. (broad definition of stakeholders).

The question why stakeholders should be taken into account is directly related to the question which stakeholders should be taken into account. If you state that stakeholders should be taken into account because it increases the profitability of your own organization, you do not have a very high stakeholder ambition, and you should only take stakeholders into account that *can* have a positive effect on your profitability like employees and consumers. On the other hand if you state that stakeholders should be taken into account because you have the moral obligation to do so, you have a much higher stakeholder ambition, and you should take a much wider variety of stakeholder into account like ‘communities’ and ‘nature’. This proposition is based on nothing more than logic; organizations not following this rule can be said to act in a manner that is internally inconsistent.

The question how stakeholders should be taken into account is also related to the level of stakeholder ambition that an organization has. An organization that has a low level of stakeholder ambition will try to avoid investments that actual stakeholder involvement brings along. An organization with a high level of stakeholder ambition, however, can in the long run only be credible if it ‘puts it money where it mouth is’. Even just communicating how decisions are based on managers that stood in the shoes of stakeholders might not be enough, actual stakeholder involvement is the only way of realizing an organization’s high level of stakeholder ambition.
Table 1: A stakeholder ambition theory of the firm

<table>
<thead>
<tr>
<th>Ambition</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which</td>
<td>Shareholders</td>
<td>Shareholders, managers, employees, other high power stakeholders</td>
<td>Shareholders, managers, employees, suppliers, consumers, community, competitors, the media, nature</td>
</tr>
<tr>
<td>Why</td>
<td>Legal</td>
<td>Legal and economic</td>
<td>Legal, economic and moral</td>
</tr>
<tr>
<td>How</td>
<td>Standing in the shoes of stakeholders</td>
<td>Stakeholder communication</td>
<td>Stakeholder involvement</td>
</tr>
</tbody>
</table>

We are not the first to see a relation between answering the questions why stakeholders should be taken into account and which stakeholders should be taken into account. Jones et al. (2007) make an excellent effort in showing the relation between those two questions in what they conceive as ‘stakeholder culture’. Our contribution consists of showing the relation between what they call stakeholder culture, and the actual translation into managerial practices that many researchers hope their theorizing is followed by.

Phillips (2003, p. 28) is another author that already made a connection between the questions why stakeholders should be taken into account and which stakeholders should be taken into account: “…stakeholder prioritization depends – at least in part – upon the reasons and goals underlying the use of a stakeholder approach to management”. Surprisingly, he comes to a different conclusion than we do. He argues that moral arguments for adopting stakeholder theory should lead to the use of a narrow identification of stakeholders. We agree with Phillips that the combination of moral arguments and economic arguments will lead to a broad identification of stakeholders. We, however, see a clear hierarchy between economic and moral arguments. Every organization will pursue economic goals, because this is the only way to survive as an organization. Not every organization, however, will recognize the moral obligations that some would argue that they have. In our view, therefore, there is no sense in talking about organizations that do base their decisions on moral obligations, while not using economic reasons.

The table provided above should not be seen as an attempt to converge stakeholder theory. Rather, it should serve as a starting point for research into stakeholder ambition. The framework makes us question whether organizations indeed show such a consistency between their answers on the three questions. And if organizations fail to show such a consistency, why is that so? Furthermore, the question rises which variables determine an organization’s stakeholder ambition. To motivate research in this line we formulate some first propositions following from this ‘stakeholder ambition theory of the firm’. First of all, we would like to see whether the relations that we based on logic reasoning can be found in reality. Therefore the first propositions sound:
Proposition 1a: Organizations that report having a high stakeholder ambition take stakeholders into account because of legal, economic, and moral reasons.

Proposition 1b: Organizations that report having a high stakeholder ambition will adopt a broad definition of stakeholders.

Proposition 1c: Organizations that report having a high stakeholder ambition will actually involve stakeholders into their decision making process.

The stakeholder theory literature already recognizes that there is a lot of variation in the extent in which stakeholder theory is adopted. Kochan & Rubinstein (2000) ask themselves: “why, if this is a desirable organizational form, don’t more firms that embody these features exist, particularly in the United States?” We are interested in finding variables that determine the level of an organization’s stakeholder ambition. Actually involving stakeholders do come with costs of organizing this involvement. Therefore, we expect that especially organizations that have the financial resources to cover these costs will have a high level of stakeholder ambition. There is no reason, on the other side, why a high profit margin would be a sufficient condition for having a high level of stakeholder ambition. Our second and final proposition sounds:

Proposition 2: Organizations that report having a high stakeholder ambition often are organizations that have a high profit margin.

For now we leave these propositions as they are. The remainder of this paper will examine the overlap between the stakeholder ambition theory of the firm as presented above, and group model building as a method to fulfill this ambition.

Group model building: Towards stakeholder practice

Group model building is “a system dynamics model-building process in which a client group is deeply involved in the process of modeling” (Vennix, 1999, p. 379; see also Vennix, 1996; Andersen & Richardson, 1997; Rouwette et al., 2011). System dynamics is an approach that uses simulation models to support decision-making by formulating what-if scenarios. More specific, system dynamic models use feedback loops, stock and flow diagrams, and nonlinear differential equations (see for example Forrester, 1961; Richardson & Pugh, 1981; Sterman, 2000). Group model building can be seen as one out of a variety of ways in which system dynamics is applied. We look at group model building as a method to bring stakeholder theory into practice, because of the big overlap between the foundation of group model building and the issues that are addressed by stakeholder theory. Elias et al. (2000) already established an explicit connection between stakeholder theory and system dynamics. Our contribution consists of showing the overlap of stakeholder theory and group model building in particular and of providing a framework of different ways in which group model building can fulfill the needs as made explicit by stakeholder theory. Furthermore, the same framework is used to show a methodological issue in current practices of using system dynamics for applying stakeholder theory.
Elías et al. (2000) reviewed the system dynamics literature to show that stakeholders form an important part of the methodology, “although not always explicitly” (p. 178). To make this point they refer to Forrester (1961), Gardiner & Ford (1980), Vennix (1996), Hsiao (1998), and Maani & Cavana (2000). We argue that group model building is particularly useful for adopting stakeholder theory because of the following reasons:

- Group model building is focused on stakeholder participation. Therefore, group model building can be used not only to stand in the shoes of stakeholders or to communicate with stakeholders, but also to actually involve stakeholders in the decision making process.

- Group model building is focused on causality and understanding the dynamical complexity of the issue at hand. This is exactly a characteristic that is called for by stakeholder theory literature. This is for example mentioned by Ramirez (1999, in Elías et al., 2011): “Stakeholder analysis tools lack the ability to analyse the complex and dynamic nature of environmental conflicts”. Hill & Jones (1992, in Donaldson & Preston, 1995) mention that “The process, direction, and speed of adaptation in stakeholder-agent relationships, rather than the equilibrium set of contributions and rewards, should be the primary focus of analysis”. Phillips et al. state that “… managing for stakeholders will include communication between managers and stakeholders concerning how profits should be maximized” (2003, p. 486-487). Van Kranenburg stresses the importance of changing stakeholder relations over time (2007).

- Group model building allows for considering multiple performance indicators. This is exactly the characteristic that is mentioned in stakeholder theory literature as necessary to develop managerial guidelines. Freeman warns that measuring business performance by only financial indicators is “too narrow a dimension” (1984, p. 65). Jensen states that “because stakeholder theory provides no definition of better, it leaves managers and directors unaccountable for their stewardship of the firm’s resources”, “we must give people enough structure to understand what maximizing value means” (2002, p. 242). Jones & Wicks also ask for a broader measure: “The performance of firms encompasses more than financial performance alone” (1999, p. 209). The problem is described by Sundaram & Inkpen as: “Faced with the task of mediating conflicting stakeholder interests, what decision criterion should a manager adopt as a guideline?” (2004, p. 370).

To distinguish between different ways in which group model building can be used to apply stakeholder theory, we provide the framework below. In this framework we argue that a group model building project either focuses on the product of a simulation model that includes stakeholder variables, on the process of involving stakeholders, or on both. In other words, you could model stakeholders, model with stakeholders, or model stakeholders with stakeholders.
Focus on product: modeling stakeholders

System dynamics models include those variables necessary for explaining the behavior for the issue at hand. Issues where stakeholder theory is relevant typically involve the decisions an organization makes and the stakeholder behavior as a reaction to that. Feedback loops, in this way, consists of an organization reacting to stakeholders reacting to the organization, etc. Richardson & Andersen (2010) even state that: “stakeholders actually cause many of the feedback effects that we model”. We should note, however, that only those stakeholder relations form a feedback loop where the organization affects the stakeholder and the organization is affected by the stakeholder. Otherwise, there would be no closed loop.

If an organization focuses on modeling stakeholders, a group model building project could even do without inviting stakeholders to the modeling effort. The project may consist of managers of the organization standing in the shoes of stakeholders, hereby trying to identify relevant what-if scenarios. The resulting model may be used to evaluate which policy option they deem to be ‘optimal’. By modeling stakeholder behavior this ‘optimal’ policy can be said to be taking stakeholders into account. We place the word optimal between inverted commas because as Jensen mentions, “the world is too complex to maximize anything” (Jensen, 2002, p. 247, building on Rose, 2000). The purpose, when an organization undertakes this kind of effort, is improving the decision quality. Research in this way goes into the direction of the operation research tradition, and research should focus on the validity of the model. After all, the extent in which the decision quality is improved depends on the validity of the simulation model. Drawbacks of focusing on the product of a simulation model that includes stakeholder behavior are similar to the general drawbacks we identified earlier on when examining standing in the shoes of stakeholders. First, there is the congruence problem, stakeholders might have a different reaction to the organizations decisions than expected by the managers of the organization. Second, it could well be that the organization makes a big effort to take stakeholders into account, but if the stakeholders are not aware of this effort, a lot of the potential advantages of adopting stakeholder theory will not be realized.

Focus on process: modeling with stakeholders

Another way of designing a group model building project to adopt stakeholder theory is focusing on the process. Especially in the field of environmental planning we can find a lot of examples where stakeholders were invited to participate in the modeling effort (see Ford, 2000; Stave, 2002; Stave, 2010; Beall & Ford, 2010). When the focus is on modeling with stakeholders, stakeholder behavior is not necessarily part of the model. The simulation model could now for example only include the representation of a physical system. The focus is on showing stakeholders the process in which a decision is made by the organization. The purpose of the group model project now is not improving the decision quality, but improving the relationship that the organization has with its stakeholders. Even if the decision does not differ from a situation where no stakeholders were invited to the modeling process, stakeholders could perceive this as a justified procedure,
resulting in a higher commitment to solving the issue and implementing the organization’s decision. This mechanism, called *procedural justice*, is well studied (see for example Korsgaard et al., 1995; Cropanzano et al., 2007). An important pitfall is mentioned in research on procedural justice. When stakeholders are given consideration without actual influence on the decision being made by the organization, inviting them in a modeling project might do more harm than good.

**Focus on product and process: modeling stakeholders with stakeholders**

A third way of designing a group model building project to adopt stakeholder theory is focusing on the product as well as on the process. Simulating stakeholder behavior and inviting stakeholders to the modeling process are not at all mutually exclusive. To a great extent focusing on both the product and the process can be seen as just the sum of focusing on the product and of focusing on the process. Purposes now include both improving decision quality and improving stakeholder relations. All pitfalls mentioned before might be avoided by focusing on both the product and the process. By inviting the stakeholders you prevent the managers of the organization of building a distorted picture of how stakeholders would react to certain decisions. The stakeholders are well aware of the organization’s effort to take the stakeholders into account. By giving the stakeholders an actual say in the model and the way of evaluating policy options, stakeholders both are given consideration and influence. There is however one typical pitfall for this type group model project, and here this type is not merely the sum of focusing on the project and focusing on the process. A group model building project typically includes the generation of counterintuitive insights and these insights may cause learning effects for both the organization and its stakeholders (Forrester, 1961; Sterman, 2000; Ford, 2000). When stakeholder behavior is included in the simulation model, and the same stakeholders learn from modeling and evaluating different policy options, this exact stakeholder behavior as it was simulated changes. The model shows how stakeholders would react to the decisions of the organization at time $t = 0$. This model is used to find an ‘optimal’ solution for the issue at hand. In the exercise of finding this solution the stakeholder learns from the gained insights and changes its behavior at time $t = 1$. Now if the stakeholder behavior of time $t = 1$ was used in the search for the ‘optimal’ solution, it could be that a different policy would come to light as the most desirable. This invites for making a new model at time $t = 1$, including the *new* stakeholder behavior. You can imagine this type of group model building as a continuous effort where the simulation model is updated on a regular base. If the issue at hand remains constant, you might expect that after a few iterations there are no longer new counterintuitive insights to be found and we might have found ourselves in an equilibrium. It is this pitfall that is typical for wanting to combine modeling stakeholder behavior and modeling with stakeholders that we see causing confusion in current examples of group model building projects adopting stakeholder theory (Elias, 2011). A summary of the three types of designing a group model building project adopting stakeholder theory is presented below.
### Table 2: Three types of group model building projects adopting stakeholder theory

<table>
<thead>
<tr>
<th>Focus on product</th>
<th>Focus on process</th>
<th>Focus on process and product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main goal</strong></td>
<td>Improve decision quality</td>
<td>Improve stakeholder relations</td>
</tr>
<tr>
<td><strong>Means to achieve goal</strong></td>
<td>Find 'optimal' solution</td>
<td>Creating commitment</td>
</tr>
<tr>
<td><strong>Selection of stakeholders</strong></td>
<td>Only stakeholders that are affected by the organization <em>and</em> that can affect it</td>
<td>All stakeholders affected by the organization <em>or</em> that can affect it</td>
</tr>
<tr>
<td><strong>Relevant theory</strong></td>
<td>Model validation, operation research</td>
<td>Procedural justice</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td>Validating simulation model</td>
<td>Group experiments, individual experiments</td>
</tr>
<tr>
<td><strong>Pitfalls</strong></td>
<td>Congruence problem, and stakeholders may not be aware of being taken into account</td>
<td>Consideration without influence may harm stakeholder relations</td>
</tr>
</tbody>
</table>

The three types of group model building go together with the three answers to the question how an organization can take stakeholders into account. Focusing on the product of a simulation model that includes stakeholder variables helps to stand in the shoes of stakeholders. Focusing on the process of involving stakeholders helps to communicate with stakeholders. Focusing on both may help involving stakeholders in the actual decision making process. We conclude that group model building serves as a useful method to translate stakeholder theory into stakeholder practice. We pointed out that the way that a group model building project is designed should depend on the level of stakeholder ambition that an organization has.

**Conclusion**

Stakeholder theory has become a rich genre of theories and developed into a wide variety of disciplines. As a consequence the field is plagued by much ambiguity and the translation into managerial practices is still awaited. In this paper we tried to support clarifying stakeholder theory by making the relation explicit between
three central questions: *which* stakeholders should be taken into account, *why* should those stakeholders be taken into account and *how* should they be taken into account. We argued that *stakeholder ambition* is a concept that links the answers to these three questions together. An organization with a low level of stakeholder ambition will use a narrow definition of stakeholders, will use only legal arguments to take stakeholder into account and will not undertake more efforts than thought experiments in which they take stakeholders into account. Organizations with a medium level of stakeholder ambition will use a definition of stakeholders that situates between a broad and a narrow view, will use legal and economic arguments to take stakeholders into account and will try to improve communication with its stakeholders. Organizations with a high level of stakeholder ambition will use a broad definition of stakeholder, will use legal, economic, and moral arguments, and they will actually involve stakeholders in their decision making process.

Group model building was suggested as a method that can bridge the gap between stakeholder theory and stakeholder practice. Different types of applying group model building can be used for different levels of stakeholder ambition. An organization that only wants to improve its efforts to stand in the shoes of stakeholders can use group model building to have managers from within the organization build a simulation model that incorporates stakeholder variables. Organizations that want to improve the way they communicate with stakeholders can use group model building to facilitate a discussion with their stakeholders, without letting this discussion actually influence decision making. Organizations that have a high level of stakeholder ambition can use group model building to actually involve stakeholders in the decision making process. This is the only way in which group model building is not only used to better divide the stakeholder pie, but to also help making the stakeholder pie bigger. The way a group model building project is designed should depend on the level of stakeholder ambition that an organization has.

**Bibliography**


