Promoting Responsible Leadership in Management Education – a Design Based Research Study

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Abstract

In recent years the quality of management education in general, MBA and Executive MBA programs in particular, has been questioned substantially. There are serious doubts about Business Schools' ability to prepare students with the competencies they need to deal with complex problems in modern organizations. One part of the scholarly and societal discussion focuses on ethical issues and the process by which students can be enhanced to develop values and attitudes. In line of the economic crisis there is an increasing interest regarding the development of learners' attitudes toward responsibility. The study brings together research on attitude development from both social psychology and education. As a design-based research project exemplary pedagogical interventions have been developed for the Executive MBA program of the University St.Gallen with the focus on attitudes toward responsible leadership. In close collaboration with practioners interventions have been evolved through multiple cycles of development, testing and refinement with the pursuit of theory building and practical innovation.

Key words

attitudes, responsible management education, responsible leadership, business schools, design-based research, leadership development

Research focus

Responsible Management Education (RME) is one of the controversial topics on the agenda of business schools. The line of argument is well-known (Euler & Feixas, 2013): As a consequence of the economic and financial crisis and in the wake of corporate scandals (e.g. Enron, UBS, Goldman Sachs, Nike, Google), management education programs are facing strong criticism from various stakeholders. One of the questions put forward is how the education of the next generation of leaders contributes to the publicly and broadly criticized misconduct of managers. As one consequence, these discussions have prompted considerable soul searching at business schools. "Many now recognize the need to re-examine the role and purpose of business and have students wrestle with complex questions of companies' responsibilities to stakeholders, such as customers, employees, and society at large, in addition to shareholders" (Datar *et al.*, 2010: 100). The discussion has led to a number of demands and proposals, such as: Business schools should (1) put more emphasis on the ethical dimension and the sustainability of business; (2) increase the relevance and impact of their research by investigating real world problems; (3) give more weight to the 'doing' and the 'being' dimension as compared to the 'knowing' dimension in the curriculum. Management education in its current state is perceived to be too mechanistic in its organization and too analytical in its purpose. It doesn't address complex leadership challenges in an interdisciplinary way; issues of responsible, value-based action balancing different stakeholder-views are marginalized.

"The leading edge of change is already visible and under way" (Datar et al., 2010: 339). Future starts in the present, so there are already a number of promising cases and approaches going beyond accusations or programmatic statements. For example, new cases have been developed which are intended to be used to understand and discuss current developments. Further proposals target the re-design of courses and study programs; others are to integrate the topic of RME into the learning and teaching culture and make it a strategic objective for the business school. Basically, approaches to deal with RME can be triggered on different levels. What cultures and attitudes within the business schools as well as with the faculty are necessary to nurture this ambition on the *organizational level*? How can respective objectives be integrated into the curriculum on the *program level*? And how can teaching and learning processes be designed to promote the attitudes necessary to achieve sustainable learning outcomes on the *course level*?

This study focusses on the course level pursuing the following research question: *How can pedagogical interventions be designed for developing attitudes toward responsible leadership in the context of executive education?*

Theoretical Framework

Research on attitudes and attitude change has an extensive history within the field of social psychology and it has been called as "the most distinctive and indispensable concept of social psychology" (Allport, 1935: 798; Kreuz, 2002: 34). Because of its origin in social psychology the study brings together theories and research from both social psychology and education.

Attitudes as a pedagogical construct. First, a theoretical understanding of attitudes as a didactic construct has been developed by reviewing and analyzing social psychological conceptualizations of

attitudes (Eagly & Chaiken, 1993; Eagly & Chaiken, 2007; Fazio, 1990; Krech & Crutchfield, 1948; Schwarz, 2007; Tesser, 1978; Wilson *et al.*, 2000) regarding aspects which are consistent with a constructivist notion of learning and considering attitudes as a concept which can be enhanced in an educational perspective and are thus changeable.

Despite of the unquestioned relevance of the attitude concept – or rather precisely for this reason – there are countless discussions about an appropriate definition and conceptualization of attitudes (Kreuz, 2002: 34). Definitions range from Allport's (1935: 810) early understanding of attitudes as "(…) a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935: 810) to "(…) an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world" (Krech & Crutchfield, 1948: 152) to many conceptualizations, which have in common, that they see attitudes as overall evaluations of attitude objects. Eagly & Chaiken (1993: 1) define attitudes as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor", Fazio (2007: 608) as "(…) associations between a given object and a given summary evaluation of the object (…)" or Ajzen (2001: 28) as a "(…) summary evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial, pleasant-unpleasant, and likeable-dislikable (…)".

Another dimension in the discussion addresses the question on whether attitudes are enduring and stable concepts stored in our long-term memory and activated automatically by encountering a specific object (e.g.Allport, 1935; Bargh et al., 1992; Eagly & Chaiken, 1993). Or are they temporary constructions individuals construct 'on-the-spot' based on the currently accessible information, which means, that attitudes are subject to contextual influences (e.g. Schwarz, 2007; Tesser, 1978; Wilson & Hodges, 1992). The 'model of dual attitudes' of Wilson and his colleagues (2000) tries to combine these two different perspectives. Because of its complexity the model cannot be described in detail, but the main aspects will be pointed out due to its interesting educational implications. The model distinguishes between implicit and explicit attitudes. Implicit attitudes are defined as evaluations that are activated automatically, are stable and therefore only slowly changeable, have an unknown origin (individuals are unaware of the basis of their evaluation) and result in implicit, uncontrollable responses. When attitude change occurs, implicit attitudes can be replaced by 'new' or so-called explicit attitudes, that are situational and consciously constructed (because implicit attitudes are either not accessible or appropriate). One might suggest that the 'old' attitude now disappears. However the model assumes that individual's origin attitude remains in memory resulting in what is called dual attitude (Wilson et al., 2000: 104). Generally one of the attitudes will persist over time. It is mostly the implicit attitude, because the explicit, new attitude requires more capacity and motivation to retrieve from memory. „If, however, people frequently practice the new attitude - think about it, discuss it with their friends, act on it - the attitude may become habitual, replacing the prior implicit attitude. In short, the process of attitude change may often require more time and practice than previously thought" (Wilson, et al., 2000, S. 121). What are the pedagogical implications? The

development of implicit, stable attitudes, that promote a particular evaluation of an object under similar conditions, should be the aim of educational interventions. But the starting point can be the development of explicit attitudes by promoting more challenging cognitive and reflective processes in the classroom and then a repeated activation of the new attitude to foster attitude strength and accessibility.

Furthermore our conceptualization of attitudes considers another influential model, the so-called multicomponent model (Eagly & Chaiken, 1993). According to this model attitudes have cognitive (referring to beliefs, thoughts, attributes regarding an object), affective (emotions linked to an object) and behavioral (past experiences with an object) components (Maio & Haddock, 2010 : 25). To address the question how attitudes can be shaped and promoted in the classroom research on these components can be used to better understand processes of attitude formation and change.

Attitude formation and change. Regarding the *research on cognitive variables* there are two dominant and influential models of attitude change, namely the Heuristic-Systematic Model (Chaiken, 1987) and the Elaboration Likelihood Model (Petty & Cacioppo, 1986). Both models have in common that they distinguish between two different routes how information or content is processed. These two processing modes are called the peripheral route, which focuses the influence of superficial factors respectively simple persuasive cues or heuristics (individuals' attitude toward an object is e.g. influenced by knowing that the speaker is an expert, by the attractiveness of the speaker, by the length of a message,…), and the central route, in which the motivation and ability to process the message is high resulting in effortful scrutiny of arguments and information (Bohner & Wänke, 2002: 132). Motivation, particularly facilitated by the factor of personal relevance of the message (Johnson & Eagly, 1989; Petty *et al.*, 1981), and ability, influenced by individuals' cognitive skills and prior knowledge needed to understand the message, the comprehensibility of the content (Wood *et al.*, 1985) or an environment without disturbances (Petty *et al.*, 1976), are substantial determinants regarding the effort persons raise to process information. Moreover individuals, who are motivated and able to process the information, tend to be heavily influenced by the strength of the arguments – another important variable. Strong arguments will cause positive cognitive responses, whereas weak arguments will elicit more negative cognitive responses which subsequently influences the attitude in a less powerful way (Petty & Cacioppo, 1986). Besides these dual-processing-approaches there are some other approaches (e.g. work on role-playing, forewarning, inoculation and mere thought) which identified active thought processes through transformation, elaboration and generation of arguments as important mediators of attitude development, particularly stimulated by effects of two-sided communication (Janis & King, 1954; McGuire, 1964; McGuire & Papageorgis, 1962; Tesser, 1978). For instance, McGuire's Inoculation Theory (1964) describes a way how to make attitudes more resistant to modification attempts. By presenting weak arguments in the 'inoculation message' the active generation of counterarguments and issue-related thoughts can be initiated, which leads to a strengthening of the preexisting attitude. Furthermore it was found that simply instructing persons to think about a topic in question (Petty & Cacioppo, 1977) or warning of the persuasive intent of the message are effec-

tive ways to foster the generation of counterarguments (McGuire & Papageorgis, 1962). There are several implications for designing learning processes with the purpose of promoting attitudes: social psychological findings regarding cognitive influences on attitude change clearly reveal that effortful, elaborate and deeper thought and reflection processes about the learning content respectively the particular attitude object should be promoted. This regards the central route of information processing. In addition opportunities should be created in the classroom for active generation and – in the best case – active verbalization of arguments and ideas instead of only passive, receptive learning of content. Particular attention should be paid to encourage students' motivation toward the particular attitude object by highlighting the personal relevance of the learning content as well as objectives. In order to achieve this, links to their everyday world of experience and realistic problem situations have to be created. Tying to activate their prior knowledge is still an important aspect to ensure a high ability to process information on the central route.

Regarding *research on behavioral influences* on attitude formation and change there is especially one important theory, the Cognitive Dissonance Theory (Festinger, 1957), from which interesting conclusions can be drawn. The theory suggests that behavior can lead to discrepant cognitions, e.g. when people have acted against their own attitudes without sufficient reason (e.g. a person who buys a less trendy car and has now to justify his decision). The resulting feeling of 'dissonance' and uncomfortableness because of having a set of two or more dissonant cognitions can end up with the attempt to reduce this unpleasant state of arousal by changing the attitude toward the behavior through adding, subtracting or substituting cognitions (Bohner & Wänke, 2002: 170). In our example the person adds a belief like 'cost-benefit relation is convincing' to explain the gap between her behavior and her attitude (Maio & Haddock, 2010: 139). Hundreds of studies have worked on the effects of cognitive dissonance on attitudes and have identified the conditions under which attitude change may occur after induced compliance: First the person has to perceive negative consequences of her behavior, second the person has to take personal responsibility for the behavior and third the person needs to experience a feeling of unpleasant arousal that is attributed to the attitude-discrepant behavior. Dissonance Theory also explains that people come to like what they have suffered for (effort justification) (Maio & Haddock, 2010 : 139) and how attitudes can change after decision-making. Post-decisional dissonance is triggered by the awareness of positive and negative consequences of decision alternatives, and positive aspects of the nonchosen alternative as well as negative aspects of the chosen alternative cause inconsistency with the behavior. Here again decreasing the evaluation of the nonchosen alternatives and intensifying the positive attitude helps to reduce the dissonance (Brehm, 1956). Regarding the design of learning environments with the aim of developing attitudes toward a particular object following implications for pedagogical decisions can be derived: To foster students' effective learning and effortful thinking processes it seems to be important to let them face authentic problems that induce cognitive conflicts. In line of principles of experience-based learning (Dewey, 1938/1955; Kolb, 1984) and problem-oriented learning activities like creating possibilities for students to experience cognitive conflicts, to explore and discover possibilities how to resolve the con-

flict, to make decisions by considering the consequences and afterwards reflecting about the learning process, about underlying attitudes, about possible decisions that have been inconsistent with own attitudes and reasons how behavior is often justified, seem to be promising ways to foster attitude development in the classroom.

Research on affective influences shows a variety of ways how affect and emotions shape attitudes. One important finding is that people develop more positive attitudes toward attitude objects which they have seen many times. This phenomenon can be explained by the 'mere exposure effect' (Zajonc, 1968, 2001). Increasing a sense of familiarity or certainty with an attitude object influences the attitude positively - without using any directive affective information. By contrast, attitudes can be also shaped by pairing the repeated presentation of an attitude object with an affective sensation or stimulus ('exposure or affective conditioning' is for example commonly used in advertising and is the belief that if you advertise the product with things the public associates positively, it will be better sold) or by providing an emotional reinforcement for a specific behavior ('behavior conditioning' happens when for example a child says 'thank you' and is rewarded by a smile of his parent) (Maio & Haddock, 2010 : 120). Furthermore emotions can affect the way we process information, like for instance our mood. A lot of research has shown that people in a positive mood tend to evaluate things more positive than people in a negative mood. However it has to be considered that the 'mood-congruence effect' can be different across situations and persons (Maio & Haddock, 2010 : 124). What we can learn from research on affective influences on attitudes is the relevance of confronting students with the particular topic not only once, but repeated times (which also increases the strength of a new attitude), the use of affective stimuli (e.g. by selecting topics or cases which are discussed controversially in public and stir up emotions), and the importance of rewarding behavior by implementing systematic feedback processes (by the teacher or by peers) for instance.

Attitudes and Behavior. Despite apparently positive attitudes toward responsible behavior which students show and verbalize in the classroom, in reality they might not behave in a responsible manner. What could have happened? How do attitudes predict behavior? Early research about the relationship between attitudes and behavior came up with mixed results (see e.g. Fazio & Roskos-Ewoldsen, 2005; Wallace *et al.*, 2005; Wicker, 1969). Because of this a lot of models started to work on the conditions which foster the translation of attitudes into behavior. One of the most prominent models of the attitude-behavior relations is the Theory of Reasoned Action (Fishbein & Ajzen, 1975) respectively its extension, the Theory of Planned Behavior (Icek Ajzen, 1991; I. Ajzen & Sexton, 1999). The Theories of Planned Behavior and Reasoned Action indicate that attitudes are only one of three psychological factors, which have an impact on the intention to perform the action and the likelihood to perform the action. Beside individual's attitude toward the behavior (thinking if performing the behavior is good or bad) these are subjective norm (referring to the belief that significant others, who are important to the individual, think one should perform the behavior) and the perceived behavioral control (the perception that one

possesses the necessary resources and skills to perform the behavior behavior). The latter is the only one which has a direct effect on behavior.

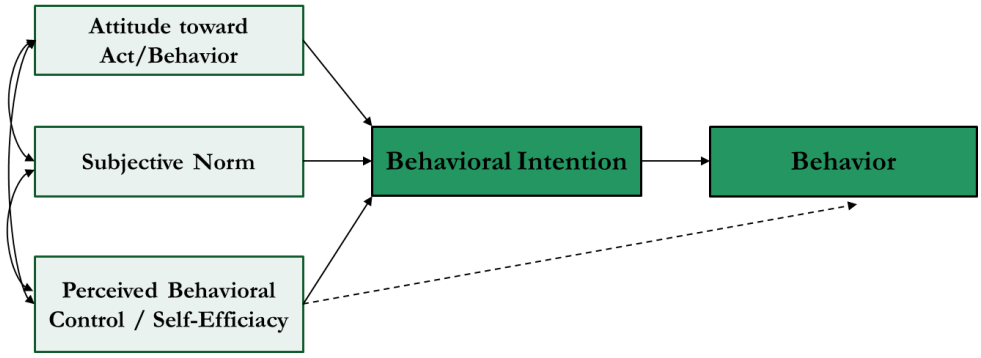


Figure 1: Theory of planned Action (Ajzen, 1999: 182)

Which pedagogical implications can be drawn out of these theories? First it seems to be important to promote not attitudes in general, but attitudes toward a concrete behavior respectively toward specific types of situations students are confronted with in the real world. Regarding our purpose for instance – developing attitudes toward responsible leadership – this requires an understanding what responsibility does look like in leadership practices of managers and particularly what challenges they face. Furthermore it becomes clear, that working on these challenges in the classroom means practicing and exercising possible courses of action within a protected environment, which can support - combined with strategies to foster student's self-efficacy (like e.g. enabling successful experiences attributed to own abilities and effort instead of external factors, model learning or setting realistic goals) (Bandura, 1977; Jerusalem & Schwarzer, 2002) - a stronger perceived behavioral control as well as being conscious about subjective norms which influence behavioral intention and resulting behavior.

Responsible Leadership. A review of the relevant literature on responsible leadership showed that despite the importance of this issue, the body of social scientific research on responsible leadership still is rather small and focuses on normative approaches (Ferdig, 2007; Maak, 2007; Maak & Pless, 2006b; Schraa-Liu & Trompenaars, 2006) rather than empirical-descriptive approaches. Even social scientific approaches to the familiar concept of ethical or moral leadership (e.g. Ciulla, 1995; Gini, 1997) have rarely considered responsibility aspects (see e.g. Eisenbeiss, 2012). In a first step, based on the results of the literature review a preliminary theoretical framework of the concept of responsible leadership has been developed, which has been differentiated and concretized further by conducting 13 in-depth interviews with participants (experienced managers of different industrial sectors) of the Executive MBA of the University St.Gallen. Data analysis followed the principles and phases of a 'structured qualitative content analysis' of Kuckartz (2012), using first a deductive, then inductive approach. The before mentioned questions 'What does responsibility look like in leadership practices of managers?' and 'What are the main challenges and problems managers are confronted with in their daily practice?' were of particular interest.

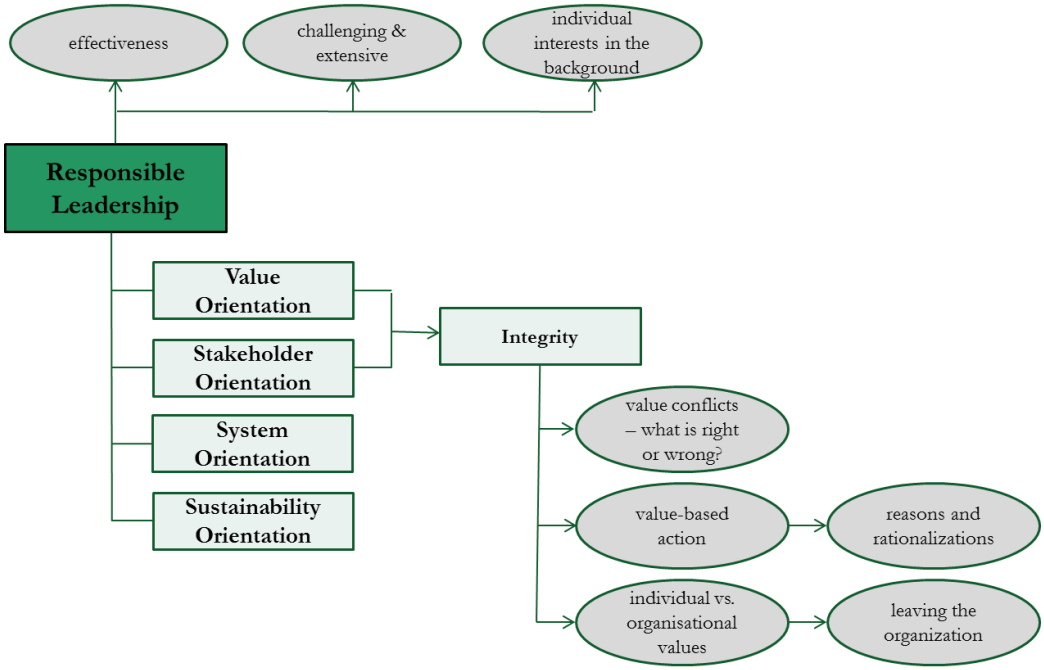


Figure 2: Responsible Leadership (own research)

As a result of the literature review four key categories to make up responsible leadership have been found. These categories, namely value orientation, stakeholder orientation, sustainability orientations as well as system orientation, could also be confirmed within the qualitative analysis:

- *value orientation* (as the category which is most associated with responsible behavior): Being conscious about own values and principles and behaving accordingly (see e.g.Gentile, 2010; Maak & Pless, 2006b; Schraa-Liu & Trompenaars, 2006);
- *stakeholder orientation*: the consideration of expectations and claims of different stakeholders, expanding from an internal leadership perspective to a broader world view, from a shareholder mindset to a stakeholder orientation (see e.g. Eisenbeiss, 2012; Freeman, 1984; Maak & Pless, 2006a);
- *sustainability orientation*: consideration of economic, social as well as ecological consequences of business activities (triple bottom line outcomes) (see e.g. Ferdig, 2007; Werhane, 2008);
- *system orientation*: responsible leaders lead 'with' rather than 'against' others in ways that account for the long-term viability of complex, interconnected living systems (see e.g. Ferdig, 2007);

Analysis showed that these categories cannot be seen isolated, because interviewees always talked about these aspects of responsible leadership by considering its consequences, implications or barriers. Responsible leadership seems to be a high complex set of if-then relations and conditions. Regarding this we can distinguish between consequences of responsible behavior in general and across all four central aspects (categories 'effectiveness', 'challenging and extensive', 'individual interest in the background') and consequences explicitly referred to integrity, which is strongly connected to value and stakeholder orientation (see figure 2).

Most interviewees associate responsible leadership with neglecting individual interests: on the one hand in a positive way by contrasting it clearly with opportunistic behavior; on the other hand they evaluate it negatively by talking about experiences in which propagating responsibility or advocating for responsibility has led to negative consequences for themselves (being too idealistic, being naive, being the martyr in the organization). Another contradictory evaluation about the effects of responsible behavior has been found out: on the one side responsibility is understood as condition for being effective at all, on the other hand especially effects regarding company profit are questioned seriously. Generally responsible behavior is experienced as challenging, extensive and preferring the more difficult way than behaving less responsible.

For all interviewees value orientation incorporates integrity (which is the most mentioned aspect at all). Integrity is understood as truthfulness or accuracy of one's actions or in the words of an interviewee: "My principle is being as authentically, predictably and constantly as possible – not like a ‚flag in the wind'". The challenge to be a person of integrity results mainly from the willingness to act according to own principles (value orientation) and at the same time the consideration of expectations, values and claims of persons which are involved in the situation (stakeholder orientation). Moreover it became clear that being authentic, being clear about own principles seems to become more and more important the higher the position in the organization – "then you feel like in a prison - you have to give an opinion and take a stand." Furthermore integrity is related to various implications:

- Being a person of integrity becomes particularly challenging when a manager encounters value conflicts, when the way he wants to live and the things he wants to accomplish seem in conflict with the expectations of his clients, peers, bosses and/or his organizations. In such a value conflict managers have to recognize and clarify their values and make a decision what is the right thing to do or what position one is going to take (category 'value conflicts – what is right or wrong') (see also Gentile, 2010; Kidder, 1995).
- But findings showed that this is not enough – even more challenging than value-based decision-making is value-based action: how a manager raises these issues in an effective manner, what he or she needs to do and say in order to be heard, and how to correct an existing course of action when necessary (category 'value-based action) (see also Gentile, 2010; Kidder, 1995).
- Speaking and acting on its own values is associated in many cases with negative consequences. One of the strongest barriers seem to be the price one would be forced to pay, which may result in negative career consequences, social disapproval or financial disruptions. Organizational and personal barriers support the intention to develop so called 'reasons and rationalizations' for not action on own values ("Actually it's not my responsibility", "I'm in the minority", "I'm too junior in the organization for raising uncomfortable questions" or "It harms nothing, but it is good for business") (see also Gentile, 2010:179).
- Really often interviewees named the option of leaving the organization as the only way by staying true to their principles, when they have realized that organizational and individual values are con-

tradicting to such a degree that they feel absolutely powerless (category 'individual vs. organizational values' and 'leaving the organization').

These findings clearly show the different aspects which constitute responsible leadership as well as the challenging situations managers can face in their real-world practice and can be used as starting points for working on these challenges in the classroom.

Methodology

Design-based Research. The presented research is a design-based-research study (Euler, 2012; McKenney & Reeves, 2012; Plomp, 2010). This research is characterized by the requirement that the development of innovative solutions for practical educational problems should dovetail with the acquisition of scientific knowledge. "The challenge for design-based research is in flexibly developing research trajectories that meet our dual goals of refining locally valuable innovations and developing more globally usable knowledge for the field" (Design-Based Research Collective, 2003:7). Accordingly, design research is defined as follows: "the systematic study of designing, developing and evaluating educational interventions (such as programs, teaching-learning strategies and materials, products and systems) as solutions for complex problems in educational practice, which also aims at advancing our knowledge about the characteristics of these interventions and the processes of designing and developing them" (Plomp, 2010:13).
Design research emerged mainly in response to criticism of the lack of practical application of empirically and analytically orientated teaching and learning research's findings. Numerous articles note that many scientific findings, for example, from traditional empirical research, are irrelevant for, inaccessible to, and/or incomprehensible for educational practice (e.g. Euler, 1996; Euler, 2007, 2009). Apart from its emphasis on practical relevance, design research regards its scientific function as not only describing and clarifying what exists, but also the innovatively discovering and developing that which is possible. Both components – the increased practical relevance and the innovation function of science – constitute essential driving forces to legitimize and develop this paradigm.
The major characteristics of design research can be summarized as follows:

- *Key question*: This research's premise is not whether an existing intervention or method is effective, but the manner in which the desirable objective can best be attained in a given context through an intervention yet to be developed. The development direction therefore extends from the desired objective to the method. This research's premise and reference might, for instance, be the open question: How should an intervention in executive education be formulated to advance responsible leadership competences (objectives)?
- *Discovering, developing, and testing innovative solutions for unsolved practical problems*. The design research objective is to contribute to the development of "innovative educational environments" (Brown, 1992:141) and simultaneously develop theories with practical relevance. The aim is to find innovative practical solutions for unsolved problems; i.e. the goal is not only to examine existing reali-

ties (actualities), but also to explore the possibilities (potentialities). "Design experiments differ from most educational research, because they do not study what exists; they study what could be" (Schwartz *et al.*, 2005:2). For example, innovative teaching concepts for promoting responsible action could be developed, tested, and formatively evaluated within the context of courses in the executive education.

- *Theory-based development*: The development of innovative solutions is theory-based; i.e. it is underpinned by available scientific evidence, as well as experienced practitioners' available everyday theories. If, for example, the issue were the effects of new teaching concepts to be developed to improve responsible leadership, practitioners' practical knowledge, as well as the relevant literature, would have to be incorporated into an intervention's design.
- *High practical relevance by means of iterative design cycles*: From an economic research standpoint, more effort is initially spent on theory development to increase the practical relevance and/or the robustness of the intervention before a (if required, comprehensive) theory verification. "Therefore, we usually 'bet low' by conducting small studies, and then pursue the most promising results" (Schwartz et. al., 2005, 20). Hence, one can resort to analogies from comparable practical areas. In the design of new products, software, or during organizational development, not every innovative variant is immediately subjected to a field test; instead, small design steps (prototypes) drive the innovation's gradual development.
- *Cooperation between science and practice*: Experienced practitioners are included in the different phases of the research and developmental process, thereby opening up other approaches to research fields of practice as opposed to "distant research." The expectations are that solutions' quality will increase and the transfer of collectively developed (and thus practicable) theories will be improved in practice (see also Euler, 2000: 573ff.). For example, experienced practitioners normally have an extensive know-how and a strong intuition regarding where the critical events in a developed teaching concept's application are to be found. Including experienced practitioners can make this frequently implicit knowledge useful for the development phase and can shorten the route to a high-quality intervention.
- *Area-specific theories / design principles as targeted results*: On the one hand, design research strives to achieve concepts or theories that will be useful for current practices. Design research does not only pursue an explanation of interventions' effects in a singular learning environment, but attempts to formulate area-specific theories that fit into a broader context (see also Cobb et al., 2003, 10f.). The theories primarily incorporate design principles tested for a designated application context (see Reeves, 2006; van den Akker *et al.*, 1999). In this context, Ulrich & Probst call them "order patterns," which thus mean that the conditions of a system cannot be predicted exactly, but can be determined within limits and uncertainties. This is aptly demonstrated with the example of a tree: While it is impossible to determine at what exact hour its leaves, blossoms,

buds, and fruit will appear, it is possible to predict approximately when it will bloom, when its fruit will ripen, and its leaves fall (Ulrich & Probst, 1991:66ff.).

- *Research and development cycle*: The research and development process is realized in iterate cycles of design, testing, analysis, and redesign. An incremental optimization of the design is effected within these cycles, and the development processes and principles are simultaneously documented. "One of the distinctive characteristics of the design experiment methodology is that the research team deepens its understanding of the phenomenon under investigation while the experiment is in progress" (Cobb *et al.*, 2003:12). The interventions should only be summatively evaluated after an advanced refinement; i.e. the development potentials of the interventions should be exhausted before an approach is rejected as lacking usefulness (Lewis *et al.*, 2006:8). The following diagram outlines the basic sequence of a design research and developmental process, and identifies the targeted results for the individual process phases:

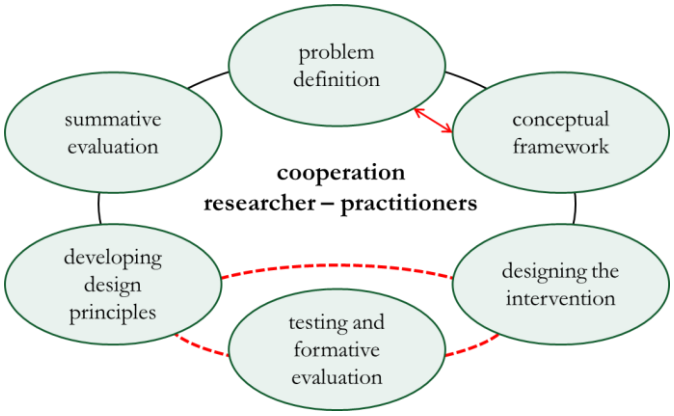


Figure 3: Research and development cycles in the design research context

Practical Course Designs. Exemplary course designs respectively pedagogical interventions have been designed for different modules (accounting, strategic management and entrepreneurship) of the Executive MBA Program (EMBA) of the University of St.Gallen by considering (a) the theoretical assumptions regarding attitude change and formation mentioned above; (b) the theoretical and empirical work on the concept of responsible leadership and (c) results of an intensive needs and context analysis. The interventions have been iteratively tested regarding its usability, practicability and effectiveness.

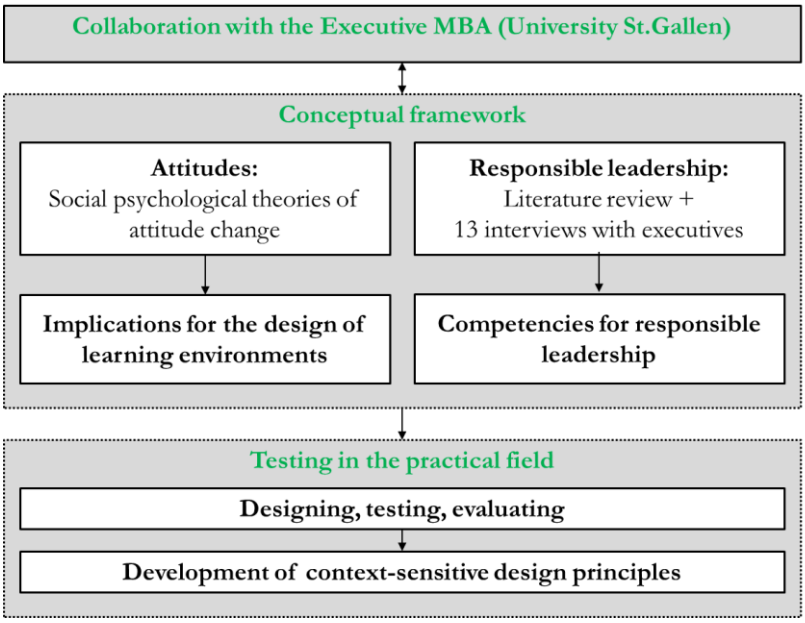


Figure 4: Overview

Because of its complexity it is not possible to present the evolvement of the course designs over time as well as the resulting designs and teaching and learning materials in very detail. Presented results will give a better insight.

Research Design. The research incorporates a total of 7 cycles of analysis, design and development, evaluation and revision of the pedagogical interventions over the different modules.

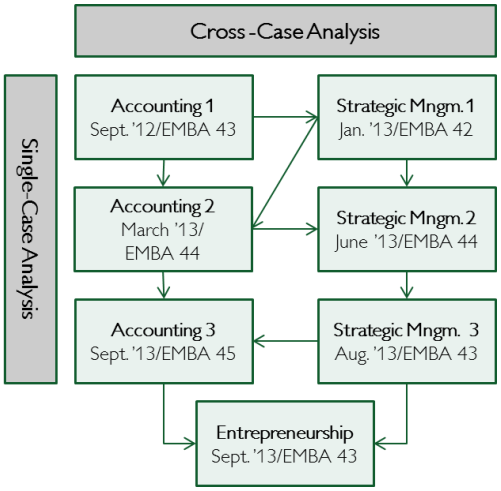


Figure 5: Research process

The focus of empirical investigation is the understanding about *if, how and why* intervention features work (feasibility, soundness, viability, institutionalization, effectiveness, impact of the intervention). During research knowledge about both specific aspects of the intervention itself and the phenomenon of attitude development induced by the intervention is constructed by using multiple, mainly qualitative

methods within the complexity of the authentic setting. Within the evaluation phase different methods like developer screenings, expert appraisals, video-supported classroom observations, interviews as well as focus groups with participants and teachers about their subjective perceptions of the intervention, and examinations at the end of the modules have been conducted, depending on varying evaluation focuses in every cycle (McKenney & Reeves, 2012). Furthermore a cross-case analysis of the different modules has been used to identify similarities and differences between module-specific aspects of the intervention.

First Results

The iterative development of the pedagogical designs and the data collection was finished in the end of 2013. Data analysis is not yet finalized completely, but first context-sensitive design principles can be presented. Design principles, as already mentioned above, „recommend how to address a specific class of issues in a range of settings" (McKenney & Reeves, 2012: 19). They aim to advance case based evidence on a more general theoretical level in order to provide guidance for the design of learning environments in similar settings. As regards the research question, design principles provide the key characteristics to be applied for creating learning experiences in management education in order to promote attitudes toward responsible leadership.

Context:

Organizational and social conditions:

- Course designs have been developed for three modules of the Executive MBA of the University St.Gallen: Strategic Management, Accounting and Entrepreneurship. The research incorporates a total of 7 cycles of design and development, evaluation and revision of the didactic interventions (from September 2012 to September 2013). The course design for Strategic Management and for Accounting have been tested and revised three-times, the course design of Entrepreneurship once at the end of the complete cycle by bringing together the findings in one resulting concept.
- The modules are one- or two-week courses. Course concepts have been tested in sequences of 3 to 4 lessons.
- Course concepts have been tested in different EMBA-classes; in the cohort EMBA 43 the concepts of all three modules have been tested, in the cohort EMBA 44 the concepts of Strategic Management and Accounting have been tested, in the cohorts EMBA 44 und 45 one concept has been tested.
- Class sizes range from 40 to 50 participants.
- Course concepts have been developed in close collaboration with the teachers in charge of the modules to ensure a good integration of the topic responsibility into the module as well as to meet teaching preferences of the teacher to ensure a preferably sustained implementation.
- In the beginning teaching has been done by the teachers in charge of the modules, intensively supported by the researcher (in a form of co-teaching). Support by the researcher has faded more and more across the testing phase.

Individual learning prerequisites:

- Participants are heterogeneous regarding their backgrounds, careers, positions, sectors and experiences. They have at least 7 years of leadership/management experience.
- Participants are generally not used to work on moral value conflicts respectively social issues. They are often reluctant regarding such ‚soft' issues. Moreover they are unfamiliar with the challenge to clarify and name values.
- Participants are not used to work with moral arguments in small groups or plenary discussions. The level of reflection as well as the level of differentiated generation and verbalization of arguments differs in the class to a large extent.
- Participants are used to discuss possible courses of action in value conflicts on a quite abstract level; predicting consequences of decisions and developing so-called 'if-then plans' is challenging for them.

Learning objectives (attitude dimension):

- getting conscious about the characteristics of value conflicts;
- being able to recognize that there is generally no 'right' or 'wrong' in value conflicts;
- becoming aware about own attitudes which influence the way of acting in value conflicts;
- being able to recognize and accept different opinions and options of action in value conflicts;
- being able to identify important stakeholders in value conflicts and to adopt different perspectives;
- being able to recognize different interests, expectations, claims and values as starting point of value conflicts;
- being able to balance different courses of action in value conflicts regarding its consequences for involved people as well as for oneself.
- being able to anticipate possible barriers and preparing for them.
- …

Intervention

Guiding principles (‚substantive emphasis')

See theoretical framework described above

Implementation principles (‚procedural emphasis') – Examples

- Following phases are considered critical: Introduction and first engagement with the value conflict;

spontaneous decision regarding a question that offers a continuum of possibilities between two extremes (between yes – no, two courses of action), positioning according to the own opinion and verbalizing the reasons, intensive discussion of the case in small groups with the purpose to develop differentiated arguments and concrete 'if-then-plans' – supported by reflective questions, plenary discussion of arguments and action plans, debriefing of technical as well as moral aspects regarding the topic responsibility, individual reflection about what they have learned.

- The value conflict should not contain 'right-versus-wrong choices', but 'right-versus-right choices'. By working with 'right-versus-right choices' learners are facilitated to take their own stand. Moreover it supports the process of changing initial opinions and attitudes towards the topic.
- Learners should put themselves in the role of the protagonist of the case / the value conflict. The protagonist should be in a job position the participants aspire to, that it is felt as personal relevant to the learners.
- It is important to consider effects of interaction to attitude development (e.g. students' tendency to adopt ambivalent instead of extreme attitudes to maximize a favorable impression) by creating problem situations where different opinions and attitudes towards the issue are desired and not evaluated.
- It is important to address a complex problem situation which contains an individual value conflict combined with the challenge how to act in this situation. The development of action plans within a value conflict goes an important step further: Making a decision based on one's values does not mean being able to act in this way; the phase of 'solution-orientation' was a critical moment for learners.
- It is helpful to visualize different opinions regarding acting in value conflicts. It has been shown that it is effective if learners have to stand up for their opinion (opinion and person can brought together) and are asked to verbalize their opinion respectively attitude.
- Because of the large class size the activation of all participants- particularly in the plenary discussion - is challenging. The ‚Fish-Bowl Method' for instance has proved to be an appropriate method to involve as many learners as possible.
- It is important to ensure a balanced exchange of different opinions. The discussion of too one-sided and extreme attitudes influences attitude change of other learners in this direction. For this reason methods of high activations are important.
- …

Theoretical and practical significance. The design research study depicts two main outputs: On the one hand interventions which become mature over time and contribute directly to the practice by addressing the educational challenge of fostering specific attitudes within an existing executive education program, in particular an Executive MBA Program. On the other hand theoretical understanding about the development of attitudes in this specific educational setting is produced within various cycles of designing, evaluating and re-designing. The empirical findings and resulting design principles provide building blocks for a context-sensitive theory about fostering the development of students' attitudes towards responsible leadership.

Literatur

Ajzen, I. (1991). The theory of planned behavior *Organizational Behaviour and Human Decision Processes 50*, 179-211.

Ajzen, I., & Sexton, J. (1999). Depth of processing, belief congruence, and attitude-behavior correspondence. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 117-138). New York Guilford.

Allport, G. W. (1935). Attitudes. In C. Murchinson (Ed.), *Handbook of social psychology* (pp. 798-844). Worcester, MA: Clark University Press.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Bargh, J. A., Chaiken, S., Govender, R., & Pratto, F. (1992). The generality of the automatic attitude activation effect. *Journal of Personality and Social Psychology, 62*(6), 893-912.

Bohner, G., & Wänke, M. (2002). *Attitudes and attitude change* Hove, East Sussex: Psychology Press.

Brehm, J. W. (1956). Postdecision changes in the desirability of alternatives. *The Journal of Abnormal and Social Psychology, 52*(3), 384-389.

Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *The Journal of the Learning Sciences, 2*(2), 141-178.

Chaiken, S. (1987). The heurstic model of persuasion In M. P. Zanna, J. M. Olsen & C. P. Herman (Eds.), *Social influence: The ontario symposium* (Vol. 5, pp. 3-39). Mahwah, NJ: Lawrence Erlbaum

Ciulla, J. B. (1995). Leadership ethics: Mapping the territory. *Business Ethics Quarterly, 5*(1), S. 5-24.

Cobb, P., Confrey, J., diSessa, A., Lehrer, R., & Schauble, L. (2003). Design experiments in educational research. *Educational Researcher, 32*(1), 9-13.

Datar, S. M., Garvin, D. A., & Cullen, P. G. (2010). *Rethinking the mba - business education at a crossroads* Boston: Harvard Business Press.

Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher, 32*(1), 5-8.

Dewey, J. (1938/1955). *The theory of inquiry*. New York: Holt.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*: Harcourt Brace Jovanovich College Publishers.

Eagly, A. H., & Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Social Cognition, 5*, 582-602.

Eisenbeiss, S. A. (2012). Re-thinking ethical leadership: An interdisciplinary integrative approach. *The Leadership Quarterly*.

Euler, D. (1996). Denn sie tun nicht, was sie wissen - über die (fehlende) Anwendung wissenschaftlicher Theorien in der wirtschaftspädagogischen Praxis. *Zeitschrift für Berufs- und Wirtschaftspädagogik, 4*(92), 350-365.

Euler, D. (2000). Über den transfer wissenschaftlicher theorien in die berufsbildungspraxis. In C. Metzger, H. Seitz & F. Eberle (Eds.), *Impulse für die wirtschaftspädagogik : Festschrift zum 65. Geburtstag von prof. Dr. Rolf dubs* (pp. 563-588). Zürich: SKV.

Euler, D. (2007). Berufsbildungsforschung zwischen wissenschaft und machenschaft. In G. Reinmann & J. Kahlert (Eds.), *Der nutzen wird vertagt* (pp. 82 - 100). Lengerich: Pabst.

Euler, D. (2009). Berufsbildungsforschung zwischen atomistischer empirie und responsiver praxisgestaltung. In I. Lisop & A. Schlüter (Eds.), *Bildung im medium des berufs?* (pp. 97-120). Frankfurt: G.A.F.B.

Euler, D. (2012). Design research - ein paradigma in entwicklung *Unveröffentliches Manuskript des Instituts für Wirtschaftspädagogik, Universität St.Gallen*

Euler, D., & Feixas, M. (2013). Reflective leadership: A vision for international management education. In *The routledge companion to international managment education* (Vol. 1. Auflage Juni 2013, pp. 3-14). Milton Park: Routledge.

Fazio, R. H. (1990). Multiple processes by which attitudes guide behaviour: The mode model as an integrative framework In M. P. Zanna (Ed.), *Advances in experimental social psychology*. San Diego Academic Press.

Fazio, R. H., & Roskos-Ewoldsen, D. R. (2005). Acting as we feel: When and how attitudes guide behavior. In T. C. Brock & M. C. Green (Eds.), *Persuasion: Psychological insights and perspectives* (pp. 41-62). Thousand Oaks: Sage

Ferdig, M. A. (2007). Sustainability leadership: Co-creating a sustainable future. *Journal of Change Management, 7*(1), 25-35.

Festinger, L. (1957). *A theory of cognitive dissonance*. Evanston, IL: Row, Peterson.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research* Reading, MA: Addison-Wesley.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston, MA Pitman.

Gentile, M. C. (2010). *Giving voice to values. How to speak your mind when you know what's right*. New Haven and London: Yale University Press.

Gini, A. (1997). Moral leadership: An overview. *Journal of Business Ethics, 16*(3), 323-330.

Janis, I. L., & King, B. T. (1954). The influence of role playing on opinion change. *The Journal of Abnormal and Social Psychology, 49*(2), 211-218.

Jerusalem, M., & Schwarzer, R. (2002). Das konzept der selbstwirksamkeit In M. Jerusalem & D. Hopf (Eds.), *Selbstwirksamkeit und motivationsprozesse in bildungsinstitutionen* (pp. 28-53). Weinheim: Beltz (Zeitschrift für Pädagogik, 33. Beiheft).

Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion: A meta-analysis. *Psychological Bulletin, 107*, 375-384.
Kidder, R. M. (1995). *How good people mak tough choices* New York William Marrow: HarperCollins Publishers.
Kolb, D. A. (1984). *Experiental learning. Experience as the source of learning and development*. Englewood Cliffs: Prentice-Hall, Inc.
Krech, D., & Crutchfield, R. S. (1948). *Theory and problems of social psychology*. New York: McGraw-Hill.
Kreuz, A. (2002). *Einstellungen gegenüber menschen mit einer geistigen behinderung. Analyse und weiterentwicklung von untersuchungsinstrumenten* Wien WUV - Universitätsverlag.
Lewis, C., Perry, R., & Murata, A. (2006). How should research contribute to instructional improvement? The case of lesson study. *Educational Researcher, 35*(3), 3-14.
Maak, T. (2007). Responsible leadership, stakeholder engagement, and the emergence of social capital. *Journal of Business Ethics, 74*(4), 329-343.
Maak, T., & Pless, N. (2006a). Responsible leadership in a stakeholder society - a relational perspective *Journal of Business Ethics, 66*, S. 99 - 115.
Maak, T., & Pless, N. (2006b). Responsible leadership. A relational approach. In T. Maak & N. Pless (Eds.), *Responsible leadership* London and New York Routledge
Maio, G. M., & Haddock, G. (2010). *The psychology of attitudes and attitude change* Los Angeles, London, New Delhi, Singapore, Washington DC: Sage
McGuire, W. J. (1964). Inducing resistance to persuasion: Some contemporary approaches. *Advances in Experimental Social Psychology, 1*, S. 191-229.
McGuire, W. J., & Papageorgis, D. (1962). Effectiveness of forewarning in developing resistance to persuasion. *Public Opinion Quarterly, 26*(1), 24-34.
McKenney, S., & Reeves, T. (2012). *Conducting educational design research*. London, New York: Routledge.
Petty, R. E., & Cacioppo, J. T. (1977). Forewarning, cognitive responding, and resistance to persuasion. *Journal of Personality and Social Psychology, 35*(9), 645-655.
Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology, 19*, S. 124 - 203.
Petty, R. E., Cacioppo, J. T., & Goldman, R. (1981). Personal involvement as a determinant of argument-based persuasion. *Journal of Personality and Social Psychology, 41*(5), 847-855.
Petty, R. E., Wells, G. L., & Brock, T. C. (1976). Distraction can enhance or reduce yielding to propaganda: Thought disruption versus effort justification. *Journal of Personality and Social Psychology, 34*(5), 874-884.
Plomp, T. (2010). Educational design research: An introduction. In N. Nieveen & T. Plomp (Eds.), *An introduction to educational design research* Enschede: SLO.
Reeves, T. (2006). Design research from a technology perspective. In T. Plomp & N. Nieveen (Eds.), *An introduction to educational design research* (pp. 9-36). Enschede: SLO – Netherlands institute for curriculum development.
Schraa-Liu, T., & Trompenaars, F. (2006). Towards responsible leadership through reconcinling dilemmas. In T. Maak & N. M. Pless (Eds.), *Responsible leadership* London and New York Routledge
Schwartz, D. L., Chang, J., & Martin, L. (2005). Instrumentation and innovation in design experiments:
Taking the turn towards efficiency. *Stanford University, internal paper* (http://aaalab.stanford.edu/papers/Design%20Exp%20readable.pdf).
Schwarz, N. (2007). Attitude construction: Evaluation in context *Social Cognition, 25*(5), 638-656.
Tesser, A. (1978). Self-generated attitude change. In L. Berkowitz (Ed.), *Advances in experimental sociual psychology* (Vol. 11, pp. 289-338). New York: Academic Press.
Ulrich, H., & Probst, G. (1991). *Anleitung zum ganzheitlichen denken und handeln* (Vol. 3. Auflage). Bern: Haupt.
van den Akker, J., Branch, R., Gustafson, K., Nieveen, N., & Plomp, T. (1999). Principles and methods of development research. In *Design approaches and tools in education and training* (pp. 1-14): Springer Netherlands.
Wallace, D. S., Paulson, R. M., Lord, C. G., & Bond, C. F. (2005). Which behaviors do attitudes predict? Meta-analyzing the effects of social pressure and perceived difficulty. *Review of General Psychology, 9*, 214-227.
Werhane, P. H. (2008). Mental models, moral imagination and system thinking in the age of globalization. *Journal of Business Ethics, 78*(3), 463-474.
Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. *Journal of Social Issues, 25*(4), 41-78.
Wilson, T. D., & Hodges, S. D. (1992). Attitudes as temporary constructions. In A. Tesser & L. Martin (Eds.), *The construction of social judgment* (pp. 37-65). Hillsdale, NJ: Erlbaum.
Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review, 107*(1), 101-126.
Wood, W., Kallgren, C., & Preisler, R. (1985). Access to attitude-relevant information in memory as a determinant of persuasion: The role of message attributes. *Journal of Experimental Social Psychology, 21*, 73-85.
Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology, 9*(2, Pt.2), 1-27.
Zajonc, R. B. (2001). Mere exposure: A gateway to the subliminal. *Current Directions in Psychological Science (Wiley-Blackwell), 10*(6), 224.