Chapter 5
Teaching Cyberethics: Value Orientations as Predictors of the Acquisition of Moral Competence in a Course on the Social Consequences of Information Technology

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ABSTRACT
The discussion of moral dilemmas is often proposed as one way to teach ethics. But can ethics be taught to everyone? Do participants’ value orientations predict the acquisition of moral competence in an educational context? This study presents data from an evaluation of a course on the social consequences of information technology (IT). IT-related dilemma discussions were used extensively in the course. The participants answered questionnaires at the beginning of the course and before their final exam at the end of term. Moral competence was measured with the Moral Judgment Test (MJT). A questionnaire on individual reflexive values was used for the assessment of value orientations. Although the participants’ average level of moral competence did not change significantly, there was evidence that participants with a high degree of materialistic values were less likely to acquire moral competence during the course.

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INTRODUCTION
Meno: Can you tell me, Socrates, whether virtue can be taught, or is acquired by practice, not teaching? Or if neither by practice nor by learning, whether it comes to mankind by nature or in some other way? (Plato, undated/1967)

The question of whether virtue, ethics, or morality can be taught and if so, how, has been discussed since the days of Plato and Socrates. Today, ethics courses are a seminal part of university curricula in business studies (Crane & Matten, 2004; Ferrell, Fraedrich, & Ferrell, 2009), medical studies (Molewijk, Abma, Stolper, & Widdershoven, 2008), computer sciences and software engi-
neering (Spinello, 2006) as well as many other disciplines. Based on an evaluation of a lecture on the social consequences of information technology (‘cyberethics’; cf. Kolb, 1998; Spinello, 2006) this paper will focus on value orientations as potential predictors of the acquisition of moral competence in an educational context.

**Moral Competence**

Within the field of psychology, a substantial body of research on teaching ethics in educational settings draws upon Lawrence Kohlberg’s (1958, 1964, 1969, 1984) research on cognitive moral development. Kohlberg’s main research method was the discussion of moral dilemmas. The fictional protagonists of these dilemmas have to choose one of two unpleasant alternative actions. Kohlberg analyzed the argumentation strategies his counterparts used in the justification of their decisions.

In the tradition of Piaget’s (1932/1965) developmental psychology, he described three levels of cognitive moral development comprising six developmental stages. At the pre-conventional moral level (stages 1 and 2), rewards and punishments are pivotal, whereas at the conventional level (stages 3 and 4), law and social order are most important. On the post-conventional level (stages 5 and 6), moral reasoning is based on more abstract moral principles. In the course of cognitive moral development, each stage must be completed before there can be a progression to the next stage. A regression in stages is extremely rare. Nevertheless, only few adults will ever in their lives reach the post-conventional level.

Building on Kohlberg’s ideas, Georg Lind (Lind, 1978, 2003, 2008; Lind & Wakenhut, 1985) developed the dual-aspect theory of moral competence. He argues in line with Kohlberg that cognitive abilities (like moral competence) and affective mechanisms (like values or ideals) are inseparable, although distinct. Moral competence cannot be defined without reference to a person’s ethical values and ideals, and ethical values and ideals cannot be put into practice without the necessary moral competence. In contrast to Kohlberg’s concept of cognitive moral development, a person’s moral competence can deteriorate or ‘erode’ over time (e.g., Lind, 2002). Longitudinal analyses show that whereas moral competence increases with age during adolescence and early adulthood, it can stagnate or even abate in later phases of life (Lind, 2002; Niemczyński, Czyżowska, Pourkos, & Mirski, 1988). Whereas some studies have found no gender differences in moral competence (e.g., Lind, 1986), other studies suggest that women may achieve slightly higher moral competence scores than men (e.g., Desplaces, Melchar, Beauvais, & Bosco; 2007).

**Dilemma Discussions as Means of Teaching Ethics**

As the bottom line of his research since the 1970s, Lind draws the conclusion that ethics can and should be taught in a democratic society (Lind, 2003). One method of teaching ethics at schools and universities originally proposed by Kohlberg and colleagues (e.g., Blatt & Kohlberg, 1975) is through the tutored discussion of moral dilemmas (see also Lind, Sandberger, & Bargel, 1985; Lind, 2002). Students are presented with fictional dilemmas similar to those Kohlberg used in his research and have to discuss different possible actions. The teacher only loosely moderates the discussion, supporting from time to time the ‘weaker’ side with arguments drawn from a slightly higher developmental stage than those used by the students (cf. Lind, 2003). Nevertheless, in order to evaluate the effectiveness of such methods, it is necessary to have reliable and valid instruments for the measurement of moral competence.

**Measuring Moral Competence**

Two different approaches based on Kohlberg’s research can be used to measure moral compe-