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.

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)

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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 tech-
nology (‘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 set-
tings 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 ficti-
tional 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) devel-
opmental 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 punish-
ments 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 ide-
als) are inseparable, although distinct. Moral
competence cannot be defined without reference
to a person’s ethical values and ideals, and ethi-
cal 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 dilem-
mas (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-