

Ego and Moral Development in University Contexts: The Value Consistency Thesis Extended

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The Value Consistency Thesis (VCT) proposed and empirically tested by Levine, Jakubowski, and Côté predicts associations between ego and moral functioning by identifying humanistic value orientations common to dimensions of both domains. With hypotheses based on Erikson's notion of institutionalized moratorium, the present 2-year longitudinal study of 58 undergraduate students investigates the VCT as a function of participation within humanistic and technological university faculties. The findings replicate the initial test of the VCT and indicate that both ego and moral development and the ability to coordinate these developmental domains are gains more likely for students enrolled in humanistic faculties.

In his writings on the identity stage and its resolution, Erikson (1968, 1975) highlights the necessity for the ego to reject the moralism of childhood and to commit itself to a reconstructed moral point of view that he calls "ideological." The probability of such ego/moral coordination being successful is, for Erikson, strongly influenced by (a) internalized value orientations and (b) participation within institutionalized moratoria that provide cultural/social structural support for youth during the identity stage.

A substantial body of literature has been published concerning Erikson's insights with regard to the relationship between ego and moral development (see, for example, Habermas, 1979; Kegan, 1982, 1985, 1994; Lapsley & Power, 1988). Snarey, Kohlberg, and Noam (1983) have suggested a model of logically possible pairings of Kohlberg's moral stages with Erikson's psycho-

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social phases of ego development.¹ With this model, they address the issue of coordination (p. 325) by focusing on the moral will or "moral courage" of the ego and, with reference to Erikson's notions of phase-specific virtues, discuss how this strength is transformed during psychosocial development.

In addition to an emphasis on the role of ego strength, the Value Consistency Thesis (VCT) (Levine, Jakubowski, & Côté, 1992) addresses the impact of internalized value orientations on ego/moral coordination. It claims that if similar value orientations are associated with the cognitive operational properties of the ego and moral domains, then it becomes possible to predict the coordinated use of these domains. The VCT's emphasis on the importance of internalized values stems from Erikson's (1968) and Kohlberg's (1981, 1984) claim that cultural value content influences the operational functioning of both prescriptive cognition and personality—that acts of making moral judgments and the ongoing, reflexive experiences of a developing ego are value stimulated or mediated life processes. Levine et al. (1992) have reported initial empirical support for the VCT.

Whereas the present study attempts to empirically replicate the first test of the VCT, its primary purpose is to extend the VCT's scope by investigating the influence different socialization contexts exert on the coordination of ego and moral competencies.² Accordingly, we designate various university faculties as operationalizations of Erikson's notion of institutionalized moratoria and examine the influence exerted by such settings on (a) ego and moral development and (b) the relationship between these developmental domains, over approximately 2 years of university experience.

THE VALUE-CONSISTENCY THESIS REVISITED

The VCT grounds its prediction of ego/moral coordination on the claim that internalized values influence both ego and moral development. It assumes that internalized value content helps to organize the personality, its cognitive processes, and its relationship with social context (Kluckhohn, 1951; Parsons, 1964; Williams, 1968). More specifically, the VCT proposes that internalized value content can contribute to the temporal and/or contextual stability of ego and moral functioning. Through the use of values, persons are able to organize their adaptive strategies to life circumstances in relatively coherent and meaningful ways. If the adaptive strategies developed in the ego and moral domains interpenetrate with similar value orientations, it should be possible to successfully predict relationships between Erikson's and Kohlberg's models. Thus, the VCT (a) conceptualizes the ego and the moral domains in terms of the interpenetration of cognitive structure with

internalized elements of cultural value orientations and then (b) predicts relationships between these domains by identifying value content that both (or dimensions of both) have in common.

It is important to understand that the VCT conceptualizes ego/moral domain coordination social psychologically, as a property of the relationship between persons and context. This is its perspective because it is only when a dilemma is encountered that persons are stimulated to coordinate the social/descriptive competencies of the ego with its prescriptive (moral) reasoning abilities. This obvious point grounds the VCT's concern with internalized value orientation, for it is in the cognitive act of addressing a dilemma, constructing its meaning, and making one's response to it meaningful that the dominant value orientation that has contributed to the ego's development becomes important. Its importance is manifested in the selection of what counts as relevant fact and in its influence on the types of cognitive operations used to prescriptively rank order facts. Fact selection and ordering are two essential components involved in the process of constructing a meaningful resolution to any dilemma (Rest, 1983).

Thus far, the investigation of the VCT has been restricted to the study of adolescence and young adulthood and to an assessment of the impact exerted by a humanistic value orientation on ego and moral development. Because the first discussion and empirical test of the VCT was published 6 years ago, a review of this initial work is in order before we present the results of the present study. We begin with a discussion of how Erikson and Kohlberg acknowledged the influence of humanistic values on specific structural dimensions of their respective developmental theories. Given that Erikson's eight phases of the life cycle and Kohlberg's six stages of moral reasoning have been described in numerous publications, we assume the reader's general familiarity with these developmental models.

The VCT and Erikson. Although Erikson (1968, 1975) understands the structural properties and functions of the personality to be universal (e.g., ego, superego, ego domination, phase-specific crises), he nevertheless argues that their organization, development, and behavioral manifestations in any particular life history are partially a function of their interpenetration with values and social contexts. Erikson's focus on the symbiotic relationship between human development and cultural ethos is perhaps most apparent in his analysis of the fifth phase of development—the identity phase/crisis/resolution—and its acquired virtue, fidelity. In discussing this phase, he refers to more than the structural characteristics of identity and fidelity to explain the ego's struggle in dealing with the identity crisis. He writes,

But here we enter the domain of ethical values. Identity and fidelity are necessary for ethical strength, *but they do not provide it in themselves*. It is for adult man to provide *content* for the ready loyalty of youth, and worthy objects for its need to repudiate. (1964, p. 126; italics added)

Erikson (1968, 1975) identifies the cultural ethos of humanism and technologism as major examples of the value content offered to the "ready loyalty of youth."

As is noted above, the sample characteristics of the late-adolescent target populations used in the Levine et al. (1992) study meant that the initial research on the VCT essentially addressed the identity phase of Erikson's model. Whereas Erikson acknowledges that elements of ego identity exist "in some form" (Erikson, 1963, p. 271) in all of the life cycle phases, it is not until one reaches adolescence (the age period corresponding to the identity phase) that establishing a sense of identity becomes "an overwhelming preoccupation" (Snarey et al., 1983, p. 322). Individuals at this time are searching for some sense of "continuity and sameness" by developing a relatively firm sense of self and by attempting to become integrated into the adult world (Erikson, 1964). This process of identity formation often includes the reconstruction of normative ethical views with regard to the self's conception of its relationship to other persons and the social world in general (Erikson, 1975).

Erikson's writings about the identity phase have generated a great deal of interest among researchers and theoreticians for many years. The dominant methodology that has been employed to investigate identity formation has been based on James Marcia's (1966) work. For a variety of reasons discussed elsewhere (Côté & Levine, 1988a, 1988b), Levine et al. (1992) did not use Marcia's approach in their efforts to empirically assess the identity phase. Instead, they followed their own formulation of Erikson's theory (Côté & Levine, 1987) in which they had developed and demonstrated the validity of a set of measures of some of the structural and content factors that are germane to an understanding of the identity phase (Côté & Levine, 1989). This research indicates that measures of the following constructs are useful in explaining the process of ego identity formation during the identity phase: the identity crisis, the struggle between the ego and superego for dominance of the personality, and the institutionalized moratoria.

The identity crisis is conceptualized as a variable that can range in degrees of severity and prolongation. The associated struggle between the ego and superego is seen to often yield structural reorganizations in the form of degrees of either ego dominance or superego dominance. Finally, the technological and the humanistic moratoria, the two dominant institutionalized moratoria in North America, exert a significant impact on the above structural

processes. These cultural and social organizational contexts socially license experimentation with and preparation for adult roles and constitute social milieus within which individuals can work through the identity phase. Space restrictions prohibit a detailed theoretical discussion of the above factors, but the following constitutes a summary of their interrelationships in describing progress through the identity phase (see Côté & Levine, 1987, 1988a, 1989, for elaboration).

Erikson (1968) claims that a majority of youth in contemporary North American society make use of the psychosocial moratorium with a value set provided by a technological ethos. For him, the two fundamental principles of this ethos are (a) you become what you do and (b) what works is good. This technological orientation is the dominant ideology in North American society, and those who adopt it tend to define themselves in terms of their occupations (i.e., "they become what they do"). In contrast, youth who adopt the values of a humanistic ethos are adopting a more marginal ideology, the content of which can be sometimes directly opposed to what is perceived as society's tendency to subordinate human concerns to technology. These youth sense that the valuing of something simply because it works can constitute a destructive orientation unless it is informed by a sense of responsibility toward humankind. The supporters of this latter orientation tend to experience a greater sense of identity confusion than those who advocate the dominant technological orientation. By rejecting in part or in total the technological ethos, humanists are left with the very difficult task of trying to create for themselves, in a relatively unsupportive environment, a reasonable ideological framework with which to identify.

Erikson reasons that the values provided by the technological and humanistic orientations should have differing impacts on the structural configurations of identity crisis resolution and on subsequent development. In comparison with humanistic youth, technological youth probably receive more institutionalized support during the identity phase. Because of this, they likely experience less severe identity crises, have less identity work to do, and thus, likely resolve the identity phase with a personality that is not as ego dominated. Ego development for these youth may be slower or may be delayed to a later life phase.

In contrast, the values of humanistically oriented individuals should provide adequate stimulation for progressing through the identity stage, assuming that such individuals can find some sort of support for their values in a community. Because humanistic values have less institutionalized support within the broader social system, commitment to them is likely to produce a more severe identity crisis. Ironically, however, it is this greater crisis severity that can better prepare the humanist individual for life in a society often char-

acterized by fluctuations in degree of social regulation and organization. As they experience their more prolonged and more difficult ego identity crises, it is probable that humanistic individuals become more ego dominant than their technological peers. In other words, with increasing frequency they perceive themselves as learning to cope with and resolve problems with the aid of relatively fewer and less consistently defined and sanctioned institutionalized directives.

Past research findings (Côté & Levine, 1988b, 1989; Levine et al., 1992) do indeed indicate that the humanistic and technological value orientations are associated in different ways with the following two psychostructural characteristics of identity development: degree of identity crisis severity and degree of ego domination of the personality (i.e., the degree to which the ego is successful in replacing early childhood superego introjects with ones compatible with a more autonomous ego). In comparison with technological youth, youth who adopt humanistic values are more likely to experience (a) a greater degree of identity confusion and (b) more severe identity crises resulting in (c) a greater degree of ego dominance.

The VCT and Kohlberg. Generally speaking, Kohlberg (1984) claims that the influence of cultural content is not directly relevant to a theoretical understanding of the structural characteristics of his model, where each stage is viewed as a qualitatively distinct thought organization appearing cross-culturally. However, elsewhere in his work he emphasizes the importance of attending to the structure/content interface. For example, he and his colleagues (Colby & Kohlberg, 1987) developed a measure for the specific purpose of assessing this interface (i.e., the Moral Type Measure, to be discussed below). We can also see his attention to this issue in his description of the content analytical technique used to stage score moral judgments, where content is first categorized into the classes of "issue," "norm," and "element," enabling the researcher to then make reliable inferences with regard to underlying stage structure. Finally, the structure/content theme is also implicated in Kohlberg's explanation for why rates of moral development vary by different social organizational, social class, and cultural contexts (cf., Kohlberg, 1969, 1981, 1984; Kohlberg, Levine, & Hower, 1983; Levine, 1979).

The VCT relies on Kohlberg's notion of moral types to highlight the relevance of the structure-content interface in his work. In addition to developing measures to assess the underlying structural properties of moral reasoning (i.e., the Global Stage and Moral Maturity Measures), Kohlberg (1976) and his colleagues (Colby & Kohlberg, 1987) also constructed the Moral Type Measure. This measure identifies moral reasoning in terms of its structural and content properties simultaneously. It distinguishes heteronomous A-type

from autonomous B-type reasoning at Stages 2 through 5 of Kohlberg's developmental model. A-type reasoning can be considered preconstructed in the sense that the moral judgments it produces simply assert or express the legitimacy of various rules and regulations perceived as relevant to the dilemma in question. On the other hand, B-type reasoning actively reconstructs the relevance of pertinent rules and regulations in conjunction with the needs, rights, and obligations of persons implicated in dilemmas. Thus, the moral judgments produced by B-type reasoning appear much less rigid and place more emphasis on notions of fairness (in terms of balancing perspectives) in contrast to the heteronomously constructed concerns with rightness generated by A-type reasoning.

The Moral Type Measure is oriented toward identifying autonomous B-type reasoning and treats heteronomous A-type reasoning in a residual fashion, as being "not B-type reasoning." Keeping in mind this residual logic used to define and measure heteronomy, Colby and Kohlberg (1987) use the following nine criteria to identify B-type reasoning:

1. **Choice:** Moral choices are consistent with those made at the postconventional level;
2. **Hierarchy:** In contrast to the instrumental, pragmatic concerns of heteronomous judgments, these judgments reflect a clear hierarchy of values that places moral values and prescriptive duties above other considerations;
3. **Intrinsicity:** Treating persons as "ends in themselves," not as "means toward ends" is emphasized;
4. **Prescriptivity:** Issues of responsibility and obligation are differentiated from instrumental or personal considerations;
5. **Universality:** Rather than being relative to self-interest, judgments are held to be equally applicable to all persons in similar situations and circumstances;
6. **Freedom:** Judgments need not appeal to an institutionalized norm or authority for justification;
7. **Mutual Respect:** "Just" moral decisions cannot be made unless all persons are treated with respect;
8. **Reversibility:** With the operation of role taking, autonomous reasoning attempts to assess the points of view of all implicated actors as the basis for making moral choices; and
9. **Constructivism:** Whereas rules and laws exist for the benefit of society and its members, it is understood that they can and should be relaxed when special circumstances require such manipulation.

As was noted above, Kohlberg claims that B-type/autonomous moral reasoning is scored through an identification of the value content and operational properties used in making a moral judgment. The first criterion (i.e., choice)

enables the scoring of the participant's moral issue choice. This criterion can be understood as being a reflection of the moral values that the participant chooses to emphasize in response to Kohlberg's dilemmas. This value content, in the case of B-type/autonomous reasoning, emphasizes the greater moral importance of issues such as life, life quality, and conscience over issues such as property and respect for authority or law. Criteria 2 through 9 enable the researcher to assess operational activities of B-type reasoning involving, for example, cognitive processes such as classification, rank ordering, and balancing perspectives. Thus, when moral reasoning is designated as B-type reasoning, it (a) has endorsed certain moral values (scored as "choices" under Criterion 1 and (b) has demonstrated competence with the use of various cognitive operations considered by Kohlberg (1984) as fundamental to the ontogenesis of autonomous, postconventional moral reasoning.

Ego/moral coordination: The first test of the VCT. Two observations follow from the above review of Erikson's and Kohlberg's work on the cognitive structure/cultural value interface. First, within the domains of ego and moral development, there appears to be an association between particular value orientations and certain ego and moral structural properties. In the case of ego development, humanistic values, in comparison with technological ones, are positively associated with greater degrees of ego domination and identity crisis severity (Côté & Levine, 1987, 1988a, 1988b). In the case of moral reasoning, value choices focusing on the needs, rights, and obligations of persons, as the basis on which to evaluate the relevance of rules and regulations, are likely to be associated with the more competent use of moral/cognitive operations (Kohlberg et al., 1983). The second observation concerns the value consistency that exists between a humanistic identity orientation and B-type moral reasoning. These subdomains of ego and moral development appear to be similar in the sense that they privilege the valuing of persons as their dominant value focus.

Accordingly, the original test of the value consistency thesis (employing Kohlbergian moral reasoning measures [Colby & Kohlberg, 1987] and Eriksonian measures [Côté, 1984; Côté & Levine, 1987, 1989] of the identity phase)³ investigated the hypothesis that "a measure of autonomous B-type reasoning would be positively related with measures of humanism, ego dominance, and identity crisis severity" (Levine et al., 1992, p. 297).

In comparison with A-type reasoning, B-type reasoning was found to be associated with greater degrees of humanism, ego domination, and identity crisis severity. Although no significant difference in degree of ego strength was observed between A- and B-type reasoning, a significantly higher mean superego strength score was observed for A-type reasoning. Finally, a signifi-

cant correlation ($r = .18, p < .05$) between the interval measure of moral reasoning (WAS) and the humanism (HOS) measure was observed. Levine et al. (1992) did not predict this positive relationship between WAS and HOS but, when observed, argued that it should hold only for B-type reasoning because it is this type of moral logic that integrates the structural characteristics of prescriptive reasoning with values that are humanistic in nature. In contrast, they also argued that the relationship between WAS and HOS should be inverse for A-type reasoning because increasing competence in this reasoning is not likely to be associated with humanistic values. To test these predictions, they calculated correlations between HOS and WAS within each of the moral reasoning type categories. As expected, this analysis revealed a moderate, positive correlation of $+0.30$ between HOS and WAS for B-type reasoning and a negative correlation of -0.45 between HOS and WAS for A-type reasoning (Levine et al., 1992).

The above review of the Levine et al. (1992) study suggests that value orientation can be considered an integral aspect of development within developmental domains and that it is useful in understanding relationships between developmental domains. In extending this work, our present research addresses the following tasks: (a) a replication of the findings of the Levine et al. study and (b) an extension of the VCT by investigating the influence on ego and moral development and their coordination exerted by the value milieus of various social/pedagogical context(s) provided by either humanistic or technological university environments.

In other work, we have developed Erikson's (1975) notions concerning the technological and humanistic ethos (Côté & Levine, 1987, 1988b, 1989) and found support for his view that these two value systems can be seen as moderately opposing cultural forces. In addition, we have suggested that the educational system, especially at the tertiary level, can be viewed as one institutional mechanism by which these cultural forces are transmitted from one generation to the next. In Western societies, we can easily identify, on one hand, educational programs designed for the study of the humanities, arts, and the human/social condition and, on the other hand, educational programs designed to study methods of control and manipulation of the physical world with the use of techniques and tools. For Erikson, these educational programs train and teach humanistic youth and technological youth, respectively, to fulfill the mandates created by the two larger cultural forces. In two studies, we have distinguished humanistic from technological university faculties to help us understand the genesis of what we call the humanistic academic (Côté & Levine, 1992) and to predict student differences in human capital skill acquisition (Côté & Levine, 1997).

In the present research, our assumption is that participation within humanistic faculties is more likely to stimulate critical awareness concerning the human social condition than is participation within technological faculties. In the latter faculties, especially at the undergraduate level, emphasis is more likely to be placed on the acquisition of factual knowledge through the use of positivistic methods in the study of the physical world. Accordingly, we assume that humanistic faculties more closely approximate what Erikson calls a humanistic psychosocial moratorium. If this is the case, then participation within these faculties, compared with participation in their technological equivalents, should be more conducive to ego and moral development and more supportive of the cognitive integration of these two domains. This study of the possible effects of educational environments is stimulated by Erikson's (1963, 1975, 1985) and Kohlberg's (1980) claims that sociocultural environments (i.e., institutionalized moratoria) can nurture or inhibit both ego and moral development.

METHOD

Participants

The participants who took part in this study comprised 80 students attending a large Canadian university who participated in a longitudinal study on education and personal development. These students were enrolled in either social science, science, arts, or business at the university. Testing was done in the fall and spring of 1991 (T1) and then again in the fall and spring of 1993 (T2). Of the 80 who participated in the study at T1, 39 (49%) were male and 41 (51%) were female. Their ages ranged from 17 to 23 years, with a mean age of 19.05 years. At T2, the sample diminished in size to 58 students representing a participant loss of 27.5%. Of those retested, 24 (42%) were male and 33 (58%) were female. Their ages ranged from 19 to 25 years, with a mean age of 21.02 years.

We were unable to determine what proportion of participants who did not take part at T2 had dropped out of the university, although the observed attrition rate of 27.5% can be expected, given Gilbert's (1991) figures concerning Canadian university incompleteness rates (about 40%). However, this attrition rate does leave open the possibility of attrition biases in our sample. To assess possible attrition biases, *t* tests were performed on all of the variables measured at T1, comparing participants who were part of the follow-up with those who were not. The only statistically significant difference observed between the groups was on the Moral Maturity Score (see below), indicating

that those who dropped out of the study had a significantly higher mean score on this variable at T1 in comparison with those who participated at T2 ($M = 333$ compared with $M = 304$, $p < .001$). To assess the possible importance of this group's higher Moral Maturity Score, the VCT was tested on this drop-out sample at T1 with no significant result. For the purposes of this study, then, there can be some confidence that bias due to sample attrition is not a problem.

Measures

Moral measures. In retesting the VCT, we used the same measures employed in the Levine et al. study (1992). To assess moral reasoning structural properties, the weighted average Moral Maturity Score (WAS) was used to score moral responses to Form A of Kohlberg's moral judgment questionnaire. The WAS is a continuous interval measure of moral reasoning ability that allows for the ordering of individuals within stage categories. This measure identifies the underlying structures of moral reasoning and the frequency of their use. Colby and Kohlberg (1987, pp. 63-70) report test-retest scores for Form A to be .96 and .99 and interrater reliability as ranging from 88% to 100% agreement within one third of a stage. Internal consistency for Form A, using Cronbach's alpha, was .92.

In the present study, the interrater reliability for WAS, using two independent scorers, was calculated at T1 on a randomly selected sample of 23 of 80 cases and at T2 on a randomly selected sample of 16 of 58 cases. At T1, interrater reliability was 81% agreement within 25 points and 94% agreement within 33 points on the WAS scale. At T2, the comparable data was 78% and 87% agreement.

To assess moral structure and content, the Moral Type Measure was used (Colby & Kohlberg, 1987). The Moral Type Measure is a dichotomous measure that classifies participants' reasoning as one of two possible moral types: A-type heteronomous or B-type autonomous reasoning. Because mixed scores are rejected, any particular participant's reasoning can be scored as only A or B. Of the 80 protocols we were able to score, 52.5% of them were scored as A-type and 47.5% as B-type at T1. At T2, 56.1% were scored as A-type and 43.9% as B-type. Using two independent scorers, interrater reliability for this moral measure was calculated by rescoring the moral judgment interviews of a randomly selected subsample of 23 T1 cases and 16 T2 cases. Interrater agreement was found to be 90% at T1 and 80% at T2. These levels of agreement are acceptable ones for the use of the Moral Type Measure (Colby & Kohlberg, 1987).

Ego development measures. Ego development was estimated with the use of the following five Eriksonian measures of the identity phase (Côté, 1984, 1986; Côté & Levine, 1988a, 1989): Value content was assessed with (a) the Humanistic Value Orientation Scale (HOS), whereas structural or formal properties of ego development were assessed with measures of (b) ego strength, (c) superego strength, (d) ego domination, and (e) severity of past identity crisis.

HOS is an interval scale that elicits participants' attitudes toward social issues such as human rights, nuclear power, and the dehumanization of institutions. To assess ego strength and superego strength, interval variants of the Cattell, Eber, and Tatsuoka (1970) 16PF subscales were used. Degree of ego domination was estimated by subtracting the standardized superego score from the standardized ego score. This creates an interval measure that can yield a result ranging from a negative figure, indicating superego domination, to a positive figure, indicating ego domination. The Severity of Past Crisis Measure is an objective-projective instrument containing a series of graphs on which individuals are asked to mark the degree of turbulence of past and present experience with identity issues, as well as the severity of any future struggle they anticipate experiencing. Each graph requires the individual to record the level of intensity (from 0 = *not at all* to 6 = *extreme*) of his or her experienced crisis at 1-year intervals starting with age 12, and then mark the anticipated level of crisis 10 years into the future. The issues participants are asked to consider are

1. Acting against parent's wishes.
2. Feeling at a loss of what to do with life.
3. Feeling uncertain about what to believe in.
4. Feeling resentment about having to fit in as a member of society, with respect to obeying rules and staying out of trouble.

For the Severity of Past Identity Crisis Measure, interrater reliability was 75% at T1 and 77% at T2. For the other ego measures (HOS, ego strength, and superego strength), inter-item reliabilities for T1 and T2, estimated with Cronbach's alpha, ranged from .43 to .81. These ego measures were developed and/or revised by Côté (1984, 1986, 1996) and Côté and Levine (1988b, 1989).

Institutionalized moratorium measure. Following Côté and Levine (1992, 1997) (discussed above), an objective measure of university faculties was used to test the hypothesis concerning the effects of university environments. The faculties of social science and arts were classified as humanistic and the

faculties of natural science, mathematics, engineering, business, economics, and administrative studies were designated as technological. Students were coded as participating in either a humanistic or technological faculty setting on the basis of their declared major. The university from which the sample was drawn requires students to declare a major no later than the beginning of their second year of study. Thus, by T2 of the longitudinal study, all participants had been distributed into one of the two moratorium settings for almost 2 years.

RESULTS⁴

VCT Replication

For entire sample. Table 1 presents the results of the investigation of the VCT at T1 and T2. At T1, replication of the VCT was not successful. Based on independent *t* tests, differences between A- and B-type reasoning associations with the ego measures failed to be statistically significant, with one exception: B-type reasoning was associated with significantly higher mean scores on the humanism (HOS) measure. At T2, however, the replication of the VCT was successful. B-type moral reasoning was associated with higher mean scores on humanism, ego domination, ego strength, and past identity crisis severity.

A significant positive correlation ($r = .23, p < .05$) between the overall Moral Maturity Score (WAS) and humanism (HOS) was observed at T1. As in the previous study (Levine et al., 1992), this correlation was then recalculated within each of the moral reasoning type categories. As expected, the association between WAS and HOS was found to be stronger for B-type reasoning ($r = .44, p < .01$) but nonsignificant for A-type reasoning. At T2, the correlation between WAS and HOS was again significant and positive ($r = .39, p < .01$). As before, this association was found to be stronger ($r = .49, p < .01$) for B-type reasoning and nonsignificant for A-type reasoning.

By faculty setting. The VCT was tested within each faculty at T2. Table 2 presents the data relevant to this test. As can be seen, no support for the VCT was observed within technological settings, whereas the reverse was true for humanistic settings. In the latter settings, the expected differences between A- and B-type moral reasoning on the three relevant ego measures were observed.

TABLE 1: Relationship Between Ego/Identity Measures and Moral Type Measure for the Entire Sample

<i>Time 1</i>	<i>Moral Type</i>		<i>t Value</i>
	<i>A</i> (<i>n</i> = 38-42) ^a	<i>B</i> (<i>n</i> = 34-38)	
<i>Ego/Identity Measure</i>			
Humanistic orientation			
<i>M</i>	20.24	22.22	1.86*
<i>SD</i>	5.0	4.1	
Ego strength			
<i>M</i>	60.33	62.76	0.37
<i>SD</i>	13.2	10.3	
Superego strength			
<i>M</i>	53.20	54.23	0.62
<i>SD</i>	7.8	10.4	
Ego domination			
<i>M</i>	-0.11	0.08	0.51
<i>SD</i>	1.9	1.5	
Severity of past crisis			
<i>M</i>	73.95	87.53	1.65
<i>SD</i>	39.1	39.1	
<i>Time 2</i>	<i>Moral Type</i>		
	<i>A</i> (<i>n</i> = 30-32)	<i>B</i> (<i>n</i> = 22-25)	<i>t Value</i>
<i>Ego/Identity Measure</i>			
Humanistic orientation			
<i>M</i>	21.68	24.67	2.20**
<i>SD</i>	4.2	5.9	
Ego strength			
<i>M</i>	59.65	66.67	2.33**
<i>SD</i>	12.4	9.0	
Superego strength			
<i>M</i>	51.23	48.57	0.32
<i>SD</i>	10.8	7.8	
Ego domination			
<i>M</i>	-0.61	0.34	2.05**
<i>SD</i>	1.9	1.3	
Severity of past crisis			
<i>M</i>	71.47	91.13	2.14**
<i>SD</i>	35.6	31.9	

a. The missing cases have a moral type score of A/B. In other words, "one dilemma is unscorable and the other two dilemmas are in disagreement. [In such cases,] the overall form score is designated as unscorable" (Colby & Kohlberg, 1987, p. 359).

* $p < .10$. ** $p < .05$. Because predictions were made, one-tailed levels of significance were used.

TABLE 2: Relationship Between Ego/Identity Measures and Moral Type Measure at Time 2

<i>Within Humanistic Faculties</i>		<i>Moral Type</i>		<i>t Value</i>
		<i>A</i> (<i>n</i> = 19-20) ^a	<i>B</i> (<i>n</i> = 15)	
<i>Ego/Identity Measure</i>				
Humanistic orientation				
<i>M</i>		21.84	24.93	1.81*
<i>SD</i>		4.7	5.3	
Ego strength				
<i>M</i>		61.00	67.93	2.00**
<i>SD</i>		11.2	9.0	
Superego strength				
<i>M</i>		50.15	47.53	0.95
<i>SD</i>		8.8	7.3	
Ego domination				
<i>M</i>		-0.42	0.70	2.22**
<i>SD</i>		1.7	1.2	
Severity of past crisis				
<i>M</i>		67.2	104.6	3.54***
<i>SD</i>		32.2	29.2	
<i>Within Technological Faculties</i>		<i>Moral Type</i>		
		<i>A</i> (<i>n</i> = 10)	<i>B</i> (<i>n</i> = 6-8)	<i>t Value</i>
<i>Ego/Identity Measure</i>				
Humanistic orientation				
<i>M</i>		21.10	24.87	1.42
<i>SD</i>		3.8	7.3	
Ego strength				
<i>M</i>		57.7	65.37	1.25
<i>SD</i>		15.1	9.5	
Superego strength				
<i>M</i>		51.7	51.0	0.11
<i>SD</i>		14.8	9.6	
Ego domination				
<i>M</i>		-0.74	0.46	0.26
<i>SD</i>		1.4	1.5	
Severity of past crisis				
<i>M</i>		71.4	69.8	0.10
<i>SD</i>		39.5	23.8	

a. The missing cases have a moral type score of A/B. In other words, "one dilemma is unscorable and the other two dilemmas are in disagreement. [In such cases,] the overall form score is designated as unscorable" (Colby & Kohlberg, 1987, p. 359).

* $p < .10$. ** $p < .05$. *** $p < .001$. Because predictions were made, one-tailed tests were used.

At T2, the correlations between the HOS and Kohlberg's WAS were calculated within each moral reasoning type category, within each faculty group. Within humanistic faculties, the correlation between HOS and WAS was $r = .62$ ($p < .01$) for B-type reasoning and not significant for A-type reasoning. Within technological faculties, neither of the correlations between HOS and WAS for A-type or B-type reasoning was statistically significant.

Longitudinal Findings

For entire sample. The design of the study enabled us to assess changes in the ego and moral measures over time. For the entire sample, two significant changes were observed from T1 to T2: a significant decrease in superego strength ($t = -2.99$, $p < .01$) and a significant increase in WAS ($t = 2.38$, $p < .05$).

By faculty setting. Ego and moral developmental change was assessed for T2 participants enrolled in either the humanistic or technological faculty settings. It is important to note that at T1, no significant differences between these two groups were observed on any of the measures. Thus, although it is the case that participants self-select their programs of study, the bases of their choices do not appear to be relevant to this study's focus on ego and moral development. At T2, however, group differences by faculty were observed on some of the ego and moral measures. For the humanistic faculty group, superego strength had decreased significantly ($t = -4.76$, $p < .001$) and significant increases were observed on the following measures: ego strength ($t = 2.51$, $p < .02$), humanism ($t = 2.51$, $p < .02$), and WAS ($t = 2.21$, $p < .05$). For technological majors, the only change observed was a significant decrease in the ego domination index ($t = -2.36$, $p < .03$).

DISCUSSION

The purpose of the present study was twofold: to attempt to replicate the results of the original test of the VCT and to explore the possibility that participation within different university environments might contribute to our understanding of the VCT.

The fundamental claim of the VCT is that a relationship between the ego and moral domains can be understood and predicted by identifying values common to both domains. With a measure of humanistic value orientation (HOS), our previous study (Levine et al., 1992) demonstrated such a relation-

ship with respect to measures of Erikson's notion of humanistic development (Erikson, 1975) and Kohlberg's measure of B-type moral reasoning. With the exception of the T1 findings, the results of the present study provide continuing empirical support for the VCT (i.e., the observation of significantly higher mean scores observed for B-type reasoning on the measures of HOS, ego domination, ego strength, and severity of past crisis).

Whereas the findings of the original study were replicated at T2, they were not at T1. This may have been the case because participants at T1 had not yet experienced substantial involvement within the institutionalized moratorium provided by the university. The T1 sample, in addition to being younger in age ($x = 19.05$ years) than the sample in the 1992 study ($x = 22.04$ years), had only just entered the university (they were all 1st-year students). In contrast, the sample of the Levine et al. (1992) study was made up of older upper-year and graduate students, as well as "members of politically active groups" (Jakubowski, 1989, p. 67). On average, these participants would have had more years of involvement in a psychosocial moratorium—a setting that for many included experiences of questioning and discussing issues, coping on their own, and social activism. According to Erikson (1975), such involvements would stimulate moral and ego identity development as well as the self-reflexive coordination of these developmental domains. The students taking part in the present study would not have had similar experiences until they were retested at T2, when they were in their 3rd year at the university.

The attempt to replicate the correlational findings between WAS (moral maturity) and HOS (humanistic orientation) observed in 1992 for B-type reasoning was successful at both testing times of the present study. We believe that these findings, when viewed in conjunction with the successful replication of the VCT at T2, are consistent with Erikson's and Kohlberg's writings concerning the developmental foundations for an ideally integrated ego/moral developmental endpoint. In their theoretical speculations about such an endpoint, both authors implicate the important role played by humanistic value content during development. This value content is essential for what Erikson calls an ethical understanding of human relationship (Côté & Levine, 1987, pp. 308-311), and it is accorded a similarly important role by Kohlberg (1976; Boyd, 1984; Kohlberg, Boyd, & Levine, 1990; Kohlberg et al., 1983), when he describes the possibility of autonomous Stage 6 moral reasoning.

The longitudinal results revealed the following two findings (i.e., main effects): an overall decrease in superego strength as well as an increased competence in moral reasoning. These T1 to T2 changes are generally consistent with other research findings based on college samples (cf. Pascarella & Terenzini, 1991).

It appears, however, that the findings of this study (i.e., the above longitudinal results, the replication of the VCT at T2, and the correlations between WAS and HOS for B-type reasoning) should be interpreted in conjunction with an appreciation of the influence of university faculty setting (i.e., interaction effects). The replication of the VCT and all of the statistically significant gains on the ego and moral measures were observed only for students registered in humanistic faculty settings. No gains in ego or moral competency, or in the coordination of these skills, were evident for technological majors at T2, only a significant decrease in their ego domination scores. Whereas the small sample sizes resulting from the analysis by faculty prohibit us from drawing firm conclusions about faculty differences, we believe that the findings do suggest that participation in humanistic faculties does nurture ego and moral development and their coordination, as Erikson suspected.

DIRECTIONS FOR FUTURE RESEARCH

The present research concentrates on ego and moral processes occurring during the identity phase of the life cycle. Erikson describes three subsequent life phases—intimacy, generativity, and integrity—whose successful negotiation depends both on the resolution of earlier phases as well as on nurturant environmental influences. To explore the possible trajectories of human development after the identity phase, future research on the value consistency thesis should attempt to document the impact of humanistic value content on the relationship between ego and moral development during Erikson's last three phases. We believe that such research should be guided by the following two assumptions with regard to humanistic value content: that such content is likely transformed during later life phases in concordance with salient adult-developmental tasks, and that the effect of this value content on the ego/moral linkage probably varies by characteristics of social contexts.

In addition, future research should also explore the structural/operational properties of ego/moral domain linkage during Erikson's adult phases. Whereas the coordination of ego and moral operational processes during these phases is likely stimulated by variants of humanistic value content, it is probably not likely to occur with any substantial degree of consistency without the operational processes of a reflexive, agentic self. This observation concerning reflexivity appears consistent with Erikson's (1975, pp. 193-224) description of the complex processes that some persons engage in when resolving the identity crisis (i.e., of reenacting and resolving childhood issues). He reasons that such reflexivity is fundamental to the emergence of

relatively autonomous thought and action rooted in a strong ego and accompanied by a resilient sense of ego identity. Although a speculative observation, the data presented here concerning mean moral type differences on the severity of past crisis variable (see Table 2) appear consistent with Erikson's thinking (see the description of this measure above). Thus, continued investigation of the development of ego strength and ego domination, in conjunction with evidence of reflexive reconstructions of one's identity, appears important. The works of Blasi (1988) and Kegan (1982, 1994) on the development of self-identity and Snarey et al.'s (1983) insights with regard to Erikson's virtues as "stages of moral courage" will likely contribute to our understanding of these processes.

Finally, more research is needed to explore and further identify specific sociocultural aspects of environments that influence ego and moral development. In replicating the VCT and extending it to take into account the influence of university contexts on ego and moral development, the results of the present study appear to underscore the importance of such research.

NOTES

1. It is Erikson's emphasis on the integration of personality with culture that leads Snarey et al. (1983) to describe him as "functional phase theorist." They, like ourselves, understand each of his eight levels of development as functional phases, based on the coordination of new stages of cognitive structure "that enable the individual to understand and perform new social roles that are required during the parallel cultural age period" (p. 307).

2. This research concern follows from Erikson's (1968) emphasis on the role of institutionalized moratoria and is, more generally, consistent with the work of Lerner (1995) on developmental contextualism.

3. These measures are described in more detail below.

4. The only gender differences observed in this study were for the WAS. Males scored between one quarter and one third of a stage higher at T1 ($t = 2.20, p < .05$) and at T2 ($t = 2.0, p < .05$). Given the conclusions in Walker's (1984) extensive review of gender differences in moral reasoning, we do not attach theoretical significance to these gender differences.

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