

**THE TEACHING OF EMPATHY FOR HIGH SCHOOL AND  
COLLEGE STUDENTS: TESTING ROGERIAN METHODS  
WITH THE INTERPERSONAL REACTIVITY INDEX**

**Sherry L. Hatcher, Missi S. Nadeau, Lisa K. Walsh,  
Meredith Reynolds, Jerry Galea, and Kaye Marz**

ABSTRACT

The teachability of empathy is discussed with particular regard to developmental issues. One hundred and four high school and college students were administered Davis's (1980) Interpersonal Reactivity Index (IRI) both before and after a standard course of Rogerian-based peer facilitation skills training. The IRI offers four independent subscales which measure the cognitive and affective components of empathy. Statistically significant findings indicate greater developmental readiness for learning empathic communication in the college sample, particularly for subscales measuring *Empathic Concern* and *Perspective Taking*. A group of untrained college students taking a course in behavioral psychology showed no progress on any IRI subscales. Although college females began with higher empathy scores, both genders were equally teachable. Implications for prevention and counseling readiness are discussed, along with suggestions for future research.

Whether empathy can be "taught" has long been debated. Can we teach an individual to feel for another person, to "walk in someone else's shoes?" (Myrick & Erney, 1985). Such a question is often one of the first posed by students who are learning the art of counseling, and it is an issue consistently debated in faculty discussions on the training of graduate students in mental health professions.

Not only is an ability to empathize with others essential for counseling professionals, but empathic individuals fare better in a variety of interpersonal relationships, whether professional, familial, or friendship (Guzzetta, 1976). The ego strength embodied in the capacity for empathy serves as a foundation for relationships and also provides a basis for coping with stress and resolving conflict (Kremer & Dietzen, 1991). For this reason, empathy is on most psychologists' short list of crucial ego strengths and is valued along with reality testing, intelli-

Sherry L. Hatcher, Ph.D., Missi S. Nadeau, M. A., Lisa K. Walsh, M.A., Meredith Reynolds, B. A., Jerry Galea, B. A., and Kaye Marz, B. A., The University of Michigan, Department of Psychology.

Reprint requests to Sherry L. Hatcher, Ph.D., Department of Psychology, The University of Michigan, 580 Union Drive-K417, Ann Arbor, Michigan 48109.

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gence, and creativity, for its preventive potential in preserving emotional health (Greenson, 1960; Kohut, 1959).

Despite much uniformity of opinion regarding the significance of empathy, there is much controversy as to the mechanisms by which a capacity for empathy develops and whether it can be taught (Carkuff & Berenson, 1967; Davis, 1980; Hogan, 1969; Layton, 1979; Mehrabian & Epstein, 1972). It is also important to note that the definitions of this concept in the literature have been confusing and contradictory. Schafer (1959), Rogers (1957), and Greenson (1960) share a similar conceptualization of empathy as “the inner experience of sharing in and comprehending the momentary psychological state of another person” (Schafer, 1959). Other writers note the cognitive components of this construct; i.e., an ability to “understand” the situation of another (Hogan, 1969). Still others focus primarily on the affective aspect of empathy, as an ability to “feel” for the situation of others (Mehrabian & Epstein, 1972). Only a small number of studies have addressed the relative contribution of each in systematic fashion (Davis, 1980).

Cooper’s (1970) review of the literature on empathy suggested a developmental model, relating empathy to other affective and cognitive skills which evolve over the course of the life span. This approach is similar to that proposed by Hatcher, R., Hatcher, S., Berlin, Okla, and Richards (1990) in which the intrapsychic functions of empathy, self-understanding, and psychological mindedness were discussed as developing in parallel fashion to cognition (Piaget, 1932) and moral maturity (Kohlberg & Gilligan, 1971). Such theories suggest that there is a natural potential for empathy which may be elicited by the environment. Similarly, Emde (1989) suggests that a capacity for empathy ripens over time. He notes that the most mature form, which he calls “developmental empathy,” requires the cognitive component of “perspective taking” in addition to the earlier unconscious and affective antecedents of empathy. These latter antecedents more closely resemble sympathy; i.e., a strong identification with another person in which the child’s egocentric point of view does not allow for clear differentiation between the self and the other. Barrett-Lennard (1981) makes an important distinction between “observational empathy” which is an internal experience not requiring the presence of another person and “helping relationship” empathy which requires interpersonal communication (p. 88).

Davis, who defines empathy as a “reaction to the observed experiences of another” (1983, p. 113) builds on a multidimensional conception of empathy in the construction of his Interpersonal Reactivity Index (IRI). His scales for affective and cognitive measures respect the developmental conception of empathy while differentiating the earliest affective component of the concept “Personal Distress” (Davis, 1980)

from the more mature and affective cognitive versions such as “Perspective Taking” and “Empathic Concern” (Davis, 1983; Emde, 1989). A 1991 study by Davis and Franzoi demonstrated that the IRI’s Perspective Taking Scale which “reflect(s) an ability or proclivity to shift perspectives—to step ‘outside the self’—when dealing with other people” (Davis, 1980, p. 9), was positively correlated with the exclusively cognitive Hogan Empathy Scale (1969) while the IRI’s Personal Distress Scale, which measures “the individual’s own fear, feelings of apprehension and discomfort at witnessing the negative experiences of others” (Davis, 1980, p. 4) correlated negatively with the Hogan measures. Of Davis’s four scales, the Perspective Taking Scale, which is consistently related to measures of “interpersonal functioning” (Davis, 1983), was the least correlated with Mehrabian and Epstein’s Emotional Empathy Scale (MEEES), (Mehrabian & Epstein, 1972), while the IRI’s strongest measure of “emotional empathy” (Empathic Concern) correlated most strongly with the MEEES (Davis, 1983).

Davis’s 1983 findings also imply a developmental progression for the IRI test, in that the Personal Distress Scale was negatively correlated with the more advanced Perspective Taking and Empathic Concern subscales. Such a finding is consistent with the theoretical literature on this point which suggests that empathy follows a developmental path not unlike that of cognitive and moral development (Coke, Batson, & McDavis, 1978; Hatcher et al., 1990; Hoffman, 1977). In 1977 Hoffman proposed a developmental progression for the concept of empathy in which he theorized that a child progresses from a “self-oriented” personal distress reaction to an “other-oriented” perspective-taking mode. Hoffman reasoned that such an advance occurs as the child matures and is increasingly able to differentiate him/herself from others in a less narcissistic fashion.

The present research seeks to illuminate the developmental progression of empathy using the Davis Interpersonal Reactivity Index. In particular we investigated whether the development of empathy might be stimulated by an intervention of a standard curriculum in peer counseling skills, which emphasizes the teaching of empathy and “client-centered” listening (Rogers, 1975). This methodology follows from the differentiation suggested by Davis and Franzoi (1991) between a capacity for empathy and a tendency to actualize that potential capacity; i.e., a student might be capable of learning empathic communication while not having had an opportunity to be educated in the use of these skills.

There are indeed studies which have made a concerted effort to “teach” empathy through a startling variety of means: Skills Workshops (Kremer & Dietzen, 1991); Film (Gladstein & Feldstein, 1983);

Modeling Techniques (Dalton, Sundblad, & Hylbert, 1973; Gulanick & Schmeck, 1977); Parent Effectiveness Training (Therrien, 1979); Psychodrama (Kipper & Ben-Ely, 1979); combinations of the above methods (Guzzetta, 1976; Stone & Vance, 1976; Uhlemann, Lea, & Stone, 1976); and even a kind of personal "regression" in the service of self understanding (Kernberg & Ware, 1975). These studies have tended to ignore the concept of empathy as a developmental construct, particularly as different aspects of empathy may develop at different rates. Davis and Franzoi (1991) noted that Perspective Taking (PT) and Empathic Concern (EC) (as measured by the IRI) appeared to increase somewhat from year to year for females (only) during high school, whereas the more primitive form of empathy, Personal Distress (PD), decreased during adolescence. However, none of the Davis studies (1980; 1983; 1991 with Franzoi) made an effort to "teach" empathy and in no way did they attempt to facilitate the process by which empathy develops and matures; i.e. to lead the "capacity" toward the "tendency." If we combine these two varieties of studies; i.e. those which examine empathy as a developmental construct and those which seek to facilitate empathic ability by a teaching intervention, then we may hypothesize that it is possible to study how these two important dimensions interact.

Can empathy be taught? The answer to this complex question has been sidestepped in a literature troubled by definitional and measurement problems. There is the vexing problem as to which measures are most suitably employed in assessing the level of empathy an individual has achieved. So far it is difficult to compare across tests for this purpose though it is evident that various tests of empathy often measure a unidimensional definition of the construct; frequently these tests measure something resembling the concept of sympathy (Davis, 1983). Indeed, there needs to be a more clear articulation and application of the measurement of empathy in order to be sure that studies in this field are yielding valid and comparable results.

In the present study an effort was made to specify the components of empathy and their teachability in a developmental framework using Davis's IRI. Our hypotheses are therefore as follows:

1. Empathy, as measured by the Davis Interpersonal Reactivity Index (IRI) will improve following a standard Rogerian-based curriculum in Peer Facilitation training. Conversely, where no such curriculum is offered, such scores will not change over a semester's time.
2. The score on the Perspective Taking Scale (PT), Empathic Concern Scale (EC) and the Mean Empathy Score (ESUM3), will improve more for the developmentally mature college students than for high school students under similar training conditions.

3. In accordance with previous research findings that females are more empathic than males (Hoffman, 1977; Davis, 1983), it was predicted that females will show higher change scores following a course in peer facilitation (empathy) training.

#### METHOD

##### *Subjects*

Participants in this study consisted of 104 students and their seven teachers, and were divided into the following groups:

1. Seventy-two high school juniors and seniors whose teachers were recruited from an advertisement in a national peer-counseling newsletter. These students came from five small classes. It is important to note that peer counseling courses are generally small because of the close supervision and experiential nature of the classes. The high school sample was composed of students from one public and one all-male parochial high school on the West Coast, from one public high school on the East Coast, and from two high school classes in a Midwestern public school system. All of these students took a semester-long course in peer-facilitation skills based on a standard set of curricula.

2. A group of 16 college students from a large Midwestern university that also took a standard semester-long course in peer-facilitation skills.

3. A college class of 16 matched subjects who took no peer-facilitation training, but took a course in behavioral psychology.

All teachers in the first two groups were members of the same national peer-helpers organization and were familiar with using standard curricula on this subject. For example, they all used either Myrick and Erney (1985) or Tindall (1985) as texts for their peer-facilitation courses. These include instruction in behavioral-attending skills, non-judgmental and empathic listening, facilitative feedback and decision-making models, self-observation, and values-clarification. Students spend class time practicing these skills in role-play situations.

While student involvement in the study was optional, the participation rate was 75%. The final sample consisted of 26 high school males, 46 high school females, 9 college males, and 23 college females, with a minority population of about 20%; socioeconomically the sample ranged from lower to upper middle class. The post-semester sampling was complete for both college samples but experienced some attrition at the high school level where 72 of the original 93 questionnaires were completed (77%).

An advertisement was placed in a national peer association publication, requesting that teachers of peer-counseling courses volunteer to

participate in research on peer-helping courses. In return the teachers were promised and received feedback regarding the results of the study. A letter describing the research and its aims, and requesting parental permission was distributed to students by their teachers. Students were assigned code numbers to protect their anonymity; teachers were asked to use code numbers in making their independent rating of students.

#### *Measures and Procedure*

Students were administered the Davis Interpersonal Reactivity Index (IRI) [Davis, 1980]. This multidimensional approach to measuring individual differences in empathy consists of four scales which tap both cognitive and affective components of empathy: The Fantasy Scale (FS), measures “a tendency of the respondent to identify strongly with fictitious characters in books, movies or plays” (Davis, 1980, p. 4). The Perspective Taking Scale (PT) “reflect(s) a tendency or ability of the respondent to adopt the perspective or point of view of other people” (Davis, 1980, p. 4). The Empathic Concern Scale (EC) measures “a tendency for the respondent to experience a feeling of warmth, compassion, and concern for others undergoing negative experiences” (Davis, 1980, p. 4). Finally, the Personal Distress Scale (PD) “indicate(s) the respondent experience(s) feelings of discomfort and anxiety when witnessing the negative experiences of others” (Davis, 1980, p. 4). The PT scale comprises the “cognitive” component of Davis’s empathy test, whereas the PD, FS, and EC scales comprise the “affective” components of the IRI. Davis repeatedly emphasizes that the PD scale decreases with age as it measures an early and egocentric precursor of true empathy, something more akin to sympathy.

The IRI consists of twenty-eight items presented in a randomized order, each scored on a five-point scale numbered 0 to 4; each subscale consists of seven items—the result of extensive factor analyses. Respondents are asked to indicate the extent to which each item describes them. Respondents receive scores on each of the four subscales of the IRI, each measuring a different component of empathy. Subscale scores may be considered independently. Davis particularly suggests not adding the more primitive “Personal Distress” scale with the other three. In addition to summing each of the four scales separately, we also measured what we called ESUM3, which is a Mean Empathy Score excluding PD. The ESUM3 was justified in that the three scales of which it is comprised (FS, PT, and EC) were shown by Davis to gradually increase with age, whereas PD decreases with developmental maturity. As Davis states, “Without separate estimates of these qualities, the independent and interactive contributions of each cannot be estimated.” (Davis, 1980, p. 2).

The IRI was administered in a group setting during the students' regular class period. Students completed this instrument both before and after completion of the course. In addition, teachers completed questionnaires about the format and content of their course(s) to ensure similarity of curriculum and training techniques. They were also asked to rate their students on empathy, self-understanding, and counseling competence. A follow-up interview of participating instructors gathered further information regarding their impressions of their own training, their teaching experience, and its perceived effects upon their students. While all subjects were also administered a test of "self-understanding" (Damon & Hart, 1982, 1988; Walsh, 1991) and "psychological mindedness" (Conte et al., 1990), these results will be reported separately.

Questionnaires were administered to all subjects, and the results scored independently by two trained research assistants to ensure accuracy. The results from Davis's (1980) presentation of the IRI, which was initially validated on a college sample, demonstrate that the questionnaire evidenced substantial test-retest reliability—ranging from .62 to .71 (Davis, 1980) and internal reliabilities ranging from .71 to .77 (Davis, 1980). Davis further reported that the IRI, which also has good convergent and discriminant validity, correlated in meaningful ways with existing tests of empathy and with other studies, thus showing good construct validity (Davis & Franzoi, 1991, p. 74).

## RESULTS

Pairwise *t*-tests were used to test the change on the summary (ESUM3) scores from Time 1 (T1) to Time 2 (T2) for the three groups. Only the trained college group showed significant change,  $t(15) = 2.23, p < .05$ . Examining the four subscales, the trained college group showed significant change on one scale (PT),  $t(15) = 2.76, p < .02$  (see Table 1), while the high school group showed a trend on the FS scale,  $t(51) = 1.82, p < .08$ .

ANCOVAs revealed that the trained college group changed significantly more on the summary (ESUM3) score than did the untrained group  $F(1, 29) = 4.09, p < .053$ , and more than the high school group  $F(1, 65) = 5.01, p < .03$ . Further, the trained college group changed significantly more on the EC subscale than did the untrained group,  $F(1, 29) = 4.99, p < .04$  and more than the high school group,  $F(1, 65) = 5.59, p < .03$ ; and significantly more on the PT scale than did the high school group,  $F(1, 64) = 5.46, p < .03$  (see Table 2).

Thus, the first two hypotheses were supported. The college group trained in peer-facilitation skills improved significantly more than

Table 1  
Pairwise t-tests comparing subtest change scores by group

	EC	FS	PT	PD	ESUM3
College Trained	$t(15) = 1.75$ $p < .10$	$t(15) = -.79$ n.s.	$t(15) = 2.76$ $p < .02$	$t(15) = -.125$ n.s.	$t(15) = 2.23$ $p < .05$
College Untrained	$t(15) = -1.62$ n.s.	$t(15) = -.32$ n.s.	$t(15) = .08$ n.s.	$t(15) = -1.41$ n.s.	$t(15) = -1.24$ n.s.
High School	$t(51) = .28$ n.s.	$t(51) = 1.82$ $p < .08$	$t(50) = -.56$ n.s.	$t(50) = .55$ n.s.	$t(51) = .31$ n.s.

EC = Empathic Concern; FS = Fantasy; PT = Perspective Taking; PD = Personal Distress;  
ESUM3 = Mean of EC, FS, PT

Table 2  
ANCOVAs comparing subtest change scores between groups

	EC	FS	PT	PD	ESUM3
College Trained vs. College Untrained	$F(1,29) = 4.99$ $p < .04$	$F(1,29) = .02$ n.s.	$F(1,29) = 3.20$ $p < .09$	$F(1,28) = .00$ n.s.	$F(1,29) = 4.09$ $p < .053$
College trained vs. High School	$F(1,65) = 5.59$ $p < .03$	$F(1,65) = .41$ n.s.	$F(1,64) = 5.46$ $p < .03$	$F(1,64) = 2.80$ n.s.	$F(1,65) = 5.01$ $p < .03$

EC = Empathic Concern; FS = Fantasy; PT = Perspective Taking; PD = Personal Distress;  
ESUM3 = Mean of EC, FS, PT

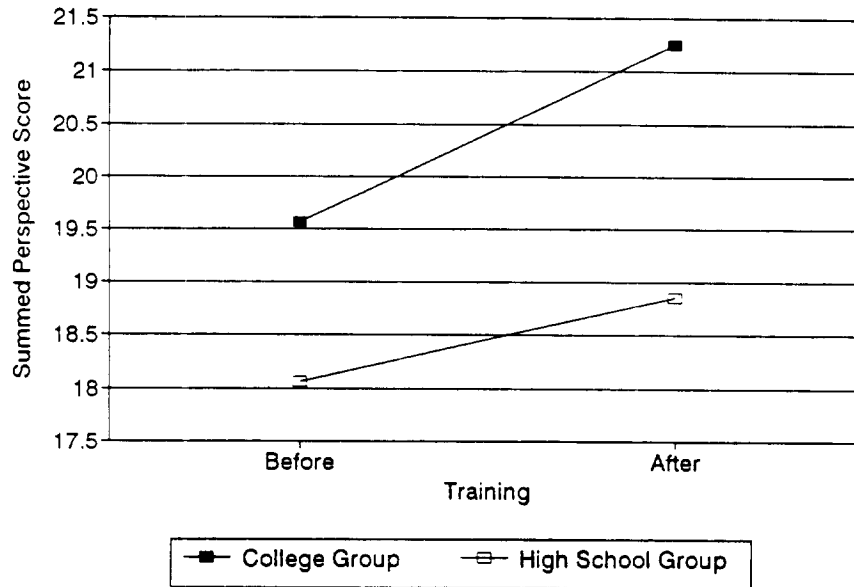
a college group that did not receive such training. Further, the trained college group improved significantly more on the most advanced empathy subscales, EC and PT, and on ESUM3 than did a high school group that received similar training (see Figures 1, 2, and 3).

The third hypothesis was not supported in that the empathy scores for females did not significantly increase as a result of training from T1 to T2 more than did the empathy scores for males. This finding was true in both the high school and college groups and was true regardless of differences in empathy scores between males and females prior to training. Even though females began with higher levels of empathy in both the trained and untrained college groups in this study, empathy skills appear to be equally teachable to males and females.



FIGURE 1

## Changes in IRI Perspective-Taking Score High School vs. College Students



Finally, while the teacher ratings of students' empathy correlated highly with teachers' ratings of counselor competence (Spearman's rho ( $N = 31$ ) = .85,  $p < .01$ ), such subjective empathy assessments did not correlate highly with any subscales or summations of the Davis IRI scale.

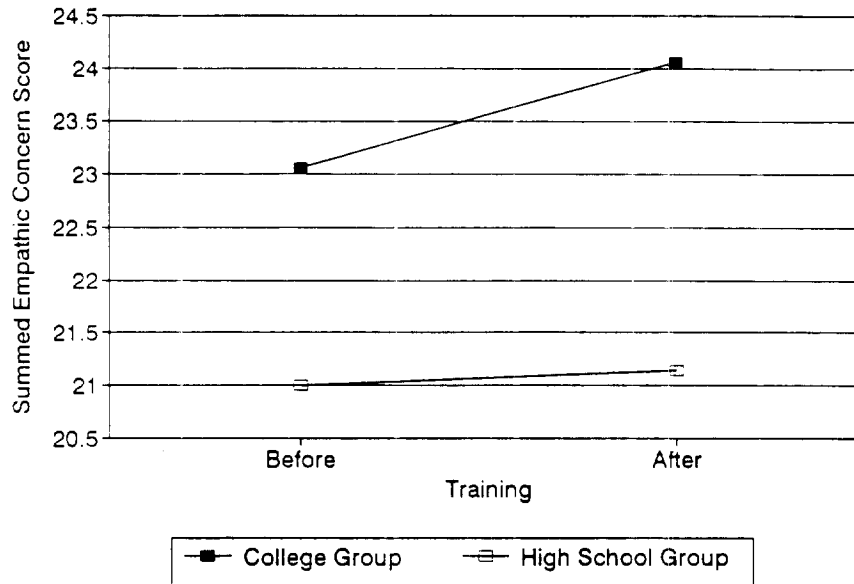
### DISCUSSION

Our findings suggest that a readiness for effective empathy training develops during the same time period that secure abstract thought, augmented moral development, and the ability to introspect appear during the college years.

It would seem that the Davis EC, and PT and ESUM3 scores allows us to "catch" a developmental shift in the progression from the very beginnings of a true empathic capacity in the high school population to considerable empathic trainability in a college sample, which is taught with a Rogerian-based emphasis on empathic listening skills.

FIGURE 2

## Changes in IRI Empathic Concern Score High School vs. College Students

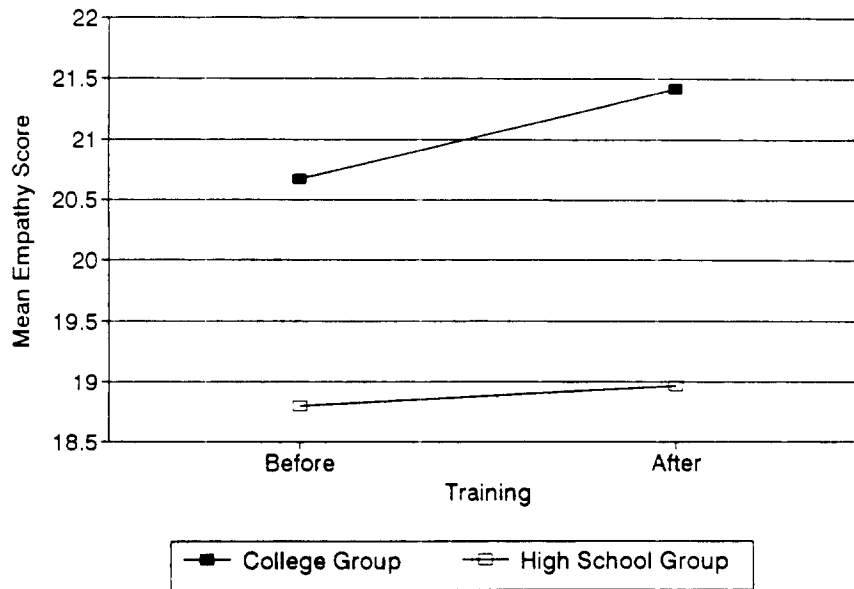


The present findings are consistent with a recent study by Davis and Franzoi, (1991) of a large high school sample which showed that "PT" and EC increased slightly from year to year. However, while Davis and Franzoi provide results that are not inconsistent with our own, their work tracks the development of the IRI subscales in the absence of any formal empathy training. Since the college group not trained in peer-facilitation skills did not improve on the IRI, and since there are a number of studies in the literature which suggest that adults who show little empathy can be taught such skills (Dalton & Sundblad, 1973; Guzzetta, 1976; Therrien, 1979), one may conclude that the training component is crucial to developing individuals' ability to listen and communicate empathically at a time when they are developmentally mature enough for such training.

In noting the high school students' improvement on the IRI Fantasy scale, we can track a progression in the development of empathy which heretofore has not been suggested in relation to the Davis scales; that is, the teachability of EC and PT seems to become feasible by the junior

FIGURE 3

### Changes in Mean Empathy Score (ESUM3) High School vs. College Students



year of college. While Davis does not assign a developmental order to his four scales with the exception of the inverse progression of the PD scale, as described earlier, it is intriguing to observe that the capacity for true empathy in adolescence seems to begin in an identification with fictional characters, as evidenced by the strong increase in FS change scores for trained high school students. This finding makes intuitive sense as it represents a midway point between the play materials so commonly used as springboards for empathic communication with young children and conversational language sufficient for empathic communication with most adults. Apparently, it is only in the later college years that formal instruction in empathy skills is well utilized by students. This finding has important implications for more individualized affective education models which might be appropriate at various stages of development and indeed for assessment of suitability for insight-oriented psychotherapies.

Our findings suggest that a developmental sequence exists for the four abilities measured by the IRI subscales. Davis (1983) noted that Personal Distress tends to decrease with age. The current findings

suggest that Fantasy increases in the high school years, while Empathic Concern and Perspective Taking, the more advanced affective and cognitive skills of the IRI, respectively, develop with training during the college years. It would be interesting to correlate the EC subscale of the IRI with Kohlberg's highest stages of moral development; i.e., to see if the most "other-directed" empathy measurements (in Hoffman's terminology) are related to the most "other-directed" forms of moral maturity. (Some preliminary data from another study of academic peer advisors in a college setting suggests the same order of skill development as observed above (Remen & Baylis, 1992).

Two further points are of interest. One is that while much of the available literature notes females' greater capacity for empathic communication, the present study suggests equality in gender effects regarding change in empathy scores as a result of training. Although college females began with higher empathy subscales than did the males, the change scores resulting from the training intervention were equal for males and females, suggesting that males are as trainable as females—although for whatever complex set of reasons, males appear to begin with less skill for empathy (Davis, 1983).

In summary, we can say that our results give reason for optimism for the teachability of empathy, especially when one pays special attention to developmental readiness. Future studies would do well to sample larger populations and older adolescent, non-college populations as well as more culturally diverse populations. Overall, the findings of this study suggest that empathy, an all important skill both for daily living and for progress in counseling situations (on both sides of the desk), can be successfully taught for prevention and by Rogerian methods, most especially and most effectively during the college years.

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