

# Impact of MBA Education on Students' Values: Two Longitudinal Studies

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**ABSTRACT.** The impact of 2-year residential fulltime MBA program on students' values was studied using a longitudinal design and data collected over 7 years from a business school in India. Values were measured when students entered the program, and again when they graduated. Sample in Study 1 consisted of 229 students from three consecutive graduating classes. Rank-order or ipsative measure of values was used. Results of matched sample t-tests show that self-oriented values like a comfortable life and pleasure become more important and others-oriented values like being helpful and polite become less important over 2 years. The moderating role of sex and functional specialization are also analyzed. Study 2 used a non-ipsative measure of values and a sample of 138 students from two consecutive graduating classes. Results show that management education enhances self-monitoring and importance of self-oriented values and reduces the importance of others-oriented values. The effect on both sets of values remains significant even after controlling for self-monitoring.

**KEY WORDS:** MBA education, others-oriented, self-monitoring, self-oriented, values change

## Introduction

Management education is traditionally seen as a means to facilitate learning of job-related behaviors in order to improve performance. The focus has been on teaching facts, modifying attitudes and behaviors, and developing skills. Attention has been devoted in analyzing whether knowledge that is imparted in business schools should focus more on theory or on applications (Huff, 2000). Human values as a component of management education continue to be an ignored domain of investigation. The emphasis of education has generally been more on knowledge production than on value inculcation. Values have been fairly ignored by management

education programs, most probably because values in general are relatively more difficult to influence or modify. Values, however, form the core of our personality, and influence the choices we make, the people we trust, the appeals we respond to, and the way we invest our time and energy (Posner and Schmidt, 1992). It is necessary that values are given their due importance within the function of management education.

The changing environment that business schools face has made it necessary to have a look at the impact of management education on students (Rynes and Trank, 1999). There has, however, been a shortage of empirical studies in this area, though there is widespread recognition of the importance of strengthening the collegiate business education environment (Pearce, 1999). Frost and Fukami (1997) in their introduction to the special research forum on teaching effectiveness in the organizational sciences called for more empirical research on the educational process. The first study reported in this article looked at the change in value systems of fulltime MBA students over the entire period of 2 years of the program using an ipsative (rank-order) measure of values. The second study reported in this article used a non-ipsative measure of values and looked at the change in values of fulltime MBA students over the entire period of 2 years of the program after controlling for self-monitoring. It is only by studying how management education currently affects the values of students that we can deliberate upon the objectives of management education in future.

## Values

Human personality consists of three distinct domains or components – behavioral, affective, and cognitive

(Rokeach, 1968). The behavioral domain consists of, actually, perceivable behaviors of human beings. The affective domain is the seat of the mind. It consists of feelings, emotions, and attitudes. The cognitive domain is the seat of the intellect; it thinks, reasons, and evaluates. Beliefs form part of the cognitive domain, and value is a type of belief. Values play an important role in understanding and predicting the affective and behavioral components of human beings. Since human beings are essentially endowed with the power of cognition or comprehension, the cognitive domain serves as the base, as it were, on which the huge structure of affects and behaviors is built.

### Definitions

Rokeach (1973, p. 5) defined a value as “an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.” A belief concerning a desirable mode of conduct is an instrumental value and a belief concerning a desirable end-state of existence is a terminal value. If a person values freedom as an end-state of existence, it means that he or she believes that freedom is preferable to slavery. Rokeach considered terminal values to be of two kinds – those that are self-focused called personal values, and those that are others-focused called social values. Instrumental values are also of two kinds – those which when violated arouse pangs of conscience or feelings of guilt for wrongdoing called moral values, and those which when violated lead to feelings of shame about personal inadequacy called competence or self-actualization values. Building further on Rokeach’s definition, Schwartz (1992) defined values as desirable trans-situational goals, which vary in importance and serves as guiding principles in the life of a person or other social entity.

A value differs from an attitude in that a value refers to a single belief of a very specific kind, while an attitude refers to an organization of several beliefs around a specific object or situation. A value is a standard but an attitude is not. Evaluations of numerous attitude objects and situations may be based upon a relatively small number of values

serving as standards. For example, a scale for measuring organizational commitment consists of a representative sample of beliefs all of which concern the same object or situation. When summed, it provides a single index of a person’s favorable or unfavorable attitude toward the organization. Thus, a value transcends objects and situations, whereas an attitude is focused on some specific object or situation. Individuals have as many values as they have learned beliefs concerning desirable modes of conduct and end-states of existence, and as many attitudes as direct or indirect encounters they have had with specific objects and situations (Rokeach, 1968). A given attitude held by different persons need not be in the service of the same value or the same subset of values. For example, an unfavorable attitude toward religion may serve a person’s value for being *independent* and another person’s value for being *honest* (Rokeach, 1973).

While values are significantly different from attitudes, there is only a subtle conceptual difference between values and traits. Some authors do not even distinguish between values and traits. Rokeach (1973) distinguished between values and traits based on phenomenological standpoint. A person’s character is seen by an outsider – someone other than that person – as a cluster of traits that are fixed and unchangeable, while the same is reformulated from within as a system of values. A person identified by others from the outside as an authoritarian can also be identified from the inside as one who places relatively high values on being *obedient*, *clean* and *polite* and relatively low values on being *broadminded*, *intellectual*, and *imaginative*. According to Rokeach, a major advantage gained in thinking about someone as a system of values rather than as a cluster of traits is that it becomes possible to conceive of that person undergoing change because of changes in social conditions.

Values can be looked upon as being hierarchical in nature, leading to the idea of a value system. Rokeach (1973: 5) defined a value system as “an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance.” A set of rank-ordered values is called a value system. The rank-order design is also referred to as the ipsative design. Values are heavily intertwined and, therefore, looking at a person’s values separately and

independently of one another cannot meaningfully explain attitudes and behaviors. That a person values happiness does not say much that is unique about that person, for most human beings value happiness. What matters is how much a person values happiness in comparison with the other things that he or she values. If one knows that a person values happiness more than self-respect, one is able to have a more accurate idea of that person. Only the rank ordering of values or the value system can capture the unique value configuration of an individual. It is not the values by themselves that matter, but it is the hierarchical value system that matters (Rokeach and Ball-Rokeach, 1989). Schwartz and Bilsky (1987) summarized various perspectives and concluded that most of the definitions have some similar themes. According to them, values are (a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance.

#### *Relationship with other variables*

Schwartz (1992) developed a comprehensive theory about the content and structure of value domains. He identified ten different value types, each characterized by its own motivational goal: universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, and self-direction. He also found that some value types were complimentary to each other, while others were in conflict. Values are the most abstract of the social cognitions, and hence they serve as prototypes from which attitudes and behaviors are manufactured. Cognitions, and therefore values, also guide individuals about which situations to enter and about what they should do in those situations. Within a given situation, the influence flows from abstract values to midrange attitudes to specific behaviors. This sequence is called value-attitude-behavior hierarchy (Homer and Kahle, 1988).

Bardi and Schwartz (2003) investigated the relations of values to behaviors. They found that some values, such as stimulation and tradition related strongly to the behaviors that express them; some like hedonism, power, universalism, and self-direction values related moderately; and some others like

security, conformity, achievement, and benevolence values related only marginally. They suggested that these differences in value-behavior relations could be because of normative pressures to perform certain behaviors. The findings also imply that values motivate behavior, but the relation between values and behaviors is partly obscured by norms set by the society. Moreover, in specific situations, only a subset of values is made active, those that are seen as relevant to the salient alternative actions. For example, valuing equality might favor donating to charity and oppose purchasing a luxury item, whereas valuing a comfortable life might have the reverse influence. Not all activated values have equally strong impacts on behavior. The strength of impact depends on importance of the value in the person's hierarchy. The choice of a behavior alternative is guided by the interplay of the influences of the activated values. It is the relative importance for a person of the values favorable to and opposed to a behavior that guides action (Schwartz and Inbar-Saban, 1988).

Schwartz and Bilsky (1990) did a survey based on Rokeach's 36-value English version, which lent evidence for the universality of elements of a theory of the content and structure of human values. Value systems have been found to predict several outcomes including shopping selections (Homer and Kahle, 1988) and weight losses (Schwartz and Inbar-Saban, 1988). Values influence job choice decisions, job satisfaction, and commitment (Judge and Bretz, 1992). Blickle (2000) found that work values predicted the frequency of use of influence strategies measured a year later. The values of achievement, associates (defined as "work in which you are one of the gang"), creativity, intellectual stimulation, and variety were positively related to rational persuasion. In addition, career and management (defined as "have authority over others") were positively related to pressure strategy; prestige was positively related to ingratiation; and career and prestige were positively related to upward appeal. Since management is essentially an influencing activity, values would predict managerial choices.

Several studies have demonstrated empirically how values affect personal and organizational effectiveness (Meglino and Ravlin, 1998; O'Reilly et al., 1991). Perceptual organization plays a role in linking values to choice behavior (Ravlin and Meglino,

1987). Values influence the selection and interpretation of external stimuli, and thus affect one's perceptual process. The future attitudes and behaviors of MBA graduates would, therefore, depend on their value systems when they leave business schools. Both self-oriented and other-oriented values are positively related to effective leadership (Sosik, 2005). It is thus worthwhile looking at how management education changes the value systems of MBA students.

### Changing value systems

Value systems tend to form early in life and are very stable. Major longitudinal studies of values have in general showed their remarkable stability (Rokeach and Ball-Rokeach, 1989). Lubinski et al. (1996) observed that in a sample of gifted adolescents, values were remarkably stable over a 20-year period. Dominant value orientation either remained unchanged, or moved to an adjacent value. Oliver (1999) found that the overall personal value structure of the American manager did not change in three decades.

Values are enduring beliefs, and, therefore, they are very difficult to change. One who values obedience is unlikely to start believing that it is preferable to be disobedient than being obedient. Value systems, however, can be changed with relatively greater ease. Change in value system requires rearrangement of the relative importance given to various values. For example, one who values pleasure more than self-respect could be convinced over time that self-respect is more important than pleasure. Studies have demonstrated that the relative importance of different values to a person can be changed (Rokeach, 1973; Schwartz and Inbar-Saban, 1988). Ball-Rokeach et al. (1984) made an effort to change the rankings of the equality, freedom, and aesthetics values, by utilizing a broadcast television program. Rankings of the targeted values changed for those who watched, thus suggesting that adult socialization, such as that which occurs through the media, or through organizational processes, can in fact change values in a meaningful way.

The method of value self-confrontation can be used to change peoples' value systems and thereby their behavior. This method has been applied

successfully to influence such behaviors as contributing money to social welfare programs and supporting anti-pollution measures. Schwartz and Inbar-Saban (1988) demonstrated that people's behavior could be changed by changing the value priorities underlying that behavior. Using an experimental manipulation, they found that an increase in the relative importance of wisdom over happiness (both terminal values) resulted in significant amount of weight loss. The first step in value self-confrontation is to get people to become aware of their value systems. Learning that there is a contradiction between one's value priorities and one's ideal self-conception as a moral or competent person gives rise to self-dissatisfaction with one's value rankings. The ideal self-conception is based on the value system of a positive reference group. In order to reduce self-dissatisfaction, people change their value systems and consequently their value-related attitudes and behaviors. They try to make these elements more consistent with the self-conceptions as moral and competent persons that they have learned to prefer.

It is thus possible to change value systems over time using an appropriate intervention. The MBA program is one such intervention. Management education revolves around social issues and interpersonal relationships in a way that could conflict with business students' pre-existing values (Rynes and Trank, 1999). Lamsa et al. (2002) found that the values of students change during business education in a masculine direction. The MBA program, besides exposing students to a wide range of perspectives, also adopts an application-oriented approach that could result in students questioning some of their existing beliefs. The 2 years of education as an MBA student would, therefore, result in a change in value system. This being an exploratory study, I did not hypothesize any specific nature or direction of change, but only expected an overall change in value system at the end of 2 years.

**Hypothesis 1** MBA education affects values of students.

Change in values could be a change in expressed values or a change in actually held values. Change in mere expressed values would amount to a cosmetic change and would be a function of expressive

behavior. It would be worth examining if the change in values continues to exist even after controlling for self-monitoring.

### Self-monitoring

Self-monitoring entails self-control of expressive behavior and regulation of one's identity primarily for others guided by situational cues to social appropriateness (Gangestad and Snyder, 2000; Snyder, 1974). Self-monitoring is the ability to manage one's internal states, impulses, and emotions, so that they do not interfere with one's goals. Self-control, trustworthiness, conscientiousness, adaptability, and innovation are emotional competencies that are based on self-monitoring, which is also referred to as self-regulation or emotional management. Emotional management involves regulation of expressed behavior, so that it is socially appropriate (Salovey and Mayer, 1990; Snyder, 1974; Sosik and Megerian, 1999, p. 369). Self-monitoring and public self-consciousness are bases of the internal drive for a manager to exhibit extra-role behaviors that are valued by organizations. Concern for one's public image is likely to enhance the frequency of a manager exhibiting organizational citizenship behavior.

Allen et al. (2005) found that self-monitoring moderated the relationship between turnover intentions and turnover behavior such that the relationship between turnover intentions and turnover behavior was stronger for low self-monitors. Noel et al. (2003) found that self-monitoring was related to the choice of major of undergraduate business students. Accounting students were low on self-monitoring, while marketing students were high on self-monitoring, with the MIS students in between.

Mehra et al. (2001) used data from a high-technology firm to show that chameleon-like high self-monitors were more likely than true-to-themselves low self-monitors to occupy central positions in social networks. Also, for high self-monitors, longer service in the organization related to the occupancy of strategically advantageous network positions, and self-monitoring and centrality in social networks independently predicted individuals' workplace performance. Kilduff and Day (1994) tracked 139 MBA graduates for 5 years and demonstrated

significant main effects of self-monitoring on career mobility. The chameleon-like high self-monitors were more likely than the true-to-themselves low self-monitors to change employers, move locations, and achieve cross-company promotions. Out of the 72 individuals who did not change employers, those high on self-monitoring obtained more internal promotions than those low on the variable. A management education that wishes to produce successful managers is likely to enhance self-monitoring in MBA students. However, the change in values will not be explained fully by the increase in self-monitoring.

**Hypothesis 2** MBA education enhances self-monitoring of students.

**Hypothesis 3** The impact of MBA education on students' values continues to remain significant even after controlling for change in self-monitoring.

### Method and results: Study 1

Data for Study 1 were collected from three consecutive batches of fulltime students of a 2-year residential MBA program at a prominent business school in India. The students were requested to answer a survey to measure their terminal and instrumental value systems twice – while entering the program, and again while graduating from the program after 2 years. The total number of entering students in a year was 130, and initial data was collected from 383 students from the 3 years together. Only 239 students from the 3 years together answered the survey at the time of graduation. The final usable matched sample size was 229 after excluding responses that had partial missing values. Out of the 229 students, 93 were females and 136 were males; 108 students specialized in human resources (HR) and 121 students specialized in functions other than HR.

#### *Rokeach's value survey*

Rokeach's (1973) Value Survey was used for measuring value system. This is the most commonly used instrument for measuring value system. It has two lists of values arranged alphabetically – one consisting

of 18 terminal values and the other consisting of 18 instrumental values. Each value is presented along with a brief definition in parenthesis and respondents are asked to rank-order the values in each set in order of importance to and as guiding principles in their life, thereby recording their value systems. The Value Survey has been found to be both reliable and valid. All the values are socially desirable ones, but no significant relationship has been found between value rankings and the tendency to respond in a socially desirable manner.

### Data analysis

The differences in value rankings between the time of entering and the time of leaving the MBA program were analyzed in two different ways. The first approach adopted was to arrive at two aggregate value systems (one terminal and one instrumental) for each of the two periods (entering and leaving the program) and then compare them across the two periods. The median rank assigned to each terminal value by the students while entering the MBA program was calculated. The values were arranged in ascending order of median ranks to obtain the

aggregate terminal value system at the time of entry (where two values had the same median rank, the mean was used to break the tie). The aggregate terminal value system at the time of leaving after 2 years was calculated similarly. The entire process was repeated to get the aggregate instrumental value systems at the time of entry and at the time of leaving. The second approach used was to calculate the change in rank for each value over 2 years and test if the change was significantly different from zero.

### Results

The aggregate terminal and instrumental value systems of students while entering and while leaving the MBA program are given in Tables I and II. The largest difference (at least 2 in median and 2 in aggregate rank) in value rankings between the two periods was found for four terminal values – *a comfortable life*, *an exciting life*, *pleasure*, and *family security* – and for two instrumental values – *imaginative* and *self-controlled*. The relative importance given to a *comfortable life*, *an exciting life*, *pleasure*, and being *imaginative* increased over the 2-year period,

TABLE I  
Aggregate terminal value systems, before and after ( $N = 229$ )

Rank	Value before	Med	M	Value after	Med	M
1	A sense of accomplishment	5	5.68	A sense of accomplishment	4	5.68
2	Self-respect	5	5.68	Happiness	5	5.55
3	Happiness	5	5.94	Self-respect	5	5.86
4	Inner harmony	5	6.28	Freedom	6	6.79
5	Family security	6	6.68	Inner harmony	7	7.55
6	Freedom	7	7.03	An exciting life	7	7.76
7	Wisdom	7	7.27	Wisdom	8	8.12
8	True friendship	7	7.83	Family security	8	8.13
9	Mature love	9	9.30	True friendship	8	8.41
10	An exciting life	10	9.97	A comfortable life	9	8.83
11	Social recognition	10	10.03	Social recognition	9	9.13
12	A comfortable life	11	10.38	Mature love	9	9.52
13	A world at peace	13	11.38	Equality	13	11.83
14	Equality	13	11.93	Pleasure	13	12.35
15	A world of beauty	14	13.23	A world at peace	14	12.32
16	Pleasure	15	13.71	A world of beauty	15	13.98
17	National security	15	13.97	Salvation	16	14.41
18	Salvation	17	14.72	National security	16	14.80

TABLE II  
Aggregate instrumental value systems, before and after ( $N = 227$ )

Rank	Value before	Med	M	Value after	Med	M
1	Honest	5	6.11	Honest	6	6.58
2	Responsible	6	6.48	Capable	6	6.94
3	Capable	7	7.79	Responsible	7	6.96
4	Independent	7	7.83	Independent	7	6.98
5	Broadminded	8	7.90	Ambitious	7	7.88
6	Loving	8	8.08	Broadminded	7	8.07
7	Courageous	8	8.26	Intellectual	8	7.99
8	Ambitious	8	8.37	Courageous	8	8.25
9	Self-controlled	8	9.03	Loving	8	8.84
10	Intellectual	9	9.18	Logical	9	9.39
11	Logical	9	9.65	Imaginative	9	9.45
12	Helpful	10	9.47	Self-controlled	10	9.59
13	Cheerful	10	9.78	Cheerful	10	9.72
14	Imaginative	12	10.80	Helpful	11	10.62
15	Polite	12	11.53	Polite	13	12.39
16	Forgiving	13	12.03	Forgiving	13	12.44
17	Clean	15	14.28	Clean	15	14.04
18	Obedient	16	14.44	Obedient	16	14.86

while the relative importance given to *family security* and being *self-controlled* decreased.

A comparison of the terminal value systems instead of individual value rankings indicated that students at the time of leaving the program considered *an exciting life* more important than *wisdom*, *family security*, *true friendship*, and *mature love*, while their relative priority for *an exciting life* was just the reverse when they joined the program. They also considered *a comfortable life* more important than *social recognition* and *mature love*; and *pleasure* more important than *a world at peace* and *a world of beauty* at the time of leaving the program, while their relative priorities were just the reverse when they joined the program. Similarly, students at the time of leaving the program considered *family security* less important than *freedom*, *an exciting life*, and *wisdom*, while their relative priority for *family security* was just the reverse when they joined the program.

Similarly, a comparison of the instrumental value systems indicated that students at the time of leaving the program considered being *imaginative* more important than being *self-controlled*, *cheerful*, and *helpful*; and being *intellectual* more important than being *courageous*, *loving*, and *self-controlled*, while their relative priorities were just the reverse when they

joined the program. In addition, students at the time of leaving the program considered being *self-controlled* to be less important than being *imaginative*, *logical*, and *intellectual*; and being *loving* to be less important than being *ambitious*, *courageous*, and *intellectual*, while their relative priorities were just the reverse when they joined the program.

The second approach for analyzing differences in rankings between the two periods looked at each of the 36 values (18 terminal and 18 instrumental) separately. For each value, the difference score for each respondent was calculated by taking the simple difference between the ranks given by the respondent for that value while entering and while leaving the program. A t-test was done for each value separately to see if the difference score was significantly different from zero. The t-test results are given in Table III. Ranks given by students increased significantly ( $p < 0.05$ ) over the 2 years in the case of *a comfortable life*, *an exciting life*, *pleasure*, *social recognition*, and being *capable*, *imaginative*, *independent*, and *intellectual*. They also gave significantly less importance to *a world at peace*, *a world of beauty*, *family security*, *inner harmony*, *national security*, *true friendship*, *wisdom*, and being *helpful*, *loving*, and *polite* than what they gave 2 years earlier. These findings supported Hypothesis 1.

TABLE III  
t-Test for difference in ranks being different from zero

Terminal	M	Std Err	t-value	Instrumental	M	Std Err	t-value
A comfortable life	1.55	0.38	4.08***	Ambitious	0.49	0.35	1.40
An exciting life	2.21	0.35	6.30***	Broadminded	-0.16	0.33	-0.50
A sense of accomplishment	0.00	0.33	0.00	Capable	0.85	0.33	2.56*
A world at peace	-0.94	0.33	-2.81**	Cheerful	0.06	0.36	0.16
A world of beauty	-0.76	0.28	-2.65**	Clean	0.23	0.27	0.86
Equality	0.10	0.32	0.31	Courageous	0.01	0.36	0.02
Family security	-1.45	0.33	-4.46***	Forgiving	-0.42	0.35	-1.21
Freedom	0.24	0.30	0.79	Helpful	-1.15	0.34	-3.38***
Happiness	0.39	0.29	1.33	Honest	-0.47	0.35	-1.33
Inner harmony	-1.28	0.35	-3.64***	Imaginative	1.35	0.35	3.91***
Mature love	-0.22	0.31	-0.70	Independent	0.85	0.37	2.33*
National security	-0.83	0.27	-3.05**	Intellectual	1.19	0.40	2.98**
Pleasure	1.36	0.31	4.42***	Logical	0.26	0.38	0.69
Salvation	0.32	0.32	0.99	Loving	-0.75	0.34	-2.19*
Self-respect	-0.18	0.29	-0.61	Obedient	-0.43	0.30	-1.41
Social recognition	0.90	0.31	2.94**	Polite	-0.86	0.31	-2.74**
True friendship	-0.58	0.28	-2.05*	Responsible	-0.48	0.33	-1.44
Wisdom	-0.85	0.33	-2.56*	Self-controlled	-0.56	0.40	-1.40

N = 229 (Terminal), 227 (Instrumental). †p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.

Sex and function as moderators

An analysis of variance of the difference score was done for each value across sex. Table IV presents the results for those values for which the change in rank was different between female and male students at

0.10 level of significance. Results of t-tests to see if the difference scores for either sex are significantly different from zero are also presented in the table. Change in rankings given to three values – *an exciting life*, *happiness*, and being *ambitious* – differed significantly (p < 0.05) between female and male students.

TABLE IV  
Analysis of variance of change in rank across gender and function separately

	Female				Male				F-stat
	N	M	Std Err	t-value	N	M	Std Err	t-value	
An exciting life	93	1.30	0.57	2.29*	136	2.83	0.44	6.46***	4.67*
Freedom	93	0.94	0.46	2.02*	136	-0.24	0.39	-0.60	3.66†
Happiness	93	1.25	0.48	2.58*	136	-0.20	0.36	-0.56	6.06*
Wisdom	93	-0.14	0.50	-0.28	136	-1.34	0.44	-3.04**	3.16†
Ambitious	91	-0.77	0.58	-1.32	136	1.33	0.42	3.17**	9.00**
Intellectual	91	2.09	0.54	3.83***	136	0.59	0.55	1.06	3.43†
	HR				non-HR				
A world at peace	108	-1.62	0.50	-3.24**	121	-0.33	0.44	-0.75	3.76†
Pleasure	108	1.98	0.46	4.32***	121	0.81	0.41	1.97†	3.64†
Intellectual	108	1.89	0.48	3.97***	119	0.55	0.62	0.89	2.82†
Loving	108	-0.04	0.45	-0.08	119	-1.40	0.51	-2.75**	3.97*

†p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001.



Two years of management education enhanced the preference for *an exciting life* in both female and male students, but the change was significantly higher in the case of male students. In addition, female students gave a higher ranking for *happiness* while male students did not, and unlike female students, the male students gave a higher rank for being *ambitious*.

Similarly, an analysis of variance of the difference score was done for each value across function (HR versus non-HR). Table IV includes the results for those values for which the change in rank was different between HR and non-HR students at 0.10 level of significance. Results of t-tests to see if the difference scores for either function are significantly different from zero are also presented in the table. The analysis revealed significant ( $p < 0.05$ ) difference between HR and non-HR students in the case of one value – *loving*. Non-HR students gave less importance to being *loving* at the end of 2 years, while there was no such change in the case of HR students.

An analysis of variance of the difference scores was also done across sex and function together. The results for those values for which the change in rank was different across the four categories at 0.10 level of significance are presented in Table V. Change in value rankings varied significantly ( $p < 0.05$ ) across the four categories (two categories of sex by two categories of function) in the case of three values – *equality*, *ambitious*, and *obedient*. *Equality* was given a higher ranking by female HR students and a lower ranking by male HR students. Male non-HR students gave a higher rank to being *ambitious*, and male HR students gave a lower rank to being *obedient*.

Tests were also done to see if the ranks assigned to the various values while entering and while leaving, were different between female and male students and between HR and non-HR students. Each of the 36 values (18 terminal and 18 instrumental) was taken up for analysis separately. The nonparametric Median test and Wilcoxon rank sum test (with normal approximation and continuity correction) were used to test for a statistically significant difference in value rankings given by female and male students. Differences were treated as significant only if both the tests revealed significance at 0.05 level. The results for those values that showed significant difference are presented in Table VI. While entering the program, female students considered *self-respect*, *independent*, and *loving* more important, and *social recognition* less important than male students. Female students, while leaving the program, considered *happiness*, *inner harmony*, and *loving* more important, and *a comfortable life*, *an exciting life*, *social recognition*, *ambitious*, and *polite* less important than male students. While entering the program, HR students considered *independent* more important, and *pleasure* and *clean* less important than non-HR students. HR students, while leaving the program, considered *mature love* and being *loving* more important than non-HR students.

## Method and results: Study 2

Study 2 had two objectives: to replicate the findings of Study 1 using non-ipsative measure of values; and

TABLE V  
Analysis of variance of change in rank across gender and function together

	Female			HR			Female non-HR			Male			HR			Male non-HR			F-stat
	M	Std Err	t-value	M	Std Err	t-value	M	Std Err	t-value	M	Std Err	t-value	M	Std Err	t-value	M	Std Err	t-value	
An exciting life	1.10	0.65	1.70†	1.81	1.16	1.55	3.63	0.73	5.00***	2.48	0.54	4.58***	2.12†						
Equality	1.06	0.50	2.13*	-1.50	0.92	-1.63	-1.61	0.79	-2.05*	0.60	0.53	1.13	3.93**						
Happiness	0.99	0.60	1.65	1.92	0.80	2.39*	0.24	0.76	0.32	-0.39	0.39	-1.00	2.50†						
Ambitious	-0.81	0.64	-1.26	-0.67	1.31	-0.51	1.41	0.75	1.88†	1.29	0.51	2.54*	2.98*						
Courageous	-0.48	0.69	-0.69	0.79	0.96	0.83	1.83	0.86	2.12*	-0.63	0.56	-1.13	2.31†						
Obedient	-0.10	0.54	-0.19	-1.25	0.86	-1.46	-2.22	0.62	-3.60***	0.33	0.49	0.66	3.45*						

† $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

N = 67 for female HR, 26 for female non-HR, 41 for male HR, 95 for male non-HR.

TABLE VI  
Nonparametric test of median differences across gender and function

		Median Female	Rank Male	Wilcoxon Z	Median Z	
While entering	Self-respect	4	6	-2.28*	-2.16*	
	Social recognition	11	9	3.45***	2.41*	
	Independent	6	8	-2.00*	-2.58**	
	Loving	6	9	-3.05**	-2.90**	
While leaving	A comfortable life	10	7	2.21*	2.24*	
	An exciting life	9	6	2.92**	3.00**	
	Happiness	3	6	-4.16***	-3.23**	
	Inner harmony	6	8	-2.94**	-2.95**	
	Social recognition	10	8	2.91**	2.49*	
	Ambitious	10	5	3.87***	3.27**	
	Loving	7	10	-3.71***	-2.83**	
	Polite	14	12	2.34*	2.21*	
	While entering		HR	Non-HR		
		Pleasure	15	14	2.23*	2.54*
Clean		16.5	15	2.94**	2.72**	
While leaving	Independent	6	8	-3.02**	-2.93**	
	Mature love	8	10	-2.24*	-2.84**	
	Loving	7.5	10	-2.51*	-2.17*	

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

to test if change in values continues to be significant even after controlling for self-monitoring. Data for Study 2 were collected from two consecutive batches of students of a 2-year fulltime residential MBA program at a prominent business school in India (same school as in Study 1). The students were requested to answer a survey to measure their values and self-monitoring twice – while entering the program, and again while graduating from the program after 2 years. The total number of entering students in a year was 130, and initial data was collected from 258 students from the two batches together. Only 138 students from the two batches together answered the survey at the time of graduation. The final usable matched sample size was 138. Of the 138 students, 75 students specialized in human resources (HR) and 63 students specialized in functions other than HR.

#### Measures

The Value Survey of Study 1 used a rank-order scale, which might make some values decrease in

importance simply because some other values increase in importance. By way of avoiding the use of a rank-order scale, Schwartz's (1992) Value Survey was used in Study 2 for measuring values. This is a widely used instrument for measuring values. It has a list of 56 values. Each value is presented along with a brief definition in parenthesis and respondents are asked to rate the values as guiding principles in their life using a nine-point scale: -1 = opposed to my values; 0 = not important; ... 3 = important; ... 6 = very important; 7 = of supreme importance. The Value Survey has been found to be both reliable and valid.

The 13-item revised self-monitoring scale of Lennox and Wolfe (1984) was used. This scale measures only sensitivity to the expressive behavior of others and ability to modify self-presentation. This avoids the drawbacks of Snyder's (1974) scale by focusing on a narrower definition of the construct. Responses were recorded on a six-point scale: 0 = certainly always false; 1 = generally false; 2 = somewhat false, but with exceptions; 3 = somewhat true, but with exceptions; 4 = generally true; 5 = certainly always true.

*Data analysis*

The differences in value ratings between the time of entering and the time of leaving the MBA program were analyzed. Each individual's total score on all value items was computed and divided by the total number of items (56). This is called the MRAT. The score of each of the values for an individual was centered around that individual's MRAT by subtracting MRAT from the value rating. These centered value scores were used in all the analyses. The change in rating for each value over 2 years was calculated and a test was done to see if the change was significantly different from zero. Similarly, the change in self-monitoring scores over 2 years was calculated and a test was done to see if the change was significantly different from zero.

**Results**

For each value, the difference score for each respondent was calculated by taking the simple difference between the ratings given by the respondent for that value while entering and while leaving the program. The difference score for self-monitoring

was also calculated similarly. A matched sample t-test was done for each value and for self-monitoring separately to see if the difference score was significantly different from zero. The t-test results are given in Table VII. Ratings given by students increased significantly over the 2 years in the case of five self-oriented values – *social power, an exciting life, daring, capable, preserving my public image*. Students also gave significantly less importance to five others-oriented values – *sense of belonging, politeness, family security, loyal, honoring of parents and elders* – than what they gave 2 years earlier. Self-monitoring also increased over the period of 2 years. Thus, Hypotheses 1 and 2 were supported.

An analysis of variance of the value scores across the pre- and post-data was done. An analysis of covariance of the value scores across the pre- and post-data was then done after adjusting for the common variance between the value scores and self-monitoring. Table VIII presents the results of the two sets of analyses. Adjusting for the common variance between the value scores and self-monitoring did not have any significant effect on the difference in the value scores between the pre- and post-data. Therefore, Hypothesis 3 was supported.

TABLE VII  
Matched sample *t*-tests

	PRE		POST		<i>t</i>
	M	SD	M	SD	
Self-monitoring	3.23	0.50	3.42	0.52	3.69***
<i>Others-oriented values</i>					
Sense of belonging	0.55	1.29	0.16	1.31	-2.89**
Politeness	0.58	1.11	0.21	1.07	-3.33**
Family security	1.28	1.06	0.85	0.99	-3.95***
Loyal	0.82	1.18	0.48	0.98	-3.22**
Honoring of parents and elders	0.89	1.07	0.67	0.90	-2.06*
<i>Self-oriented values</i>					
Social power	-1.73	1.93	-1.12	1.83	3.59***
An exciting life	-0.33	1.40	0.07	1.14	2.77**
Daring	-0.86	1.46	-0.48	1.33	2.72**
Capable	0.86	1.17	1.08	0.87	1.73†
Preserving my public image	-1.07	1.82	-0.63	1.50	3.08**

† $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

TABLE VIII  
Analysis of covariance controlling for self-monitoring

	ANOVA <i>F</i>	ANCOVA <i>F</i>
<i>Others-oriented values</i>		
Sense of belonging	4.26*	2.48†
Politeness	7.75**	3.86*
Family security	6.16*	3.07*
Loyal	6.33*	3.55*
Honoring of parents and elders	6.14*	3.64*
<i>Self-oriented values</i>		
Social power	8.23**	4.83**
An exciting life	7.01**	3.53*
Daring	4.46*	5.68**
Capable	1.97	0.73
Preserving my public image	3.23†	1.66

ANOVA = Analysis of variance of value scores across pre- and post-data.

ANCOVA = Analysis of covariance of value scores across pre- and post-data after adjusting for the common variance between value scores and self-monitoring.

† $p < 0.10$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

## Discussion

The findings of the two studies reported here enhance our knowledge of the impact of management education. Knowing the values that are being inculcated in business schools is the first step toward bringing about change in business education along desired lines.

Results indicate that the relative importance given to a comfortable life, an exciting life, pleasure, social recognition, capable, imaginative, independent, intellectual, social power, daring, capable, and preserving one's public image increase during the 2-year period of MBA education. At the same time, the relative importance given to a world at peace, a world of beauty, family security, inner harmony, national security, true friendship, wisdom, helpful, loving, polite, sense of belonging, loyal, and honoring of parents and elders decrease. There is thus a clear change in value system of MBA students with self-oriented values becoming more important, and others-oriented values becoming less important. This is probably a cause for concern since the corporate world that is focusing increasingly on team-

work is likely to be interested in managers whose relative ordering of values is just the reverse. An MBA program that reduces the relative importance given to values like being helpful and polite might find it extremely difficult to market its program and its graduates to business organizations.

It is interesting to note that management education increases the relative importance given to *freedom*, *happiness*, and being *intellectual* in the case of female students, while there is no significant change in these value rankings in the case of male students. Male students, on the other hand, give greater importance to being *ambitious* and less importance to *wisdom*, while there is no such change in the case of female students. Similarly, coming to HR versus non-HR students, being *loving* goes down in importance only for non-HR students and being *intellectual* increases in importance only for HR students. Sex and function also appear to interact in the case of both *equality* and *obedient*. Decrease in importance for *equality* and *obedient* is seen only in the case of female non-HR and male HR students. However, the overall findings concerning sex and function as moderators suggest that the impact of MBA education is the same on all students. Irrespective of sex and function, MBA education makes students give more importance to self-oriented values and less importance to others-oriented values.

### *Is the change desirable?*

The objective of management education should be to take students to a higher plane and lift them to their better selves (Burns, 1978). The change has to be such that it unites people in the pursuit of some higher purposes. Leadership is authentic only if it takes followers to a better place and not to a worse place. Burns argued that leadership involves focusing on near-universal values. Getting into a state of greater selfish isolation from others would be the exact opposite of going toward the state of oneness.

Spirituality in the workplace has become an increasingly important topic. Developing a community feeling in organizations is likely to result in better organizational performance. The objective of management education should therefore be to enable people to get closer to the state of perceiving the oneness of all beings. Progressing toward the

state of oneness should be the foundation of human resource practices.

The findings of this study show that self-oriented values like *a comfortable life* and *pleasure* become more important, and others-oriented values like being *helpful* and *polite* become less important because of completing 2 years of management education. The change in value systems of MBA students is not in the direction of taking them towards greater identification with other human beings. On the contrary, management education appears to make people more selfish and less concerned about others. Therefore, the change in value systems does not seem to be along the lines that most organizations would prefer.

## Conclusion

Demands of the corporate world on business schools have been constantly changing and have of late become more exacting. The findings of this study provide some preliminary evidence on the changes in value systems that are caused by management education. Self-oriented values become more important and others-oriented values become less important because of completing 2 years of management education. The changes do not appear to be in a direction that business organizations would want. Business schools need to look at these trends and take steps to address students' value systems in a more effective way. The objective of management education should be to take students to a higher plane by transforming their value systems and lifting them to their better selves (Burns, 1978). Students need to be taken upward by enhancing their perception of oneness with others. Business schools seem to be doing the exact opposite.

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