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BIORHYTHMS AND LAW SCHOOL PERFORMANCE

MARTIN A. FREY *

The biorhythm theory is based on the premise that three powerful rhythms begin in every newborn at the moment of birth. Each pulsates at a continuous rhythm throughout life. These rhythms affect each and every one of us—physically, emotionally and intellectually.¹

The basic biorhythm principles were first developed in Europe (Austria, Germany, France, Switzerland and Belgium) late in the nineteenth century. Supporters of the theory have used accident and death statistics as well as the results of athletic events to confirm the theory. A Swiss surgeon has used biorhythm mathematics in his hospital for over 15 years, mostly to ascertain the best days for elective surgery. He performed over 10,000 operations without a single complication—a remarkable feat since statistically complications occur in 30–60% of these cases. A number of Japanese companies are using biorhythms. One transportation company reported a 35–40% accident claim reduction when their employees were informed that their biorhythms indicated extra caution should be observed. Another company reduced errors 35% by assigning computer punch card operators to different jobs on critical biorhythmic days. While some early biorhythm research was conducted in the United States, acceptance of the theory has been slow. Although some scientists are skeptical of the validity of the theory, it is gaining adherents in industry, the military and academia.

If we assume the biorhythm theory has substance and biorhythms play a role in our everyday life, they must also play a role in law school performance. This article will focus on four major problems. Do biorhythms place one student at an academic disadvantage when compared to other students? Do biorhythms influence absenteeism and the ultimate decision to withdraw from law school? Does biorhythm compatibility between and among students lead to the formation of study groups and does biorhythm compatibility between student and teacher affect ultimate performance? Can a knowledge of biorhythms improve study efficiency? Before exploring these questions both theoretically and empirically, a more detailed discussion of the biorhythm theory is necessary.

THE BIORHYTHM THEORY

Although all three rhythms begin at the same time, they differ in length: the physical rhythm—23 days; the emotional (sensitivity) rhythm—28 days; and the intellectual rhythm—33 days. Since the rhythms differ in length, they begin to separate immediately after birth and take on different configurations. The pattern at birth does not reappear until 58 years and 67 or 68 days later (depending on the number of leap years).

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¹ For a complete discussion of the biorhythm theory, see D. Cohen, *Biorhythms in Your Life* (1976); B. Gittelson, *Biorhythm, A Personal Science* (2d ed. 1976); H. M. Gross, *Biorhythms* (3d rev. ed. S. H. Maulsby transl. 1975); G. S. Thommen, *Is This Your Day?* (1973).

Each rhythm has been likened to a sine curve. It begins at zero, advances to its highest point at one-fourth the cycle, drops back to zero at half the cycle, decreases to its lowest point at the three-quarter mark and then advances back to zero at the end of the cycle. The days when the rhythms cross the zero line are called critical days. When the cycle is above the zero line, the rhythm is positive; below the line, the rhythm is negative.

The physical cycle—23 days—is the rhythm of physical strength, coordination, endurance, and resistance to disease. A general feeling of physical well-being accompanies the positive half of the cycle and physical fatigue accompanies the negative half. Days in which the physical cycle moves from negative to positive or positive to negative (the critical days) tend to be accident prone. Naturally, highs and lows are only relative. They must be weighed in relation to age, general physical conditions, and personal physical demands.² To carry this point to its extreme, it is safe to say that the quarter-backing duties for the New York Jets should not be rotated among all those men, women, and children who are on a physical high on a given Sunday afternoon.

The emotional (sensitivity) cycle—28 days—is the rhythm of attitude, concentration, and creativity. During the positive half of this cycle, a person tends to be more cheerful, cooperative and optimistic. During the cycle's negative phase, the tendency is toward irritability and pessimism. The critical days tend to be unsettled with irritability running high. The degree of the highs and lows of this cycle vary with the individual—temperaments vary—some of us are normally more calm than others.³

The intellectual cycle—33 days—is the rhythm of memory, mental alertness, and reasoning power. During the positive half of this cycle, intellectual activity is at its greatest and this is the best time to absorb new information. Mental response is quickest and most perceptive. Decision making power is severely handicapped during critical intellectual days. Two points must be kept in mind: a relaxed and confident mental state (when the emotional rhythm is favorable) facilitates the learning process and intellectual capabilities differ.⁴

But what do positive, negative and critical biorhythm days mean in terms of law school performance? Rather than merely restate what biorhythm researchers have concluded about the various rhythms, this article will apply these theories to the legal education process. Are there certain aspects of the process that could affect one student's performance in relation to another's?

AN EMPIRICAL STUDY

To test the possible influence of biorhythms on law school performance, a mini-empirical study was conducted. For this study, the 23-day physical rhythm was discounted in importance since the study of law is generally not a physically active pursuit. The focus was on the 28-day emotional and 33-day intellectual cycles. The experimental group consisted of students enroll-

² D. Cohen, *Biorhythms in Your Life* 32-36 (1976).

³ *Id.* at 36-37.

⁴ *Id.* at 37-41.

ed in a special summer course. "Pre-Admissions Contracts," offered by the University of Tulsa College of Law. In 1975, when this course was instituted on an experimental basis, Dean Frank T. Read of the College of Law spoke of the purpose for the experiment. Traditionally, the legal profession has been egalitarian. There is a long tradition of not blocking people at the starting gate. Yet, recently, law schools have been turning away increasingly large numbers of applicants. One out of two cannot find a door anywhere. Criticism has focused on the two major criteria for acceptance: the applicant's undergraduate grade point average and law school admission test score. These grades and tests are very reliable as a rule and are good predictors of potential future performance. But they do not perfectly predict for everyone. Personal interviews are even less reliable. Law schools want to take as few risks as possible and as a result the tests have become of paramount importance. Even so, some applications from persons with low test scores indicate potentially successful students. There may be one from a person who became a vice president at age 30, or one who joined the military and rapidly rose through the ranks. These are risky cases by normal standards but we hate to let them go. This experimental program was designed to enable such applicants to prove themselves by performance.

In 1976, 30 applicants enrolled in the pre-admissions program. The course was taught by a full-time professor assisted by a full-time student instructor. The course covered eight weeks meeting two hours per day, Monday through Thursday. The subject matter was that which would be covered in the normal fall semester three hour contracts course with a heavy emphasis on writing. The professor and his student assistant were available throughout the week for individual and group sessions and this service was readily accepted by the majority of those in the course. The final results were that of the original 30, four withdrew, 16 passed and 10 failed. The ground rules for the program were that those who passed would be offered admission to the College of Law, beginning with the fall term 1976. Was there anything significant in the biorhythms of these students? Did the course occur during a period in which those who passed had better biorhythm configurations than those who failed? Did the final examination fall on a day that would favor one student over another and was this statistically significant?

ACADEMIC DISADVANTAGES

The Pre-Admissions Contracts course began on June 7 and ended with a final examination on July 29, or a total of 53 days. Classes were held Monday through Thursday from 8 to 10 a. m. with the exception of the fourth Thursday (first practice exam), the fifth Monday (Fourth of July weekend), the sixth Thursday (second practice exam) and the eighth Wednesday (a pre-examination reading day). An extra class was held on the seventh Friday for review. The total class periods (excluding the examinations) were 28 days or 56 hours. What occurred biorhythmically during the 53-day course? Each student had one complete 28-day emotional cycle and 25/28 of a second cycle. The most that this could mean was that one student could have three more positive emotional days than another (depending on when his or her cycle began, one student could have 28 positive days and 25 negative and another student 25 positive and 28 negative days). Had the course been six or seven weeks rather than eight, the deviation would have been greater. Each student

could have had one complete 33-day intellectual cycle and 20/33 of a second cycle. The deviation among students on intellectual positive days was greater than the deviation on emotional positive days. Here, one student could have 33 positive and 20 negative intellectual days and another could have 20 positive and 33 negative intellectual days or a difference of 13 positive days. The class averaged 26.9 positive intellectual days. Those who passed averaged 27.1 and those who failed averaged 26.5. This does not show a significant deviation between those who passed and those who failed.

The intellectual and emotional rhythms do not function in a vacuum but affect each other. By checking a composite of the two rhythms, each student's days were divided into three categories: the first consisted of days where both biorhythms were positive, or one positive and the other negative; the second of double negative days; and the third of critical days, regardless of whether the day was a double critical, or a critical coupled with a negative or a positive. All students had between 10 and 13 days in the third category (critical days). In preparing these figures, a biorhythm researcher might have expected to find that, based on positive days (category one), those who passed clearly outdistanced those who failed. But the data did not substantiate this expectation. The class averaged 30.3 positive days per student. Those who passed averaged 29.6 and those who failed averaged 31.4.⁵ Does this mean that biorhythms play no role in law school performance? From this limited study, it could be concluded that biorhythms were not as influential as other more easily measurable factors, such as substantial outside employment and aptitude as evidenced by the LSAT. Based on this study, it cannot be said that biorhythms have no influence on law school performance because the sample was so diverse. The only common characteristic of the group was that all had been rejected by the University of Tulsa College of Law (and possibly by a number of other law schools although this may not be true since some had regional limitations due to occupation or family responsibilities) and that all were willing to subject themselves to the pressures of this course to gain admission. Had all not worked and had about the same LSAT score, then a more accurate indication of the relationship between biorhythms and law school performance could have been obtained. Another factor which has not been mentioned is the composition of the examination. Although an attempt was made to cover the course on the exam, some areas were emphasized to the exclusion of others. Was there a relationship between those areas emphasized and biorhythms? Since records of daily coverage were not kept, this correlation could not be made. A course such as contracts builds from the first day until the exam. The foundation for topics of the second week is laid during the first week. Therefore, in many areas, one week's work presents new material and in the process reviews past material. It would be most difficult to say that if material was not learned on July 7, and July 7 was a double critical day, that it would not have come up

⁵ Of those who passed, students who did not have outside employment averaged 29.8 positive days and students who did have outside employment averaged 28.5. Of those who failed, students who did not have outside employment averaged 32.5 positive days and students who did have outside employment averaged 30.6. A biorhythm researcher might have expected for those who passed, that students with outside employment would have had more positive days than students without outside employment but this did not occur.

again on July 9 or 13 and learned at that time. Learning was a continuous experience and there were many opportunities to reinforce areas where weaknesses existed.

Teachers often wonder why some class periods are more productive than others. Biorhythms may tell at least a part of the story. Since all members of the class are cycling biorhythmically, there will be days when more students are experiencing positive intellectual and emotional days. For the 28 class days and the 26 students who completed the course, the number of students with positive biorhythms on a given day (either both emotional and intellectual positive or one positive and the other negative) ranged from a high of 20 to a low of 11. The average was 16 students per day (61.5%). On seven of the 28 class days (25%), students with either both negative or at least one critical biorhythm outnumbered those with positive biorhythms. This may help to explain the classes when even the simplest concept was difficult to teach. In all courses there is a core group that carries class discussion. It would have been an interesting study to have isolated these students and to have correlated their biorhythms to the class response on a day by day basis. The smaller the core group, the greater the likelihood for disproportionate highs and lows. Superimposed on this are the biorhythms of the professor. He or she, too, will have good and bad biorhythmic days. The right combination may make for that exceptionally rewarding class.

Biorhythmically, the final examination day was not a day conducive to excellence. Of the 26 people taking the exam, only eight (30.8%) had favorable biorhythms (either both emotional and intellectual positive or one positive and the other negative). Of the remaining 18, 13 (50%) had unfavorable biorhythms (both emotional and intellectual negative), and five (19.2%) had very unfavorable biorhythms (either an emotional or intellectual critical day). Was the overall performance down because the vast majority of the class (23 of 26 or 88.5%) had either a negative or critical emotional or intellectual day on the examination day? It would have been most interesting to have retested the group a week later when their rhythms had changed substantially.

But did the final examination date affect the performance of various groups of students? Of the 8 students with favorable biorhythms, three had both positive emotional and intellectual rhythms—2 passed;⁶ two had positive emotional but negative intellectual rhythms—one passed; and three had negative emotional but positive intellectual rhythms—two passed. Of the eight, five passed (62.5%) or only a nominally higher percentage passed when compared with the overall performance of 16 of 26 (61.5%). Of the 13 who had both negative emotional and intellectual rhythms, nine passed (69.2%). Interestingly enough, a greater percentage of this group passed than of those with favorable rhythms. Of the remaining five who had either a critical emotional or intellectual day, one was on a positive emotional and critical intellectual day;⁷ three were on a critical emotional and positive intellectual

⁶ Excessive outside employment may have been a factor in the case of the one student who did not pass.

⁷ This student passed although it should be mentioned that this student's LSAT score was second highest for the class.

day;⁸ and one was on a critical emotional and negative intellectual day.⁹ In total, of the five students who were on critical days during the examination, only two passed (40%). But ability as indicated by LSAT score appeared as a factor. One of the five had the second highest LSAT in the class (this student passed). The other four had LSAT scores in the bottom third of the class and only one passed. If the LSAT does indicate ability with some degree of accuracy, then were those students who had already tested as having less ability than two-thirds of the class, put under a further handicap by having to take the examination during a critical day [especially when those tested as having higher ability were not on critical days (with the exception of one)]? Did the fact that five students took the exam on a critical day influence their performance? Although the limited size of class restricts the accuracy of any conclusion, it was a fact that of the four having critical emotional days, only one passed (25%) while of the remaining 22 in the class, 15 passed (68%). It would be most interesting to compare these results with those of a much larger sample.

The purpose of this article is not to suggest that biorhythms are the determining factor in law school performance. Rather, are they *a* factor? A number of other factors, many more dominant, influence law school performance. Ability is primary. Ability in one discipline does not necessarily mean ability in another. The LSAT has been used as a predictor of legal ability. The Pre-Admissions Contracts course was designed to admit students to law school by performance rather than on the basis of prior testing. The LSAT scores for the class ranged from 352 to 592. The results from this course further substantiate the accuracy of LSAT scores as a predictor of aptitude. Of the students having the top 15 LSAT scores, 12 passed, two failed, and one withdrew (80% passed). Four students in the bottom 15 scores passed, eight failed, and three withdrew (26.7% passed). Viewing the data in another direction, of the three with LSAT scores above 525, all passed (100%); of the six with LSAT scores 476-525, four passed, one failed, and one withdrew (66.7% passed); of the 14 with LSAT scores 426-475, seven passed and seven failed (50% passed); and of the seven with LSAT scores below 426, two passed, two failed and, three withdrew (28.6% passed). LSAT scores are generally valid as an indicator but as Dean Read stated, there are some "diamonds in the rough" who would be excluded solely on LSAT scores. Whether the "survivors" (as they have labeled themselves) are truly diamonds in the rough is too early to say with any certainty. But based on the first year grades from survivors of the 1975 Pre-Admissions course, there may well be a number of diamonds. As a group, they outperformed their peers in first year grades by a noticeable margin.¹⁰

⁸ One passed.

⁹ This student did not pass and it should be said that the day prior to the examination, this student had an intellectual critical day.

¹⁰ The correlation between undergraduate grade point average and performance in the Pre-Admissions Contracts course did not have the close correlation between those who passed and high G.P.A. Of the 6 students with G.P.A.s 3.00 and above, one passed, three failed, and three withdrew (16.7% passed). Of the 10 students with G.P.A.s 2.50 to 2.99, eight passed, one failed, and one withdrew (80% passed). Of

But ability, as evidenced by the LSAT score, is not the only factor. Motivation may be as important as ability. Why be a law student? Are there family pressures to enter the legal profession? Is law school an opportunity to extend student status and avoid entering the job market for three more years?

Another factor is the balance among commitments. Is a student willing to make the commitment required to succeed in his or her studies? Is a student motivated by the process of legal education or, once in the program, is the student disappointed because he or she is not "learning the law"? Does the student have enough resources to be able to devote the time necessary for successful law studies? Some students are self-supporting (and family-supporting) and must work. How do these students compare academically with other students who do not work and who can devote full time to their studies? Of the 16 who passed, only two (12.5%) had substantial outside employment—one for financial compensation and the other as the mother with a small child. Of the 10 who failed, five (50%) had substantial outside commitments. (Only 28.6% who worked passed.) Those students who devoted full time to their studies had a definite advantage over those who did not. (73.7% who did not have substantial outside employment passed).

Another factor is family support. The married student will be helped substantially by a supportive spouse. Some accommodations should be made in the normal home routine to help the student avoid distraction while studying. Other important factors are the impact of children, family and personal illness, past educational shortcomings (inability to read and write on the level necessary for the study of law), broken romances, and commuting distances. Because of the personal nature of these factors, no data was kept. But they do influence law school performance.

Another factor that appeared to have some impact on the success of individual members of this class was age. As of the first class (June 7, 1976), 18 students were under 25. Eleven passed, six failed, and one withdrew (61.1% passed). Seven were between 25 and 30. Four passed, two failed, and one withdrew (57.1% passed). Five were 30 or over. One passed, two

the 13 students with G.P.A.s between 2.00 and 2.49, seven passed, five failed, and one withdrew (53.8% passed). And the student with a G.P.A. less than 2.00 failed.

The index number did not have the distinctive correlation to performance as did the LSAT scores. The index numbers ranged from 2.33 to 2.79. The student with the index number above 2.69 passed (100% passed). Of the seven with index numbers between 2.60–2.69, 3 passed, three failed, and one withdrew (42.9% passed). Of the 11 with index numbers between 2.50–2.59, eight passed, one failed, and two withdrew (72.7% passed). Of the 11 with index numbers below 2.50, four passed, six failed, and one withdrew (36.4% passed). Viewing the data in another direction, of the students with the top 15 index numbers, nine passed, three failed, three withdrew (60% passed). Of the students having the bottom 15 index numbers, seven passed, seven failed, and one withdrew (46.7% passed). While the group with the higher index numbers outperformed the group with the lower numbers, the deviation between groups was not as dramatic as it was for LSAT scores. Only when the number in each group who failed is compared, does their relationship to the index number become striking. Of the students with the top 15 index numbers, three failed (20% failed). Of the students with the bottom 15 index numbers, seven failed (46.7% failed). Much of the difference is made up from those withdrawing (three withdrew from the top 15 (20%) while only one withdrew from the bottom 15 (6.7%)).

failed, and two withdrew (20%).¹¹ In total, 60% of those under 30 passed and only 20% of those 30 and over passed. This should not be taken to mean that persons 30 and over should not be admitted to law school. Many of the finest students in my classes through the years have been over 30. If this data is an indicator, the risks of failure for older students may be higher.

ABSENTEEISM AND WITHDRAWAL

Are absenteeism and biorhythms related? Twenty-six students completed the course. In total, 28 two-hour classes were held during the term. This totaled 1456 student-class hours. The absenteeism rate was extremely low. My records indicated six absences or about a 1% absenteeism rate. In a given month about six emotional or intellectual critical days may occur, or one critical day in every five days (20%). Even with the small number of absences, an unusual phenomenon occurred. Two absences were on critical days (one was a double critical day—emotional and intellectual—while the other was an emotional critical and physical and intellectual low); a third occurred between two critical days (the previous day was an intellectual critical and the following day was a critical emotional); and the fourth occurred on a day when all the rhythms were low. Depending on how this data is evaluated, the argument could be made that 50% of the absenteeism days were on or very near critical days; a proportion much higher than the normal occurrence of critical days—20%. Was there a correlation or was this coincidence?

The most striking feature of the data concerns the four students who voluntarily withdrew from the course. The first to withdraw attended one week. Biorhythmically, this week was excellent, all three rhythms were positive. Then on the second Monday of the course, the emotional rhythm reached a critical day. The student was absent. The next day, Tuesday, a critical intellectual day, another absence. At that point, all three rhythms became negative. This student continued to miss class and within a short period withdrew. Were biorhythms a factor in the initial absences and in the ultimate decision to withdraw?

The first class the second student missed was on the second Tuesday—a critical emotional day. The second and third absences were on Wednesday and Thursday of the third week. Both were intellectual critical days with the emotional rhythm being low. By the end of the week, this student had made the decision to withdraw. It should be noted that from the beginning of the course, the intellectual cycle of this student had been negative. Was this a factor in the decision to withdraw?

The first class that the third student missed was on Tuesday of the third week—an intellectual critical day. The second absence was two days later, a Thursday, an emotional critical day. It should be noted that during the first two weeks of the course, this student was on low intellectual and emotional cycles. This student did not return to class and ultimately withdrew from the course.

The fourth student was absent once in June on a critical emotional day. Unlike the others, the decision to withdraw was not made during a period of

¹¹ It should be noted that the one who passed had the highest LSAT score in the class.

biorhythmically critical days. On the day of withdrawal, all rhythms were positive. This student was at the end of a long emotional high and was at the peak of both the physical and emotional cycles.

What could be said about these four students? All had been absent on critical days. In all cases but one, the first absence in the string of absences leading to the decision to withdraw was on a biorhythmically critical day. Would the decision to withdraw have been made had this day not been critical?

COMPATIBILITY

Biorhythm researchers have found that people whose biorhythms are in close phase were more compatible than those whose rhythms were substantially out of phase. In terms of percentages, the emotional or sensitivity rhythm of 28-days changes phase 7.1% per day and the intellectual rhythm of 33-days changes 6.1% per day. For example, in the emotional rhythm, a one-day difference between two people would bring the compatibility percentage to 92.9%; two days apart, to 85.8%; three days, to 78.7%, and on down to the halfway mark at 14 days, which indicates the exact opposite position, or zero as a compatibility factor. The compatibility percentage then rises again at the rate of 7.1% each day until the 28th day, when 100% is reached again. To find the composite biorhythm compatibility factor, the percentages for each rhythm are tabulated and the total divided by the number of rhythms considered. A compatibility of 60% is considered good.¹²

During the Pre-Admissions Contracts course, five major study groups developed. Three involved two students each and two involved three students each. Students who floated in and out of these groups were not evaluated in the study.

Study Group	Emotional (Sensitivity) Compatibility	Intellectual Compatibility	Composite Compatibility
#1	79%	76%	77.5%
#2	71%	39%	60.0%
#3	86%	15%	50.5%
#4	7%	58%	32.5%
	79%	9%	44.0%
	14%	52%	33.0%
#5	71%	82%	76.5%
	21%	94%	57.5%
	7%	76%	41.5%

Of the 12 students in these five study groups (nine relationships), five relationships (55.5%) were in the "good" range in the emotional rhythm. All of the two-student groups were in this range. In one of the three-student groups (#5) the compatibility was in the intellectual and not in the emotional rhythm.

A high degree of biorhythmic compatibility, however, is not foolproof assurance that two people will get along perfectly all the time. Nor can the opposite be assumed of people with a low degree of biorhythmic compatibility. The effect of these subtle influences is bound to vary with each person's

¹² G. S. Thommen, *supra* note 1 at 139-51.

general character and temperament, and also with what happens to him or her from day to day.¹³ Interesting enough, the three-student study group (#4) which had the lowest composite compatibility of the five groups fared the best grade-wise. Perhaps their differing rhythms generated enough friction to stimulate varying viewpoints.

Law school involves learning on many different planes--individual study, student interacting with student, and student interacting with faculty. Does student-faculty biorhythm compatibility enhance the learning process? Students often find it easier to learn from one teacher than from another. But is there some correlation between those who passed and those who failed based on their biorhythm compatibility with the professor? Of the 26 students who took the examination, the average emotional compatibility between student and teacher was 34% and the average intellectual compatibility was 46%. But the 16 who passed averaged lower than those who failed. Of those who passed, the average emotional compatibility between student and teacher was 31.5% and the average intellectual compatibility was 42.8%. Of those who failed, the average emotional compatibility was 37.9% and the average intellectual compatibility was 51.0%.¹⁴

STUDY EFFICIENCY

Although outside factors (differing abilities and excessive employment) distorted this sample, if a homogeneous sample could be assembled and appropriate testing performed, study efficiency theoretically would fluctuate biorhythmically. "The intellectual rhythm mirrors the crescendo and decrescendo of our intellectual energy which includes the power of comprehension, the ability to express one's ideas orally and in writing, presence of mind, the ability to synthesize and logic."¹⁵ "The first 16½ days of the cycle are the period in which intellectual activity is at its greatest, and is considered the best time to try to absorb new information. It is the time at which mental response is quickest and most perceptive.

Biorhythm authorities advise that whenever possible the second half of the cycle should be used as a time for reviewing previously learned material, in order to fix it in the memory."¹⁶

The intellectual cycle is intimately related to the emotional cycle. Learning itself is not strictly an "intellectual" pursuit. "A relaxed and confident state of mind is generally helpful to the learning process."¹⁷ Simultaneous intellectual and emotional highs are particularly valuable for intellectual creativity.¹⁸

¹³ *Id.* at 149.

¹⁴ The only group with an average student-faculty compatibility in the good range (60% or better) was those who withdrew. They averaged 73.5% emotional compatibility and 60.8% intellectual compatibility. One interesting comment is that the intellectual compatibility between the student with the highest grade and the professor was 100%. But of the five students with 94% intellectual compatibility, only three passed (60% passed) and of the four students with 3% intellectual compatibility, three passed (75% passed).

¹⁵ H. M. Gross, *supra* note 1 at 141.

¹⁶ D. Cohen, *supra* note 1 at 39 (1976).

¹⁷ *Id.* at 41.

¹⁸ H. M. Gross, *supra* note 1 at 142.

A knowledge of biorhythms could increase study efficiency. Since the intellectual and emotional highs and lows can be readily ascertained in advance of their occurrence, activities can be planned around these highs and lows. A period of simultaneous highs should be used primarily for intellectual activities. Other activities should be reserved for less favorable periods. Prime-time should not be cluttered with busy work. A lack of productivity should not spawn frustration when the student knows that he or she is in an unproductive period. Not all activities can be scheduled. Classes go on week after week. Neither students nor faculty are free to select when to attend. But some activities—whether it be scholastic or social—may be scheduled and preplanning along biorhythmic lines can be advantageous.

CONCLUSION

After sifting all the data on the sample group, several observations can be made. First, success or failure is not determined by biorhythms alone. Biorhythms may play a subtle role but several factors, such as outside employment and basic ability, play dominant roles. What would be the results if a test group was selected with these dominant factors removed?¹⁹ If biorhythms did prove a factor in performance, law schools could, although with some administrative inconvenience, shift schedules to conform to biorhythm patterns. For example, if a course had multiple sections, students could be assigned to a section according to their biorhythms. The examination for that section would then be arranged so that a student would not take an examination during a critical day. This would be possible because the examination for section A need not be the same day as for section B, especially when different professors are involved.²⁰ Moot court arguments and special trial advocacy assignments could be scheduled to avoid critical days as well.

Second, absenteeism and the decision to withdraw had a high correlation to critical emotional and intellectual days. If this is not mere coincidence then biorhythm information could aid administrators in counseling students on the advisability of delaying the decision to withdraw.

Third, biorhythm compatibility between and among students did not appear to lead to the formation of study groups and biorhythm compatibility between student and teacher did not appear to influence ultimate student performance. Biorhythm compatibility did not appear to act as a magnetic attraction between people.

Finally, although this study did not test whether a knowledge of biorhythms can improve study efficiency, biorhythm theory supports this statement. Assuming this to be true, this is the area of immediate benefit. An awareness of biorhythms can be used to maximize a student's efforts in the acquisition

¹⁹ Could the influence of biorhythms on the testing process be ascertained by considering all the participants taking the LSAT examination? Would the average of those taking the exam on a critical emotional or intellectual day deviate from the average of those having high emotional and intellectual days?

²⁰ After reading about biorhythms, I discovered that by giving the first practice exam on the fourth Thursday, the second practice exam on the sixth Thursday, and the final exam on the eighth Thursday, some students took all three exams on critical emotional days (for some students, every other Thursday is a critical emotional day). In the future I would stagger the sequencing of exams, possibly on a Monday, Wednesday, and Friday, to break up the 14-day pattern.

of knowledge. There are times when we sense that, intellectually, we are spinning our wheels. If, biorhythmically, we know that this is either a critical or negative day, this may be a time to do the minimum intellectually rather than push ourselves to the point of frustration with little extra production. Days which indicate an excellent climate for intellectual endeavors should be used for educational advancement. On these days, care should be taken to avoid peripheral work that would absorb valuable intellectual time. Extra work could be performed in anticipation of those lean days ahead. If one is fortunate enough to be able to control his or her own schedule, biorhythms could be used advantageously. In arranging job interviews, selection of a favorable intellectual and emotional day could enhance the interviewee's ability to get the job.

In studying, positive intellectual days are good for absorbing new materials. Negative intellectual days are better for reviewing. With this in mind, a study schedule could be devised to emphasize the creative aspect of learning during the positive period of the cycle while review could be relegated to the negative period.

We, as educators, must concern ourselves with more than getting prepared for class, writing books and articles, and serving on committees. We must concern ourselves with whether the educational process is being conducted in the most fair and efficient manner. If some students are placed at a disadvantage during an examination when that handicap can be avoided, this problem must be addressed. If the learning process can be more efficient, this problem also must be addressed. While this study does not show definitive correlations between biorhythms and performance, the data does raise a number of interesting points that merit investigation.