©1991 The Institute of Mind and Behavior, Inc. The Journal of Mind and Behavior Winter 1991, Volume 12, Number 1 Pages 115-134 ISSN 0271-0137

Empirical and Philosophical Reactions to Harcum's "Behavioral Paradigm for a Psychological Resolution of the Free Will Issue"

Howard R. Pollio and Tracy Henley
The University of Tennessee at Knoxville

This paper begins with a brief description and analysis of Harcum's "Behavioral Paradigm for a Psychological Resolution of the Free Will Issue" focusing on issues concerning first-person and third-person perspectives in psychological research and theory. This consideration is expanded to cover a variety of related issues including "unconscious processes" and philosophical discussions of free will. Two studies, similar to Harcum's original study, but analyzed from a first-person perspective, are reported and contrasted with Harcum's work. Results of these studies reveal that different individuals provide different meanings for the same actions, e.g., sitting in one or another seat in a college classroom. The significance of these findings for psychological research concerning the experience and concept of free will are discussed in light of an alternative, existential-phenomenological approach to psychology.

An undergraduate student at the College of William and Mary is taking a lecture course in introductory psychology. As part of the course requirement, the student is asked to serve as a subject in a psychological experiment. The particular study our undergraduate student — let's call him Jean-Paul — selects to meet this requirement is one advertised as dealing with "simple motor tasks." When Jean-Paul arrives at the experiment he is met by an assistant outside the door of the auditorium. At this time he is given a consent form and is asked to complete it once seated in the auditorium. He is then told to take "any seat and wait for instructions from the researcher to begin answering the questions."

Jean-Paul is asked to respond to questions of the following type: "Do you have a usual seat in Psych. 201?" "Are you now sitting in that seat?" Following these, he is asked to "please go sit in a seat that would best reflect where you most often sit in class."

Requests for reprints should be sent to Howard R. Pollio, Ph.D., Department of Psychology, University of Tennessee at Knoxville, 307 Austin Peay Building, Knoxville, Tennessee 37996-090.

After 122 students in addition to Jean-Paul answered the questions and sat in their seats, the experimenters reported the following results:

- 1. 71% of the students reported having usual seats, and only 6% were now sitting in that seat.
- 2. The vast majority of students (76%) sat in the middle section of the room in fact 60% sat on the aisle; students sat to the left rather than to the right 21% to 3%.
- 3. Some 85% of the students sat 14 or fewer seats from their usual seat, with roughly 23% sitting 0-4 seats away.

Because the experimenters are good at their job, a second experiment is run. Most of the conditions are the same as in the first experiment except in this case the student subject — let's call him B. Fredrick — is told by the experimenter's assistant that in addition to how "you answer the following questions we are also interested in part where you will sit given a free choice of seat. Take as long as you wish to make a selection."

When the questionnaire and behavioral dust settled a second time, the following results were reported for the 128 students participating in this experiment:

- 1. As before, about 70% of the students had usual seats, and 27 of them (21%) were not sitting in that seat.
- 2. The largest percentage of students (46%) now sat up-front in the center area; only some 15% sat in the left-center or right-rear portions of the auditorium.
- 3. The most frequently chosen distance from the student's usual seat and the one presently chosen was 0-4 seats away; some 65% of students chose seats nine or fewer seats away.

The results of these two experiments make a neat package for the psychologist interested in studying the issue of free will. Where you leave more room for the subject to choose — as in the case of Jean-Paul — you find less regularity in the choice of any particular location in the room than if you restrict the choice somewhat by telling the student — B.F. in this case — that you are interested in his or her choice of seat selection. This does not imply there is no regularity in the choice of seat by J.-P. and his friends nor that there is no indeterminancy in the choise of seat by B.F. and his friends. In fact, the data can be read to reveal the effects of both habit and choice. This was the way in which Harcum (1991, this issue) read the meaning of these results, which he then used as an empirical springboard for an interesting psychological analysis of the issue of free will and determinism.

Before we get to this analysis, there is still more information to be gleaned from the experiment. All of the data presented above concern the public behavior of J.-P., B.F., and others like them. This is true whether we use their verbal (written) reactions in the form of answers to questionnaire items, the seats they actually chose, and/or the distance computed between their habitual

seat and the one chosen during the experiment. Such results are public data, clearly observed and carefully described.

Because Harcum is a good researcher he also reports additional findings in a section entitled "Incidental Observations." Let us take a few of these spontaneous comments for subjects in Experiment I: "... one student had an injured leg... (and)... reported that he would have taken a seat closer to the front except that walking was painful for him. Another reported sitting closer to the front because he thought it would be 'rude' to sit very far from the experimenter. Several reported taking other courses than introductory psychology in the testing auditorium, and were sitting in the habitual seat for the other course." Harcum also observed "that the subjects seemed to take his intructions to 'take any seat' as a command to be seated quickly. On such occasions the subjects immediately took a nearby seat" (p. 102).

In Experiment II, Harcum reports the following incidental observations: "Although latencies were not recorded, the subjects seemed to take longer in selecting the seats, and seemed to be more self-conscious about it. One subject had to be discarded from the study because he chose to sit on the (moveable) laboratory stool occupied by the experimenter; the experimenter himself had not even considered such a possible creative response" (p. 104).

The point to be derived from these observations is that some students felt obliged to let the experiment know "why they chose the seat they did." Such an "obligation" should let us know that it is not enough for psychologists to record what students do from some external, third-person point of veiw but that we must also attempt to determine what the task looks like from the student's first-person point of view. In fact, where Harcum's analysis is at its most revealing it attempts to read the meaning of the student's behavior from that student's perspective. For example: the experimental instruction of encouraging students to take as much time as needed in Experiment II derives from Harcum's conclusion, based both on observation and the verbal report of one student, that the instruction "to take a seat" in Experiment I was understood as a command to be seated quickly.

What is being noted here is that psychology cannot deal with complex issues of human behavior on the basis of public actions alone, and that going at things in this way is going at our discipline with at least one hand tied behind our back. If we seek to understand such complex issues as free will, and if we only allow ourselves to study what orginisms do; i.e., their behavior, we are stuck with using such words/concepts as habit or stimulus-response causation, and our experiments can only become attempts at controlling for all possible stimuli that might evoke the action in question.

Suppose we switch from third-person descriptions required by behavioral analysis and move instead to first-person descriptions offered by participants. The first thing we would notice is that while an emphasis on behavior yields third-person language: "the subject, he/she, was observed to . . . ," an em-

phasis on first-person description leads to first-person language: "I tried to take a seat close to the front as quickly as possible." "I tried not to hurt my leg anymore." These descriptions quickly suggest a third perspectival possibility, what might be termed the second-person perspective, i.e., that of you and I in conversation about my experience. From such a second-person perspective, I (as subject) try to let you (as experimenter) understand what I experience and understand about a particular situation, and let you ask me questions so that we both may be clear on how what I experienced (first person) does (or does not) let both of us make sense of what you observed (third person).

The recognition of a multitude of perspectives leads to the conclusion that our descriptions of psychologically significant events are always prejudiced by our points of view. What we would like to suggest is that one reason we, as psychologists, run into the issue of free will versus determinism is that we tend to adopt the third-person perspective as the "correct" one for psychology. Once this choice (free or otherwise) is made, one consequence is that we tend to consider the person as an object — a computer, brain, robot, or whatever — and we end up describing how "it" works on the basis of mechanistic principles that naturally seem to invite stimulus-response (i.e., rigidly deterministic) language and logic.

If, however, we choose to describe a situation from the first-person point of view of the subject, we soon note that how the person experiences and understands the meaning of the situation is an extremely important aspect of our understanding of the situation. Human beings confront their world from their own unique points of view and every act, including those that may be characterized as "free" and/or "determined" from an outside, objective observer's point of view, may be described as an attempt by the person to come to terms with his or her world at that moment. If we move from a third- to a first- (or second-) person perspective, what happens in some situations - what the person (organism) does or doesn't do - always depends on the pattern of conditions as experienced by the person in that situation. Experience, behavior, and dialogue are complex field events and while the field often has a statistically most frequent resolution to it there is always the possibility that a new perception, understanding, or behavior will emerge; in the present case one student in Experiment II (probably B.F.) did come to deal with the world of Harcum's experiment in terms of sitting on the instructor's stool.

"Coming to Terms" and the "Problem of Unconscious Processes"

What is possible to learn from the present set of experiments is that subjects, as well as people in the more ordinary contexts of everyday life, always

attempt to come to terms with situations (i.e., make sense of them) from their own unique perspectives. In some cases, such "coming to terms" is not amenable to articulate description by the person, and may require a special perspective to suggest that other resolutions are possible. This is one way in which to conceptualize the nature of unconscious processes as, for example, are described in psychotherapy. From this point of view, the patient's "unconscious" is created by the therapist's perspective on the dialogue that goes on between the two of them concerning the patient's day to day life. The idea of an unconscious emerging from the attempt by two people to make sense of how one of them (the patient) comes to terms with his or her everyday world seems to require no objectification (reification) of this proces as "something" in that the person "causes" him/her to do things. If we recognize the "unconscious" as created by a special reflection on patient-therapist dialogue, and not as an "internal" mechanism, we are able to bypass the whole issue of free will versus unconscious determinism; a controversy dependent on a specific use of mechanistic description for its continued plausibility.

A second locale in which the issue of unconscious processes comes up concerns the role of awareness in the operant conditioning of human behavior. Perhaps the most revealing analysis of this issue derives from a series of experimental demonstrations (and counter-demonstrations) by Verplanck (1962) and Dulany and O'Connell (1963). In Verplanck's original experiment, subjects were given a set of 110 children's playing cards and were asked to put the cards, one at a time, either to the left or to the right. After each card was placed, the subject was told "right" or "wrong" according to the experimenter's decision about what constituted a correct response.

Unknown to the subjects, they were treated according to one of three procedures. Before testing each subject, the experimenter decided on a "concept" — for example, all cards with one object go to the left, all cards with more than one object go to the right. Subjects in what Verplanck called the P group were told "right" or "wrong" on each trial according to whether the card was placed correctly. Subjects in the Ph group were treated the same way except that they were asked to tell the experimenter what hypothesis they followed in placing the card. Such statements of hypotheses had to be made before the subject placed the card to the right or left. Subjects in the pH group were treated exactly like subjects in the Ph group except that they were told "right" or "wrong" for their statement of the hypothesis rather than for their placement of the card.

The experiment was run in two phases. In Part I all subjects were told "right" for each correct response and "wrong" for each incorrect response. Subjects during Part I were run until they made ten correct placements. In Part II subjects were put on a partial reinforcement schedule in which they were still told "wrong" when they were, in fact, wrong but were told "right" for only

six out of every ten correct responses. For the remaining four trials they were told "wrong." As in Part I, all statements of "right" and "wrong" during Part II were given for the response chosen for that group: for groups P and Ph, placing the card; for group pH, stating the hypothesis.

There was no difference in how long it took the three groups to get ten correct during Part I. During Part II subjects in all three groups produced about 73% correct placements. Subjects in the Ph group were able to state the correct hypothesis only 48% of the time whereas subjects in the pH groups stated the rule correctly 94% of the time. If we take these data in combination with the fact that correct placement was about 73% for both groups, it is clear that on about 26% of the cases (73–48), subjects in the Ph group placed their cards correctly but did not state a correct hypothesis. Subjects in the pH group, however, stated the correct hypothesis 21% of the time (94–73) more than they were able to place their cards correctly.

These results seem to demonstrate that subjects are able to separate statements of what they said they would do from what they in fact do. Results of this work led Verplanck to conclude somewhat emphatically: "As an experimental strategy, then, let us remain unaware of awareness, but let us diligently ask the subject what he is or 'thinks' he is doing, and let us . . . determine how such verbal statements behave, and . . . are related to . . . other ongoing activities" (1962, p. 157).

Although under some circumstances it may be profitable to remain unaware, as Verplanck suggests, his own strategy seems more reasonable: look carefully at the conditions under which verbal and nonverbal behaviors are related and accept neither the placement nor the verbal statement as the more valid description of subject experience. Experimentally, both placements and hypothesis are done by a single human being, and their relation (or lack of it) ought to tell us something about how to get the best description of a subject's first-person experience in a particular experiment.

Although Verplanck's cautions against the uncritical use of verbal reports as indicating what the subject experienced seem well taken, it remained for Dulany and O'Connell (1963) to clear up what was going on in the original study. Dulany and O'Connell argued that some of the cards Verplanck used were not completely unambiguous. For example, if a correct hypothesis was that "pictures with one item go to the right and pictures with more than one item go to the left," a picture of a vase with a bunch of flowers is an unclear example. Does such a picture contain one object (a vase with flowers) or many objects (one vase and many flowers)? If a subject were to consider the vase and flowers as more than a single item and state the (correct) rule, "Pictures with one item go to the right," and then place the item to the left, he or she would show a correct hypothesis and an incorrect placement (since by Verplanck's criteria the vase with flowers was considered a single item).

Dulany and O'Connell demonstrated that 15% of the cards used were unclear in just this way. In their study, subjects in the group reinforced for correct hypotheses produced 92% correct hypotheses but only about 75% correct placement, and this difference could be accounted for just about perfectly by the 15% difference; that is, 92% - 15% = 77%, which is close to the 75% observed.

Dulany and O'Connell then turned their attention to the group rewarded for correct placements. For this group, results showed about 73% correct placements but only 50% correct hypotheses. Here Dulany and O'Connell argued that in the cases in which subjects misstated the hypothesis, they could still get half of the placements correct by chance alone. Therefore 50% (for correct hypotheses + $1/2 \times 50\%$ (for incorrect hypotheses) = 50% + 25% = 75%, which is only slightly different from the values actually observed in both experiments.

The most important conclusion to be drawn from these studies concerns what we mean by the word awareness. Both studies demonstrated that subjects who were told "right" for hypothesis stating (group pH) were extremely careful about their hypothesis; subjects who were rewarded for correct placements almost never misplaced an unclear card; and subjects who were not rewarded for correct placements misplaced such cards about 17% of the time. In short, all subjects were aware of those aspects of the situation that led to reward. People usually do what they say they intend to do, but the correlation is high only if the task is clear or if being told they are correct depends on both doing and describing things correctly. If the situation is unclear, it is possible to get the subject to be more careful about one or the other activity.

Given these outcomes, it seems wise not to assume there is any one royal road toward describing first-person experience. As these experiments demonstrate, many different procedures must be used in understanding what goes on in specific experiments. The results also suggest that it is not helpful to talk simply about awareness; rather, we must be much more specific about what it is awareness is aware of, whether this something is a placement, a statement, or a reward. In more general terms, awareness is always "awareness of something" never just "awareness."

Awareness and Harcum's Experiment

To come back now to the present case; what does it mean to tell a student that the experimenter is concerned with "just where you will sit, given a free choice of any seat in the room?" How is a student to make sense of this initial request, given the experimenter's further interest in finding out "just where you will sit?" The use of the phrase — "take as long as you want" — may even be understood by the student to mean: think about it or try and guess

what I (the experimenter) want to know about your behavior in this experiment. An examination of changes in the behavioral data between the two experiments indicated an increase in the student's tendency to take his/her regular seat in Experiment II as well as an increased tendency to sit down front. One student, probably struck by the adjective "free," even sat in the instructor's seat.

If personal meanings of the situation are what is important, it is also possible to suggest that when a student takes his or her "habitual" seat we should not automatically assume that such action can be understood only as the result of mechanistic determination (e.g., a Hullian habit); in fact, taking one's habitual seat may be construed as defining some locus in the classroom that has made, and continues to make, sense of the room for that student. Sitting down front may be seen to represent a solution to the classroom situation, if by "solution," we do not mean only an intellectual understanding (which it may be in some cases) but as a behavioral resolution to the problematic nature of the situation as experienced by the student: "Where should I sit in order to get noticed by the instructor?" In the language of Gestalt psychology (Köhler, 1947) we could say the student's behavior renders the field a well balanced configuration that serves to make sense of where one sits in a college classroom.

If we take this course of analysis, we have moved from what Köhler (1947) called "machine" theory to field theory. We also have moved from an analysis of a type of cause and effect determinism based on the linear temporal principle of before/after to one in which the contemporary field as viewed by the subject is the relevant domain both for the person and the theorist. If we forgive Köhler his infatuation with brain fields and isomorphism, what he seems to be saying is that human experience is geared to resolving the contemporary situation in a personally meaningful way; what Köhler would have called making a good Gestalt. "Making sense" obviates the need to describe the student's choice of a specific seat in free will versus determinism terms, and allows us to shift our analysis to those conditions experienced by the person as serving to "make sense" for him or her of the present situation. What is important for us about human behavior-and-experience (i.e., what a certain class of philosophers call Dasein or personal existence) is its meaning, and once we accept this view psychology has been shifted from an analysis of behavior construed as responsive action to initiating stimuli to one in which behavior is conceptualized as meaningful personal action in present life situations. When the issue becomes one of describing what a specific action and/or experience means to (and for) the person we seem to have left behind the antimony of freedom and determinism that has dogged psychologists since first we tried to render human behavior comprehensible in rigorous terms.

Does this approach lead us to expect that there will be few stastistical regularities in the way in which specific situations are dealt with by different individuals? The answer provided both by common sense as well as by results of the present study is most emphatically negative; not only did 70% of students in both studies have a "regular" seat; the distribution of "free choices" led to clearly preferred resolutions even when students were not in their usual seats. In both experiments the front-center location was most preferred whereas the back-right was either the least or next-to least preferred. Within the context of the present task environment, these preferred (and non-preferred) locations may be conceptualized not in terms of stimulus, habit, or social factors; rather, they may be conceptualized in terms of common meanings to a common situation. Although each person comes to his or her own resolution, the situation presented by the world of the experiment seems to yield a set of resolutions that makes sense both when the individual is the unit of analysis or when the group is the unit of analysis. Statistical regularity need not indicate determinism (or even habit); it may simply indicate a sensible resolution to a particular problem-world that is noted and accepted by many different individuals. There is no need to invoke mechanistic explanation to render statistical frequency in first-person terms. Similarly, uniqueness does not require a new principle (i.e., free will) but can be understood as one person's specific way of coming to terms with the situation. Under this approach, the confrontation between free will and determinism disappears in favor of the more human principle of attempting to "make sense" of the situation I, as a person, live in and try to deal with effectively.

Two Studies and a Few Further Philosophical Flourishes

Because Harcum's work emerges from the same experimental psychology as we do, it seemed only proper to undertake an experimental analysis of Harcum's work and then devote our attention to some possible philosophical implications. The two studies which follow derive closely from the logic and method of Harcum's experiments.

Study 1

In this study, data were collected during the third week of classes in an 8:00 a.m. section of an upper-division Social Psychology course. The room, depicted in the left panel of Figure 1, has 105 moveable seats. In this figure, the squares denote windows, the X denotes the instructor, the Y denotes the door, and the lines denote rows of seats. The class to be studied has 119 students enrolled; on this day 91 were present. Data were collected starting at 8:05; all students had arrived by that time. Students responded on note

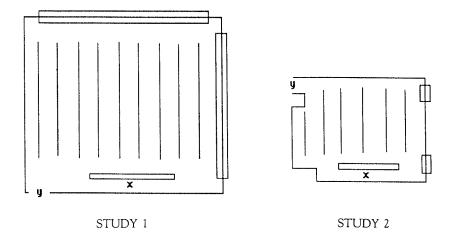


Figure 1. Classroom layouts for Studies 1 and 2.

cards to the following four questions which were written on the board and read aloud by the instructor:

- 1. Are you sitting now in the same seat, or small area of seats, that you have been in throughout this course?
- 2. Is the seat you are sitting in now the same seat, or in the same small area of seats, you occupy in other courses?
- 3. What factors influenced your choice of the seat you are in today?
- 4. If you answered "yes" to questions 1 and 2, what factors influence your choice of keeping the same seat across classes?

The 91 students in Study 1 included 55 females and 46 males; their average age was 21.4 years. Responses to question 1 were: 79 yes (87%), and 12 no (13%). Responses to question 2 were: 55 yes (60%), 28 no (31%), 2 left blank (2%), and 6 which were either "generally," "mostly," "usually," or "3/4ths of the time." Responses to question 3, and to the 61 students who said "yes" (or some version of "mostly") to question 4 are presented in Table 1. The responses are in most cases verbatim, although some paraphrasing was done for the purpose of brevity. It should be noted that about 10% of the students gave more than one answer in response to questions 3 and 4. As such, the number of responses is higher than the number of respondents.

Study 2

Data were collected in a 9:00 a.m. course in Research Methods on the same day as Study 1. This course also is an upper division course, but was taught

 $\begin{tabular}{ll} \textbf{Table 1} \\ \textbf{Student Responses in Study 1 to Questions 3 and 4} \\ \end{tabular}$

Student Response	to Question 3	to Question 4
was late/time/availability	16	1
sit with friends/wife	13	1
to be near door	12	5
habit/routine/usual seat	12*	4*
see/hear teacher	8	7
I like this seat/area of room	6	7
to avoid distractions/pay attention/stay awake	5	8
to be near window	5	1
I have bad eyes/poor eyesight	4	1
for comfort	3	1
to avoid being called on	2	3
to exit quickly	2	2
to be near a wall	2	2
this class is too full/class is too crowded	2	Õ
less crowded/more personal space	2	ŏ
I never thought about it	2*	ŏ
	2	ŏ
I enjoy the lecture	2	0
security I avoid the front and back of rooms	1	2
	1	1
teacher stands near middle of room	1	1
good students sit in front	-	=
to be close to the teacher	1	1
temperature of room	1	0
I am short	1	0
to be near a good looking woman	1	0
I just always do	1*	0
the teacher is short	1	0
I sit where I want	1	0
it is my seat	1	0
so I can watch the teacher closely	1	0
I sit in the same <i>chair</i> , wherever it is	1	0
to be recognized by the teacher	0	2
was forced to in grade school	0	1
to look out the windows	0	1
a habit since high school	0	1*
to see both the teacher and girls	0	1
I make myself sit up front	0	1
I don't like to change	0	1
I like to hide in the masses	0	1
I am left handed	0	1
to participate in class	0	1
to "feel" feedback from teacher	0	1
to see the whole class	Ō	1
I like consistency	Õ	ī
I try to sit in the exact center of the room	Ŏ	i
I even sit in the same place at church	Õ	1
Left Blank	ő	1
Totals	113	61

^{*}Indicates habitual responses.

in a different classroom (and building) from the one used in Study 1. This room, which is depicted in the right panel of Figure 1, has 52 moveable seats; as before, squares denote windows, lines denote rows of seats, X the instructor, and Y the door. This class has 29 students enrolled; 21 were in attendance on the day of the study. Two students arrived late and were asked not to respond to the questions. The same procedures outlined in Study 1 were used. Of the 21 students sampled, 16 were female and 5 were male; their mean age was 20.8 years. No student was in both classes.

Responses to question 1 were: 18 yes (86%), and 3 no (14%). Responses to question 2 were: 16 yes (76%), 4 no (19%), and 1 usually (5%). Responses to question 3, and to the 17 students who answered "yes," "usually yes," or "usually" to question 4, are presented in Table 2. As noted above responses were mostly verbatim, although some were condensed. Also, as above, some students listed multiple factors to questions 3 and 4.

Some aspects of these results and the conditions on which they are based warrant consideration. First, it should be noted that in Study 1 very few seats remained open by the time the final students entered the room. Indeed, the room frequently fills beyond capacity. In Study 2, however, this is not the case: the number of seats is almost twice the number of students enrolled.

Table 2
Student Responses in Study 2 to Questions 3 and 4

Student Response	to Question 3	to Question 4
habit	5*	2
sit with friends	5	0
see/hear teacher	3	4
was late/availability	3	0
comfort	2	2
pay better attention/take better notes	1	3
to feel involved in class	1	1
to be near door	1	1
to be noticed by teacher	1	1
I like this seat	1	0
I was early	1	0
I sit in the middle of the room	1	0
it is a left-handed chair	1	0
to be away from other people	1	0
not sure/don't know	0	2*
to exit quickly	0	1
I like to be alone	0	1
to not be noticed by teacher	0	1
Totals	27	19

^{*}Indicates habitual responses.

Despite these differences in conditions, approximately the same percentage (86–87%) stated they had a usual seat and that most were now sitting in it.

These data also reveal that 60% or more of the students sit in approximately the same seat across classes. This result seems to contradict Harcum's assumption that "general habits would not provide strong bases for predicting which seat a student will take." Present results even included the response of one student who noted that "I sit in the same seat at church." While we would not describe cross-class consistency in seating preferences as "a general habit," we would see it as a significant result that needs to be understood from the student's first-person perspective.

It was with this task in mind that students were asked to describe some of the "factors that influenced" their choice of seat whether or not they sat in the same seat across classes. One way in which to discuss present results concerns the proportion of answers that cited "habitual" factors in their response: these answers have been denoted by an asterisk in Tables 1 and 2. From results presented in Table 1, we see there were 113 different responses to question 3; of these, 15 (or about 13%) mentioned habit (or other non-reflective) factors as influencing the student's choice of seat. The comparable value for question 4 was 5 of 61, or about 8%. Turning now to answers provided by students in Study 2, the value for question 3 was 5/27 or 19%, and 4/19 or 21% for question 4. Across both studies then, never more than 21% of the students mentioned "habit" as a major factor.

What these data suggest instead is that subjects sit where they sit on the basis of some fairly straightforward personal (first-person) reasons: the seat was available, I wanted to be with friends, I wanted to be near the door or window, I wanted to see/hear the teacher, I wanted to avoid distraction, and so on. In short, these responses suggest that students by and large are not driven by blind habit nor do they operate on the basis of unbridled free action; rather, what seems to describe the case best is that they try to make personal sense of the situation in which they find themselves. Sometimes such "sense" is constrained by factors such as how crowded or warm the room is today; by where the windows and door are; by a desire to be near one's friends or pretty girls/boys; by a desire to be noticed or not noticed; and sometimes, even by wanting to be in the best possible position to hear the lecture and/or to appear smart.

Although we may be struck (as we should) with the great variety of reasons offered by subjects, it is important to point out that such variety is not an artifact of rooms having certain environmental factors (fronts, backs, doors, windows, etc) which affect students in deterministically specific ways; i.e., as stimuli evoking specific responses. Consider the reasons given by students who sat in the front row. Beyond wanting to be noticed, we find that students also wanted to be near the teacher, expressed the belief that "good students sit up front," reported experiencing that it is less crowded, has more space,

and that it affords a quick exit. Finally one student simply noted that she "makes herself sit up front." The same public behavior, sitting up front, expresses a variety of different personal meanings and that to "read" the meaning of some specific individual's behavior it is not enough to note that they "sit up front": we must always consider what "sitting up front" means for and to that person in this situation.

The present study, as well as the initial one by Harcum on which it is based, seem to concern a relatively "trivial" situation: where some student sat in some college classroom. As such, it may appear demeaning to cast an analysis of so important a topic as free-will in this context. We would beg to differ. It is not only the grand situations of human life — a revolution, a suicide, a renunciation of God, and so on — that need to be dealt with by the psychologist concerned with the issue of choice; rather, we need especially to be concerned with the world of everyday human life if we are to develop principles that have to do with where we live our lives for the most part. For this reason, the analysis of free will should be at least as important to us in the world of everyday life as in the extraordinary world of the revolutionary or philosopher, and Harcum is to be commended for situating his analysis here — where we live — rather than there — where only existential philosophers and a few revolutionaries live.

One philosopher who tried hard not to situate his analysis at the grand level but stayed pretty close to the day to day concerns of psychology (and everyday life) was William James. If we look at James' analysis of "The Will," and his subsidiary analysis of free will, we note that he considers these topics in most detail in two different works: in the *Principles* (1890) and in *The Will to Believe* (1896). As with so many other topics in the *Principles*, James provides a wonderful view of what was known at the time annotated with his own improvements, but remains honest enough to conclude that "My own belief is that the question of free will is insoluble on strictly psychological grounds" (1890, Volume II, p. 572).

As Deese (1990) notes, however, James did continue to try to solve the issue of free will in all subsequent publications; either manifestly, as in *The Will to Believe* and *The Varieties of Religious Experience*, or more implicitly, in his essays on pragmatism. James' first "pragmatic" understanding of free will appears toward the end of the *Principles*:

Psychology will be Psychology and Science Science, as much as ever (as much and no more) in this world, whether free will be true in it or not. Science, however, must be constantly reminded that her purposes are not the only purposes and that the order of uniform causation, which she has use for, and is therefore right in postulating may be enveloped in a wider order, on which she has no claim at all. (1890, Volume II, p. 576)

This view reaches maturity in *The Will to Believe* where James abandons the need for providing a purely psychological account. In this work, psycho-

logical or scientific principles become one set among many possible answers to questions, the best and most pragmatic solution being the one that answers the question in any principled way. One essay within *The Will to Believe*, "The Dilemma of Determinism," deserves particular note. In this essay, James provides what counts for a pragmatist as a resolution of the matter:

Freedom in all the senses presents simply no problem at all. No matter what the soft determinist mean by it — whether he mean the acting without external constraints, whether he mean the acting rightly, or whether he mean the acquiescing in the law of the whole — who cannot answer him that sometimes we are free and sometimes not? (1905, p. 149)

Sometimes we are free and sometimes not. When understood in light of Jamesian pragmatism this statement answers questions about free will with the counter question "Well, why do you want to know?" — not in hostility, but because "Why you want to know?" provides a context for the question, which is necessary to provide a principled, pragmatic response. If you want to know why I choose a seat, my answer has to do with how I understand why you are asking. Significantly, and most importantly for psychology, this strategy places a primacy upon the meaning of the question, and of the experience it attempts to elucidate for the individual. The meaning, and so the answer to the question, is co-constructed out of the person's coming to terms with many factors, both within the present situation and brought to it by prior, personal life experiences.

A Concluding, Almost Scientific Postscript

These experiments and their analyses suggest it is possible to describe human action at least as comprehensibly in terms of personal meanings as in terms of deterministic principles, especially if we change the language of discourse from third to first person. But is the issue of free will (versus determinism) simply a consequence of a specific language game, or are there some unique human experiences that regularly lead us to these concerns? While different answers may be provided to this question, the most satisfying approach for the psychologist would ultimately seem to be an empirical one; that is what sorts of human experiences, other than those required by theoretical assertions of the way things *must be* if certain concepts are to be used, make sense of the continuing human concern with the contrast between free and unfree will (determinism). In terms of empirical procedures, what needs to be done is a phenomenological study of situations experienced as involving either determinism and/or free will.

Such a study would employ a dialogical procedure in which participants were asked to deal with one or both of the following questions:

A. Please think of some times and/or situations in which you experienced freedom. Pick one (or more) of these situations and tell me what you were aware of in that situation.

B. Please think of some times and/or situations in which you felt you had no freedom: What were you aware of in this situation (pick one or more)?

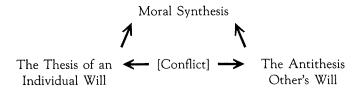
Once the participants answered these questions, it should be possible to develop an empirical list of situations in which freedom (or non-freedom) is experienced. More importantly, it would also then be possible to describe those themes that are salient for individuals in both "free" and "unfree" situations as experienced by them.

Although one of the methodological rules of phenomenological analysis is that of "bracketing" what we know of a topic when we attempt to describe its thematic structure, we may speculate that one theme likely to emerge from such analysis will concern experiences of tension where multiple alternatives are present. We may also speculate that a second theme will concern issues of constraint, and release from constraint in the form of experiences of vitality and movement. The first of these themes derives from a tradition of analysis beginning with Aristotle and having more recent proponents in Hegel, Marx, and Freud. The second of these themes derives from the tradition beginning with Kierkegaard and having more recent proponents in existentialists such as Merleau-Ponty and Viktor Frankl.

In approaching Aristotle's analysis it is important to remember that Aristotle is first and foremost a biologist. Humanity's soul forms one's entelechy, one's defining form, through the body. Without the human body, the human soul could not exist. The human soul is rational and given to two kinds of reasoning: theoretical and practical. For Aristotle, this capacity to reason suggests we have the potentiality to make voluntary choices between alternatives. In the *Nicomachean Ethics* Aristotle associates making voluntary choices, or willing, with deliberation. He writes "the things that are brought about by our own efforts, but not always in the same way, are the things about which we deliberate." Thus for Aristotle, the fact of choosing as well as the things we make choices about are constrained ultimately by our bodily form.

Hegel, as Aristotle, accepts the capacity to will as a natural part of human behavior; following Aristotle, he viewed "Willing" as a subset of reasoning. Hegel, however, draws attentions more explicitly than did Aristotle to the tension, or conflict, that having choices creates. The paradigmatic example for Hegel is that of a conflict between an individual's own pursuit of happiness and the pursuits of others. To choose a resolution of this conflict in a "universal" way, that is in a way that allows not only the individual, but the other as well, to pursue happiness, is the *Moral* choice. Free will then

provides an example of the Hegelian dialectic in which the will of the individual is in *conflict* with the will of others and only an integrating resolution produces a *Moral* choice as shown below.



These ideas feed directly into the thinking of Freud and Marx. Freud, like Aristotle and Hegel, places a primacy upon the biological and accepts the will as a natural part of being human. While different senses and considerations of the will can be found within the Freudian corpus, one of the oldest (Freud, 1892–1893) and most primary is a very Hegelian conflict model. Freud recounts the example of a woman who on the one hand consciously wished to breastfeed her newborn, but unconsciously willed not to. Following directly from Hegel, Freud calls this desire in opposition to one's conscious will "the antithetic idea." He explains that this idea "establishes itself, so to speak, as a 'counter-will' " which leaves the conscious will "resolute but powerless" (p. 122). Such a conflict frequently brings with it experiences of tension, anxiety, and other bodily manifestations.

From Aristotle through Freud we see a thematic focus upon conflict. Aristotle's attention to the "heavy" act of conscious deliberation, Hegel's dialectic model in which the thesis and antithesis form a tension to be resolved, and Freud's patient who feels "resolute but powerless" all attempt to capture the more embodied tensive aspects of conflict among alternatives.

A second group of themes concerning the issue of free will derives from the work of existential philosophers and psychologists. For these theorists, experiences of freedom always emerge from a context of constraint. Consider, for example, Kierkegaard's view (in the *Philosophical Fragments*, 1844/1962) which suggests that we are all bound and chained, and that we only are free to choose our bonds and chains. On this view, "to be what one is by one's own act is freedom" (p. 19). Such freedom for Kierkegaard is inescapable and, paradoxically, binding. Kierkegaard, the theologian, holds that God has made us free, and thereby makes us choose what will be enslaved to. To will to be bound to God results, again, paradoxically, in finding true freedom. To choose any other result is to have self-selected a master who indeed will enslave us.

Alternatively, consider Merleau-Ponty's (1962) views in which he discusses freedom in terms of choice and constraint by situations: "our freedom does not destroy our situation but gears itself to it: as long as we are alive our situation is open, which implies both that it calls up specially favored modes

of resolution and also that it is powerless to bring one into being by itself" (p. 442). Finally, consider the very human description of Frankl writing about experiences of freedom in a concentration camp.

But what about human liberty? . . . Is that theory true which would have us believe that man is no more than a product of many conditional and environmental factors — be they of a biological, psychological, or sociological nature? We can answer . . . from experience as well as on principle. The experiences of camp life show that man does have a choice of action. There were enough examples . . . which proved that apathy could be overcome, irritability surpressed. . . . These examples offer sufficient proof that everything can be taken from a man but one thing: the last of the human freedoms — to choose one's attitude in any given set of circumstances, to choose one's own way. (Frankl, 1959, p. 86)

While the final, final answer as to which experiences convince us of free will (or determinism) is still to emerge from data as yet uncollected, it seems likely one major theme — if philosophy is any guide — will concern the tension of choosing in constrained circumstances. In fact, it could be argued that each of the philosophical and psychological accounts of freedom discussed in this section focuses upon a single central theme that could be described by the phrase "limits and choices." For Aristotle, Hegel, and Freud the fact that human beings experience limits is taken to illustrate the significance of constraint, which they interpret as evidence for a deterministic understanding of human existence. Kierkegaard, Merleau-Ponty, and Frankl interpret the same experiences of limits and choices as evidence for the role of freedom in human life. A single theme, that of having limits and of making choices within them, is viewed by one set of theorists with primary attention to limits, and by another set with primary attention to choice: both see the same theme; both read a different meaning.

It is the signficance of this general theme of the relationship between limits and choice that seems to motivate psychological researchers such as Harcum, theologians such as Kierkegaard and Frankl, moralists such as Freud and Marx, and philosophers such as Aristotle, James, and Merleau-Ponty to be concerned continually with issues of freedom and determinism, and their interactions and consequences. In the end, this issue comes down to one concerning what it might mean to be human, and it is this issue that generates an ongoing tension in all of our dealings, as psychologists and as people, with the fundamental question of free will in human life.

References

Deese, J. (1990). James on the will. In M. Johnson and T. Henley (Eds.), Principles of psychology at 100: William James after a century. Hillsdale, New Jersey: Erlbaum.

Dulany, D.E., and O'Connell, D.C. (1963). Does partial reinforcement dissociate verbal rules and the behavior they might presume to control? *Journal of Verbal Learning and Verbal Behavior*, 2, 361–372.

Frankl, V. (1959). Man's search for meaning. New York: Simon & Schuster.

Freud, S. (1892–1893). A case of successful treatment by hypnotism: With some remarks on the origin of hysterical symptoms through the "counter-will." In *The standard edition of the complete works of Sigmund Freud, Volume 1* [J. Strachy, Trans.]. London: Hogarth Press.

Harcum, E.R. (1991). Behavioral paradigm for a psychological resolution of the free will issue. Journal of Mind and Behavior, 12, 93-114.

James, W. (1890). The principles of psychology, 2 Volumes. New York: Henry Holt.

James, W. (1896). The will to believe. New York: Longmans, Green & Co.

Kierkegaard, S. (1962). Philosophical fragments [S. Swenson, Trans.]. Princeton, New Jersey: Princeton University Press. (Original Danish Publication, 1844)

Köhler, W. (1947). Gestalt psychology (revised edition). New York: Liveright.

Merleau-Ponty, M. (1962). The phenomenology of perception. London: Routledge Keegan-Paul. Verplanck, W.S. (1962). Unaware of where's awareness. In C. Erickson (Ed.), Behavior and awareness (pp. 130-158). Durham, North Carolina: Duke University Press.