

holding a certain belief from a small sample, presumably, had you interrogated much larger fraction of the population of this state, the percentage you would get would be quite close. To what extent have you been able to check up on this? Have you sometimes taken, for example, larger samples in the habitual size to see how much variance there is?

Coursen: The most acid test that pollsters can be put to, I think, is an election. How do you intend to vote? We found, sometimes, an accurate indication of the final answer way off in the distance. A few years ago the public's reaction to the Taconite Amendment started at a certain level of approval and stayed there right up to election day. It carried very easily. This is one demonstration.

Hurwicz: Do you correct that with the probability of voting?

Coursen: Whether the person is going to vote is taken into account in the survey. I would like to add one other point which is very important. It is what Roy Francis mentioned about the sophistication of the people. We should not underestimate the intelligence of the public. There is a wisdom in the general public we should take pride in and, generally, into which we can put confidence. They are not to have the "wool pulled over their eyes" very often.

Carter: So said George Gallup in a couple of books in which the central theme has been that the people were ahead of their government on many issues through the years.

Francis: Shakespeare was quoted as having said that public opinion can be likened to a body of a horse on which the government rides. Then the question is: What part of the anatomy . . .

Hurwicz: Several points have been raised with regard to the broad spectrum of public opinion of a random sample of the great mass and the question of leadership, whether by politicians and others. Mr. Gilje, when you are associating with a group such as The Citizens' League which cautiously takes the task of leadership, does this issue of general opinion versus opinion of a group of this kind have a place?

Gilje: We certainly hope that the leadership we take has an effect of leading the public. In developing a consensus as we try to do on issues, we try to reach a point where the opinion of our people turns out to be their leadership. I think it does turn out to be leadership.

Continuing on the point of validity, Mr. Coursen, I am quite interested in knowing whether we can expect another debacle like the 1948 election when Dewey was predicted to win? Is this possible?

Coursen: It is possible for an individual poll to be on the wrong side in any given election. As a pollster, you always hope it's not going to be the one coming up, but one way in the future. We certainly wouldn't expect a mass departure again as we had experienced in 1948.

Hurwicz: Do you feel there has been an improvement in the techniques that would account for this optimism?

Coursen: We have much more sophisticated measures now than we did previously.

Critical Times and Behavior Change

Did I make the right decision?

SPEAKERS: *MRS. ELAINE C. WALSTER*, ASSOCIATE PROFESSOR OF PSYCHOLOGY IN THE OFFICE OF THE DEAN OF STUDENTS
JOHN C. WRIGHT, ASSOCIATE PROFESSOR IN THE INSTITUTE OF CHILD DEVELOPMENT

COMMENTATORS: *MRS. DOROTHY LEWIS*, ST. PAUL *Dispatch* REPORTER
HOMER E. MASON, ASSOCIATE PROFESSOR OF PHILOSOPHY

OPENING: A SKIT

[A young couple are gazing into each other's eyes].

He: You know how I feel about you. Will you marry me?

She: Yes, yes (enthusiastically)!

[The couple embrace. Each turns aside].

She: No. Maybe I shouldn't have!

He: What am I saying?

[They turn back toward each other after a moment and embrace each other again].

DISCUSSION

Professor Hoyt: If discussion about behavior is to be informative and purposeful, it will necessarily include decision-making. Two psychologists will tell us about the process of decision-making, particularly how time influences that process.

Professor Walster, would you start off by telling us how one makes up one's mind?

Professor Walster: I will start with the effect time has on the decisions and the choices we make. Take for example, a decision most of us have to make every time we move—whether we want to buy a house or to rent an apartment. Usually before we make an important decision like that, we find out all about the alternatives. We end up with a great deal of new information. Usually by the time a decision must be made, this new information has altered our previous opinions and predispositions.

Because of this extensive consideration of the alternatives that goes on pre-decisionally, most people would probably think that by the time we make our decisions, our feelings have a pretty firm basis, and that new experiences and second-thoughts are unlikely to change our feelings radically.

Some of the research and ideas that we would like to talk about tonight will indicate that the very act of making a decision does have a strong impact on

our attitudes. Systematic and important changes do occur in our opinions and attitudes after a decision is made.

I will tell about one of the studies that we have done. This study¹ interviewed people after they had made a decision. It was found that immediately after a person has made an important decision, he is upset and distressed and very concerned about whether or not he had made the right choice. Then after some time has passed, he loses this distress. He becomes more sure of the rightness of his choice; he is more convinced that he had made the right decision. In fact, he often ends up thinking not only that the decision was as good as he had thought at the time he made it, but that his decision was practically the only sensible one that could have been made.

Now if John Wright will help me, I'll tell you in more detail about the results of the study I just described. The people we interviewed were army recruits.

Professor Wright: I'm supposed to be an army recruit?

Walster: That's right. We interviewed men their second day in the army. They got their hair cut, they picked up some army clothes, then they came to see us. We were there as job processors. Now John, you first come to me to be assigned a job. I tell you a little bit about ten jobs I have to offer. Each one of the jobs has some glorious feature and some terrible feature. Here's our selection: One thing we might offer you, today, would be a job as a tank crewman. You have to work in very tight spaces, but you will probably get to go to Europe. Another job I could offer you is a job as a sewer maintenance man. If you choose this job, there are the obvious occupational disadvantages, but there are some advantages too: there is little work to do, you work only when there is an emergency. The last of our jobs is a job detecting and removing mines. This would be a high-paying job but it too has some obvious disadvantages.

After describing the jobs, we asked men to evaluate the desirability of the job. You should rate a job "1" if it is one of the nicest jobs you've ever heard about.

Wright: I don't think sewer maintenance man is one of them.

Walster: Then you'd rate it a little lower. If you really dislike a job, you'd rate it 30; a job that's about average should be rated 15. I'd like to add that I'm not sure I will be able to offer you all these jobs. You have to take some tests first to see if you're qualified. But for now, give me a rating of all the jobs.

Wright: I'd say that, maybe, I would like most to be a tank crewman, so I'll rate that 5. Then, maybe—it doesn't leave much choice. I'll rate sewer maintenance 10 and mine detector the lowest, a 13. It's even worse.

Walster: After rating all jobs, the soldiers then left and began taking tests. Their absence gave us a chance to pick out two jobs that had been rated fairly close together in desirability. In your case, John, I would have chosen sewer maintenance man which you rated 10 and mine detector which you rated 13. Then,

¹ Elaine Walster, "The Temporal Sequence of Post-Decision Processes" in Leon Festinger's *Conflict, Decision and Dissonance* (Stanford University Press, 1964).

I'd tell you that your tests had shown that these are the two jobs for which you are best qualified. Finally, I'd ask you to choose the one you wanted.

Wright: I'll choose sewer maintenance man, with some reluctance.

Walster: At this point, I write your job choice down on some very official looking forms. I send the forms out with the clerk and explain to you that your job assignment is complete and that you won't be allowed to change your mind.

Then I tell you about a little research project that we are conducting in hopes of improving our job placement program. I ask if you would be willing to help with it, and of course you are. Then I ask you to think about the job you chose for a minute more and then come back to see me and tell me a little more about your reactions to the jobs. Some soldiers were asked to come back one minute after they made their decision, others after four minutes, some after 15 minutes, and still others 90 minutes after their choice. That way we could see how their attitudes toward the job they had chosen and the job they had rejected changed over time.

Well, as I told you earlier, the passage of time allows people to change their mind in some very consistent ways. Immediately after one has made his choice, he rates the jobs very much as he did in the initial rating (when he rated all 10 jobs and before he was asked to make a choice). Not much change in a person's opinions, then, seems to occur from the initial ratings to the time when the decision is made.

Four minutes later, things are quite different. Men, subjectively, will express the feeling that they are not quite sure that they were really cut out to be a maintenance man after all. When you ask them to rate the job they chose and the job they rejected, the chosen job has gotten to be *less* desirable than it was pre-decisionally, and the rejected job has gained a little in desirability. Obviously, the men seem to regret their decision after about four minutes.

However, the feeling that they are not sure how good a decision they made doesn't last long. When you interview them 15 minutes after their decision, you find that the chosen job has gone way up in attractiveness. The rejected job is rated even lower in attractiveness than it was before the decision was made. Sometimes after 15 minutes, the soldiers have forgotten many of the good things about the job they rejected, and some of the bad things about the job they chose. By 15 minutes after a decision then, soldiers are very sure they've made a good choice.

Mrs. Lewis: This is like rationalization.

Walster: I think you can call it that if you want to. After 15 minutes, the soldiers are spreading the alternatives apart in desirability, convincing themselves that the choice they made was a very good one. We can't call what they are doing four minutes after the decision rationalization though. At that time, they are feeling they made the *wrong* choice.

Wright: It is sort of like that newly engaged couple in the opening. Their first reaction was "what have I done?" They were really worried that they had made a terrible mistake. But, the longer they thought about it, the better the idea seemed to be.

Walster: There are reasons why we usually ended up thinking we have made a splendid choice. Making a good decision is important to us for two reasons. First, we want to possess the best things we can. A good decision means we possess better things. Secondly, we probably feel that it is important to make a good decision in and of itself. Thus, we worry about how good a choice we made, even if it's too late to change our minds. We think, "Was I justified in making the choice that I did?" If it is clear the decision was right, we can quit worrying about it. But when there's not much justification, that's when it's especially important to convince ourselves that we did the right thing.

Hoyt: Is there any correlation between these changes that you indicated take place after the elapse of different amounts of time and the soldier's ATC scores and other measurements of I.Q.?

Walster: We received information about the intellectual ability of soldiers, but I.Q. doesn't seem to affect a man's ability to feel regret or his ability to reduce the dissonance he experienced. As long as the soldiers speak English well enough to understand the decision they are making, the same processes seems to exist regardless of I.Q. level.

Hoyt: That's interesting because common sense might suggest that the less intelligent the individual, the more self-doubt, the more worry he would have about whether or not he made a good decision, because, perhaps, being less intelligent, he is not accustomed to making good decisions.

Walster: That's a very good point.

Hoyt: He has learned that he has a lot to worry about in this life, and he is always, as they say, "goofing off."

Walster: Probably one reason people engage in this "rationalization" process is to make their decisions consistent in quality with their own good images of themselves. "I feel I am a good decision maker, and therefore, I am concerned that *this* decision be a good decision." You would expect both that the bright person would be more convinced that he was a good decision maker and that he could think of more ways to convince himself that any given decision had been a good one. If a fellow thought of himself as a poor decision maker, on the other hand, the kind of person who always makes the wrong decision, he is not really being consistent if he convinces himself that a given decision was a really marvelous one—the kind that he never makes. He might not feel content until he finds out what's *wrong* with it.

Hoyt: I've known, and I am sure we've all known some children who have super I.Q.'s who can make amazing, and in fact, depressingly incorrect decisions.

Walster: That's true. However, it does appear that in general, people are both bright enough to convince themselves that they made a good decision, and have enough self-assurance so that they *want* to convince themselves that they make good decisions. Regret and dissonance-reduction seem to be a pretty general process. We didn't select the army men in any way. I agree, though, that we can probably think of exceptions.

Professor Mason: Is there any reason to think the changes of preferences you described would actually affect the future conduct of the people?

Walster: Oh, yes. You'll remember that after four minutes the soldiers were said to be regretting their decisions. We wanted to know how strong this regret was. We wondered what would happen if after four minutes soldiers had a chance to take back their decisions, a chance to do it over again. Would the regret that they felt actually be strong enough to make them pick something less desirable than the alternative they would have picked to start with?

To find out, we conducted an experiment with some college girls.² We designed a situation in which girls were required to make a decision. Then about two or three minutes later, just when they should be feeling regret, we gave them a chance to change their minds.

Here is the procedure we followed: The girls came in and looked at pictures of ten hairstyles. And at this time, they rated the attractiveness of all ten hairstyles. At the time of this first rating, they didn't know that they were going to be given a chance to get their hair cut and set in one of the ten styles. They found that out later. Then we picked out two hairstyles the girls liked fairly much and that seemed to be right for the girl's present hair length. It was then that we divided the girls into two groups. In the first group, we asked the girls to rank the hairstyles in attractiveness. When making these rankings, the girls still didn't know that we would soon offer them a choice of having their hair cut in one of two ways. As soon as these rankings were complete, the girl was shown the two crucial styles and asked which of these two hairstyles she would like for herself. In most cases, 72 per cent of the time, the girl chose the one she had rated higher in the initial ratings.

Girls in the second group were treated a little differently. In this group, while the girls were doing the second ranking, they *were* told that soon they would be asked to choose one of two indicated styles for themselves. Then they proceeded to rank all ten styles. Well, obviously the girls are making an implicit choice while they are ranking the styles. In a two-minute pause which followed the girls' implicit decisions, regret had a chance to build up. At the end of this pause, we asked girls to make a formal decision. And as we expected, regret had occurred. Seventy per cent of the girls chose the hairstyle that they liked *less* initially. We caught them right in the regret phase when they were thinking: "What have I done?" During this period, the rejected alternative suddenly looked more attractive, in fact, attractive enough to make many girls choose it at the time of their formal decision.

Wright: I've been caught in the regret stage by waiters or waitresses. Say I had a hard time deciding between the crab meat and the beefsteak, and I finally chose the beefsteak. If, by accident, the waiter comes back and says he has forgotten my order or something, I am awfully tempted to shift. However, if he waits for a long time, I almost never change my mind. I've mustered up some self-consistency by then.

Hoyt: What this really amounts to is that you do a thing, then only later you decide that you shouldn't have done it, rather than deciding beforehand.

Walster: Probably we do both.

² Leon Festinger and Elaine Walster, "Post-Decision Regret and Decision Reversal" in Leon Festinger's *Conflict, Decision and Dissonance* (Stanford University Press, 1964).

Hoyt: The stronger decision seems to come after, so that the cause and effect are twisted around in terms of time.

Walster: We know that people are generally quite objective about evaluating information before they make their decisions. But once they have decided on a house, for example, then they don't want to hear about all of the glories of apartment living. They are looking for a different kind of information after they have made the decision.

Hoyt: Does this imply, in your judgment, that a person who has made a decision can't, subsequently, acknowledge that he has made a terrible mistake and have to live with that?

Walster: Oh, no. I'm sure people do this. One of the things that causes such disillusionment is that a person gets a wealth of information that he made the wrong choice. If you buy a house and the basement floods and a tornado blows the roof off, it's very hard to convince yourself that you made a good choice.

You can try to convince yourself that the house has other advantages, but you can only go so far. If the environmental evidence is overwhelming, you can't succeed in reducing dissonance.

Mason: It seems to me that even when the environmental evidence isn't overwhelming, it's desirable to learn to be realistic about the choice that you have made and the mistakes that you have made. This is one of the things that we try to teach people.

Wright: You know, time enters here too. If a person is trying to make a realistic choice, deciding what's in it for himself, considering if you will, his own enlightened self-interest, the timing of the events that convince him may make a very large difference.

I want to give you an example. I will try to make it as simplified a version of a scientific experiment as I can. This experiment³ was actually conducted by a professor at the University of Pennsylvania.

Here's what the experimenter did in this experiment. He was trying to get the children to resist from choosing an attractive toy. He would begin by arranging some toys in front of the children. Now I'll just lay out these trinkets which I always carry around in my pockets in case I should meet a child. Now, I have an array of toys. The important thing about the array is that to a little girl or boy, one toy is much more attractive than the others. In each array of toys that the experimenter presented, there would be one toy which was clearly the most attractive. Then the experimenter would ask the child "which toy would you like to play with?" When the child reached for the toy that he wanted to play with, which was always the most attractive toy in the array, the experimenter would punish the child very mildly, by pushing his hand away.

The child was then told to reach for another toy. He was allowed to choose any toy except the most attractive one. The experimenter would let the child play with whichever less attractive toy he chose. When the child was done play-

³J. Aronfreed, "Internalized Behavior Suppression and the Timing of Social Punishment," *Journal of Personality and Social Psychology*, v. 1 (1965), pp. 3-16.

ing, the experimenter would take the toy back, remove the entire set of toys, bring the child five more, and go through the same procedure once again. Each time the child reached for the most attractive toy, the experimenter would gently punish him. After awhile, of course, the child began to learn that it did no good to reach for the most attractive toy in each array because the most attractive toy was forbidden by the experimenter. So, after awhile the child would forego the most attractive toy and reach for another less attractive one.

To test whether or not the child really learned to avoid the most attractive toy, the experimenter then, on a critical test trial, left the room saying to the child: "Here's a new set of five. You can play with the one you like." Then the experimenter left the child alone. Of course, the experimenter actually walked around behind the one-way mirror and observed what the child did. In this, perhaps, somewhat sneaky way, the experimenter was able to find out whether or not the child took his lesson to heart. If he had not really learned that it was 'wrong' to choose the most attractive toy, we would expect him to choose the attractive toy that he presumably wanted all along when no one was watching. If he chose one of the less attractive toys, it would indicate that he had learned that the attractive toy, in all of these games, was forbidden.

Now comes the timing part. During the training trials, the child was taught not to play with his first choice toy in one or two different ways. For one group, called the "early punishment group," the child was treated like this: After the experimenter said, "Take the toy that you would like to play with," and just before the child actually touched the most attractive toy, the experimenter would push the child's hand away and say, "No, you can't have that one; choose again." In what was called a "late punishment group," the experimenter would do something different. He would say: "Which toy would you like to play with?" Then, instead of punishing the child as he reached the toy, the experimenter allowed the child to pick up the toy and to play with it for a minute. Then he said: "No, you can't have that one; choose again." When the experimenter punished the child was the only difference between the two groups.

The results of the experiment were very clear. The children who were punished early on their way to making a mistake, were much better at resisting the temptation to play with the most attractive toy when they were alone. The inhibition of their natural preference was far stronger when they were punished early than when they were punished late. The explanation for this difference has a very simple psychological basis, and it goes like this: Any punishment, or threat of punishment has an inhibitory effect, a weakening effect, on the behavior that immediately preceded it. Punishment also causes the child to be a little bit anxious any time there is a repetition of the circumstances under which the punishment was administered. In the early punishment condition, we made the children afraid of being tempted. In the late punishment condition, on the other hand, the children were not made anxious until they were caught with the forbidden toy in their hands. Thus, early punishment children developed stronger restraints against picking up the most attractive toy than did late-punishment children.

Lewis: Being careful to punish a child at the right time is all right in a controlled experiment. However, when a woman has half a dozen youngsters to watch at home, it's a different situation.

Wright: I have two short of a half-dozen and there isn't much difference and I certainly would agree. The logic that I have offered you would require the mother to be ever alert and watchful and to, somehow, physically guess when her child was about to do something wrong and say "no-no," so that he would become worried about *starting* to do wrong instead of being worried about completing a wrong action. This is very hard to do, although some parents, strangely enough, can do it.

A better way of controlling behavior, probably, is to attempt to change the child's underlying attitudes—to make him want to do what is right. In the previous experiment, we said only that we get the child to leave the most attractive toy alone. But how can we get a child to *want* to leave the toy alone? Can we get at what underlies his actual behavior?

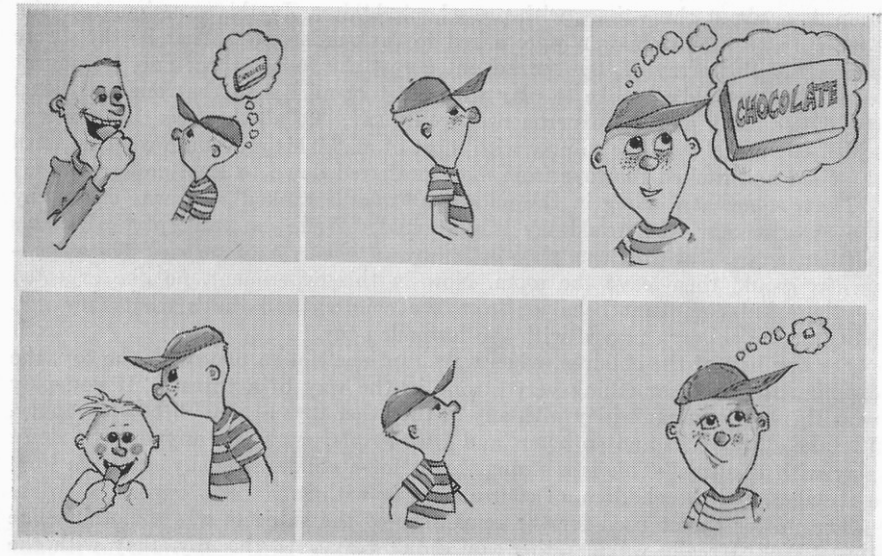
This question brings us back to this old problem of what happens after an individual makes a choice? Let's take a very hypothetical example. I'd like to talk about a hypothetical case—we'll use this cartoon sequence to describe it. Here, in the striped shirt, is a young man who sees another boy with a candy bar in his hand. Our hero thinks that the candy is attractive; he'd like it. On the other hand, he looks at the size of the other boy, who owns the candy, and decides, I guess, that discretion is the better part of valor. He ends up walking away, wishing he had the candy. In the third picture he is still thinking about it: "Gee, that was a beautiful candy bar." In his memory it is exaggerated—we've shown it extra big here, to demonstrate that the boy is thinking of it as a very attractive candy bar, perhaps as even more attractive than it really was.

Lewis: Sort of like: The grass is greener on the other side of the fence.

Wright: Right. In fact, I often call this, the "green grass" phenomenon. The grass is greener when it's unobtainable. Now, let's go back to the beginning again. Here's our boy and he's watching this older and bigger child eat a candy bar which he would like to have for himself. But now suppose, that the other boy were not older and bigger, but *smaller* and weaker and generally more vulnerable. And let's suppose, also, that our hero has no conscience; either because he's too young or because we've just suspended it for a moment. He would like to take this candy bar away from the smaller and younger boy and eat it, but the younger boy is just big enough so that he feels a little bit of hesitation. He decides not to do it. Afterward when he thinks about the incident, he is not quite sure why he let the little boy keep his candy bar. In his mind the action of not trying to get the candy for himself, is a choice he made, but it's really not justified. He can't think of any good, hard-headed, selfish reason why he shouldn't have taken the candy for himself; the kid was smaller than he. He could have gotten away with it. Why didn't he do it? This lack of justification makes him feel uncomfortable.

Well, he can't go back and reverse his behavior. But what he can do is change his beliefs or his values in a small way. What he can say to himself to make him feel his actions had more justification is, "Well, the reason I didn't do it is because it was a very small and unattractive candy bar anyway. This is what you might call "sour grapes" effect.

So we have a "green grass" effect if an object is definitely unobtainable, and a "sour grapes" effect if the object is available, but for some reason you choose not to take it.



Hoyt: But I'm still a little confused here. Your conclusion seems to be based on an amoral situation. What if he plans to go back and tell Mummy, "I have foregone this opportunity to thrash a little boy and grab his candy bar?" Then wouldn't the reverse effect possibly take place? Wouldn't he magnify the attractiveness of the candy bar—make it seem three times as large because his reward, you see, will be three times as satisfying.

Lewis: So that he's more of a martyr.

Walster: What John wants to do there is arrange a situation where there's either high justification for doing something or not doing something. If the reward that you expect at home (praise) is immense, or if your conscience is so strong that it says "No, you can't do that!" then, a person *has* high justification for what he's doing. To test John's notions, you'd have to pick a situation that doesn't have these problems.

Lewis: In the lower example, wouldn't the boy be just as apt to run home crying and ask his mother to get him a candy bar, or something?

Wright: Perhaps so. And there you're revealing that you're really in better touch with the realistic point of view of a child than I am. Why don't I describe a situation without these particular problems. I'll describe one experiment⁴ that's

⁴ E. A. Turner and J. C. Wright, "Effect of Severity of Threat and Perceived Availability on the Attractiveness of Objects," *Journal of Personality and Social Psychology*, v. 2 (1965), pp. 128-32.

been done about three times with pre-school children. In this experiment, again, toys were used and children were asked to rank-order toys. That is, they were asked, "Of this array of toys spread out across the room, which one, looking at all of them, would you like to play with most of all?" And that one was lifted out of the array and the experimenter would say, "Of all the toys that are left, which one would you like to play with most of all." This procedure went on until the child had ranked the toys from most preferred down to least-preferred.

Then, somewhere along in the middle a "middle ranked" toy was chosen by the experimenter who would say to the child, "Well, you can't play with this particular toy, but you can play with any of the rest of them." The experimenter would then leave the room. Now in this experiment, no one expected anything but compliant behavior from the children and that's what they got. None of the children played with the forbidden toy.

For one half of the children, when warning them not to play with the toy, the experimenter said something very strong in the way of a threat: "If you play with this toy, you can't play with any of the other toys again. I'll be very angry, I'll take all my toys and go home, and I won't play with you anymore. So don't play with this toy." This is a strong threat for a child, especially since it's from a stranger, and the children, of course, comply with it.

The milder threat used for the remainder of the subjects was something like this: "Well, I really would rather you didn't play with this toy. Play with the others." Then the experimenter would leave.

Now, we're not interested as we were in a previous experiment, whether the child obeys this prohibition while the experimenter is out of the room. In this experiment, all the children obeyed the prohibition, even the mild prohibition. But we were interested in how they would re-rank the toys after the whole experiment was over—immediately after, a few days after, or even thirty to forty-five days after the experiment. We found that with a strong threat ("You can't have it. I'd be very angry and take all my toys and go home if you play with that toy."), we get the "green grass" phenomenon. The forbidden toy becomes more desirable because it is unavailable. The child, after all, was in the position of saying, "Well, the man must think that the forbidden toy is pretty special or he wouldn't have put all of this emphasis on it."

On the other hand—and this is, I think, the interesting point—the mild threat had the effect of "sour grapes." I think this is because the children who refrained from playing with the desirable toy, did so for insufficient reason. No one really threatened them, nothing really serious would happen if they played with the toy. These children were left in the uncomfortable position of trying to justify their behavior to themselves. For insufficient reason, they'd given up something they really would sort of like to do.

Hoyt: All the children didn't do exactly what you predicted, did they? Isn't it correct to say that the generalizations or conclusions from your experiments are the result of statistics? In other words you're working out statistical probabilities of human behavior.

Wright: You say that as if they were produced by black magic!

Hoyt: No, because we've been talking about people. But, surely, one hundred children will not all react the same way, but if you get 89 of the 100 to do so then your generalization bears out.

Wright: That's right! We can do a little better than that. If we're doing the experiment for you as a demonstration and we know how it's going to come out because we've done it before, we can tell you that 89 rather than 100 per cent are going to do it and we can say 89 plus or minus how many are going to do it and give you kind of a weather man's guide to what's going to happen. This is an improvement, I think, on just a straight, "Well, most of them will do it" kind of prediction.

Hoyt: On the periphery of these experiments, Gene, isn't there a philosophical problem, at least implied, here? The problem of free will? If the social scientist, or the psychologist specifically, can predict that 89 plus or minus two human beings will do thus under such and such circumstances, how does the philosopher react to that. Of course, we don't have ten hours, I'm sorry, the problem is huge—but isn't there a question of free will involved here?

Mason: Well, talking about children, I'm sure that children have wills of their own. Whether their wills are free is another question. I try to keep my children's wills as unfree as possible. I'm sure it's true that there is a problem. It's a terribly tangled problem, though, and I'm afraid that until the psychologist will say that an individual *can't* recognize that he's made a mistake and live with it that that or an individual child who's been given a mild threat *can't* make the same evaluation. It will be difficult for the philosopher to get his wheels moving. I don't really think that the problem arises until we have a very strong statement of that sort.

Wright: I agree with our philosopher on this point. I don't think you have to settle the classical arguments of free will and determinism here because the degree of determinism we're talking about suffers generality as it gains precision. By that I mean that we can't make really sweeping statements about everything a person's going to do with any precision at all. The more tiny our prediction, the more accurate we are. For example, when the weather man predicts what will happen ten minutes from now, he can be very, very accurate. However, if he makes his prediction range a little longer, if he tries to say what will happen two months from now, he gets less accurate. Similarly, if we're predicting what a child will do with one hand in the next three seconds, given a certain set of instructions, we can be very precise, indeed, and I don't think anyone would say that we have taken away this child's will or his freedom of will.

Lewis: But to get a child to do what you want, you should always persuade them gently instead of forcing them to do what you want.

Walster: Well, another difficulty in "controlling" people's behavior, is that people can always go outside the system. For example, once your child sees that you behave with perfect consistency, and always give him just enough threat to get him to do something, he can start controlling your behavior, very easily.

Wright: I wish that were really true. However, it is certainly true that the child who learns to cry when he's hungry is in fact learning to manipulate the behavior of the mother. He's not brainwashing her; he's simply making her come, and he's very effective at it. He yells until she does and then rewards her for coming, by stopping his yelling.

Hoyt: Her free will is totally limited . . .

Wright: It's fun to speculate what are the potentials and the dangers of this kind of control. The most striking thing about these changes is that the ordinary man-in-the-street psychologist, any person who is an adult or a teenager, is his own psychologist. By now he's had enough experience with life and people that he's formulated some hypotheses of his own about what makes people tick. Whether they're accurate or not, he has them and he uses them every day. At least two of these we've seen tonight don't necessarily follow quite the way we thought. Remember we said that it's common sense that a man makes up his mind and then acts on the basis of his opinion. And yet, there's a sense in which he acts first, with or without an adequate opinion, and then makes up his mind that it was the correct action to take. People tend to reinforce their own decisions. Similarly, a person may say that punishment really should precede the punished action if it's to be effective.

In the same sense. So if we could think of one's behavior—one's actual deeds and actions as going along in time and parallel to them, going along in time, one's beliefs about what one ought to be doing or what one wants to do or one should do, they influence each other. Sure, sometimes, the way common sense tells us, you make up your mind and the attitude and values you have determine your behavior; this is supposed to be the logical way. But at least as often as that, you'll act because you need to act or because for some reason you just can't help acting. Or perhaps randomly you act. And only after you act, does the behavior begin to influence the attitudes that would govern that action. So it goes both ways.

Hoyt: And these attitudes keep piling on top of each other with each successive experience. With success, the attitude is reinforced. And then the person who is only partially successful perhaps has a less strong value system? Would this be a corollary?

Wright: Perhaps so, at least temporarily. You might say that such a person had a higher incentive to establish a consistent set of values, as well. And, after all, the establishment of consistency between what you think and what you do is not only a mark of maturity, but if our analysis is correct, it's an index of how comfortable you are. Because you're not comfortable when your behaviors and your beliefs don't jibe. Everyone wants to be consistent. I guess this is really the beginning and the end of our discussion in that respect.

Hoyt: Well, we all want the result to be predictable and the total general result, happiness. And so, everything contributes to the attainment of this predictable result.

Wright: I'd love to ask you what "happiness" is.

Hoyt: This is just a general term by which I mean simply the result being, in terms of the situation, one which you can live with, one which you like. It's as simple as all that.

Walster: He knows what you mean!

Hoyt: I wish we had more time to go into other aspects of timing and decision-making as well as to explore in greater depth what we have discussed.