CHAPTER 11

Mazes Without Minotaurs

IN my 1956 paper, “Rational Choice and the Structure of the Environment,” I wove around the metaphor of the maze a formal model of how an organism (a person?) could meet a multiplicity of needs and wants at a satisfactory level and survive without drawing upon superhuman powers of intelligence and computation. The model provided a practicable design for a creature of bounded rationality, as all we creatures are.

I was so pleased with the paper’s account of rationality that a year later I found myself writing a short story, “The Apple,” fashioned after it. The maze of my story, unlike the labyrinth of the Cretan myth, provides no heroics, no Theseus to seek out the fearsome Minotaur at its center and then escape by following the thread given him by Ariadne. Its central figure is not Theseus but Hugo, an ordinary man. The story describes Hugo’s life, much like every human life, as a search through a maze. In doing so it strips the mathematical wrappings from the technical paper that provided its metaphor.

Some light is thrown on my preoccupation with mazes, and hence my urge to write “The Apple,” by a conversation I had with the writer Jorge Luis Borges when I was in Buenos Aires in 1970.

A CONVERSATION WITH JORGE LUIS BORGES

In December of 1970, Dorothea and I visited Argentina, where I was to give some lectures on management. In my correspondence about arrangements, I did something I have never done before nor since—I asked for an audience with a celebrity. For a decade, I had admired the stories of Jorge Borges (I didn’t then know his poetry), and had been struck by the role that mazes played in them. I wanted to know why. I wrote to him (in English, since I knew he was fluent in it):

My profession is that of social scientist, and I seek to understand human behavior by means of mathematical models (or, more recently, with simulation models programmed for computers). In 1956, I published an article which described life as a search through the corridors of a

labyrinth, greatly branching and populated by a large number of goals to attain.

A few years later I stumbled upon *Ficciones*,* in particular the story “La Biblioteca de Babel,” to discover that you too conceive of life as a search through the labyrinth. I asked if ever there had occurred a comparable transmigration, from the inert body of a mathematical model to the live flesh of literature.

(I did not admit to Borges, then or later, that in 1956 I had also tried to manage a transmigration of the soul of my mathematical model into a short story. You will see the result of that attempt later in the chapter.)

I met Borges in his beautiful high-ceilinged baroque office in the Biblioteca Nacional. We had several hours of conversation (in English), of which I reproduce here only the portion relevant to labyrinths.

BORGES: But I’d like to know why you are interested in having this conversation.

SIMON: I want to know how it was that the labyrinth entered into your field of vision, into your concepts, so that you incorporated it in your stories.

BORGES: I remember having seen an engraving of the labyrinth in a French book—when I was a boy. It was a circular building without doors but with many windows. I used to gaze at this engraving and think that if I brought a loupe close to it, it would reveal the Minotaur.

SIMON: Did you see it?

BORGES: Actually, my eyesight was never good enough. Soon I discovered something of the complexity of life, as if it were a game. In this case I am not referring to chess. Perhaps I can express it with a poem:

I Have Become Too Old for Love

My love

has made me old.

But never so old

as not to see

the vast night

that envelops us.

Something hid deep in love

and passion

still amazes me.

Here there is a play on words. In English, the word for “labyrinth” is *maze* and for “surprise,” *amazement*. There is a clear semantic connotation as well.

This is the form in which I perceive life: a continual amazement; a continual bifurcation of the labyrinth.

SIMON: What is the connection between the labyrinth of the Minotaur and your labyrinth, which calls for continual choice? Does the analogy go beyond the general concept?

BORGES: When I write, I don’t think in terms of teaching. I think that my stories, in some way, are given to me, and my task is to narrate them. I neither search for implicit connotations nor start out with abstract ideas; I am not one who plays with symbols. But if there is some transcendental explanation of one of my stories, it is not for me to discover it, that is the task of the critics and the readers.

I write for the tale itself, simply by interest in the characters and thoughts that perhaps will also interest others. The critics and scholars have attributed all sorts of intentions to me; that this or that story should evidence some specific political or religious ideology—even a metaphysical one. Perhaps the intention is, in me, subconscious and not at a conscious level. Nor do I try to use it to this level.

I suppose this can be an illusion, but I believe that those sorts of things are proper to the explanatory writing of thinkers, and I am not a thinker, except in the measure that all men are.

SIMON: Without doubt there are clear differences among the distinct labyrinths that appear in your works. Clearly in that of “The Library of Babel” you start from an abstraction.

BORGES: Not true! I can tell you how this story spewed out. I worked in a small public library on the west side of Buenos Aires. I worked nine years in this library with a miserable wage, and the people who worked there were very disagreeable. They were ignorant people, stupid really. And this gave me nightmares.

One day I said to myself that my entire life was buried in this library.

Why not invent a universe represented by an interminable library? A library where one can find all the books that have been written. At the same time, I read something about permutations and combinations, and saw in this library possibilities little less than infinite. And this is an example of a story where I know the origin of this theme.

The concept of this library evokes in me my deepest, most intrinsic, pleasures. I felt truly happy when writing about it. And it was not merely an intellectual happiness. One *feels* this kind of bliss.

SIMON:And why are you attracted so strongly to the idea of the Minotaur?

BORGES: It is curious. That idea does not attract me so much as another name attributed to this mythological being. I encountered the name of Asterión in a dictionary. It held connotations of a heavenly body or stars. It is an image that I always thought readers could enjoy.

SIMON: I find definitely that the concept of the labyrinth has a unity, truly conceptual, in your writings, notwithstanding the very interesting differences in the specific hues that are given it by every story or narration.

BORGES: In truth, I believe that this unity arises because all of my stories that speak of the labyrinth respond to a particular state of my spirit that carries me precisely to this theme.

SIMON: As to your ideas on combinatorial analysis, what were your sources?

BORGES: I read a very interesting book. It was Bertrand Russell's *Introduction to Mathematical Philosophy*. Then I was much interested by a book called *The World and the Individual* [Josiah Royce (1899)], which presented a very singular specimen of this theme. It presented the case of a map of England drawn on the very terrain of the island. And assume that the map itself is somewhere within the whole map. And within the first, the map of the map, and so on. That gives an idea of the infinite. From my father I inherited the taste for these forms of reasoning. He used to take me aside to converse or to ask me questions about my beliefs. On one occasion he took an orange and said to me, "In your opinion, is the flavor inside the orange?" I said, "Yes." Then he asked me, "Good, then you think the orange is continuously tasting itself?"

SIMON: I would suppose that the resolution of these questions would lead you to a deep solipsism.

BORGES: In fact, my father didn't send me to the philosophical sources. He only presented me with concrete problems. Much later he showed me a history of philosophy where I encountered the origins of all of these questions. In the same way my father taught me to play chess, although actually I have always been a poor player, and he a very good one. Moreover, my father transmitted to me the taste for poetry. His bookshelves were filled with such authors as Keats, Shelley, and other poets. And he also recited them from memory. Even today when I repeat verses of FitzGerald's *Omar Khayyam* and some others, my mother says that she seems to be listening to my father.

SIMON: Someone told me that you read *Don Quixote* the first time in English.

BORGES: Yes, that's true.

SIMON: That's curious, because I first read it in Spanish. When I encountered it in English, the humor of Quixote lost all its subtlety.

BORGES:That's true. The experience with translations is often like that.

Then Borges asked me about my work, and I began to talk about computers and the implications of a belief in the possibility of computer simulation of human thought for free will:

SIMON: This is the form in which I conceive free will: It resides in the fact that I am that which acts when I take a given action. And the fact that something has caused this behavior in no manner makes me (the I who acts) unfree.

So when we reach a bifurcation in the road, of the labyrinth, "something" chooses which branch to take. And the reason for my researches, and the reason why labyrinths have fascinated me, has been my desire to observe people as they encounter bifurcations and try to understand why they take the road to the right or to the left.

BORGES: It seems to me that these sorts of things happen continually in my stories . . . but if I did not write these stories in specific terms, all would be artificial. That is to say, if I write these stories it is because I have to, or because I need them. Because if not, I could invent other stories, and these stories would have no meaning for me, or perhaps for the reader. Because the reader will feel that they are artificial literary exercises.

So Borges denied that there was an abstract model underlying "The Library of Babel" or "The Garden of Paths That Fork." He wrote stories; he did not instantiate models. He was a teller of tales.

A SHORT STORY

In my one attempt at story writing, I did start with a model, in fact, the model of a maze that I had just described in my 1956 paper on "Rational Choice and the Structure of the Environment." No doubt that can be detected in the finished product. Nevertheless, I too had to write it. You may take it as philosophy, as a story, or as an artificial literary exercise. For those of you who don't like equations, it will at least provide a relatively painless introduction to my theories of decision.

THE APPLE: A STORY OF A MAZE

There once was a man named Hugo who lived in a castle with innumerable rooms. Since the rooms were windowless, and since he had lived there since his birth, the castle was the only world he knew. His mother, who had died when he was very young, had told him of another world "outside," lighted by a single large lamp that was turned on and off at intervals of ten or twelve hours. She had not seen the outside world

herself, but stories about it had been handed down from generation to generation. Hugo was never certain whether his ancestors had really lived in, or viewed, this world, or whether the stories had been invented in some remote time to entertain the children of the castle. At any rate, he knew of it only through his mother's tales.

The rooms of the castle were rectangular and very long—it took Hugo almost ten minutes of brisk walking to go from end to end of one of them. The walls at each end of each room were pierced by four or five doors. These doors were provided with locks so that they could be opened from one side, but not the other. The doors on the west end of a room opened into the room, while those on the east end opened out into adjoining rooms. When Hugo entered a room and the door shut behind him, he could not again return on the path along which he had come, but could only go on through one of the eastern doors to other rooms beyond.

At one time, Hugo became curious as to whether the rooms might be arranged in cycles, so that he could return to a room by a circuitous path, if not directly. It was not easy to decide, for many of the rooms looked much alike. For a time, he dropped a few crumbs of bread in each room through which he passed, and watched for evidences of his return to one of these. He never saw any of the bread crumbs again, but he was not certain but what they had been eaten by the mice that lived in the castle with him.

After the death of his mother, Hugo lived alone in the castle. Perhaps it seems strange that he or his ancestors had not long since died of hunger in this isolated life. Most of the rooms were quite bare, containing only a chair or two and a sofa. These Hugo found comfortable enough when he wanted to rest in his wanderings or to sleep. But from time to time, he entered a room where he found, on a small table covered with a white linen cloth, food for a quite adequate and pleasant meal.

Those of us who are accustomed to a wide range of foods, gathered for the pleasure of our table from the whole world, might not have been entirely satisfied with the fare. But for a person of simple tastes—and Hugo had not developed elaborate ones—the fruits and green vegetables, the breads, and the smoked and dried meats that Hugo found in these occasional rooms provided an adequate and satisfying diet. Since Hugo knew no other world, it caused him no surprise that the

arrangements of the castle provided for his weariness and hunger. He had never asked his mother who it was that placed the food on the tables.

The rooms stocked with food were not very numerous. Had his education in mathematics not been deficient, Hugo could have estimated their relative number. For the connecting doors between the rooms were of clear glass, and peering through one of them, Hugo could see through a series of five or six doors far beyond. If any of the rooms in this range of vision had dining tables in them, he could see them from where he stood.

When Hugo had not eaten for some time, and was hungry, he would stand, in turn, before each of the four of five exit doors, and peer through them to see if food was visible. If it was not—as usually happened—he would open one of the doors, walk rapidly through the next room and reinspect the situation from the new viewing points now available to him. Usually, within an hour or two of activity, he would finally see on his horizon a room with a table; whereupon he walked rapidly toward it, assured of his dinner within another hour. He had never been in real danger of starvation. Only once had he been forced to continue his explorations as long as four hours before a dining room became visible.

Since life in the castle was not very strenuous, and since the meals that were spread before Hugo from time to time were generous, he seldom took more than two meals a day. If, in the course of a stroll when he was not actually hungry, he came upon a dining room, he simply passed through it, seldom pausing to pick up even a snack. Sometimes he would search for a dining room before retiring, so as to be assured of a prompt breakfast when he awoke.

As a result of this generosity of nature—or of the castle's arrangements, however these were brought about—the search for food occupied only a small part of Hugo's time. The rest he spent in sleep and in idle wandering. The walls of most rooms were lined with attractive murals. Fortunately for him, he found these pictures and his own thoughts sufficiently pleasant and of sufficient interest to guard him from boredom, and he had become so accustomed to his solitary life that he was not bothered by loneliness.

Hugo kept a simple diary. He discovered that his time was spent about as follows: sleep occupied eight or ten hours of each twenty-four; his search for a dining room, about three hours; eating his meals, two hours.

The remaining ten hours were devoted to idle wandering, to inspection of the castle's decorations, and to daydreaming in the comfortable chairs with which the rooms were provided.

In this existence, Hugo had little need for personal possessions, other than the clothes he wore. But his mother had given him a small knapsack that he carried with him, containing a comb, a razor and strop, and a few other useful articles—and a single book, the Bible. The Bible, which was the only book he had known or even seen, had been his primer under his mother's tutelage, and continued to provide him with an enjoyable and instructive activity, even though a large part of the "world outside" it talked about was almost meaningless to him.

You might suppose that the murals on the castle's walls would have helped him to understand this world outside, and to learn the meaning of such simple words as "tree." But the pictures were of little help—at least in any ordinary way—for the designs the castle's muralists had painted on its walls were entirely abstract, and no object as prosaic as a tree—or recognizable as such to an inhabitant of the outside world—ever appeared in them.

The murals helped Hugo in another way, however. The long hours spent in examining them developed in him a considerable capacity for understanding and appreciating abstract relations, and it must be supposed that he read the creation myths and the parables of the Bible in much the same way—the concrete objects taking on for him an abstract symbolic meaning. That is to say, his way of understanding the Bible was just the reverse of the way in which it was written. The authors of these stories had found in them a means for conveying to humble people in terms of their daily experiences profound truths about the meaning of the world. Hugo, deprived of these experiences, but experienced in abstraction, could usually translate the stories directly back to the propositions they sought to communicate.

I do not mean to imply that Hugo completely understood all that he read. The story of the Garden of Eden was particularly puzzling to him. What attraction did the Tree of Knowledge possess that led Eve to such wanton recklessness—to risk her Edenic existence for an apple? If he did not know what a tree was, he was familiar enough with apples, for he had often found these on the linen-covered dining tables, and his mother had

taught him their name. Hugo found apples pleasant enough in taste, but no more so than the many other things that were provided for his hunger. Perhaps in this case, the very fact of his actual experience interfered with his powers of abstraction and made this particular story more difficult to understand than the others. He did, in time, learn the answer, but experience and not abstraction led him to it.

On the afternoon of a winter day—as judged, of course, by the events and calendars of the outside world—Hugo, who had been relaxing in an armchair, felt the initial stirrings of hunger. In his accustomed way, he arose, walked to the east end of the room, and peered through the glass in search of a table. Seeing none, he opened the second door, walked through the next room, and repeated his surveillance. This time he saw, five rooms beyond the fourth door, the table for which he was searching. In less than an hour he had arrived in the dining room ready to enjoy the meal that was waiting for him there.

But on this occasion, Hugo did something he never had done before. Before sitting down to his meal, he scanned the table to see what kind of bread had been provided. He saw in the middle of the table, surrounded with sausages and cheese, a freshly-baked half loaf of dark rye bread. And as this met his eye, there came unaccountably to his nostrils—or more likely to his brain, since his nostrils could have had nothing to do with it—the odor of French bread baked with white flour, and accompanying this imagined odor, he felt a faint distaste for the meal before him.

If Hugo, at this critical moment in his life, had stopped short and pondered, the vague movements of his imagination might have quieted themselves, and his life could have gone on as before. But Hugo, though he had spent much of his life in reflection, had never before had occasion to deliberate deeply about a course of practical conduct, and he did not deliberate now. Without pausing further, he turned from the table, walked around it, and marched on quickly to the next set of doors.

No table was visible through the glass. He pulled open one of the doors, and resumed his rapid walk. At the end of the third room he saw again, through an exit door, a distant table. He peered hard at it to see if he could identify the food that lay on it, but the distance was too great. He walked—almost ran—toward it, and was delighted to find on entering

the last room that a loaf of white French bread was included in the collection of items spread before him. He ate his dinner with great gusto, and soon afterward fell asleep.

Hugo's subsequent development—or discovery—of his tastes and preferences was a very gradual matter, and for a time caused him no serious inconvenience. Although not every table was provided with French bread or with ripe olives (he soon began to develop a taste for ripe olives), a great number of them were. Besides, he did not insist on eating these delicacies at every meal. To be sure, the amount of time he spent daily in the search for food increased, but this meant merely that he could substitute a more serious purpose for some of his idle wanderings, which perhaps even increased slightly his pleasure in life.

But several major happenings foretold a more difficult future. On one occasion, Hugo passed by four tables in turn, because the food did not please him, and then, famished with hunger, hurried on for three hours more until he found a fifth—which was no different from the other four except that his hunger was now greater. For several days after this experience, Hugo was less particular in his diet.

At about the same time, Hugo discovered that his preferences were now extending also to the pictures on the castle's walls. Twice, he found himself turning away from a door after a brief inspection of the room beyond, because the colors or designs of the murals did not please him. A few weeks later, he saw a distant dining room at a time when he was moderately hungry, but formed a dislike for the decorations of the rooms through which he must pass to reach it. In the second room he turned aside and peered through the other glass doors—those not leading to the table—to see whether there might be another meal prepared for him that could be reached through more pleasant surroundings. He was disappointed, and proceeded on his original path, but on later occasions he turned aside often with nothing more than a hope that his new path would provide him with a meal.

Now Hugo's diary took on a very different appearance than before. First of all, almost all of his waking time was now occupied in the search for his preferred foods, a search that was further impeded by his distaste for certain rooms. Second, his diary now included more than an enumeration of the paths he took. It was punctuated with the feelings of

pleasure and annoyance, of hunger and satiety, that accompanied him on his journeys. If he could have added these feelings together, he could have abbreviated the diary to a simple quarter-hourly log of the level of his satisfaction. This level was certainly now subject to violent fluctuations, and these fluctuations, in turn, sharpened his awareness of it.

Hugo felt himself helpless to blunt these sharpening prongs of perception whose prick he was now beginning to feel. Perhaps it is reading too much into his thoughts to say that "he felt himself helpless." More probably, the idea did not even occur to him that his tastes and preferences might be matters within his control—and who is to say whether in fact they were?

But if Hugo did nothing to curb his desires, he did begin to consider seriously how he was to satisfy them. He began a search for clues that would tell him, when he looked through a series of doors and saw a distant table, what kind of food he would find on it. He developed a theory that rooms decorated in green were more likely to lead to white bread than other rooms, while the color blue was a significant sign that he was approaching some ripe olives.

Hugo even began to keep simple records to test his predictions. He also developed a sort of profit-and-loss statement that told him how much time he was spending searching for food—and with what result—and how much his tastes in decoration were costing him in the efficiency of his search. (In spite of the propitiousness of green and blue for good meals, he really preferred the cheerfulness of red and yellow.)

To a certain extent, these scientific studies were successful, and served to reduce temporarily the increasing pressures on his time. But the trend revealed by the profit-and-loss statements was not reassuring. Each month, the time devoted to finding the best meals increased, and he could not persuade himself that his satisfaction was increasing correspondingly.

As Hugo became gradually more perceptive about his surroundings, and more reflective in his choices, he began also to observe himself—something that he had almost never done in the past. He found that his tastes in decoration were slowly changing, so that he actually began to prefer the green and blue colors that his experience had taught him were

most likely to lead him to particularly desired foods. He even thought he detected a reverse effect: that his aversion for highly symmetrical murals, which seemed always to be present in rooms stocked with caviar, was spoiling his taste for that delicacy. But this sentiment was so weak that it might have been merely a construct of his imagination.

This gradual adaptation of his eyes to his stomach served somewhat to quiet Hugo's anxiety, for he realized that it made his task easier. In retrospect, he wondered whether his initial preferences for certain kinds of murals had not developed unconsciously from eating particularly delicious meals in rooms similarly decorated.

Hugo's researches, and the gradual reconciliation of his confiicting tastes, could only have postponed, not prevented, disaster if the growth of his demands had continued. At the time of which we are speaking, he had reached a truly deplorable state. As soon as he awoke each day, he seated himself at the table he had discovered before retiring. But however delicious the meal he had provided himself—even if the eggs were boiled to just the proper firmness, and the bread toasted to an even brown—he was unable to enjoy his meal without distraction. He would open his notebook on the table and proceed to calculate frantically what his objectives should be for the day. How recently had he eaten caviar? Was this a good day to search for peach pie, or, since he had eaten rather well the previous day, should he hold out for fresh strawberries, which were always difficult to find?

Having worked out a tentative menu, he would consult his notebook to see what his past experiences had been as to the time required to find these particular foods. He would often discover that he could not possibly expect to locate the foods he had listed in less than ten or fifteen hours of expioration. On occasions when he was especially keenly driven by search for pleasure, he planned menus that he could not hope to realize unless he were willing to forgo meals for a week. Then he would cross off his list the items, or combinations of items, most difficult to find, but only with a keen feeling of disappointment—even a dull anger at the niggardliness of the castle's arrangements.

Again before he retired, Hugo always opened his notebook and recorded carefully the results of his day's labor. He made careful notes of new clues he had observed that might help him in his future explorations, and

he checked the day's experiences against the hypotheses he had already formed. Finally, he made a score-card of the day's success, assigning 10 or 15 points each to the foods he particularly liked (and a bonus of 5 points if he had not eaten them recently), and angrily marking down a large negative score if hunger had forced him to stop before a table that was not particularly appetizing. He compared the day's score with those he had made during the previous week or month.

A period of two or three months followed during which Hugo became almost wild with frustration and rage. His daily scores were actually declining. Fewer and fewer of the relatively abundant items of his diet seemed to him to deserve a high point rating, and negative scores began to appear more and more frequently. The goals he had set himself forced him to walk distances of twenty or thirty miles each day. Although he often found himself exhausted at the end of his travels, his sleep refreshed him very little, for it was disturbed by nightmarish visions of impossible feasts that disappeared before his eyes at the very moment when he picked up knife and fork to enjoy them. He began to lose weight, and because he now begrudged the time required to care for his appearance, his haggardness was further emphasized by a stubbly beard and unkempt hair.

Midway one day that had been particularly unsuccessful, Hugo, almost at the point of physical collapse, stumbled into an armchair in the room through which he was walking, and fell into a light sleep. This time, unaccountably, he was troubled by no dreams of food. But a clear picture came to him of an earlier day—some two years past—when he had been sitting, awake, in a similar chair. Perhaps some resemblance between the sharply angular murals of the room he was in and the designs of that earlier room had brought the memory back to him. Whatever the reason, his recollection was extremely vivid. He even recaptured in this dream the warm feeling of comfort and the pleasant play of his thoughts that had been present on that previous occasion. Nothing of any consequence happened in the dream, but it filled Hugo with a feeling of well-being he had not experienced for many months. An observer would have noticed that the furrows on his forehead, half hidden by scraggly hair, gradually smoothed themselves as he dozed, and that the nervous jerks of his limbs disappeared in a complete relaxation. He slept for nine or ten hours.

When Hugo awoke, the dream was still clear in his mind. For a few moments, indeed, his present worries did not return to him. He remained seated in the chair admiring the designs on the wall opposite—bold, plunging lines of deep orange and sienna, their advance checked by sharp purple angles. Then his eye was caught by the white page of his notebook, lying at his feet where it had slipped from his sleeping fingers. A pain struck deep within him as though a bolt had been hurled from the orange and purple pattern of the wall. Sorrow, equally deep inside him, followed pain, and broke forth in two sobs that echoed down the hall.

For the next few days, Hugo had no heart for the frantic pursuit in which he had been engaged. His life returned very much to its earlier pattern. He rested, and he wandered idly. He accepted whatever food came his way, and indeed, was hardly aware of what he ate. The pain and sorrow he had felt after his dream were diffused to a vague and indefinable sadness—a sadness that was a constant but not harsh reminder of the terror he had passed through.

It was not long, however, before he felt the first stirrings of reviving desire, and began again in a cautious way to choose and select. He could not bear to open the notebook (though he did not discard it), but sometimes found himself thinking at breakfast of delicacies he would like to eat later in the day. One morning, for example, it occurred to him that it had been a long time since he had tasted Camembert. He searched his memory for the kinds of clues that might help him find it, and passed two tables that day because he saw no cheese on them. Although his search was unsuccessful, his disappointment was slight and did not last long.

More and more, he discovered that after he had had a series of successful days, his desires would rise and push him into more careful planning and more energetic activity. But when he failed to carry out his plans, his failure moderated his ambitions and he was satisfied in attaining more modest goals. If Camembert was hard to obtain, at least ripe olives were reasonably plentiful and afforded him some satisfaction.

Only this distinguished his new life from that of his boyhood: then he had never been pressed for time, and his leisure had never been interrupted by thoughts of uncompleted tasks. What he should do from moment to moment had presented no problem. The periodic feelings of hunger and

fatigue, and the sight of a distant dining room had been his only guides to purposeful activity.

Now he felt the burden of choice—choice for the present and for the future. While the largest part of his mind was enjoying its leisure—playing with his thoughts or examining the murals—another small part of it was holding the half-suppressed memory of aspirations to be satisfied, of plans to be made, of the need for rationing his leisure to leave time for his work. It would not be fair to call him unhappy, nor accurate to say that he was satisfied, for the rising and falling tides of his aspirations always kept a close synchrony with the level of the attainable and the possible. Above all, he realized that he would never again be free from care.

These thoughts were passing through Hugo's mind one afternoon during a period of leisure he had permitted himself. He now had time again for occasional reading, and he was leafing the pages of his Bible, half reading, half dreaming. As he turned a page, a line of the text called his mind to attention: ". . . and when the woman saw that the tree was good for food, and that it was pleasant to the eyes. . . ."

This time no recollection of apples seen or tasted impeded the abstraction of his thought. The meaning was perfectly clear—no more obscure than in the other stories he enjoyed in this book. The meaning, he knew now, lay not in the apple, but in him.

Of course, we have no way of knowing for sure what that meaning, so clear to Hugo, was. We can only conjecture, empathizing with the trials of his journey, interpreting them in the light of our own experiences. My own conjecture is that Hugo found a meaning not very different from the one I have arrived at, journeying through the maze of my own life. If it were not so, my experience would have falsified my theory, the model from which "The Apple" was drawn.

Note

*Ed Feigenbaum brought the book to my attention during the academic year 1960–61, when I was at RAND.