

CHAPTER TWO

The Designer Creates an *Experience*

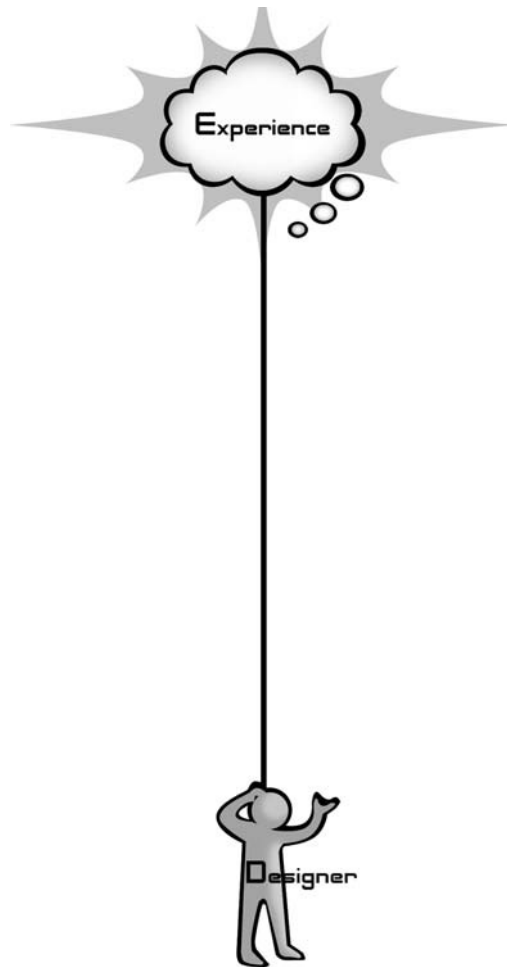


FIGURE
2.1

*I already know the ending /
it's the part that makes your face implode /
I don't know what makes your face implode /
but that's the way the movie ends.*

– They Might Be Giants, *Experimental Film*

Of the innumerable effects, or impressions, of which the heart, the intellect, or the soul is susceptible, what one shall I, on the present occasion, select?

– Edgar Allen Poe, *The Philosophy of Composition*

In the last chapter we established that everything begins with the game designer, and that the game designer needs certain skills. Now it is time to begin talking about what a game designer uses those skills for. Put another way, we need to ask “What is the game designer’s goal?” At first, the answer seems obvious: a game designer’s goal is to design games.

But this is wrong.

Ultimately, a game designer does not care about games. Games are merely a means to an end. On their own, games are just artifacts — clumps of cardboard, or bags of bits. Games are worthless unless people play them. Why is this? What magic happens when games are played?

When people play games, they have an experience. It is this experience that the designer cares about. Without the experience, the game is worthless.

I will warn you right now, we are about to enter territory that is very difficult to talk about. Not because it is unfamiliar — in fact, quite the opposite. It is hard to talk about because it is *too* familiar. Everything we’ve ever seen (look at that sunset!), done (have you ever flown a plane?), thought (why is the sky blue?), or felt (this snow is so cold!) has been an experience. By definition, we can’t experience anything that is *not* an experience. Experiences are so much a part of us, they are hard to think about (even thinking about experiences is an experience). But, as familiar as we are with experiences, they are very hard to describe. You can’t see them, touch them, or hold them — you can’t even really share them. No two people can have identical experiences of the same thing — each person’s experience of something is completely unique.

And this is the paradox of experiences. On one level, they are shadowy and nebulous, and on another, they are all we know. But as tricky as experiences can be, *creating them is all a game designer really cares about*. We cannot shy away from them, retreating into the concreteness of our material game. We must use every means we can muster to comprehend, understand, and master the nature of human experience.

The Game Is Not the Experience

We must be absolutely clear on this point before we can proceed. The game is not the experience. The game enables the experience, but it *is not the experience*. This is a hard concept for some people to grasp. The ancient Zen question addresses this

directly: “If a tree falls in the forest, and no one is there to hear it, does it make a sound?” This has been repeated so often that it sounds hackneyed, but it is *exactly* what we are talking about. If our definition of “sound” is air molecules vibrating, then yes, the tree makes a sound. If our definition of sound is the *experience of hearing a sound*, then the answer is no, the tree makes no sound when no one is there. As designers, we don’t really care about the tree and how it falls — we care only about the experience of hearing it. The tree is just a means to an end. And if no one is there to hear it, well, we don’t care at all.

Game designers only care about what *seems* to exist. The player and the game are real. The experience is imaginary — but game designers are judged by the quality of this imaginary thing because it is the reason people play games.

If we could, through some high-tech magic, create experiences for people directly, with no underlying media — no game boards, no computers, no screens — we would do it. In a sense, this is the dream of “artificial reality” — to be able to create experiences that are in no way limited by the constraints of the medium that delivers the experiences. It is a beautiful dream, but only a dream. We cannot create experiences directly. Perhaps in the distant future, using technologies hard to imagine, such a thing could happen. Time will tell. For now, we live in the present, where all we can do is create artifacts (rule sets, game boards, computer programs) that are likely to create certain kinds of experiences when a player interacts with them.

And it is this that makes game design so very hard. Like building a ship in a bottle, we are far removed from what we are actually trying to create. We create an artifact that a player interacts with, and cross our fingers that the experience that takes place during that interaction is something they will enjoy. We never truly see the output of our work, since it is an experience had by someone else and, ultimately, unsharable.

This is why deep listening is so essential for a game design.

Is This Unique to Games?

You might well ask what is so special about games, compared to other types of experiences, that requires us to get into all of this touchy-feely experience stuff. And really, on one level, there is nothing special about games in this regard. Designers of all types of entertainment — books, movies, plays, music, rides, everything — have to cope with the same issue: How can you create something that will generate a certain experience when a person interacts with it?

But the split between artifact and experience is much more obvious for game design than it is for other types of entertainment, for a not-so-obvious reason. Game designers have to cope with much more interaction than the designers of more linear experiences. The author of a book or screenplay is designing a linear experience. There is a fairly direct mapping between what they create and what the reader or viewer experiences. Game designers don’t have it so easy. We give the player a great deal of control over the pacing and sequence of events in the experience.

We even throw in random events! This makes the distinction between artifact and experience much more obvious than it is for linear entertainment. At the same time, though, it makes it much harder to be certain just what experience is really going to arise in the mind of the player.

So, why do we do it? What is so special about game experiences that we would give up the luxuries of control that linear entertainers enjoy? Are we simply masochists? Do we just do it for the challenge? No. As with everything else game designers do, we do it for the experience it creates. There are certain feelings: feelings of choice, feelings of freedom, feelings of responsibility, feelings of accomplishment, feelings of friendship, and many others, which only game-based experiences seem to offer. This is why we go through all the trouble — to generate experiences that can be had no other way.

Three Practical Approaches to Chasing Rainbows

There ain't no rules around here! We're trying to accomplish something!

– Thomas Edison

So — we've established what we need to do — create games that will somehow generate wonderful, compelling, memorable experiences. To do this, we must embark on a daunting endeavor: to uncover both the mysteries of the human mind and the secrets of the human heart. No one field of study has managed to perfectly map this territory (Mendeleev, where are you?), but several different fields have managed to map out parts of it. Three, in particular, stand out: Psychology, Anthropology, and Design. Psychologists want to understand the mechanisms that make people tick, anthropologists want to understand people on a human level, and designers just want to make people happy. We will be using approaches borrowed from all three of these fields, so let's consider what each one has to offer us.

Psychology

Who better for us to learn the nature of human experience from than psychologists, the scientists who study the mechanisms that govern the human mind? And truly, they have made some discoveries about the mind that are incredibly useful, some of which will be covered in this book. In fact, you might expect that our quest for understanding how to create great human experiences might end right here; that the psychologists should have all the answers. Sadly, this is not the case. Because they are scientists, they are forced to work in the realm of what is real and provable. Early in the twentieth century, a schism in psychology developed. On one side of the battle were the behaviorists who focused only on measurable behavior, taking a “black box” approach to the study of the mind. Their primary tool was objective, controlled experimentation. On the other side were the phenomenologists who study what game designers care about

most — the nature of human experience and “the feeling of what happens.” Their primary tool was introspection — the act of examining your experiences as they happen.

Unfortunately for us, the behaviorists won out, and for very good reasons. The behavioristic focus on objective, repeatable experiments makes for very good science. One behaviorist can do an experiment, publish a paper about it, and other behaviorists can repeat the experiment under the same conditions, almost certainly getting the same results. The phenomenological approach, on the other hand, is necessarily subjective. Experiences themselves cannot be directly measured — only described, and described imperfectly. When an experiment takes place in your mind, how can you possibly be sure the experimental conditions are controlled? As fascinating and useful as it might be to study our own internal thoughts and feelings, it makes for shaky science. As a result, for as much progress that has been made by modern psychology, it generally feels obligated to avoid the thing we care about the most — the nature of human experience.

Though psychology does not have all the answers we need, it does provide some very useful ones, as we’ll see. More than that, it provides approaches we can use quite effectively. Not bound by the strict responsibilities of good science, game designers can make use of both behavioristic experiments and phenomenological introspection to learn what we need to know, since ultimately, as designers, we are not concerned with what *is definitely true* in the world of objective reality, but only with what *seems to be true* in the world of subjective experience.

But perhaps there is another scientific approach that lies somewhere between the two extremes of behaviorism and phenomenology?

Anthropology

Anthropology is the most humanistic of the sciences and the most scientific of the humanities.

– Alfred L. Kroeber

Anthropology is another major branch of study about human beings and what they think and do. It takes a much more holistic approach than psychology, looking at everything about people including their physical, mental, and cultural aspects. It is very concerned with studying the similarities and differences between the various peoples of the world, not just today, but throughout history.

Of particular interest to game designers is the approach of cultural anthropology, which is the study of living peoples’ ways of life, mostly through fieldwork. Cultural anthropologists live with their subjects of study, and try to immerse themselves completely in the world of the people they are trying to learn about. They strive for objective observation of culture and practices, but at the same time they engage in introspection and take great pains to put themselves in the place of their subjects. This helps the anthropologist better imagine what it “feels like” to be their subjects.

We can learn a number of important things about human nature from the work of anthropologists — but much more important, by taking a cultural anthropologist’s approach to our players, interviewing them, learning everything we can about them, and putting ourselves in their place, we can gain insights that would not have been possible from a more objective point of view.

Design

The third field that has made important study of human experience is, not surprisingly, the field of design. We will be able to learn useful things from almost every kind of designer: musicians, architects, authors, filmmakers, industrial designers, Web designers, choreographers, visual designers, and many more. The incredible variety of design “rules of thumb” that comes from these different disciplines do an excellent job of illustrating useful principles about human experience. But unfortunately, these principles can often be hard for us to use. Unlike scientists, designers seldom publish papers about their discoveries. The very best designers in various fields often know little about the workings of other fields of design. The musician may know a lot about rhythm, but probably has given little thought to how the principles of rhythm might apply to something non-musical, such as a novel or stage play, even though they may have meaningful practical application there, since they are ultimately rooted in the same place — the human mind. So, to use principles from other areas of design, we will need to cast a wide net. Anyone who creates something that people are meant to experience and enjoy has something to teach us, and so we will pull rules and examples from designers of every stripe, being as “xenophilic” as possible.

Ideally, we would find ways to connect all the varied principles of design to each other through the common ground of psychology and anthropology, since ultimately all design principles are rooted in these. In some small ways, we will do that in this book. Perhaps one day these three fields will find a way to unify all their principles. For now, we will need to be content with building a few bridges here and there — this is no small accomplishment, since these are three fields that seldom have much cross-pollination. Further, some of the bridges will prove to be surprisingly useful! The task before us, game design, is so difficult that we cannot afford to be snobbish about where we get our knowledge. None of these approaches can solve all our problems, so we will mix and match them, trying to use them appropriately, like we might use tools from a toolbox. We must be both open-minded and practical — good ideas can come from anywhere, but they are only good for us if they help us create better experiences.

Introspection: Powers, Perils, and Practice

We have discussed some of the places to find useful tools for mastering human experience. Let’s now focus on one tool that has been used by all three disciplines: introspection. This is the seemingly simple act of examining your own thoughts and

feelings — that is, your own experiences. While it is true you can never truly know the experience of another, you certainly can know your own. In one sense, it is all you can know. By deeply listening to your own self, that is, observing, evaluating, and describing your own experiences, you can make rapid, decisive judgments about what is and is not working in your game, and why it is or is not working.

“But wait,” you might say. “Is introspection really such a good idea? If it isn’t good enough for the scientists, why is it good enough for us?” And this is a fair question. There are two main perils associated with using introspection:

Peril #1: Introspection Can Lead to False Conclusions About Reality

This is the scientists’ main reason to reject introspection as a valid method of inquiry. Many pseudo-scientists over the years have come up with crackpot theories based mainly on introspection. This happens so often because what seems to be true in our personal experience is not necessarily really true. Socrates, for example, noted that when we learn something new, it often feels like we knew it all along, and that in learning it, it feels as if we were just reminded of something we already knew, but had forgotten. This is an interesting observation, and most people can remember a learning experience that felt this way. But Socrates then goes too far and forms an elaborate argument that since learning can feel like recollection, we must then be reincarnated souls who are just now remembering what we learned in past lives.

This is the problem with drawing conclusions about reality based on introspection — just because something feels true, it doesn’t mean it is true. People very easily fall into the trap of building up structures of questionable logic to back up something that feels like it must be true. Scientists learn to be disciplined about avoiding this trap. Introspection certainly has its place in science — it allows one to examine a problem from points of view that mere logic won’t allow. Good scientists use introspection all the time — but they don’t draw scientific conclusions from it.

Fortunately for us, game design is not science! While “objective truth about reality” is interesting and sometimes useful to us, we primarily care about what “feels like it is true.” Aristotle gives us another classical example that illustrates this perfectly. He wrote a number of works on a variety of topics, such as Logic, Physics, Natural History, and Philosophy. He is famous for the depth of his personal introspection, and when we examine his works, we find something interesting. His ideas about physics and natural history are largely discredited today. Why? Because he relied too much on what felt true, and not enough on controlled experiments. His introspection led him to all kinds of conclusions we now know to be false, such as:

- Heavier objects fall faster than light ones
- The seat of consciousness is in the heart
- Life arises by spontaneous generation

And many others. So why do we remember him as a genius, and not as a crackpot? Because his other works, about metaphysics, drama, ethics, and the mind, are still useful today. In these areas where what feels true matters more than what is objectively, provably true, most of his conclusions, reached through deep introspection, stand up to scrutiny thousands of years later.

The lesson here is simple: When dealing with the human heart and mind, and trying to understand experience and what things feel like, introspection is an incredibly powerful, and trustworthy tool. As game designers, we don't need to worry much about this first peril. We care more about how things feel and less about what is really true. Because of this, we can often confidently trust our feelings and instincts when making conclusions about the quality of an experience.

Peril #2: What Is True of My Experiences May Not be True for Others

This second danger of introspection is the one we must take seriously. With the first peril, we got a “Get Out of Jail Free Card” because we are designers, not scientists. But we can't get away from this one so easily. This peril is the peril of subjectivity, and a place where many designers fall into a trap: “I like playing this game, therefore it must be good.” And sometimes, this is right. But other times, if the audience has tastes that differ from your own, it is very, very wrong. Some designers take extreme positions on this ranging from “I will only design for people like me, because it is the only way I can be sure my game is good” to “introspection and subjective opinions can't be trusted. Only playtesting can be trusted.” Each of these is a “safe” position, but also has its limits and problems:

“I only design for people like me” has these problems:

- Game designers tend to have unusual tastes. There may not be enough people like you out there to make your game a worthwhile investment.
- You won't be designing or developing alone. If different team members have different ideas about what is best, they can be hard to resolve.
- There are many kinds of games and audiences that will be completely off-limits to you.

“Personal opinions can't be trusted” has these problems:

- You can't leave every decision to playtesting, especially early in the process, when there is no game yet to playtest. At this point someone has to exert a personal opinion about what is good and bad.
- Before a game is completely finished, playtesters may reject an unusual idea. They sometimes need to see it completed before they can really appreciate it. If you don't trust your own feelings about what is good and bad, you may, at the

advice of your playtesters, throw out an “ugly duckling” that could have grown up to be a beautiful swan.

- Playtesting can only happen occasionally. Important game design decisions must be made on a daily basis.

The way out of this peril, without resorting to such limiting extremes, is again, to listen. Introspection for game design is a process of not just listening to yourself, but also of listening to others. By observing your own experiences, and then observing others, and trying to put yourself in their place, you start to develop a picture of how your experiences differ from theirs. Once you have a clear picture of these differences, you can, like a cultural anthropologist, start to put yourself in the place of your audience and make predictions about what experiences they will and will not enjoy. It is a delicate art that must be practiced — and with practice your skill at it will improve.

Dissect Your Feelings

It is not such a simple thing to know your feelings. It is not enough for a designer to simply have a general sense about whether they like something or not. You must be able to clearly state what you like, what you don't like, and why. A friend of mine in college was notoriously bad at this. We would frequently drive each other crazy with conversations like:

Me: What did you eat at the cafeteria today?

Him: Pizza. It was bad.

Me: Bad? What was bad about it?

Him: It was just ... bad.

Me: Do you mean it was too cold? Too hard? Too soggy? Too bitter? Too much sauce? Not enough sauce? Too cheesy? What was bad about it?

Him: I don't know — it was just bad!

He was simply unable to clearly dissect his experiences. In the case of the pizza, he knew he didn't like it, but was unable to (or didn't bother to) analyze the experience to the point where he could make useful suggestions about how the pizza might improve. This kind of experience dissection is a main goal of your introspection — it is something designers must do. When you play a game, you must be able to analyze how it made you feel, what it made you think of, and what it made you do. You must be able to state this analysis clearly. You must put words to it, for feelings are abstract, but words are concrete, and you will need this concreteness to describe to others the experiences you want your game to produce. You need to do this kind of analysis not only when designing and playing your own games, but also when playing games other people have created. In fact, you should be able to analyze any experience you might have. The more you analyze your own

experiences, the more clearly you will be able to think about the kinds of experiences your games should create.

Defeating Heisenberg

But there is still a greater challenge of introspection. How can we observe our own experiences without tainting them, since the act of observation itself is an experience? We face this problem quite often. Try to observe what your fingers are doing as you type at a computer keyboard and you will quickly find yourself typing slowly and making many errors, if you can still type at all. Try to observe yourself enjoying a movie or a game, and the enjoyment can quickly fade away. Some call this “paralysis by analysis,” and others refer to it as the Heisenberg principle. This principle, in reference to the Heisenberg Uncertainty Principle from quantum mechanics, points out that the motion of a particle cannot be observed without disturbing the motion of that particle. Similarly, the nature of an experience cannot be observed without disturbing the nature of that experience. This makes introspection sound hopeless. While it is a challenging problem, there are ways around it that are quite effective, though some take practice. Most of us are not in the habit of openly discussing the nature of our thought processes, so some of the following is going to sound a little strange.

Analyze Memories

One good thing about experiences is that we remember them. Analyzing an experience while it is happening can be hard, because the part of your mind used to analyze is normally focused on the experience itself. Analyzing your memory of an experience is much easier. Memory is imperfect, but analyzing a memory is better than nothing. Of course, the more you remember, the better, so working either with memories of powerful experiences (these often make the best inspiration, anyway) or with fresh memories is best. If you have the mental discipline, it also can be very useful to engage in an experience (such as playing a game), with the intention of not analyzing it while you play, but with the intention of analyzing the memory of it immediately after. Just having this intention can help you remember more details of the experience without interfering with the experience itself. This does require you to remember that you are going to analyze it without letting that thought interfere with the experience. Tricky!

Two Passes

A method that builds on analyzing memories is to run through your experience twice. The first time, don’t stop to analyze anything — just have the experience. Then, go back and do it again, this time, analyzing everything — maybe even pausing to take notes. You have the untainted experience fresh in your mind, and the

second run through lets you “relive it,” but gives you a chance to stop and think, considering how it felt, and why.

Sneak Glances

Is it possible to observe your experience without spoiling it? It is, but it takes some practice. It sounds strange to say this, but if you “sneak quick glances” at your experience while it is happening, you can often observe it quite well without degrading or interrupting it significantly. It is kind of like trying to get a good look at a stranger in a public place. Take a few short glances at them, and they won’t notice you are observing them. But look too long, and you will catch their attention, and they will notice you staring. Fortunately, you can learn a lot about an experience with a few short “mental glances.” Again, this takes some mental discipline or you will get carried away with analysis. If you can make these mental glances habitual, just doing them all the time without thinking about it, they will interrupt things even less. Most people find what really interrupts their train of thought, or train of experience, is interior mental dialog. When you start asking and answering too many questions in your head, your experience is doomed. A “quick glance” is more like: “Exciting enough? Yes.” Then, you immediately stop analyzing and get back to the experience, until the next glance.

Observe Silently

Ideally, though, you want to observe what is happening to you while it is happening, not just through a few quick glances, but through continuous observation. You want it to be as if you were sitting outside yourself, watching yourself, except that you see more than a normal observer. You can hear all of your thoughts and feel all of your feelings. When you enter this state, it is almost as if you have two minds: one moving, engaged in an experience, and one still, silently observing the other. This may sound completely bizarre, but it is quite possible and quite useful. It is a difficult state to achieve, but it can be reached. It seems to be something like the Zen practice of self-observation, and it is not unlike the meditation exercise of trying to observe your own breathing cycle. Normally we breathe without thinking, but at any moment, we may consciously take control of our breathing process — consequently interfering with it. With practice however, you can observe your natural, unconscious breathing without disturbing it. But this takes practice, just as observing your experiences takes practice. Observing your experiences can be practiced anywhere — while watching TV, while working, while playing, or while doing anything at all. You won’t get it right at first, but if you keep experimenting and practicing, you will start to get the hang of it. It will take a great deal of practice. But if you truly want to listen to your *self*, and understand the nature of human experience, you will find the practice worthwhile.

Essential Experience

But how does all this talk about experience and observations really fit in with games? If I want to make a game about, say, a snowball fight, does analyzing my memories of a real snowball fight have any bearing on the snowball fight game I want to make? There is no way I can perfectly replicate the experience of a real snowball fight without real snow and real friends outside in the real world — so what is the point?

The point is that you don't need to perfectly replicate real experiences to make a good game. What you need to do is to capture the essence of those experiences for your game. What does "the essence of an experience" really mean? Every memorable experience has some key features that define it and make it special. When you go over your memory of a snowball fight experience, for example, you might think of a lot of things. Some you might even consider essential to that experience: "There was so much snow, school was canceled," "We played right in the street," "The snow was just right for packing," "It was so cold, but sunny — the sky was so blue," "There were kids everywhere," "We built this huge fort," "Fred threw a snowball really high — when I looked up at it, he chucked one right at my head!," "We couldn't stop laughing." There are also parts of that experience that you don't consider essential: "I was wearing corduroy pants," "I had some mints in my pocket," "A man walking his dog looked at us."

As a game designer trying to design an experience, your goal is to figure out the essential elements that really define the experience you want to create, and find ways to make them part of your game design. This way the players of your game get to experience those essential elements. Much of this book will be about the many ways you can craft a game to get across the experience you want players to have. The key idea here is that the essential experience can often be delivered in a form that is very different from a real experience. To follow up on the snowball fight example, what are some of the ways you could convey the experience "it was so cold" through a snowball fight game? If it is a videogame, you could certainly use artwork: the characters could breathe little puffs of condensation, and they could have a shivering animation. You could use sound effects — perhaps a whistling wind could convey coldness. Maybe there wasn't a cold wind on the day you are imagining, but the sound effect might capture the essence and deliver an experience that seems cold to the player. You could use the rules of the game, too, if cold was really important to you. Maybe players can make better snowballs without gloves, but when their hands get too cold, they have to put gloves on. Again, that might not have really happened, but that game rule helps deliver an experience of coldness that will be integral part of your game.

Some people find this approach strange — they say, "Just design a game, and see what experience comes out of it!" And I suppose it is true — if you don't know what you want, you might not care what you get. But if you do know what you want — if you have a vision of how you would like your game to feel to the players — you need to consider how you are going to deliver the essential experience. And this brings us to our first lens.

Lens #1: The Lens of Essential Experience

To use this lens, you stop thinking about your game and start thinking about the experience of the player. Ask yourself these questions:

- What experience do I want the player to have?
- What is essential to that experience?
- How can my game capture that essence?

If there is a big difference between the experience you want to create and the one you are actually creating, your game needs to change: You need to clearly state the essential experience you desire, and find as many ways as possible to instill this essence into your game.

The design of the very successive baseball game in *Wii Sports* is an excellent example of the Lens of Essential Experience in use. Originally, the designers had intended to make it as much like real baseball as possible with the added bonus that you could swing your controller like a bat. As they proceeded, though, they realized they wouldn't have time to simulate every aspect of baseball as well as they wanted. So, they made a big decision — since swinging the controller was the most unique part of this game, they would focus all their attention on getting that part of the baseball experience right — what they felt was the essential part. They decided that other details (nine innings, stealing bases, etc.) were not part of the essential experience they were trying to create.

It is true that many designers do not use the Lens of Essential Experience. They just kind of follow their gut instinct, and stumble across game structures that happen to enable experiences that people enjoy. The danger with this approach is that it relies on luck to a large extent. To be able to separate the experience from the game is very useful: If you have a clear picture in your mind of the experiences your players are having, and what parts of your game enable that experience, you will have a much clearer picture of how to make your game better, because you will know which elements of the game you can safely change, and which ones you cannot. The ultimate goal of the game designer is to deliver an experience. When you have a clear picture of your ideal experience, and its essential elements, your design has something to aspire to. Without that goal you are just wandering in the dark.

All That's Real Is What You Feel

All this talk of experience brings out an idea that is very strange indeed. The only reality that we can know is the reality of the experience. And we know that what we

experience is “not really reality.” We filter reality through our senses, and through our minds, and the consciousness we actually experience is a kind of illusion — not really reality at all. But this illusion is all that can ever be real for us, because it *is* us. This is a headache for philosophers, but a wonderful thing for game designers, because it means that the designed experiences that are created through our games have a chance of feeling as real and as meaningful (and sometimes more so) than our everyday experiences.

We will explore that further in Chapter 9, but now it is time to look at the other side of the experience coin. We have studied the flame — it is time now to examine the log from which it rises.