


Also by Dan Ariely
*Predictably Irrational: The Hidden Forces
That Shape Our Decisions*

*the upside of
irrationality*

*The Unexpected Benefits
of Defying Logic
at Work and at Home*

Dear Melissa
Looking forward to having coffee at
Dan Ariely
I love to chat with ya


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CHAPTER 7

Hot or Not?

Adaptation, Assortative Mating, and the Beauty Market

A large, full-length mirror awaited me in the nurses' station. As I hadn't walked more than a few feet for months, traveling the length of the hallway to the nurses' station was a true challenge. It took ages. Finally I turned the corner and inched closer and closer to the mirror, to take a good, hard look at the image reflecting back at me. The legs were bent and thickly covered in bandages. The back was completely bowed forward. The bandaged arms collapsed lifelessly. The entire body was twisted; it seemed foreign and detached from what I felt was me. "Me" was a good-looking eighteen-year-old. It was impossible that the image was me.

The face was the worst. The whole right side gaped open, with yellow and red pieces of flesh and skin hanging down like a melting wax candle. The right eye was pulled severely toward the ear, and the right sides of the mouth, ear, and nose were charred and distorted.

It was hard to comprehend all the details; every part and feature seemed disfigured in one way or another. I stood

there and tried to take in my reflection. Was the old Dan buried somewhere in the image that stared back from the mirror? I recognized only the left eye that gazed at me from the wreckage of that body. Was this really *me*? I simply could not understand, believe in, or accept this deformed body as my own. During the various treatments, when my bandages were removed, I had seen parts of my body, and I knew how terrible some of the burns looked. I had also been told that the right side of my face was badly injured. But somehow, until I stood before the mirror, I hadn't put it all together. I was torn between the desire to stare at the thing in the mirror and the compulsion to turn away and ignore this new reality. Soon enough the pain in my legs made the decision for me, and I returned to my hospital bed.

Dealing with the physical aspects of my injury was torture enough. Dealing with the terrible blow to my teenage self-image added a different type of challenge to my recovery. At that point in my life, I was trying to find my place in society and understand myself as a person and as a man. Suddenly I was condemned to three years in a hospital and demoted from what my peers (or at least my mother) might have considered attractive to something else altogether. In losing my looks, I'd lost something crucial to how we all—particularly young people—define ourselves.

Where Do I Fit In?

Over the next few years, many friends came to visit. I saw couples—healthy, beautiful, pain-free people who had been my pals and peers in school—flirt, get together, and split up; naturally, they fully immersed themselves in their romantic pursuits. Before my accident, I had known exactly where I belonged in the social hierarchy. I had dated a few of the girls

in this group and generally knew who would and would not want to date me.

But now, I asked myself, where did I fit into the dating scene? Having lost my looks, I knew I had become less valuable in the dating market. Would the girls I used to go out with reject me if I asked them now? I was quite sure they would. I could even see their logic in doing so. After all, they had better options, and wouldn't I do the same if our fortunes were reversed? If the attractive girls rejected me, would I have to marry someone who also had a disability or deformity? Must I now "settle"? Did I need to accept the idea that my dating value had dropped and that I should think differently about a romantic partner? Or maybe there was some hope. Would someone, someday, overlook my scars and love me for my brains, sense of humor, and cooking?

There was no escape from realizing that my market value for romantic partners had vastly diminished, but at the same time I felt that only one part of me, my physical appearance, was damaged. I didn't feel that I (the real me) had changed in any meaningful way, which made it all the more difficult to accept the idea that I was suddenly less valuable.

Mind and Body

Not knowing much about extensive burns, I initially expected that once my burns were healed, I would go back to how I was before my injury. After all, I'd had a few small burns in the past, and, aside from slight scars, they'd disappeared in a few weeks without much of a trace. What I didn't realize was that these deep and extensive burns were very different. As my burns began to heal, much of my real struggle was only starting—as was my frustration with my injury and my body.

As my wounds healed, I faced the hourly challenges of

shrinking scars and the need to fight continuously against the tightening skin. I also had to contend with the Jobst pressure bandages that covered my entire body. The numerous contraptions that extended my fingers and held my neck steady, though medically useful, made me feel all the more alien. All of these foreign additions that supported and moved my body parts prevented my physical self from feeling anything like it used to. I started to actively resent my body and think of it as an enemy that betrayed me. Like the Frog Prince or the Man in the Iron Mask, I felt as if no one could discern the real me trapped inside.*

I was not the philosophical type as a teenager, but I started thinking about the separation of mind and body, a duality I experienced every day. I struggled with my feelings of imprisonment in this awful pain-racked body, until, at some point, I decided that *I* would prevail over it. I started stretching my healing skin as much as I could. I worked against the pain, with the feeling that my mind was taming my body into submission and achieving victory over it. I embraced the mind-body dualism that I felt so strongly and tried very hard to make sure that my mind won the battle.

As part of my campaign, I promised myself that my actions and decisions would be directed by my mind alone and not by my body. I would not let pain rule my life, and I would not allow my body to dictate my decisions. I would learn to ignore the calls from my body, and I would live in the mental world where I was still the old me. I would be in control from that moment on!

I also resolved to evade the problem of my declining value in the dating market by avoiding the issue altogether. If I was

*Other stories depicting humans imprisoned within their bodies include Ovid's *Metamorphoses*, "The Beauty and the Beast," *Johnny Got His Gun*, and *The Diving Bell and the Butterfly*, to name a few.

going to ignore my body on every front, I certainly wouldn't submit to any romantic needs. With romance out of my life, I wouldn't need to worry about my place in the dating hierarchy or about who might want me. Problem solved.

BUT A FEW months after my injury, I learned the same lesson that countless ascetics, monks, and purists have learned time and time again: getting the mind to triumph over the body is easier said than done.

My daily *via dolorosa* in the burn department included the dreaded bath treatment, in which the nurses would soak me in a bath with disinfectant. After a short time, they would start ripping off my bandages one by one. Having completed this process, they would scrape the dead skin away, put some ointment on my burns, and cover me up again. That was the usual routine, but on the days immediately following each of my many skin-transplant operations, they would skip the bath treatment because the water could potentially carry infections from other parts of my body to the fresh surgical wound. Instead, on those days, I would get a sponge bath in bed, which was even more painful than the regular treatment because the bandages could not be soaked, making their removal even more agonizing.

One particular day, my sponge bath routine took a different turn. After removing all the bandages, a young and very attractive nurse named Tami washed my stomach and thighs. I suddenly experienced a sensation coming from somewhere in the middle of my body that I had not felt in months. I was mortified and embarrassed to find I had an erection, but Tami laughed and told me that it was a great sign of improvement. Her positive spin helped a bit with the embarrassment, but not much.

That night, alone in my room and listening to the symphony of beeps from the various medical instruments, I reflected on the day's events. My teenage hormones were back in action. They were oblivious to the fact that I looked quite different from the young man I once was. My hormones were also displaying a shocking lack of respect for my decision not to let my body dictate my actions. At that point, I realized that the strong separation I felt between mind and body was, in fact, inaccurate, and that I would have to learn to live in mind-body harmony.

NOW THAT I was back in the land of relative normalcy—that is, of people with both mental and physical demands—I started thinking again about my place in society. Particularly during the times when my body was functioning better and the pain was less, I would wonder about the social process that drives us toward some people and away from others. I was still in bed most of the time, so there was nothing I could actually do, but I started thinking about what my romantic future might hold. As I analyzed the situation over and over, my personal concerns soon developed into a more generalized interest in the romantic dance.

Assortative Mating and Adaptation

You don't need to be an astute observer of human nature to realize that, in the world of birds, bees, and humans, like attracts like. To a large degree, beautiful people date other beautiful people, and "aesthetically challenged"* individuals date others like them. Social scientists have studied this birds-

*When I use the term "aesthetically challenged," it is because I don't know what term to use. All I mean is that some people are more physically attractive and others are less so.

of-a-feather phenomenon for a long time and given it the name "assortative mating." While we can all think of examples of bold, talented, rich, or powerful yet aesthetically challenged men coupled with beautiful women (think of Woody Allen and Mia Farrow, Lyle Lovett and Julia Roberts, or almost any British rock star and his model/actress wife), assortative mating is generally a good description of the way people tend to find their romantic partners. Of course, assortative mating is not just about beauty; money, power, and even attributes such as a sense of humor can make a person more or less desirable. Still, in our society, beauty, more than any other attribute, tends to define our place in the social hierarchy and our assortative mating potential.

Assortative mating is good news for the men and women sitting on the top rung of the attractiveness ladder, but what does it mean for the majority of us on the middle or lower rungs? Do we adapt to our position in the social hierarchy? How do we learn, to paraphrase the old Stephen Stills song, to "love the ones we're with"? This was a question that Leonard Lee, George Loewenstein, and I started discussing one day over coffee.

Without indicating which of us he had in mind, George posed the following question: "Consider what happens to someone who is physically unattractive. This person is generally restricted to date and marry people of his own attractiveness level. If, on top of that, he is an academic, he cannot compensate for his bestowed ugliness by making lots of money." George continued with what would become the central question of our next research project: "What will become of that individual? Will he wake up every morning, look at the person sleeping next to him, and think 'Well, that's the best I can do'? Or will he somehow learn to adapt in some way, change, and not realize that he has settled?"

**A DEMONSTRATION OF ASSORTATIVE MATING, OR
AN IDEA FOR AN AWKWARD DINNER PARTY**

Imagine that you have just arrived at a party. As you walk in, the host writes something on your forehead. He instructs you not to look at the mirror or ask anyone about it. You look around the room and see that the other men and women have numbers from 1 to 10 written on their foreheads. The host tells you that your goal is to pair up with the highest-numbered person who is willing to talk to you. Naturally, you walk up to a 10, but he or she gives you one look and walks away. You then look for 9s or 8s and so on, until a 4 extends a hand to you and you go together to get a drink.

This simple game describes the basic process of assortative mating. When we play this game with potential romantic partners in the real world, it is often the case that people with high numbers find others with high numbers, medium numbers match with their equivalents, and low numbers connect with their likes. Each person has a value (in the party game, the value is clearly written); the reactions we get from other people help us figure out our position in the social hierarchy and find someone who shares our general level of desirability.

One way to think about the process by which an aesthetically challenged person adapts to his or her own limited appeal is what we might call the "sour grapes strategy," named after Aesop's fable "The Fox and the Grapes." While walking through a field on a hot day, a fox sees a bunch of plump, ripe grapes trained over a branch. Naturally, the grapes are just the things to sate his thirst, so he backs up

and takes a running leap for them. He misses. He tries again and again, but he simply can't reach them. Finally, he gives up and walks away, mumbling "I'm sure they were sour anyway." The sour grapes concept derived from this tale is the idea that we tend to scorn that which we cannot have.

This fable suggests that when it comes to beauty, adaptation will work its magic on us by making the highly attractive people (grapes) less desirable (sour) to those of us who cannot attain them. But true adaptation can go farther than just changing how we look at the world. Instead of simply rejecting what we can't have, real adaptation implies that we play psychological tricks on ourselves to make reality acceptable.

How exactly do these tricks of adaptation work? One way aesthetically challenged individuals might adapt would be to lower their aesthetic ideals from, say, a 9 or a 10 on the scale of perfection to something more comparable to themselves. Maybe they start finding large noses, baldness, or crooked teeth desirable traits. Someone who has adapted this way might react to the picture of, say, Halle Berry or Orlando Bloom by shrugging his or her shoulders and saying "Eh, I don't like her small, symmetrical nose" or "Blech, all that dark, lustrous hair."

Those of us who aren't gorgeous might utilize a second approach to adaptation. We might not change our sense of beauty, but instead look for other qualities; we might search for, say, a sense of humor or kindness. In the world of "The Fox and the Grapes," this would be equivalent to the fox re-evaluating the slightly less juicy-looking berries on the ground and finding them more delicious because he just can't get the grapes from the branch.

How might this work in the dating world? I have a middle-aged, average-looking friend who met her husband on

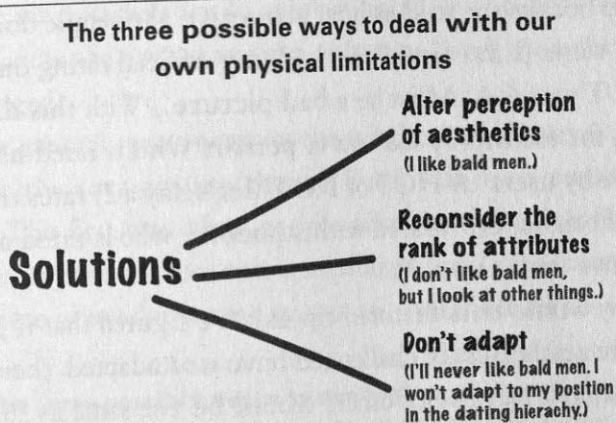
Match.com a few years ago. "Here was someone," she told me, "who was not much to look at. He was bald, overweight, had a lot of body hair, and was several years older than me. But I have learned that these things aren't that important. I wanted somebody who was smart, had great values and a good sense of humor—and he had all this." (Ever notice how "a sense of humor" is almost always code for "unattractive" when someone tries to play matchmaker?)

So now we have two ways by which we aesthetically challenged individuals adapt: either we alter our aesthetic perception so that we start to value a lack of perfection, or we reconsider the importance of attributes we find important and unimportant. To put these somewhat more crudely, consider these two possibilities: (a) Do women who attract only short, bald men start liking those attributes in a mate? Or (b) would these women still rather date tall men with lots of hair, but, realizing that this is not possible, they change their focus to nonphysical attributes such as kindness and sense of humor?

In addition to these two paths of adaptation, and despite the incredible capacity of humans to adapt to all sorts of things (see chapter 6, "On Adaptation"), we must also consider the possibility that adaptation does not work in this particular case. That would mean that aesthetically challenged individuals never really acclimate to the limitations that their looks impose on them in the social hierarchy. (If you are a male over fifty and you still think that every twentysomething woman would love to date you, you are exactly who I am talking about.) Such a failure to adapt is a path to continuous disappointment because, in its absence, less attractive individuals will repeatedly be disappointed when they fail to get the gorgeous mate they think they deserve. And if they settle and marry another aesthetically challenged person, they will always feel that they deserve

better—hardly a recipe for a fine romance, let alone a happy relationship.

Which one of the three approaches illustrated in the figure below do you think best describes how aesthetically challenged individuals deal with their constraints?



My money was on the ability to reprioritize what we look for in a mate, but the process of finding out was interesting in its own right.

Hot or Not?

To learn more about how people adapt to their own less-than-perfect looks, Leonard, George, and I approached two ingenious young men, James Hong and Jim Young, and asked for permission to run a study using their Web site, HOT or NOT.* Upon entering the site, you're greeted with the photo of a man or woman of almost any age (eighteen years of age or older only). Above the photo floats a box with a scale from

*If you've never been to www.hotornot.com, I highly recommend that you check it out, if only for the glimpse it provides into human psychology.

1 (NOT) to 10 (HOT). Once you've rated the picture, a new photo of a different person appears as well as the average rating of the person you just rated.

Not only can you rate pictures of other people, but you can also post your own picture on the site to be judged by others.* Leonard, George, and I particularly appreciated this feature because it told us how attractive the people doing the rating were. (Last time I checked, my official rating on HOT or NOT was 6.4. Must be a bad picture.) With this data we could, for example, see how a person who is rated as unattractive by users of HOT or NOT (let's say a 2) rates the hotness of others, compared with someone who is rated as very attractive (let's say a 9).

Why would this feature help us? We figured that if people who are aesthetically challenged have *not* adapted, their view of the attractiveness of others would be the same as those of highly attractive people. For example, if adaptation did not take place, a person who is a 2 and a person who is an 8 would both see 9s as 9s and 4s as 4s. On the other hand, if people who are aesthetically challenged have adapted by changing their perspective about the attractiveness of others, their view of hotness would differ from those of highly attractive people. For example, if adaptation had taken place, a person who is a 2 could see a 9 as a 6 and a 4 as a 7, while a person who is an 8 would see a 9 as a 9 and a 4 as a 4. The best news for us was that we could measure it! In short, by examining how one's own attractiveness influences the hotness rating that one gives others, we thought we might discover something about the extent of adaptation. Intrigued by our project, James and Jim provided us with the ratings and

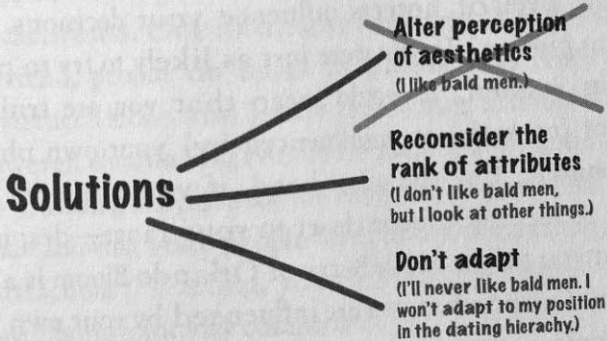
*Given the nature of HOT or NOT, our data most likely overemphasized beauty relative to other attributes. Nevertheless, the principles we examined should generalize to other types of adaptation as well.

dating information of 16,550 HOT or NOT members during a ten-day period. All members of the sample were heterosexual, and the majority (75 percent) were male.*

The first analysis revealed that almost everyone has a common sense of what is beautiful and what isn't. We all find people like Halle Berry and Orlando Bloom "hot," regardless of how we ourselves look; uneven features and buckteeth do not become the new standard of beauty for the aesthetically challenged.

The general agreement on the standard of beauty weighed against the sour grapes theory, but it left two possibilities open. The first was that people adapt by learning to place greater importance on other attributes, and the second was that there is no adaptation to our own aesthetic level.

The three possible ways to deal with our own physical limitations (following the first HOT or NOT study)



Next, we set about testing the possibility that aesthetically challenged individuals are simply unaware of the limitations placed on us by our lack of beauty (or at least, that this is how we behave online). To do this, we used a second inter-

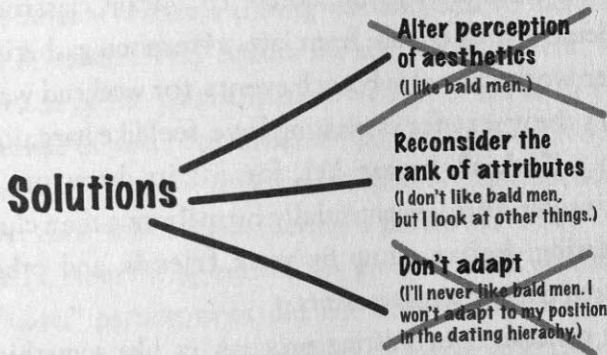
*We did not include people searching for same-sex partners in this first step, but that could be an interesting extension of the research.

esting feature of HOT or NOT called "Meet Me." Assuming you are a man who sees a picture of a woman you'd like to meet, you can click the Meet Me button above the woman's picture. She will then receive a notification saying that you are interested in meeting, accompanied by a bit of information about you. The key is that when using the Meet Me feature, you would not be reacting to the other person only on the basis of aesthetic judgment; you would also gauge whether the invitee would be likely to accept your invitation. (Though an anonymous rejection is much less painful than being turned down face-to-face, it still stings.)

To better understand the usefulness of the Meet Me feature, imagine that you are a somewhat bald, overweight, hairy fellow, albeit with a great sense of humor. As we learned from the ratings of hotness, the way you view the attractiveness of others is uninfluenced by what you see in your mirror. But how would your unfortunate belly and your low level of hotness influence your decisions about whom to pursue? If you were just as likely to try to pursue gorgeous women, it would mean that you are truly unaware of (or at least uninfluenced by) your own physical shortcomings. On the other hand, if you aim a bit lower and try to meet someone closer to your range—despite the fact that you think Halle Berry or Orlando Bloom is a 10—this would mean that you are influenced by your own unattractiveness.

Our data showed that the less hot individuals in our sample were, in fact, very aware of their own level of (un)attractiveness. Though this awareness did not influence how they perceived or judged the attractiveness of others (as shown by their hotness ratings), it did affect the choices they made about whom they asked to meet.

The three possible ways to deal with our own physical limitations (following the first HOT or NOT study and the Meet Me study)



Adaptation and the Art of the Speed Date

The data from HOT or NOT eliminated two of our three hypotheses for the process of adaptation to one's own physical attractiveness. One alternative remained: like my middle-aged friend, people do adapt by putting less emphasis on their partner's looks and learn to love other attributes.

However, eliminating two of the alternatives is not equivalent to providing support for the remaining theory. We needed evidence showing that people learn to appreciate compensatory attractions ("Darling, you are so smart / funny / kind / attentive / horoscopically compatible / _____ [fill in the blank]"). Unfortunately, the data from HOT or NOT couldn't help us with this, since it allowed us to measure only one thing (photographic hotness). Searching for another setup that would let us measure that ineffable *je ne sais quoi*, we turned to the world of speed dating.

Before I tell you about our version of speed dating, allow me to offer the uninitiated a short primer in this contempo-

rary dating ritual (if you are a social science hobbyist, I highly recommend the experience).

In case you haven't noticed, speed dating is everywhere: from posh bars at five-star hotels to vacant classrooms in local elementary schools; from late-afternoon gatherings for the after-work crowd to brunch events for weekend warriors. It makes the quest for everlasting love feel like bargain shopping in a Turkish bazaar. Yet, for all its detractors, speed dating is safer and less potentially humiliating than clubbing, blind dating, being set up by your friends, and other less structured dating arrangements.

The generic speed-dating process is like something designed by a time-and-motion expert of the early twentieth century. A small number of people, generally between the ages of twenty and fifty (in heterosexual events, half of each gender) go to a room set up with two-person tables. Each person registers with the organizers and receives an identification number and a scoring sheet. Half the prospective daters—usually the women—stay at the tables. At the ring of a bell that sounds every four to eight minutes, the men move to the next table in merry-go-round fashion.

While at the table, the daters can talk about anything. Not surprisingly, many initially sheepishly express their amazement at the whole speed-dating process, then make small talk in an effort to fish for useful information without being too blatant. When the bell rings and as the pairings shift, they make decisions: if Bob wants to date Nina, he writes "yes" next to Nina's number on his scoring sheet, and if Nina wants to date Bob, she writes "yes" next to Bob's number on her scoring sheet.

At the end of the event, the organizers collect the scoring sheets and look for mutual matches. If Bob gave both Lonnie and Nina a "yes" and Lonnie gave Bob a "no" but Nina gave

Bob a “yes,” only Nina and Bob would be given each other’s contact information so that they can talk more and maybe even go on a conventional date.

Our version of speed dating was designed to include a few special features. First, before the start of the event, we surveyed each of the participants. We asked them to rate the importance of different criteria—physical attractiveness, intelligence, sense of humor, kindness, confidence, and extroversion—when considering a potential date. We also changed a bit of the speed-dating process itself. At the end of each “date,” participants did not move immediately to the next one. Instead, we asked them to pause and record their ratings for the person they’d just met, using the same attributes (physical attractiveness, intelligence, sense of humor, kindness, confidence, and extroversion). We also asked them to tell us if they wanted to see this person again.

These measures gave us three types of data. The pre-speed-dating survey told us which attributes each person was generally looking for in a romantic partner. From the post-date responses, we discovered how they rated each person they had met on these attributes. We also knew whether they wanted to meet each person for a real date in the near future.

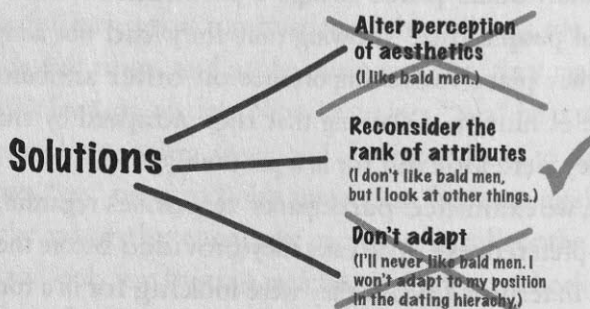
So, on to our main question: Would the aesthetically challenged individuals place as high a premium on looks as the beautiful people did, showing that they did not adapt? Or would they place more importance on other attributes such as sense of humor, showing that they adapted by changing what they were looking for in a partner?

First, we examined participants’ responses regarding their general preferences—the ones they provided before the event started. In terms of what they were looking for in a romantic partner, those who were more attractive cared more about

attractiveness, while the less attractive people cared more about other characteristics (intelligence, sense of humor, and kindness). This finding was our first evidence that aesthetically challenged people reprioritize their requirements in dating. Next, we examined how each speed dater evaluated each of their partners during the event itself and how this evaluation translated to a desire to meet for a real date. Here, too, we saw the same pattern: the aesthetically challenged people were much more interested in going on another date with those they thought had a sense of humor or some other nonphysical characteristic, while the attractive people were much more likely to want to go on a date with someone they evaluated as good-looking.

If we take the findings from the HOT or NOT, the Meet Me, and the speed-dating experiments, the data suggest that while our own level of attractiveness does not change our aesthetic tastes, it does have a large effect on our priorities. Simply put, less attractive people learn to view nonphysical attributes as more important.

The three possible ways to deal with our own physical limitations (after the first HOT or NOT study, the Meet Me study, and the speed-dating study)



Of course, this leads to the question of whether aesthetically challenged individuals are “deeper” because they care less about beauty and more about other characteristics. Frankly, that is a debate I’d rather avoid. After all, if the teenage frog becomes an adult prince, he might become just as

THE HIS AND HERS PERSPECTIVE

No investigation into the dating world would be complete without some examination of gender differences. The results I’ve described so far were combined across males and females, and you probably suspect that men and women differ in their responses to attractiveness. Right?

Right. As it turns out, most of the gender differences in our HOT or NOT study fell into line with common stereotypes about dating and gender. Take, for instance, the commonly held belief that men are less selective in dating than women. It turns out that this is not just a stereotype: men were 240 percent more likely to send Meet Me invitations to potential females than vice versa.

The data also confirmed the casual observation that men care more about the hotness of women than the other way around, which also relates to the finding that men are less concerned with their own level of attractiveness. On top of that, men were also more hopeful than women—they looked very carefully at the hotness of the women they were “checking out,” and they were more likely to aim for women who were “out of their league,” meaning several numerals higher on the HOT or NOT scale. Incidentally, the male tendency to ask many women on dates, and to aim higher (which some may see as negative), can euphemistically be called “men’s open-mindedness in dating.”

eager to use beauty as his main criterion for dating as the other princes are. Regardless of our value judgments about the real importance of beauty, it is clear that the process of reprioritization helps us adapt. In the end, we all have to make peace with who we are and what we have to offer, and ultimately, adapting and adjusting well are key to being happier.

Against All Assortative Mating Odds

We all have some wonderful features and some undesirable flaws. We usually learn to live with them from a young age and end up being generally pleased with our place in society and in the social hierarchy. The difference for someone like me was that I grew up with a certain set of beliefs about myself, and suddenly I had to face a new reality without the opportunity to adjust slowly over a long period of time. I suspect that this instant change made my romantic challenges more apparent, and it also made me look at the dating market in a slightly colder and more distant way.

For years after my injury, I agonized over the effects that my injury would have on my romantic future. I was certain that my scars would dramatically change my position in the assortative mating hierarchy, but I couldn't help feeling that this was wrong in some ways. On one hand, I realized that the dating market operates in many ways much like other markets and that my market value had plummeted overnight. At the same time, I could not shake the deep feeling that I hadn't really changed that much and that my value reduction was unfounded.

In one attempt to understand my feelings about this, I asked myself how I would respond if I had been perfectly healthy and someone who had suffered an injury similar to

mine asked me out on a date. Would I care? Would I be less likely to date that person because of her injury? I must admit that I didn't like my answer to this question, and it made me wonder what I could possibly expect from women. I came to the conclusion that I would have to settle, and this deeply depressed me. I hated the idea that women who had been willing to date me before my injury would no longer see me as a potential romantic partner. And I dreaded the thought of settling, both on my account and for the settlee. It just didn't seem like a recipe for happiness.

ALL THESE ISSUES were resolved while I was in graduate school at the University of North Carolina at Chapel Hill. One fine day, the chair of the psychology department appointed me to the colloquium committee. I can't really remember anything I did during the committee's meetings other than create the logo for the announcements, but I do remember sitting across the table from one of the most amazing people I have ever met: Sumi. By any stretch of assortative mating imaginable, she should have had nothing to do with me. We started spending more and more time together. We became friends. She appreciated my sense of humor and, in what I can only call a magical transition, at some point somehow agreed to look at me as a potential romantic partner.

Fifteen years and two children later, and with the help of the HOT or NOT data, I now realize how lucky I am that women pay less attention to physical appearance than men do (thank you, my fair readers). I also came to believe that, as unsentimental as it sounds, Stephen Stills's song has a lot of truth to it. Far from advocating infidelity, "Love the One You're With" suggests that we have the ability to discover

and love the characteristics of our partner. Instead of merely settling for someone with scars, a few extra pounds, buckteeth, or bad hair, we really do end up changing our perspectives, and in the process increasing our love of the person who is behind the mask of their face and body. Another victory for the human ability to adapt!

CHAPTER 8

When a Market Fails

An Example from Online Dating

In centuries past, a yenta, or matchmaker, performed a very important task in traditional society. A man or woman (and their parents) would tell the yenta to “find me a find, catch me a catch,” as the song in *Fiddler on the Roof* put it. To narrow the playing field for her clients, the yenta made sure she knew everything possible about the young people and their families (which is why the word “yenta” eventually became synonymous with “gossip” or “blabbermouth”). Once she found a few likely fits, she introduced the prospective husbands and wives and their families to each other. The yenta ran an efficient, viable business, and she was paid for her services as a matchmaker (or “market maker” in economics-speak) who brought people together.

Fast-forward to the mid-1990s—a world without yentas (and, in most Western societies, without arranged marriages) but before the rise of online dating. Ideals of romance and individual freedom prevailed, which also meant that each person who wanted to find a mate was pretty much left to his or her own devices. For example, I remember well the trials

of a friend I'll call Seth, who was smart, funny, and more or less good-looking. He was also a new professor, which meant that he worked long hours in order to prove that he had the right stuff to achieve tenure. He rarely left the office before eight or nine at night and spent most of his weekends there as well (I know, because my office was next to his). Meanwhile, his mother would call him every weekend and needle him. "Son, you work too hard," she would say. "When are you going to take some time to find a nice girl? Soon I'll be too old to enjoy my grandchildren!"

Since Seth was very smart and talented, it was within his power to meet his professional goals. But his romantic goals seemed out of reach. Having always been the scholarly type, he could not suddenly become a barfly. He found the idea of placing or answering a personal ad distasteful. His few colleagues in the university town he had recently moved to were not particularly social, so he didn't go to many dinner parties. There were plenty of nice female graduate students who, judging by the way they glanced at him, would undoubtedly have been happy to date him, but if he had actually tried to do so, the university would have frowned upon it (in most settings, office romance is similarly discouraged).

Seth tried to participate in activities for singles. He tried ballroom dancing and hiking; he even checked out one religious organization. But he didn't really enjoy any of those activities; the other people didn't seem to enjoy them much either. "The hiking club was particularly strange," he later told me. "It was obvious that no one there cared to explore the great outdoors. They only wanted to find potential romantic partners who enjoyed hiking, because they assumed that someone who likes hiking will be a good person in many other ways."

Poor Seth. Here was a great guy who could have been very

happy with the right woman, but there was no efficient way to find her. (Don't worry. After a few lonely years of searching, he finally did meet his mate.) The point is this: in the absence of an efficient coordinator such as a yenta to help him, Seth was a victim of market failure. In fact, without exaggerating too much, I think that the market for single people is one of the most egregious market failures in Western society.

SETH'S TRAVAILS OCCURRED before the emergence of online dating sites, which are wonderful and necessary markets in principle. But before we examine this modern version of a yenta, let's consider how markets function in general. Essentially, markets are coordination mechanisms that allow people to save time while achieving their goals. Given their usefulness, markets have become increasingly centralized and organized. Consider what makes supermarkets super. They save you the hassle of having to walk or drive to the baker, butcher, vegetable stand, pet store, and drugstore; you can efficiently buy all the things you need for the week in one convenient place. More generally, markets are an integral and important part of each of our lives, down to the most personal choices.

In addition to markets for food, housing, jobs, and miscellaneous items (also known as eBay), there are also financial markets. A bank, for example, is a central place that facilitates finding, lending, and borrowing. Other market players, such as real estate brokers, for example, try in a yenta-like way to understand the needs of sellers and buyers and match them properly. Even the *Kelley Blue Book*, which suggests market prices for used cars, can be thought of as a market maker because it gives buyers and sellers a starting point for

negotiation. In sum, markets are an incredibly important part of the economy.

Of course, markets continuously remind us that they can also fail, sometimes dramatically—as Enron demonstrated in the energy market, and as many banking institutions showed in the subprime mortgage crisis of 2008. Overall, however, markets that allow coordination among people are fundamentally beneficial. (Obviously, it would be much better if we could design markets in ways that would provide us with their benefits but not their drawbacks.)

THE MARKET FOR single people is one area of life in which we have gradually moved away from a central market and into a situation in which each individual must take care of him- or herself. To realize how complex dating can be without an organized market, imagine a town in which precisely one thousand singles live, all of whom want to get married (sounds a little like an idea for a reality television show, actually). In this small market—assuming there is no yenta—how do you determine who is the ideal match for whom? How would you pair each couple in a way that would guarantee that they would not only like each other but stay together? It would be ideal for everyone to date everyone else a few times to find their ideal match, but ruling out a mega-speed-dating event, that would take a very long time.

With this in mind, allow me to reflect on the current circumstances for singles in American society. Young people in the United States relocate more than ever for the sake of school and careers. Friendships and romantic attachments that flourished in high school are abruptly cut off as the fledglings leave home. Much like high school, college offers a milieu for friendship and romances, but those often end as

graduates strike out for jobs in new cities. (Today, thanks to the Internet, companies frequently recruit across vast, geographically dispersed distances, which means that many people wind up working far away from their friends and families.)

Once graduates land their far-flung positions, their free time is limited. Young, relatively inexperienced professionals have to put in long hours to prove themselves, particularly in the competitive job market. Interoffice romances are generally inadvisable, if not prohibited. Most young people change jobs frequently, so they uproot themselves, yet again disrupting their social lives. With every move, their developing direct and indirect relationships are curtailed—which further hurts their chances of finding someone, because friends often introduce one another to prospective mates. Overall, this means that the improvement in the market efficiency for young professionals has come, to a certain extent, at the cost of market inefficiency for young romantic partners.

Enter Online Dating

I was troubled by the difficulties of Seth and some other friends until the advent of online dating. I was very excited to hear about sites like Match.com, eHarmony, and JDate.com. “What a wonderful fix to the problem of the singles market,” I thought. Curious about how the process worked, I delved into the world of online dating sites.

How exactly do these sites work? Let’s take a hypothetical lonely heart named Michelle. She signs up for a service by completing a questionnaire about herself and her preferences. Each service has its own version of these questions, but they all ask for basic demographic information (age, location, income, and so on) as well as some measure of Michelle’s

personal values, attitudes, and lifestyle. The questionnaire also asks Michelle for her preferences: What kind of relationship is she looking for? What does she want in a prospective mate? Michelle reveals her age and weight.* She states that she is an easygoing, fun vegetarian and that she's looking for a committed relationship with a tall, educated, rich vegetarian man. She also writes a short, more personal description of herself. Finally, she uploads pictures of herself for others to see.

Once Michelle has completed these steps, she is ready to go window-shopping for soul mates. From among the profiles the system suggests for her, Michelle chooses a few men for more detailed investigation. She reads their profiles, checks out their photos, and, if she's interested, e-mails them through the service. If the interest is mutual, the two of them correspond for a bit. If all goes well, they arrange a real-life meeting. (The commonly used term "online dating" is, of course, misleading. Yes, people sort through profiles online and correspond with each other via e-mail, but all the real dating happens in the real, offline world.)

Once I learned what the real process of online dating involves, my enthusiasm for this potentially valuable market turned into disappointment. As much as the singles' market needed mending, it seemed to me that the way online dating markets approached the problem did not promise a good solution to the singles problem. How could all the multiple-choice questions, checklists, and criteria accurately represent their human subjects? After all, we are more than the sum of our parts (with a few exceptions, of course). We are more than height, weight, religion, and income. Others judge us on

*Michelle will likely shave off a few years and pounds, of course. People often tend to fudge their numbers in online dating—virtual men are taller and richer, while virtual women are thinner and younger than their real-life counterparts.

the basis of general subjective and aesthetic attributes, such as our manner of speaking and our sense of humor. We are also a scent, a sparkle of the eye, a sweep of the hand, the sound of a laugh, and the knit of a brow—ineffable qualities that can't easily be captured in a database.

The fundamental problem is that online dating sites treat their users as searchable goods, as though they were digital cameras that can be fully described by a few attributes such as megapixels, lens aperture, and memory size. But in reality, if prospective romantic partners could possibly be considered as "products," they would be closer to what economists call "experience goods." Like dining experiences, perfumes, and art, people can't be anatomized easily and effectively in the way that these dating Web sites imply. Basically, trying to understand what happens in dating without taking into account the nuances of attraction and romance is like trying to understand American football by analyzing the *x*'s, *o*'s and arrows in a playbook or trying to understand how a cookie will taste by reading its nutrition label.

SO WHY DO online dating sites demand that people describe themselves and their ideal partners according to quantifiable attributes? I suspect that they pick this *modus operandi* because it's relatively easy to translate words like "Protestant," "liberal," "5 feet, 8 inches tall," "135 lbs.," "fit," and "professional" into a searchable database. But could it be that, in their desire to make the system compatible with what computers can do well, online dating sites force our often nebulous conception of an ideal partner to conform to a set of simple parameters—and in the process make the whole system less useful?

To answer these questions, Jeana Frost (a former PhD

student in the MIT Media Lab and currently a social entrepreneur), Zoë Chance (a PhD student at Harvard), Mike Norton, and I set up our first online dating study. We placed a banner ad on an online dating site that said "Click Here to Participate in an MIT Study on Dating." We soon had lots of participants telling us about their dating experiences. They answered questions about how many hours they spent searching profiles of prospective dates (again, using searchable qualities such as height and income); how much time they spent in e-mail conversations with those who seemed like a good fit; and how many face-to-face (offline) meetings they ended up having.

We found that people spent an average of 5.2 hours per week searching profiles and 6.7 hours per week e-mailing potential partners, for a total of nearly 12 hours a week in the screening stage alone. What was the payoff for all this activity, you ask? Our survey participants spent a mere 1.8 hours a week actually meeting any prospective partners in the real world, and most of this led to nothing more than a single, semifrustrating meeting for coffee.

Talk about market failures. A ratio worse than 6:1 speaks for itself. Imagine driving six hours in order to spend one hour at the beach with a friend (or, even worse, with someone you don't really know and are not sure you will like). Given these odds, it seems hard to explain why anyone in their right mind would intentionally spend time on online dating.

Of course, you might argue that the online portion of dating is in itself enjoyable—perhaps like window-shopping—so we decided to ask about that, too. We asked online daters to compare their experiences online dating, offline dating, and forgetting about the first two and watching a movie at home instead. Participants rated offline dating as more exciting than

online dating. And guess where they ranked the movie? You guessed it—they were so disenchanted with the online dating experience that they said they'd rather curl up on the couch watching, say, *You've Got Mail*.

So it appeared from our initial look that so-called online dating is not as fun as one might guess. In fact, online dating is a misnomer. If you called the activity something more accurate, such as "online searching and blurb writing," it might be a better description of the experience.

OUR SURVEY STILL didn't tell us whether the attempt to reduce people to searchable attributes was the culprit. To test this issue more directly, we created a follow-up study. This time, we simply asked online daters to describe the attributes and qualities that they considered most important in selecting romantic partners. We then gave this list of characteristics to an independent group of coders (a coder is a research assistant who categorizes open-ended responses according to preset criteria). We asked the coders to categorize each response: Was the attribute easily measurable and searchable by a computer algorithm (for example, height, weight, eye and hair color, education level, and so on)? Or was it experiential and harder to search for (say, a love of Monty Python skits or a passion for golden retrievers)? The results showed that our experienced online daters were about three times as interested in experiential than in searchable attributes, and this tendency was even stronger for people who said they sought long-term, rather than short-term, relationships. Combined, the results of our studies suggested that using searchable attributes for online dating is unnatural, even for people who have lots of practice with this type of activity.

Sadly, this does not bode well for online dating. Online

daters aren't particularly excited about the activity; they find the search process difficult, time-consuming, unintuitive, and only slightly informative. Finally, they have little, if any, fun "dating" online. In the end, they expend an awful lot of effort working with a tool that has a questionable ability to accomplish its fundamental purpose.

Online Dating Going Awry: Scott's Story

Think about the most organized people you know. You might know a woman who organizes her wardrobe by season, color, size, and dressiness. Or on the other, less fussy end of the spectrum, a young man who divides his laundry into categories such as "day old," "okay for home," "okay for gym," and "rancid." Across the board, people can be surprisingly inventive when it comes to systematizing their lives for maximal use, ease, and comfort.

I once met a student at MIT who adopted an extraordinary method for sorting potential dates into categories. Scott's objective was to find the perfect woman, and he used a very complex, time-consuming system to accomplish his goal. Every day, he went online to search for at least ten women who met his criteria: among other attributes, he wanted someone who had a college degree, demonstrated athleticism, and was fluent in a language other than English. Once he found qualified candidates, he sent them one of three form letters containing a set of questions about what kind of music they liked, where they had gone to school, what their favorite books were, and so on. If they answered the questions to his satisfaction, he would advance them to the second step of a four-stage filtering process.

In stage two, Scott sent another form letter containing

more questions. Again, "correct" responses resulted in advancement to the next level. In stage three, the woman would receive a phone call, during which she would answer more questions. If the conversation went well, he would move her to stage four, a meeting for coffee.

Scott also developed an elaborate system to keep track of his prospective—and rapidly accumulating—potential mates. Being a very smart, analytical fellow, he logged the results in a spreadsheet that listed each woman's name, the stage of the relationship, and her cumulative score, which was based on her answers to the different questions and her overall potential as his romantic partner. The more women he logged into his spreadsheet, he thought, the better his prospects for finding the woman of his dreams. Scott was extremely disciplined about this process.

After a few years of searching, Scott had coffee with Angela. After meeting her, he was sure that Angela was ideal in every way. She fulfilled his criteria, and, even more important, she seemed to like him. Scott was elated.

Having achieved his goal, Scott felt that his elaborate system was no longer necessary, but he did not want it to go to waste. He heard that I ran studies on dating behavior, so he stopped by my office one day and introduced himself. He described his system and said that he knew it could be useful for my research. Then he handed me a disk containing all his data from the entire procedure, including his form letters, questions, and, of course, the data he'd collected on all the candidates he had filtered. I was amazed and a little horrified to find that he had amassed data on more than ten thousand women.

Sadly, though perhaps not surprisingly, this tale had an unhappy ending. Two weeks later, I learned that Scott's fastidiously chosen beloved had turned down his marriage pro-

posal. Moreover, in his Herculean effort to keep anyone from slipping through his net, Scott had become so committed to his time-consuming process of evaluating women that he hadn't had time for a real social life and was left without a shoulder to cry on.

Scott, as it turned out, was just another casualty of a market gone awry.

Experiments in Virtual Dating

The results of our initial experiment were rather depressing. But, ever the optimist, I still hoped that by better understanding the problem, we could come up with improved mechanisms for online interaction. Was there a way to make online dating more enjoyable while improving people's odds of finding a suitable match?

We took a step back and thought about regular dating, that odd and complex ritual in which most of us participate at some point in our lives. From an evolutionary perspective, we would expect dating to be a useful process for prospective mates to get to know each other—one that has been tried and improved over the years. And if regular (offline) dating is a good mechanism—or at least the best one we have so far—why not use it as the starting point of our quest to create a better online dating experience?

If you think about how the standard practice of dating works, it is clear that it is not about two people sitting together in an empty space and focusing solely on each other or sharing an intense objection to the cold, rainy weather. It's about experiencing something together: two people watching a movie, enjoying a meal, meeting at a dinner party or a museum, and so on. In other words, dating is about experiencing something with another person in an

environment that is a catalyst for the interaction. By meeting someone at an art opening, a sporting event, or a zoo, we can see how that person interacts with the world around us—are they the type to treat a waitress badly and not tip or are they patient and considerate? We make observations that reveal information about what life in the real world might be like with the other person.

Assuming that the natural evolution of dating holds more wisdom than the engineers at eHarmony, we decided that we would try to bring some elements from real-world dating into online dating. Hoping to simulate the way people interact in real life, we set up a simple virtual dating site using “Chat Circles,” a virtual environment created by Fernanda Viégas and Judith Donath at the MIT Media Lab. After logging on to this site, participants picked out a shape (a square, triangle, circle, etc.) and a color (red, green, yellow, blue, purple, etc.). Entering the virtual space as, say, a red circle, the participant would move a mouse to explore objects within the space. The objects included images of people, items such as shoes, movie clips, and some abstract art. Participants could also see other shapes that represented other daters. When two shapes moved close to each other, they could start an instant-message conversation. Obviously, this environment could not represent the full range of interactions one could experience on a real date, but we wanted to see how our version of virtual dating worked.

We hoped that our shapes would use the simulated galleries not only to talk about themselves but also to discuss the images they saw. As we expected, the resulting discussions resembled, rather closely, what happens in regular dating. (“Do you like that painting?” “Not particularly. I prefer Matisse.”)

OUR MAIN GOAL was to compare our (somewhat impoverished) virtual dating environment with a standard online one. To that end, we asked a group of eager daters to engage in one regular online date with another person (a process that entailed reading about another person's typical vital statistics, answering questions about relationship goals, writing an open-ended personal essay, and writing to the other person). We also asked them to participate in one virtual date with a different person (which required the daters to explore the space together, look at different images, and text-chat with each other). After each of our participants met one person using a standard online dating process and another person using the virtual dating experience, we were ready for the showdown.

To set the stage for the competition between these two approaches, we organized a speed-dating event like the one described in chapter 7, "Hot or Not?" In our experimental speed-dating event, participants had an opportunity to meet face-to-face with a number of people, including the person they'd met in the virtual world and the person they'd met in our standard online dating scenario. Our speed-dating event differed slightly from the standard experience in another way, too. After each four-minute interaction at the tables, participants answered the following questions about the person they had just met:

How much do you like this person?

How similar do you think you are to this person?

How exciting do you find this person?

How comfortable do you feel with this person?

Our participants scored each question on a scale from 1 to 10, where 1 meant "not at all" and 10 meant "very." As is

usual in speed-dating events, we also asked them to tell us whether they were interested in meeting the person again in the future.

TO RECAP, THE experiment had three parts. First, each of the participants went on one regular online date and one virtual date. Next, they went speed-dating with multiple people, including the person they met online and the person with whom they'd gone on the virtual date. (We didn't point out people they'd met before, and we left it for them to recognize—or not—their past encounters.) Finally, at the end of each speed date, they told us what they thought about their dating partner and whether they would like to see that person again on a real-life date. We wanted to see whether the initial experience—either virtual or regular online dating—would make a real-life date more likely.

We found that both men and women liked their speed-dating partner more if they'd first met during the virtual date. In fact, they were about twice as likely to be interested in a real date after the virtual date than after the regular online one.

WHY WAS THE virtual dating approach so much more successful? I suspect the answer is that the basic structure used in our virtual dating world was much more compatible with another, much older structure: the human brain. In our virtual world, people made the same types of judgments about experiences and people that we are used to making in our daily lives. Because these judgments were more compatible with the way we naturally process information in real life, the virtual interactions were more useful and informative.

To illustrate, imagine that you are a single man who is interested in meeting a woman for a long-term relationship, and you go out to dinner with a woman named Janet. She is petite, has brown hair, brown eyes, and a nice smile, plays violin, likes movies, and is soft-spoken; perhaps she's a little introverted. As you sip your wine, you ask yourself, "How much do I like her?" You might even ask yourself, "How likely am I to want to stay with her in the short-, medium-, and long-term future?"

Then you go on a date with a woman named Julia. Janet and Julia are different in many ways. Julia is taller and more extroverted than Janet, has an MBA and a soft laugh, and likes to go sailing. You may sense that you like Janet more than Julia and that you want to spend more time with her, but it's not easy to say why or to isolate the few variables that make you prefer her. Is it her body shape? The way she smiles? Is it her sense of humor? You can't put your finger on what it is about Janet, but you have a strong gut feeling about it.*

On top of that, even if both Janet and Julia accurately described themselves as having a sense of humor, what strikes one person as funny is not always funny to another. People who enjoy the Three Stooges may not appreciate *Monty Python's Flying Circus*. David Letterman fans may not think much of *The Office*. Fans of any of these can rightfully claim to have a good sense of humor, but only by experiencing something with another person—say, watching *Saturday Night Live* together, either in person or in a virtual world—can you tell whether your senses of humor are compatible.

At the end of the day, people are the marketing-terminology equivalent of experience goods. In the same way

*If you feel like trying this for yourself, ask a few of your acquaintances to describe themselves using the methods of online dating (without giving information that will identify who they are). Then see if you can tell, from their profiles, whom you actually like and whom you can't stand.

SPEED DATING FOR OLDER ADULTS

By the way, having an external object to react to works equally well in not-so-romantic encounters. Some time ago, Jeana Frost and I tried to run some speed-dating events for older (age sixty-five and above) adults. The objective was to open up the social circles of people who had just moved to a retirement community and, by doing so, improve their happiness and health.* We expected our speed-dating events to be a great success, but the first few were failures. Lots of people registered for them, yet when they sat at tables and faced each other, the discussions were slow to start and awkward.

Why did this happen? In standard speed-dating events, the discussions aren't particularly interesting ("Where did you go to school?" "What do you do?"), but everyone understands the basic purpose—they're trying to figure out if the person they are talking to might be a romantic fit. In contrast, our older participants didn't all share this underlying goal. Though some hoped for a romantic relationship, others were more interested in making friends. This multiplicity of goals made the whole process difficult, awkward, and ultimately unsatisfying.

Having realized what was going wrong, Jeana proposed that, for our next event, each person bring a personally important object (for example, a souvenir or a photograph) to use as a discussion starter. This time we could not stop people from talking. Their discussions were deeper and more interesting. The events resulted in many friendships. In this case, too, the presence of an external object helped catalyze the discussions and improve the outcome.

It's interesting how sometimes all we need is something—anything—to get a good thing started.

*For more on the importance of social life for health, see Ellen Langer's book *Counterclockwise*.

that the chemical composition of broccoli or pecan pie is not going to help us better understand what the real thing tastes like, breaking people up into their individual attributes is not very helpful in figuring out what it might be like to spend time or live with them. This is the essence of the problem with a market that attempts to turn people into a list of searchable attributes. Though words such as “eyes: brown” are easy to type and search, we don’t naturally view and evaluate potential romantic partners that way. This is also where the advantage of virtual dating comes into focus. It allows for more nuance and meaning and lets us use the same types of judgments that we are used to making in our daily lives.

In the end, our research findings suggest that the online market for single people should be structured with an understanding of what people can and can’t naturally do. It should use technology in ways that are congruent with what we are naturally good at and help us with the tasks that don’t fit with our innate abilities.

Designing Web Sites for Homer Simpson

Despite the invention of online dating sites, I think that the continued failure of the market for singles demonstrates the importance of social science. To be clear: I am all in favor of online dating. I just think it needs to be done in a more humanly compatible way.

Consider the following: when designers design physical products—shoes, belts, pants, cups, chairs, and so on—they take people’s physical limitations into account. They try to understand what human beings can and cannot do, so they create and manufacture products that can be used by all of us in our daily life (with a few notable exceptions, of course).

But when people design intangibles such as health insurance, savings plans, retirement plans, and even online dating sites, they somehow forget about people's built-in limitations. Perhaps these designers are just overly sanguine about our abilities; they seem to assume that we are like *Star Trek's* hyperrational Mr. Spock. Creators of intangible products and services assume that we know our own minds perfectly, can compute everything, compare all options, and always choose the best and most appropriate course of action.

But what if—as behavioral economics has shown in general and as we have shown for dating in particular—we are limited in the way we use and understand information? What if we are more like the fallible, myopic, vindictive, emotional, biased Homer Simpson than like Mr. Spock? This notion may seem depressing, but if we understand our limitations and take them into account, we can design a better world, starting with improved information-based products and services, such as online dating.

Building an online dating site for perfectly rational beings can be a fun intellectual exercise. But if the designers of such a Web site really want to create something that is useful for normal—albeit somewhat limited—people who are looking for a mate, they should first try to understand human limitations and use them as a starting point for their design. After all, even our rather simplistic and improvised virtual dating environment almost doubled the odds of face-to-face meetings. This suggests that it's not all that difficult to take human capabilities and weaknesses into account. I would bet that an online dating site that incorporated humanly compatible design would not only be a big hit but would also help bring real, flesh-and-blood, compatible people together as well.

More generally, this examination of the online dating

market suggests that markets can indeed be wonderful and useful; but to get them to achieve their full potential, we must structure them in a way that is compatible with what people can and can't naturally do.

“SO WHAT ARE singles to do while we are all waiting for better online dating sites?”

That was the question put to me by a good friend who wanted to help out Sarah, a woman who works in his office. Obviously, I'm not a qualified yenta. But in the end, I do think that there are a few personal lessons to be learned from this research.

First, given the relative success of our virtual dating experience, Sarah should try to make her online dating interactions a bit more like regular dating. She can try to engage her romantic prospects in conversations about things she likes to see and do. Second, she might go a step farther and create her own version of virtual dating by pointing the person she is chatting with to an interesting Web site and, much as in real dating, experience something together. If so inclined, she might even suggest that they try to play some online games together, explore magical kingdoms, slay dragons, and solve problems. All of which could give them a better understanding of and insight into each other. What matters most is that she make an effort to do things she enjoys with other single people and this way learn more about her compatibility with them.

From Dating Web Sites to Products and Markets

Meanwhile, what does the failure of the online dating market imply about other failures? Fundamentally, the online dating market is a failure of product design.

Allow me to explain. Basically, when a product doesn't work well for us, it misses the intended mark. Just as online dating sites that try to reduce humans to a set of descriptive words too often fail to make real matches, companies disappoint when they don't translate what they're offering into something compatible with the way we think. Take computers, for example. Most of us just want a computer that is reliable, runs fast, and can help us do the thing we want to do. We couldn't care less about the amount of RAM, processor speed, or bus speed (of course, some people really care about these things), but that's the way manufacturers describe their computers, not really helping us understand how the experience with a particular computer will feel.

As another example, consider online retirement calculators that are supposedly designed to help us figure out how much to save for retirement. After we enter data about our basic expenses, the calculator tells us that we will need, say, \$3.2 million in our retirement account. Unfortunately, we don't really know what kind of lifestyle we might have with that amount or what we can expect if we have only \$2.7 million or \$1.4 million (not to mention \$540,000 or \$206,000). Nor does it help us imagine what it would be like to live to a hundred if we have very little in our savings accounts by the age of seventy. The calculator simply returns a number (mostly out of our reach) that doesn't translate into anything that we can visualize or comprehend, and in doing so it also doesn't motivate us to try harder to save more.

Likewise, consider the way insurance companies describe

their products in terms of deductibles, limits, and co-pays. What does that really mean when we end up having to get treatment for cancer? What does a "maximum liability" tell us about how much we'll really be out of pocket if we and other people are badly injured in a car accident? Then there's that wonderful insurance product called an annuity, which is supposed to protect you against running out of money should you live to be a hundred. Theoretically, buying an annuity means that you will be repaid in the form of a fixed salary for life (essentially, Social Security is a sort of annuity system). In principle, annuities make a lot of sense, but sadly, it's very difficult to compute how much they are worth to us. Worse, the people who sell them are the insurance industry's equivalent of sleazy used-car salesmen. (Though I'm sure there are exceptions, I haven't run into them.) They use the difficulty of determining how much annuities are really worth to overcharge their customers. The result is that most annuities are a rip-off and this very important market doesn't work well at all.

So how can markets be made more efficient and effective? Here's an example of social loans: Let's say you need to scrounge together money for a car. Many companies have now set up social lending constructs that allow families and friends to borrow and lend from each other, which cuts the middlemen (banks) out of the equation, reduces the risk of nonpayment, and provides better interest rates to both the lender and borrower. The companies that manage these loans take no risk and deal with the logistics of the loan behind the scenes. Everyone but the banks benefits.

The bottom line is this: even when markets are not working for us, we are not utterly helpless. We can try to solve a problem by figuring out how a market is not providing the

help we expect from it and take some steps to alleviate the problem (creating our own virtual dating experience, lending money to relatives, etc.). We can also try to solve the problem more generally and come up with products that are designed with an eye for meeting the needs of prospective customers. Sadly, but also happily, the opportunities for such improved products and services are everywhere.