

FAITH-REST DRILL WORKSHEET

"as you have received Christ, so also walk in him" – Col. 2:6

1. PROMISE / SCRIPTURE FRAGMENT (with a "dose" of revelation in nature—Ps 19:1-6; Job 38)

Isaiah 40:28-31 Rom. 8:28 Rom. 8:38-39 Jas. 1:5

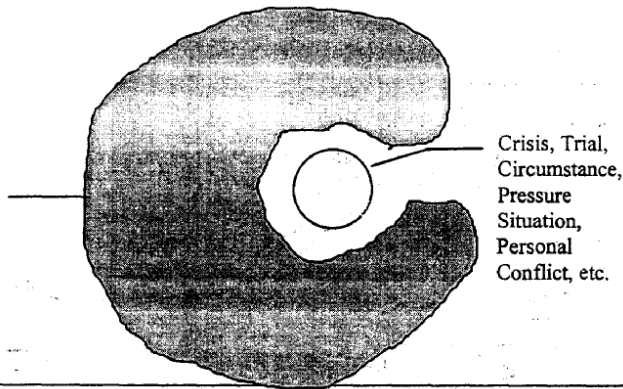
Isaiah 41:10 Rom. 8:32 Phil. 4:6-7 I Pet. 5:7

2. RATIONALE (with CLOSURE)

Getting to the point of trusting the trustworthiness of God which pleases Him (Heb. 11:6; Matt. 8:5-13) rather than not trusting which insults Him (Matt. 17:14-21).

EVENT OF REAL HISTORY	SOME SUGGESTED DOCTRINAL ENVELOPMENTS
Creation	God & Revealed Attributes vs. <i>Imagined Qualities</i>
Fall	Revealed Bracketed Evil vs. <i>Imagined Forever Unrelieved Good-Evil Mixture</i>
Covenant	God's Geophysical Contract vs. <i>Imagined Uniformity & Chance</i>
Flood, Exodus, Death of Christ, Session of Christ	Revelation of Judgment/Salvation vs. <i>Imagined Self-Help, Human Good Schemes</i>
Conquest & Settlement, Rise & Reign of David, Life of Christ	Sanctifying Program of God vs. <i>Imagined Purposelessness of Life</i>

Scripture fortified with domination of ultimate cause & purpose of crisis or trial PLUS discrediting of all unbelieving, pagan perspectives



Crisis, Trial, Circumstance, Pressure Situation, Personal Conflict, etc.

3. FAITH-REST: absolute confidence "that what He promises He is able also to perform" (Rom. 4:21) and every other so-called perspective is "vanity" (Ecclesiastes, Eph. 4:17-18) → another tactical victory for the risen, seated Lord Jesus Christ!

Why We Fall in Love

It may be a many-splendored thing, but romance
 ① *relies on Stone Age rules to get started*

BY JOSH FISCHMAN

The woman in the spaghetti-strap dress has the attention of not one but three guys at a cocktail table. Head tilted to the side, her hand reaching up to brush back her dark hair, she's talking and laughing, and the guys are laughing along with her. Except for one. He's heading up to the bar to buy her a drink.

"She's doing very well," says David Givens. "The head tilt, showing the bare arms—these are all signs of approachability." Givens, sitting about three tables away in Havanas Club—Spokane, Wash.'s hottest bar—is watching with a practiced eye. An anthropologist and head of the Center for Nonverbal Studies in Spokane, he has been in and out of bars and lounges to watch people flirt for over two decades now, driven to answer one basic question about the survival of a species.

"People don't trust one another at first. Heck, fish don't either. So the issue is: How do two bodies get close enough together to procreate?"

They flirt. Eyes try to connect with other eyes across a room. People move closer, and then attempt opening lines that, however clumsy, somehow work. He buys her that drink; she laughs at his joke. She studies his face. He guesses her intentions. Someone summons up the nerve to

ask for a telephone number, and later the nerve to dial it. "Hi. We met the other night, and I was wondering . . ." A date: a bite of lunch, a cup of coffee, maybe a movie. They talk about where they work, where they live, about shared friends, shared interests, shared values. And perhaps another date.

And then the talk flows more easily, the laughs come comfortably. He talks about his family, she about hers. Evenings out and parties at friends' become shared memories, and a growing familiarity gives way to fondness. To liking. Even to love. And to promises to have and to hold, forever and ever.

This is all well and good. But beneath love's ineffable mysteries and majesty, there lie some basic principles of biology and genetics. Mother Nature casts her strong shadow over much of that initial activity that sparks the cascade of events leading to love. Flirting, for example, has rules that

SECOND TIME A CHARM.

Artie Butler, 28, and Janel Lenox, 29, were set up by friends but didn't connect. On a second try, she thought Butler was the nicest man she'd ever met. And he was struck by Lenox's dignity and beauty. • "She has a very small waist and nice long legs."

cross-cultures and countries, based on gestures that seem anchored deep within our evolutionary history. And those gestures, scientists are now discovering, follow codes of attraction and beauty that may be millions of years old. Those codes, in turn, have evolved because they point us—like Cupid's fleet arrows—toward the healthiest mate. Why? Because attraction to a healthy person gives us our best chance to have babies and pass our genes to the next generation.

"You cannot talk about beauty without talking about health," says psychologist Devendra Singh of the University of Texas-Austin.

Men, for instance, have been drawn to certain-size hips and waists for more than 20,000 years. Artie Butler, a 28-year-old Los Angeles cop, for instance, admires the intelligence and self-esteem of his fiancée, Janel Lenox, a 29-year-old schoolteacher. But her figure made a big first impression. "She has a very small waist, small arms, big butt, and nice long legs," he says frankly. "I love the waist area."

Butler's reaction, researchers contend, has some deeply rooted biology behind it: that waist and hip size is better linked to having babies than is a less curvaceous figure. Women, scientists reported several weeks ago, seem drawn to tall men, who in turn father more babies than shorter men.

So, though true love may be deep, complex, and sculpted by individual psychology, that first tug of desire has a face and shape driven by that need to reproduce.

After all, the name of the game of life—in the long run—is to move your genes into succeeding generations. Millions of years ago, human ancestors had to find a mate to do this without help from Internet dating services, DNA analysis, social clubs, or village matchmakers. All they had to go on was outside appearance. Men looked for signs that women would have healthy children, such as fat around the hips that could nourish a pregnancy; women looked for signs that men had good genes, such as height or a strong build.

A case of immunity

Eugenia Kang, who just graduated from Harvard, didn't see much of this when she met Joe Herger, who is a year younger and had been chasing her since he hit campus. "When I first met him I had no impression because he was just some freshman volleyball player," Kang remembers. "No" impression isn't quite accurate. Herger really made a bad one. He was drunk and handcuffed to another guy at a college

party, and dragged them both over to talk to Kang. Bad move; it took him until last year to really get her attention. By that time, says Kang, "he was older and better looking. He was working out, not the skinny freshman anymore. And he was more mature." So, she says, she "chased" someone for the first time in her life.

What Kang probably started chasing, according to Randy Thornhill, a biologist at the University of New Mexico in Albuquerque, were hormonal changes to the body, and the disease-fighting potential these hormones reveal. After all, mating with a creature who produces sickly children, or who dies before raising them, is a fast trip down an evolutionary dead end.

Birds, with their elaborate plumage, actually figured this one out long before humans did. Pretty feathers take a lot of energy to grow and maintain; the most famous example is the peacock's tail. Naturalists have asked: Why bother? This is energy that could be used for finding and eating food, for instance, or fighting off disease. To use it to grow a long ornamental tail—well, you'd want something pretty big in return.

That return comes in the form of more opportunities to mate. It works because the tail is not just a demonstration of beauty but of toughness. The bird is saying to potential mates, in effect, "I'm strong enough, and have a powerful enough immune system, that I can fight off parasites and fight for food even while dragging this huge tail behind me. So I've got the genes that would make for a great mate."

Showoffs, sure. But people do essentially the same thing, says Thornhill, author of the forthcoming book *A Natural History of Rape* (Page 48). In humans, hormones can mark a strong immune system, particularly the male sex hormone testosterone and the female sex hormone estrogen. But since hormones cannot easily be examined for potency, people have to look for outer signs. In men, testosterone leaves its mark on the face. Adolescent boys with the highest testosterone levels, Thornhill has found, have bigger chins and craggier brows as adults—think John Wayne or Jack Palance, think the opposite of Woody Allen. So like the peacock's tail, the craggy face is sending a message about the robust constitution of its owner: His immune system is tough enough to withstand infectious assault, and probably other kinds of assault as well. These would be good genes to have in your baby.

Testosterone is also linked to muscle buildup, a signature of the transition from boy to man—something Kang picked up on—and an obvious evolutionary advantage. Height is a similar feature: Last month researchers reported that out of about 3,200 men, once con-



THE LOOK OF LOVE. Eugenia Kang, 22, met Joe Herger, 21, when the two were students at Harvard. He didn't make much of an impression on her at first, but a few years and his more mature body and mind made a world of difference to her eyes.

● "He was older and better looking . . . not the skinny freshman anymore."



founding elements like education and age were accounted for, the taller men were much more likely to have children.

What men notice is when estrogen starts creating a womanly figure, chiefly by depositing fat around the hips and shrinking the size of her waist relative to her hips. The magic proportion, according to Austin's Singh, is a waist that is between 60 percent and 70 percent of hip size (Page 46). The reason this particular waist-to-hip configuration is attractive isn't certain, but Singh suspects it's because of a strong evolutionary connection between that body type and fertility. Millennia ago, food was an irregular commodity; you had to catch as catch can. So when scarcity overlapped with pregnancy, fat on the hips, rear, and thighs was invaluable, especially during the third trimester and when nursing. Even today this waist-hip ratio is one of the best predictors of a successful conception.

Daozheng Lu, a 61-year-old technology researcher in Tampa Bay, Fla., remembers that his wife's shape made a big impression when they met in the mid-1950s near Shanghai. "She basically looked healthy," he says. "A lot of the girls in China at that time were very skinny." But Li-Lo Hsu, soon to become Li-Lo Lu, was more well-

OPPOSITES ATTRACT. Cartoonist Ellen Slingerland, 52, thought that her husband Rudy, 45, sitting in the shadows when they first met, was a haughty intellectual. He, a geologist at Pennsylvania State University, thought Ellen was extremely flamboyant.

• "We met, we hated each other, and then we got married."

rounded. And her first impressions of her future husband? "He was pretty handsome. He was taller than me."

Double your pleasure

Another outside clue to the genes within is symmetry: a good match between both sides of the face as well as arms, hands and wrists. In several studies, Thornhill and his colleague Steven Gangestad have found that both sexes think symmetry is stimulating. Again, the researchers theorize that it is a sign of a strong constitution. Two copies of a gene are usually better than one, should one copy turn defective; and this idea of a backup carries out to eyes, hands, and arms. Symmetry is so important that women, apparently, can not only see it but smell it as well. The New Mexico researchers found that women, at the time in their monthly cycle when they're most likely to conceive, rated T-shirts that had been worn by symmetrically faced men as smelling more attractive than other shirts. (Men, reinforcing their reputation for insensitivity,

had no nose for symmetrical women.)

The evolution of attraction has an interesting twist, however. Women, though drawn to symmetrical and testosterone-marked males for mating, prefer other facial types when it comes to raising a family. Researchers at the University of St. Andrews in Fife, Scotland, found that women—except when they are most likely to conceive—rated male faces as more attractive if they showed *feminine* features: a smaller jaw and bigger eyes, for example. Such guys, the researchers speculate, may be more likely to stick around and help raise a family. Women, evolutionary psychologists argue, spend more of their energy in pregnancy and have fewer mating opportunities than do men. So to make the most of things, women may want both the hardy genes for the family tree and the responsible behavior of someone who will help it grow.

This is, apparently, what Laura Bernstein felt she got in her husband, Stan Ikonen. When the East Coast public relations



executive met the Texas firefighter, she was turned off by the fact that he was a hunter. But she was attracted to his cowboy image, and also because he was bright and responsible. And at age 51, 14 years after they met, she still is.

Men take almost the direct opposite approach. Victor Johnston, a psychobiologist at New Mexico State University in Las Cruces, found the heart-shaped face, small at the jaw and wide eyes, combines elements that are particularly desirable to men. This is because of men's historical mating habits. Over the Internet, Johnston had people vote in a kind of "face breeding" program that took the most popular female faces in categories such as attractiveness and youthfulness and merged them to form composites. What

FAMILY TIES. Daozheng Lu, 61, and Li-Lo Lu, also 61, first met near Shanghai where their parents lived in the 1950s. Young intellectuals, married and then repeatedly tossed about by the political storms of China, they ended up living in Tampa Bay, Fla.

● "She basically looked healthy. A lot of the girls in China... were pretty skinny."

he found was that beauty—that heart-shaped face—overlapped with youth most often around age 22. That's during the peak fertility years, Johnston says, and it's no accident. Fertile women give men the best chance of passing their genes down the line. So it makes sense, from the long-term view of evolutionary success, to be most attracted to fertile youth.

Getting into someone's genes

It also makes sense to get some genetic diversity into the family tree—it gives crea-

tures from guppies to people a better shot at beating diseases that decimate one genetic blueprint but can't knock out a slight variation. Inbreeding, on the other hand, lays bare that vulnerability. And again people seem to have evolved ways to spot mates with healthy genetic differences without calling in the DNA analysts.

Carole Ober, a geneticist at the University of Chicago, has studied one group that should be especially prone to inbreeding: the Hutterites, a close-knit religious community in South Dakota, all descended from

Desire's shape

● Women with "attractive" figures have one thing in common: the ratio of their waists to their hips. Despite the obvious differences in curves among the women shown here, their ratios are all around .6 to .7. This fundamental has held true for admirers from century to century.



Venus de Milo
Objet d'art .68

Marilyn Monroe
Actress .66

Sophia Loren
Screen gem .68

Twiggy
British model .69

Kate Moss
Waifish model .68

SOURCE: DEVENDRA SINGH, UNIVERSITY OF TEXAS, AUSTIN

founders. She examined genes that make up the group's immune systems. Surprisingly, couples showed many more differences in these genes than one might have expected given the small starting population and close contact of the present group. That's good for group survival, because couples who did have close matches on these genes also had higher miscarriage rates. Swiss researchers, also studying immune system genes, found women were most attracted to the scent of men whose genes were most distinct from their own.

And indeed, people may be led by the nose to make these genetic choices, Ober thinks. "Odor is really important for kin recognition in rodents; that's been proven," she says. It's not just smell. Odorless chemicals known as pheromones, wafting from one animal to the nose of another, strongly affect sexual behavior. It could be true in humans, too. That notion got a big boost when Ober's Chicago colleague, psychologist Martha McClintock, finally discovered pheromones in humans in 1998. One of these compounds lengthens the menstrual cycle; the other one shortens it. It's the first clear sign that humans use chemical communication that can affect sexual activity. In animals, pheromones determine which hamsters mate, which male elephants dominate others; female monkeys in heat even release a pheromone that works as an aphrodisiac. McClintock cautions that pheromone effects in people are not likely to be as strong or clear-cut, since human behavior is more complex than that of lower animals. But chemical effects are doubtless there; that, Thornhill suspects, is how women are able to sniff out symmetry.

Safe sex

Women—and men—also need to sniff out something else about a potential partner: danger. No matter how attractive the plumage, approaching someone who will thwack you in the head is no way to ensure the future of your genes. And that's where behavior comes in, to signal safety as people begin to get to know one another.

"Courtship is like a never-ending series of permissions that you have to get, all the way down the line," David Givens says as he strains to be heard above the pounding beat in Havanas Club. One person signals a little interest, the other person doesn't rebuff, and the first person then tries a stronger signal to see what happens. The key is that both men and women need to appear harmless.

That's how it was for Gordon Arnold, a banker in Plano, Texas. He felt completely comfortable with his wife, Julie, when they first met. The couple, both 56,

remember quickly reaching a sense of ease with one another. It wasn't a total accident. On their first date, Gordon particularly recalls being quiet because he didn't want to dominate the conversation and scare Julie away.

There are several signals about safety that remain constant from Spokane to Bali, and from people to apes, indicating their evolutionary importance, Givens says. The shoulder shrug is a prime example. The reflex is a sign of uncertainty, part of an age-old startle response intended to protect the vulnerable neck. A chagrined Bill Clinton did it on national television when he apologized for his illicit relationship with Monica Lewinsky, the anthropologist notes.

A tilted head uses some of these same muscles and nerve circuits. Both gestures, using muscles and nerve circuits that can be traced back through millions of years of animal history and seen in animals today, are signs of withdrawal, not what you'd see in a prelude to an attack.

Nor is holding your hands palm up, as one of the men talking to the dark-haired woman in Havanas does. The gesture is controlled by neural circuits found in anatomy as simple as fish brains and spinal cords, so it even predates palms. It's a muscle reflex that bends the body and neck back, away from danger, Givens says; as those muscles contract they also rotate the forearms and palms up.

The signals run from the hands down to the feet. Givens, who consults for corporations, asks, "Have you ever looked at a boss talking to employees? Look at the feet position. His are pointed out, which is a gesture of dominance, while everyone gathered around him has feet pointed in." The same foot position showed up on many videotapes Givens made of men approaching women in bars, in parks, in restaurants.

What goes on without words can even overcome verbal faux pas. "Rude Rudy" is what Ellen Slingerland called her husband when they first met—though she did it behind his back. To his face, the



KEYSTROKES AND HEARTBEATS. Skipping visual first impressions, Bruce and Ronni Keller of Las Vegas, ages 34 and 30, met over the Internet. A face-to-face meeting heightened their interest and their attraction, and eventually led to a proposal.

● *On the Net* "it's a lot easier to open yourself up, to put yourself out there."

Philipsburg, Pa., cartoonist voiced a vigorous analysis of Shakespeare, which led Rudy, a geologist, to call her stubborn and opinionated. She decided he was condescending. But her first impression of him, sitting in the shadows on a porch, an intriguing, mysterious intellectual, never left. And he liked her flamboyant gestures. So they went out again, and again. That was 18 years ago. "We met, we hated each other, and then we got married," says Rudy.

Mind over body

Still, despite all this foot shuffling and symmetry sniffing, people are not total prisoners of ancient instincts. There are a wide variety of couples out there. And the reason is that a lot of personal experience gets layered on top of all this biology and pulls people in different directions, says psychologist Ayala Malach Pines of Ben-Gurion University in Israel and author of the recent book *Falling in Love: Why We Choose the Lovers We Choose*. "Parts of our romantic code are shared with other cultures and people. But parts are very individual."

Early experiences, in particular, seem very powerful. In Pines's surveys of American and Israeli couples, more women than men described their partners as similar to their fathers. And men described their partners as similar to their mothers.

And today's technology allows couples to sidestep the physical world completely—at least for a while. Ronni and Bruce Keller met in a chat room on the Internet. Bruce, 34, struck Ronni, 30, as "naively honest," a pleasant contrast, she says, to her ex-husband. And he found, by chatting online, that "it's a lot easier to open yourself up, to put yourself out there." Chats turned into phone calls, which turned into actual visits. Last August it all turned into a marriage for the Las Vegas couple.

This should give hope to those without lantern jaws or the perfect proportions of waist to hips. "People bring different things to the mating market," Thornhill says. "You can compensate for looks." A man who doesn't look as if he stepped from a Marlboro ad can, for instance, show he's a good, caring partner, with all the evolutionary advantages that entails. The same is true for a woman without those extra-wide eyes. The trick is to somehow pack those sentiments into initial contact. And remember that things like symmetry have their limits: Supermodel Cindy Crawford has a beauty spot, but it's on just one side of her face. ●

With Jia-Rui Chong and Roberta Hotinski

For more on evolution, genetics, and attraction, visit www.usnews.com.

SEX OR POWER?

A fight over the evolution of rape

They're saying men evolved to be rapists?" Teri Gutierrez cries incredulously. The advocacy coordinator at Sexual Support Services in Eugene, Ore., is thunderstruck. "That's absurd. Women are getting seriously hurt and they're saying that it's evolution?"

In a word, yes. Biologist Randy Thornhill and anthropologist Craig Palmer, in a new book that's become a lightning rod for controversy, argue that rape has evolved, over millions of years, as a strategy to help men repro-

duction, the scientists argue. Women, for instance, should not dress provocatively to inflame desire.

The idea hasn't been universally derided. "On the one hand, I think it's a hypothesis, carefully put forward, that needs to be taken seriously," says David Buss, author of another new book that deals with coercion and reproduction, *The Dangerous Passion*. "On the other hand, I don't think the evidence is truly there."

For one thing, he says, rape is much less common in tribal societies than it



Were these Roman warriors merely maximizing their reproductive fitness? ● "Women are getting seriously hurt and they're saying it's evolution?"

duce. *A Natural History of Rape*, soon to be published by the MIT Press, is a far cry from most recent thinking on the topic. Susan Brownmiller, in *Against Our Will* in 1975, argued that rape is about power and domination, and today it's hard to find a rape crisis center that disagrees.

A brutish alternative. But Thornhill and Palmer contend that rape is a way for males to spread their seed, increasing the chance that their genes will be passed to future generations. They don't endorse rape, the scientists say emphatically; they just want to point out that it's a brutish alternative males might use when flowers and candy fail. Other animals—from scorpion flies to dolphins—certainly do. And this sexual perspective has implications for pro-

is in modern ones. "Traditionally, women live with lots of brothers and uncles around, and retribution would be swift if a rapist tried anything. He'd get seriously hurt. And that hardly seems like the path to evolutionary success."

Meredith Small, an anthropologist at Cornell University, adds that Thornhill and Palmer haven't shown that "raped women bear their rapists' children. If not, the strategy is a reproductive failure."

Finally, Carolyn Ford, director of the Albuquerque Rape Crisis Center in New Mexico, scoffs at the idea of dressing for protection: "We saw 464 victims here last year," she says. "Most were wearing jeans. They're not provoking anything." —J.F.