

Rep. Tim Ryan, Ohio Democrat, (left) joins Tara Brach and Jonathan Foust in seated yoga positions before talking to an audience about his book, "A Mindful Nation," at BuddhaFest, in Arlington last month. The book touts the benefits of mindfulness as a stressreduction method

G in Co

By Patrick Hruby

hen Rep. Tim Ryan recently published a book touting the benefits of a meditative practice known as mindfulness, the Ohio Democrat had a target audience: anyone and everyone suffering from chronic stress, emotional exhaustion, information overload.

In other words, himself.

His co-workers.

Oh, and pretty much the rest of America, too. "I don't want to give away names, but I've had members of Congress approach me and say, 'I want to learn more about this,' "Mr. Ryan said. "Between the fundraising, being away from family, the environment of hyperpartisanship, Washington is really stressing people out. They're getting sick.

"And I haven't met anyone in the country that isn't feeling a high level of anxiety right now, given the economy and what's going on in the world. So mindfulness is for everyone."

In his book "A Mindful Nation" and during regular ıblic speaking engagements, Mr. Rvan asserts that mindfulness is a simple, largely overlooked tonic for what ails us. That it not only can help individuals cope with the pressures of modern life, but can also help treat traumatized veterans, raise better-educated children and reduce ballooning health care costs — all while fostering a less divisive, more productive Washington culture in which solving problems takes precedence over scoring political points.

If all that sounds a bit implausible — if not downright Panglossian, a mushy mashup of self-help pablum, former NBA coach Phil Jackson's Zen -master koans and the Beatles going to India — then surprise: Decidedly unsentimental science backs Mr. Ryan up.

According to a growing body of research, regular meditation alleviates depression, boosts memory and the immune system, shrinks the part of the brain that controls fear and grows the areas of the brain responsible for memory and emotional regulation.

Small wonder, then, that corporations ranging from Google to Procter & Gamble Co. offer mindfulness training for their employees. Or that the U.S. Marines

Ohio Democrat uses mindfulness stress-reduction techniques to get through the day

are experimenting with a pilot program of their own. In 2007, the National Institutes of Health reported that 9.4 percent of American adults practiced meditation, up from 7.6 percent in 2002.

"I think this is going to be the equivalent of the physical exercise revolution in this country," Mr. Ryan said. "Once desk jobs became the norm, everyone realized you have to run and work out, and gyms popped up everywhere.

'Today, mindfulness will be a response to the wars, struggling to make ends meet, the general anxiety out there — and in Washington, to the daily rhetoric and screaming at each other on TV shows. This can be transformational. It should be mainstream. We need this.'

An unlikely advocate

Like many of his House colleagues, Mr. Ryan starts most days with a cup of coffee; unlike many of them, he then spends about 45 minutes sitting in a half-lotus position — legs crossed, palms open thinking about ... nothing.

Not his busy schedule.

Not the bad-and-worse morning news. Not the day's coming political combat, or the endless scramble for campaign funds.

Instead, Mr. Ryan focuses on breathing. On recognizing his thoughts and emotions. On inhabiting the moment. His heart rate slows. His body relaxes. External noise and distractions slip away. He feels calm, centered and focused.

This, in a nutshell, is mindfulness — a purposeful awareness of one's self in the present, fostered by

"I notice a difference when he doesn't do it," said Jacquelyn Calderone, Mr. Ryan's girlfriend.

At first glance, Mr. Ryan seems like an unlikely advocate for an exercise that has deep roots in Buddhism. A five-term incumbent from an Ohio district that includes Youngstown and part of Akron, the 38-year-old congressman is a 6-foot-4-inch, 220-pound former high school foot-

> ball star and a lifelong Catholic. Mr. Ryan is quick to point out that mindfulness is not a religious practice, but rather a secular mental technique that can be effective regardless of spiritual

» see CHILLING | C9

HOLLYWOOD

Author: Vindication in Wood death probe

BY AGENCE FRANCE-PRESS

The author of a book that called for the reopening of a probe into Hollvwood icon Natalie Wood's mysterious 1981 death welcomed on Tuesday a report that the official cause of her death has been changed.

The Los Angeles County Coroner's Office has neither confirmed nor denied the report by celebrity news website TMZ last week that the cause has been altered from "accident" to "undetermined" following the November revival of a probe into what happened.

The L.A. County sheriff's office and Wood's widower, Robert Wagner, whose role in her death long has been a mystery, also have declined to com-

Still, Marti Rulli, coauthor of "Goodbye Natalie, Goodbye Splendour," said she thinks the reported adjustment occurred because of evidence of bruising on the body of the actress, found on the morning of Nov. 29, 1981, off California's Catalina Island.

If true, the TMZ report "confirms everything in 'Goodbye Natalie, Goodbye Splendour' ... that Natalie's case really needed a good investigation," she told AFP.

"Many things were overlooked in the original investigation, and I think it shows progress ... they are saying that the case is alive and active and still being investigated."



ASSOCIATED PRESS

In this 1980 photo, actor Robert Wagner appears with his wife, actress Natalie Wood. Los Angeles sheriff's homicide detectives are taking another look at Wood's 1981 drowning death, based on new information.

Ms. Rulli went on to say she thinks Wood's bruises were not consistent with "a simple fall into the ocean."

"It would have been virtually impossible to acquire that many bruises in so many areas of her body with one fall," she said.

The death of the "West Side Story" and "Rebel Without a Cause" star at age 43 has long been a Hollywood mystery — but was thought to have been laid to rest until November's surprise announcement that police were reviving

The captain of the boat on which Wood and Mr. Wagner were vacationing said the couple had a fierce fight shortly before she vanished, and that Mr. Wagner delayed a search that could have saved her.

Dennis Davern, former captain of the "Splendour" — and who co-wrote the 2009 book with Ms. Rulli — has said he thought Mr. Wagner was responsible for her death.

Wood was found drowned about a mile away from the yacht. Police reports at the time said she was wearing a nightgown, socks and a down jacket, and had multiple bruises on her body and arms and an abrasion on her left cheek.

A publicist for Mr. Wagner said in November that his family supported the police probe, while warning against people "trying to profit from the 30-year anniversary of her tragic death."



Chris Brown

Judge wants details on Brown's community service

A judge ordered an audit of Chris Brown's community service progress Tuesday after a prosecutor handling his felony assault case cited a possible discrepancy in the amount of work he has performed.

Deputy District Attorney Mary Murray requested the audit because she said the records are not clear on how many hours Mr. Brown performed and where the work has been done. Mr. Brown had been allowed to perform six months' worth of community labor in his home state of Virginia, but a judge said probation officials in Los Angeles should review detailed records to ascertain how much work he actually has done.

Superior Court Judge Patricia Schnegg said Mr. Brown had completed a significant number of hours, but did not elaborate.

Mr. Brown's attorney Pat Harris did not object to the audit, and said after the hearing the issue was related to which jurisdiction his client performed his community service in.

The judge said part of the issue was that the court hadn't received

detailed logs of Mr. Brown's community service, which is supposed to comprise of graffiti removal, roadside cleanup and other manual labor. Judge Schnegg said those logs previously had been provided, but not updated recently.

Mr. Brown, 23, remains on probation for beating his then-girlfriend Rihanna in February 2009. He has completed domestic violence and anger management counseling.

Judge Schnegg ordered Mr. Brown to appear at the next hearing, tentatively scheduled for Aug. 21. It will be the first time Mr. Brown has had to appear in court in several months, and the R&B singer generally has received favorable reports from probation officials and Judge Schnegg.

There was no mention of the recent New York City bottle-throwing nightclub brawl that left Mr. Brown with a cut on his chin, or a woman's claim that the singer had snatched her cellphone in Miami after she tried to take a picture of him.

Martha Stewart to remain at her company into 2017

Martha Stewart will stay at the

According to the Associated Press,

the lifestyle, media and merchandising company also said Tuesday that Lisa Gersh is the new CEO. Ms. Gersh had been named president and chief operating officer in May 2011 with the expectation that she would assume the CEO role.

Charles Koppelman, the former chairman of the board, had served as CEO during a series of management changes. Ms. Stewart took over as non-executive chairman in May. She had rejoined the board in September at the end of a five-year ban on serving as a board member or as an executive of a public company as part of a settlement with federal regulators related to insider trading.

"I look forward to continuing our drive towards sustainable profitability," Ms. Gersh said in a statement. "We are focused on elevating the iconic Martha Stewart brand to an even higher level and putting our content and products in reach of even more consumers."

The New York company has posted an annual loss for four straight years.

Judge won't stop Octomom appearance at strip club

An effort to cancel a strip-club performance by the woman known as "Octomom" has been denied by a Florida judge.

Circuit Judge Timothy McCarthy has ruled against holding an emergency hearing requested by T's Lounge in West Palm Beach, saying the situation does not "constitute a legal emergency."

T's Lounge was trying to thwart Nadya Suleman's scheduled appear-

ance Friday at a competing club. She had signed a contract to dance topless at T's this week, but later backed out in favor of the Playhouse Gentleman's Club in Hollywood.

Miss Suleman's show can go on, though a breach-of-contract lawsuit filed against her by T's will likely

Messages left for her spokeswoman were not immediately returned Wednesday.

Guitarist Slash gets star on Hollywood Walk of Fame

Guns N' Roses guitar legend Slash was honored with a star on the Hollywood Walk of Fame on Tuesday — with fellow former hell-raiser Charlie Sheen joining those paying tribute.

The British-American musician said the award was particularly fitting because he went to school nearby, and spent his formative years on Hollywood Boulevard dreaming of becoming a rock star like Led Zeppelin, Agence France-Presse re-

"This is a really special acknowledgment ... it's the coolest thing you could ever get," he said as hundreds of fans gathered for the ceremony outside Hard Rock Cafe, just down from the world-famous Grauman's Chinese Theatre.

"I'm such a part of this scenery. I went to school here, and started playing guitar here, literally 100 yards down the street. ... I got a very Technicolor education up here," added the guitarist, who was born in London.



Slash shows his star at the Hollywood Walk of Fame ceremony on Tuesday in Los Angeles. The legendary guitarist was a member of Guns N' Roses.

Mr. Sheen, who has had his own battles with drugs and alcohol over the years, joked that the first time he met the guitarist, "I was so excited I called him 'Smash."

Following the ceremony, the 46year-old musician — whose real name is Saul Hudson — posed for photos with his wife, Perla Ferrar, and their two sons.

After quitting Guns N' Roses in the mid-1990s, the guitarist had success with other bands, including Slash's Snakepit and Velvet Revolver, before embarking on a solo career.

While a typical rock wild man in his early heyday, Slash has been clean and sober for several years, and has even reportedly stopped

From page C10

beliefs. He compares it to his grandparents praying the rosary — and also to the athletic feeling of being "in the

"Your mind and body sync up into a flow state, without a lot of mental chatter," Mr. Ryan said. "It's like standing over a putt. I think I'm going to miss every time. And I do! But good golfers just do it.

"I've heard from CEOs of major corporations, and members of Congress talk about their spouses getting mad at them when they're home, because they're spaced out and thinking about work. It's so easy for all of us to have our mind on the last meeting or the next one. Mindfulness helps you to be where you are when you're there. When I'm interacting with constituents who are suffering, that matters."

Ryan jokes that his football background led him to mindfulness as a "quarterback who never had a really good offensive line," yoga was all his beat-up body could manage. In reality, however, Mr. Ryan was stressed: frequent travel, perpetual campaigning and an increased workload following the 2006 Democratic capture of the House left him irritable, distracted and on the verge of total burnout.

While playing with his infant nephew, Mr. Ryan realized he was in the moment — focused and aware and that he was almost never like that at work, or even when spending time with the rest of his family.

Two days after the 2008 elections, Mr. Ryan joined a group of a few dozen business leaders at a five-day mindfulness retreat conducted by Jon Kabat-Zinn, founder of the Stress Reduction Clinic at the University of Massachusetts Medical School and a leading mindfulness advocate.

Held in the Catskill Mountains of upstate New York, the retreat had a few simple rules:

 No reading, writing or working on computers.

No making eye contact with oth-

- No talking in general, and no
- talking at all for a 36-hour period.

 No smartphones. "I had two BlackBerrys," Mr. Ryan said. "I checked them at the door. You learn to follow your breathing, appreciate how your mind works. When it starts to wander off, you come back to your body.

"By the middle of the retreat I felt my mind and body sync up. Like being in the zone. I was enjoying it. The only problem is that once you leave, it can quickly go away."

Mr. Ryan was determined not to let that happen. After the retreat, he approached Mr. Kabat-Zinn.

This needs to be in schools, he said. And the health care system. And couldn't we use it to help soldiers?

There's already a lot going on, Mr. Kabat-Zinn replied. If you're truly interested, there are people I can put

you in touch with. "When you taste this stuff, it has profound effects," Mr. Kabat-Zinn said. "That's why it has lasted 2,600-plus years. It's not just some silly quaint

company she founded, Martha Stewart Living Omnimedia Inc., as chairman and also will be its chief creative officer through June 2017.



Rep. Tim Ryan, Ohio Democrat, says, "Between the fundraising, being away from family, the environment of hyperpartisanship, Washington is really stressing people out. They're getting sick."

thing they used to do in Asia because they had nothing better to do. It's a way to stay healthy."

The science of mindfulness

Mr. Ryan took Mr. Kabat-Zinn up on his offer. While researching his book, the congressman met with actress Goldie Hawn — who has started a foundation that teaches meditation to schoolchildren — and also Richard Davidson, a University of Wisconsin neuroscientist who studies the effects of mindfulness on the brain.

On a Super Bowl Sunday, Mr. Davidson showed Mr. Ryan a meditating subject undergoing a functional magnetic resonance imaging (fMRI) scan — the same kind of brain scan used in studies showing that meditation appears to strengthen brain circuits responsible for concentration and empathy, and that habitual meditators experience permanent changes in brain structure and function.

"Tim was interested in the potential of this, the impact this research might have to shape policy, bringing these kinds of methods into education, health care, leadership," said Mr. Davidson, the director of University of Wisconsin's Lab for Affective Neuroscience. "To actually see the inside of the brain of a person who is meditating is very instructive.

"There's a huge amount of suffering that can be prevented with healthy habits of the mind. Decreased substance abuse, suicide, bullying, drunk driving, anxiety and depression. The benefits are considerable and wide-ranging."

Since the 1970s, studies have shown that meditation can help reduce chronic pain and high blood pressure; improve stamina and reaction time; even reduce the severity of symptoms in irritable bowel syndrome, a mysterious chronic disease that has no cure, no known cause and produces pain, cramping and bloat-

Research also indicates that regular meditation makes people better, well, people — more patient, empathetic and altruistic, and less hostile, angry and fearful.

In one behavioral study, meditators reacted angrily half as often as nonmeditators when on the receiving end of an unfair offer in the "ultimatum game," a classic economic experiment in which two people are asked to split a sum of money: One player decides the proportion of the split, and if the second player rejects it, both players

get nothing. "Mindfulness is a major tool in the overall toolbox of mental strengths," said Rick Hanson, a neuropsychologist and author of "Just One Thing: Developing a Buddha Brain One Simple Practice at a Time." "It might seem weird, or from the East, or anti-Christian. But it's consistent with a long line in Western philosophy and culture going all the way back to Socrates, the importance of being aware of your inner workings.

"We also know that these inner skills are basically like working a muscle. You work it a little, you get a little change. If you work it a lot, you get a lot."

How so? According to Mr. Davidson, regular meditation produces positive structural and functional changes in the pathways of the brain that regulate attention and emotion — which in turn are connected to the body's immune, endocrine and visceral systems. Research also suggests that mindfulness-based meditation decreases both inflammation and the production of the stress hormone cortisol, both of which have been linked to a number of chronic diseases.

Mr. Hanson said that cortisol sensitizes the amygdala, an almond-shaped portion of the brain that regulates fear and is linked with aggression; scientists strongly suspect that abnormal amygdala function plays an important role in phobias, autism, depression and post-traumatic stress disorder.

"It's the alarm bell of the brain, tied to ancient circuits, and particularly focused on threats," Mr. Hanson said. "It made sense for cavemen, because rule one in the wild is 'Eat lunch today, don't be lunch today.'

"In modern everyday life, though, just juggling a lot of tasks, running your kids from here to there, worrying about your pension — let alone working in Washington, D.C., which is like warfare without bullets — what all of that does is activate the amygdala, making us feel more and more threatened and reactive."

The result is a vicious cycle: Stress fires up the amygdala, which overreacts to our environment, which begets more stress. The good news? A study last year found that people who meditated for about 30 minutes a day for eight weeks had measurable reduction of gray matter in their amygdalas and an increase of gray matter in the hippocampus, an area associated with learning and memory.

Other studies, Mr. Hanson said, have shown that people who regularly practice mindfulness also experience thickening of the insular cortex, a small area of the brain involved with social emotions — empathy, morality, even joy at hearing music — and moni-

toring the body's internal state. "At the end of their training, London taxicab drivers have thicker tissue in the part of the brain that does spatial processing and visual memory," Mr. Hanson said. "We know now that the brain is constantly changing its structure. The question is, is it changing for better or worse — and also, who is doing the changing?"

Liz Stanley, a Georgetown University professor and former U.S. Army intelligence officer, has created a mindfulness-based Mind Fitness Training program —called "M-fit" — for the Marines, designed to help them not only perform better under combat stress, but also cope with traumatic memories following deployment.

Three years ago, Mr. Ryan secured \$982,000 in federal funding for a social and emotional learning course that teaches mindfulness techniques to students at two elementary schools in his Ohio district.

School officials were so pleased with the effects on student behavior, Mr. Ryan said, that they have added ad-

ditional mindfulness instructors bevond the federal program.

"Kids are growing up with a bombardment of information through technology," Mr. Ryan said. "We're basically teaching them how to calm down the part of the brain that is preventing them from learning how to pay attention. It's a beautiful thing to walk into classrooms and hear stories about how it's transforming them."

A mindful Congress?

Following a mindfulness conference in New York last October, Mr. Ryan was walking to a restaurant; when it started to rain, he ducked under an awning, within earshot of two sisters who also had attended the

"Was that a congressman I just met? And he's writing a book about mindfulness?" said one sister.

"Yeah," said the other.

"Will he still be a congressman after writing that book?" said the first

"It's common for elected officials to talk about physical things — budgets, guns, potholes," Mr. Hanson said. "It's not very common to talk about the psychological and mental factors that are involved in things going well or badly in public policy. It's as if it's somehow too weak or New Age, too fringe or California. Tim is shining a

spotlight on this, and that's brave." Mr. Ryan doesn't see his mindfulness advocacy as particularly courageous. He sees it as a no-brainer something that can help cure what ails both our overstressed bodies and the body politic.

"If we can shave a fraction of the health care costs of chronic stress, we're talking about real savings," he said. "Heart disease. Type 2 diabetes. Politically, this cuts across the aisle. You hear one side talk about being compassionate towards kids and investing in education. We also hear about saving money and deficits and individual responsibility.

"Well, what more can you give to a human being than to teach them how to be responsible for their own health by reducing their stress level, increasing their focus and boosting their immune system?"

A few years ago, Mr. Kabat-Zinn sent copies of his book on mindfulness, "Coming to Our Senses," to every member of Congress. Only Mr. Ryan read it.

Recently, however, one of Mr. Ryan's colleagues approached him in his office — praising his book, and noting that while he wasn't yet meditating every day, he wasn't checking his BlackBerry during weekend days while spending time with his children.

"That's a home run as far as I'm concerned," Mr. Ryan said. "What do we do all the time? Digest negative information, from Syria and Iran to veterans and suicides to the economy. Then there's all the political fighting on the news. Why wouldn't members of Congress be stressed out and have active amygdalas? And these are the same people that need to be saying, 'OK, what's the long-term vision for the country?'

"We don't need to move to the left or to the right. We all need to go a little deeper."



BERNARD SHAW

Then: While moderating the final 1988 presidential debate, the former CNN anchor triggered gasps from the press room and national controversy by asking Michael Dukakis, "Governor, if Kitty Dukakis were raped and murdered, would you favor an irrevocable death penalty for the killer?" Mr. Dukakis' quick, seemingly unemotional answer — "No, I don't, Bernard, and I think you know that I've opposed the death penalty during all of my life" — produced a dramatic overnight polling drop and contributed to his electoral defeat.

Now: Mr. Shaw went on to anchor CNN's highly acclaimed, live-from-Baghdad coverage of the Persian Gulf War. He retired in 2001 at age 60 and lives in suburban Washington, where he golfs, gives corporate speeches and occasionally opines on the

Quotable: Before the debate, Mr. Shaw asked Dan Quayle if it was "fear of being killed in Vietnam" that had caused him to join the National Guard, asked Al Gore what he would do if he or one of his children got AIDS and asked Al Haig, "Do you think [George H.W.] Bush is a wimp?"

Fun fact: Mr. Shaw recently recorded a voice-over for a television special on the 80th anniversary of the Washington Redskins.



Bernard Shaw, the CNN anchorman famous for provocative questions to guests, talks with viewers on the CNN set in 2000. He joined the network in 1980 and retired in 2001.

POLITICS

Affleck says Romney has cost GOP the election

By Ryan Pearson

ASSOCIATED PRESS

BEVERLY HILLS, CALIF.

Ben Affleck is comparing U.S. Republican presidential candidate Mitt Romney to past campaign losers Al Gore, Michael Dukakis and Bob Dole.

But the actor and director, who has been outspoken in support of Democratic causes in the past, also doesn't offer full-throated support for President Obama.

"I voted for Obama last time although he got to be all things to all people then," Mr. Affleck said in an interview to promote his new film "Argo." "And now he's got a record which makes it really different ... I obviously have more complicated feelings."

Mr. Affleck says Mr. Romney's inability to connect with everyday Americans is reminiscent of past failed candidates.

"I think Republicans really had a chance to win," Mr. Affleck said. "And they kind of ended up with like a sort of Mike Dukakis, Al Gore, Bob Dole type — who just couldn't get people to see him as a real person somehow. Romney just had such trouble coming off as just like the kind of person you see at the grocery store. And I truly believe that has cost him the election."

"It seems quite unlikely at least if you look at the statistics that he's going to pull it out. I think something happens in presidential politics where there's negative momentum. You start making mistakes, and then all your advisers tell you, 'You've got to raise your arms more!' 'You've got to talk deeper.' So people just get into becoming robotic."

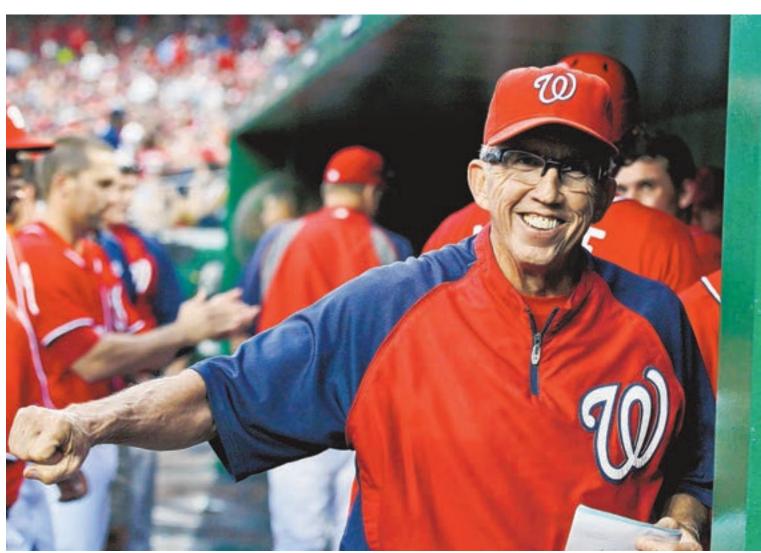
Mr. Affleck's "Argo," in theaters Oct. 12, chronicles a joint effort by the CIA and the Canadian government to rescue six Americans from Tehran after the U.S. Embassy was taken over by Islamist militants in 1978.



Ben Affleck, director of the new political thriller "Argo," says Mitt Romney has "trouble coming off as just like the kind of person you see at the grocery store."

"I've always been interested in learning different things and in different challenges. When you're constantly studying and feeding the inquisitive part of your brain, it keeps your mind flexible."

Davey Johnson



Washington Nationals manager Davey Johnson, 69, is the oldest manager in Major League Baseball and a leading contender for the National League's Manager of the Year award. Scientists have learned that lifestyle choices can help keep the aging brain flexible and resilient.

Baseball's senior phenom Nationals manager Johnson,

69, at top of his game mentally

By Patrick Hruby

THE WASHINGTON TIMES

he subject was Davey Johnson, the 69-year-old manager of the Washington Nationals, and as F.P. Santangelo sat in the team's home dugout on a recent afternoon, he struggled to keep a straight face.

Twelve years ago, Mr. Santangelo was a utility player for the Los Angeles Dodgers, then managed by Mr. Johnson. Today, the color analyst for the Mid-Atlantic Sports Network is long retired from baseball — and Mr. Johnson is still leading a big-league club.

Has Mr. Santangelo's former skipper changed with age?

"Davey's lost it," Mr. Santangelo said. "He has no idea what town he's in right now. He thinks he's managing the [Baltimore] Orioles."

Mr. Santangelo grinned. been," he said. "No doubt about it."

"No, he's as sharp as he's ever Long considered one of the brightest minds in Major League Baseball, Mr. Johnson has guided

the young and talented Nation-

als to a breakthrough season

— including a division title, for the first postseason appearance by a Washington baseball team since 1933. And he is a leading contender for the National League's Manager of the Year award, despite being

the oldest manager in the majors. Mr. Johnson's success raises an intriguing question: How does he remain mentally proficient at his age, particularly in a line of work that requires statistical command, stellar memory, quick decisionmaking and astute emotional judgment?

The answer may lie in Mr. Johnson's brain — and in the emerging scientific concept of neuroplasticity.

Once upon a time, conventional wisdom held that the human brain developed along a fixed arc, a curveball sailing through time. Born with hard-wired mental ability, we peaked in our 20s and then dropped off, ultimately lucky to remember where we left our car

Over the past two decades, however, researchers have discovered that our brains are more flexible and resilient — more

plastic — than previously believed. Through our habits and actions, we can alter our mental hardware and software, staving off and perhaps reversing age-related decline.

As it turns out, Mr. Johnson is an unwitting case study in preempting trouble with the curve. Here's why.

A lifelong learner

Mr. Johnson isn't just a baseball manager. He's a full-fledged action

He develops real estate in Florida, including a lakeside fishing camp and a recreational vehicle park. He is building a bank. He helped found an Arena League football team. He once managed the Netherlands' Olympic baseball squad and has traveled around the world. He's a self-professed "gadget geek" who stays current with video games (which he buys for his grandchildren) and mobile computing. (Mr. Johnson has an iPad and an iPhone; at Nationals spring training, sources report, his devices were the only ones to consistently get a network connection.)

"In the off season, I have a lot of passions," Mr. Johnson said.

He has been ever thus. When he played baseball and basketball at Texas A&M in the early 1960s, he wanted to be a veterinarian and studied oceanography; at Trinity University in San Antonio, he studied home building before settling on a mathematics degree.

While playing for the Orioles, Mr. Johnson designed and built his first house. He also took a computer course at Johns Hopkins University.

That was when they had the old 360 IBM and you had to use the card punch to get it to work," Mr. Johnson said. "I wrote programs in Fortran and Cobol. One of my famous programs was called 'Optimize Your Lineup."

Mr. Johnson's moneyball-before-"Moneyball" lineup-optimizing program — and mindset — informed much of his later managing career, even if it didn't go over too well with his Orioles teammates.

In one memorable instance, Mr. Johnson informed struggling Baltimore pitcher Dave McNally that he was in an "unfavorable chance deviation" - in other words. he

» see JOHNSON | C9



"This is it, man," Foo Fighters lead singer Dave Grohl told the audience at the Global Citizen Festival on Saturday, ending an 18-year run for the band.

Foo Fighters bow out for now after 18 years together

After 18 years, seven albums and 10 Grammys, the Foo Fighters are taking a break.

According to the Hollywood Reporter, guitarist and lead singer Dave Grohl wrote a letter to fans confirming speculation that sprang up after he told a Central Park audience on Saturday at the Global Citizens Festival that he wasn't sure when the group would be playing again.

"Without making a big deal out of it, we don't have any shows after this. This is it, man," he said before the

group launched into "Learn to Fly." "Honestly, I don't know when we're going to do it again."

After their set, the band held hands and took a bow before walking off stage. Mr. Grohl reappeared to play with headliner Neil Young on the final song, "Rockin' in the Free World."

Mr. Grohl's letter does not call the situation a breakup, but he made no promises for future material.

Thurber humor prize goes to Calvin Trillin

A collection of humorist Calvin Trillin's writings called "Quite Enough of Calvin Trillin: Forty Years of Funny Stuff" has won the Thurber Prize for American Humor.

The award is named for humorist James Thurber, who was known for the short stories and cartoons he contributed to The New Yorker magazine. The first was presented

Mr. Trillin, 76, has been a staff writer at The New Yorker since 1963. He is the author of 20 books, including the best-selling "About Alice" and "Obliviously on He Sails."

Runners-up for the prize announced in New York on Monday were Patricia Marx's novel "Starting From Happy" and Nate DiMeo's fictional "Pawnee," based on the setting of NBC's "Parks and Recreation," for which Mr. DiMeo is a staff writer.

The winner receives \$5,000.

Stevie Wonder student piano loaned to Kentucky museum

A piano used by Stevie Wonder when he was a student in Michigan has been loaned to the Museum of the American Printing House for the Blind in Louisville, Ky., and will be on display starting next week.

According to the Associated Press, the 1922 Steinway grand piano was long used by students at the Michigan School for the Blind, where Mr. Wonder, a child prodigy, studied in the mid-1960s. Mr. Wonder signed with Motown at the age of 11 and went on to become a singer, songwriter and multi-instrumentalist.



The grand piano Stevie Wonder used as a student will be on display starting Oct. 11 at a museum in Louisville, Ky..

Williams told the Courier-Journal in Louisville that the piano will be on loan indefinitely. It goes on display starting Oct. 11.

Drew Barrymore, husband welcome baby girl

Drew Barrymore is a mother. The 37-year-old actress and her husband, Will Kopelman, welcomed a baby girl named Olive Barrymore Kopelman on Sept. 26.

According to the Associated Press, a statement from Chris Miller at Miss Barrymore's production company, Flower Films, said the baby was born "happy, healthy and welcomed by the whole family." The statement didn't provide specifics about the birth.

Miss Barrymore wed Mr. Kopelman, an art consultant, in June. He is the son of former Chanel CEO Arie Kopelman.

She is the granddaughter of screen legend John Barrymore.

George Michael cancels shows for anxiety treatment

George Michael is canceling Australian shows so he can get treatment for major anxiety that he has suffered since a serious health scare last year.

According to the Associated Press, the singer said on his website that he had hoped making music and performing would be enough to work through the anxiety, but he



George Michael says on his website that he underestimated how hard his recovery from anxiety would be.

underestimated how hard his recovery would be.

The 49-year-old former Wham frontman was to perform in Sydney and other Australian cities in November and early December.

He still has concerts scheduled for this month in the United Kingdom. They are makeup dates for shows he canceled after being hospitalized for pneumonia in Vienna, Austria, in November.

Mr. Michael spent about three weeks in the hospital and said later that his health had been "touch and go."

He performed at the London Olympics closing ceremony in

JOHNSON

From page C10

should stop trying to aim for the corners of the strike zone and instead throw down the middle, the better to hit the corners.

From that moment on, Mr. Johnson's nickname with the Orioles was "Dum-Dum."

"I've always been interested in learning different things and in different challenges," Mr. Johnson said. "When you're constantly studying and feeding the inquisitive part of your

brain, it keeps your mind flexible." Biologically speaking, Mr. Johnson is right: Nothing boosts the mind quite like new learning. Far from structurally static — akin to the microchips in a smart phone — the brain is everchanging and evolving at the microscopic level, with billions of neurons constantly forming new circuits and connections that impact cognition,

memory and behavior. This, in essence, is neuroplasticity. "The general idea is that the brain is like a muscle," said John H. Byrne, chairman of the department of neurobiology and anatomy at the University of Texas Health Science Center at Houston Medical School. "You have to exercise it. If you don't, it starts to weaken. Use it or lose it. This is backed up by lots of data."

When Washington-based neuropsychologist Marsha Lucas worked in brain-injury and stroke rehabilitation two decades ago, scientists thought the adult brain could not grow new neurons and that mental capacity invariably decreased with time.

"It turns out that is actually not the case," Ms. Lucas said. "If you ask something of your brain, it will respond by beefing up the neural pathways associated with that. Novel experiences activate new neuronal growth and new synaptic connections so that your brain is faster and better at new things."

Cases in point? A classic study of London taxicab drivers found that the areas of their brains dealing with spatial memory and navigation were highly developed compared to those of nondrivers. A University of California, Berkeley, study found that intensive LSAT study increased connections between the parts of the brain associated with reasoning and thinking. A Harvard University study found that longtime meditators had less age-related shrinkage of the brain's outer layer — associated with executive function — than both older and younger people who did not meditate.

"Our brains have the capacity to make changes in response to what we experience." Ms. Lucas said.

Consequently, people can affect their brains simply by choosing particular experiences. Hence the burgeoning popularity of crossword puzzles, Sudoku and a whole slew of "brain training" games and software, the latter estimated by Education Week to be a \$295 million worldwide market in 2009.

Though brain-training exercises purport to improve memory and cognition, a recent study in the Journal of Experimental Psychology found that improving on a key task used in working memory training did not correspond with improvements in a battery of 17 other measures of cognitive ability.

"Basically, solving crosswords



Washington Nationals manager Davey Johnson congratulates pitcher Edwin Jackson as they walk off the field in April after the Nats beat the Cincinnati Reds 4-1. Mr. Johnson, 69, stays active mentally, physically and socially and controls stress.

makes you a better crossword solver," Mr. Byrne said. "It doesn't make your

entire brain better." The real key, Ms. Lucas said, is to cross-train. To engage in activities and experiences that challenge the brain in continually novel ways. Research suggests that an older person who learns a new language may be able to learn other things more quickly - and do things that require areas of the brain responsible for different tasks, such as speech and dancing, to work in

"What you want for a sharp, wellfunctioning brain are areas that are integrated," she said. "So when Davey Johnson is using statistics and also looking at the physical aspects of a player's swing, he is putting together two different parts of brain function. That keeps his brain in better shape."

Body and mind

Speaking of keeping in shape: Despite having undergone serious heart and appendix surgeries, Mr. Johnson still works out on a regular basis.

Sometimes, in fact, he seems to forget that he's decades removed from being a four-time All-Star who hit 43 home runs for the Atlanta Braves in 1973.

"Coming out of spring training, I was running so hard trying to get in shape to take ground balls and throw batting practice that I pulled a [hamstring]," Mr. Johnson said. "I was overdoing it a little bit. I tend to do that."

If running can be rough on Mr. Johnson's body, it likely is good for his mind. According to neurologists, regular physical exercise both boosts and preserves the brain by:

- Stimulating the creation of new neurons;
- Releasing hormones that help maintain connections between
- Providing ample blood flow to the brain, which uses about 20 percent of the body's total supply;
- Accelerating production of new cells in the hippocampus, an area of the brain associated with cognition and memory.

"The hippocampus is kind of like a

booth that enters a toll road, a gateway to new memories," said Dr. Ausim Azizi, chairman of the Neurology Department at Temple University Medical School. "People whose hippocampus is damaged don't lose any memories of what happened before,

but they also don't learn anything new. "So physical workouts are really important. Active patients who have Parkinson's disease hit the threshold of being dysfunctional much later than people who are less active."

Scientists group brain tissue into two categories: gray matter, the neuron-heavy area of the brain where functions such as seeing and producing emotions occur, and white matter, which acts as the electrochemical messaging superhighway between dif-

ferent areas of gray matter. Last year, researchers in Texas recruited a group of elite senior athletes to study the impact of exercise on long-term cognition. The athletes had an average age of 74, were regionally or nationally competitive and had been training for at least 15 years.

"We know that every year you lose one to two percent of your brain matter due to aging, but we wanted to see how the Masters athletes compared to sedentary, relatively healthy people of the same average age," said Benjamin Tseng, a research fellow with the Institute for Exercise and Environmental Medicine at Texas Health Presbyterian Hospital Dallas.

Mr. Tseng and his colleagues gave both groups brain scans and had them take a battery of tests. They discovered that the athletic seniors had more gray matter in regions of the brain associated with motor control and spatial relationships.

More surprisingly, the researchers also found that the athletic seniors outperformed their sedentary counterparts on the cognitive tests — measuring attention, executive function and short- and long-term memory — and even compared favorably to a control group of healthy 30-year-olds.

"They were able to perform on par with the younger subjects, which was impressive enough, and on a couple of tests they were kicking the younger kids' butts," Mr. Tseng said. "Now, these were dedicated athletes, training six to seven days a week. But some of them

started in their late 50s. "That tells me that even in your middle age, there may be a chance that you can rewire and reprogram and give

benefit to your brain through exercise."

Social networking

Mr. Johnson's job involves more than studying statistics, filling out lineup cards and deciding when to bring in relief pitchers. It involves knowing his players as people knowing when a struggling Danny Espinosa needs an encouraging word or when rookie phenom Bryce Harper should be left in the lineup to work through a cold spell or when to call an unexpected, tension-busting closeddoor team meeting during a late Au-

gust losing streak. After the meeting, Mr. Johnson told reporters what he had said to his players: "When we lose it's harder on the coaches and the manager. We don't sleep as well. But if they start winning a few games, they start making it easier on this old guy. And we all got a good laugh out of everything."

Befitting one of the youngest teams in the major leagues, the Nationals have a notably loose, sociable clubhouse. Mr. Johnson fits right in. And that, too, is good for his brain health.

Research shows that socially engaged people are less likely to develop dementia. Animal studies — mostly in mice and rats — indicate that social isolation may reduce neuroplasticity.

According to health and aging expert Dr. William J. Hall, older people lacking socialization tend to deteriorate mentally at a quicker rate than their more engaged peers, and the development of social relationships has been linked to at least temporary improvements in memory.

"If you think about what a coach does, they teach," said Dr. Hall, director of the Center for Healthy Aging, based at Highland Hospital, an affiliate of the University of Rochester (N.Y.) Medical Center. "That is a very high level of

socialization, because most teaching is intellectual communication. And that is very good for the brain.

"If I were the czar of the universe and could prescribe the very best way for older adults to age in very healthy fashion, particularly with memory, I would send them all to Buenos Aries and have them learn to tango. It requires complex physical movement. There's remarkable socializing, since you're as close as you can get to another human being. And most important, you're having fun."

Minding stress

The last part is crucial. While exercise and engagement are manna for the mind, stress is more like Kryptonite.

Studies in humans and animals indicate that stress hormones can inhibit the formation of new cells and connections in the memory centers of the brain and that chronic stress increases risk for Alzheimer's.

According to Ms. Lucas, increased stress also corresponds with increased inflammation and an overall decrease in physical well-being, ranging from digestive problems to overloaded adrenal and nervous systems to cardiovascular issues — none of which is conducive to mental clarity.

"We think that mental aging actually has a lot to do with your cardiovascular system," Mr. Tseng said. "At the end of the day, the heart is the engine of the body, and when your brain doesn't receive blood, you're missing oxygen and nutrients."

During his previous managing gigs in New York, Baltimore and Los Angeles, Mr. Johnson was known for being irascible — particularly when butting heads with team ownership. Though he can seem more placid with the Nationals, even soft-spoken, he laughs off suggestions that he has mellowed.

"The stress is the same; I just tend to keep it in," Mr. Johnson said. How does Mr. Johnson cope?

By focusing on solving problems. And by living — and worrying — in the present. "My wife will be worried about where we are going in six months, what beach we're going to lie on, what country we'll be in," he said. "I'm in the now. I'm aware of tomorrow, but only because what you do today will affect it. That's as far as I go, and I'm comfortable with that."

Though taking matters "one game at a time" is perhaps the hoariest of athletic cliches, Ms. Lucas said that a solution-seeking, now-oriented approach is highly effective in reducing stress and anxiety, in part because of neuroplasticity. To wit: Researchers at the University of Wisconsin have found that Tibetan monks are able to alter the physical structure of their brains through meditative practice and that habitual meditation reduces the size of an area of the brain that controls fear and is linked to aggression.

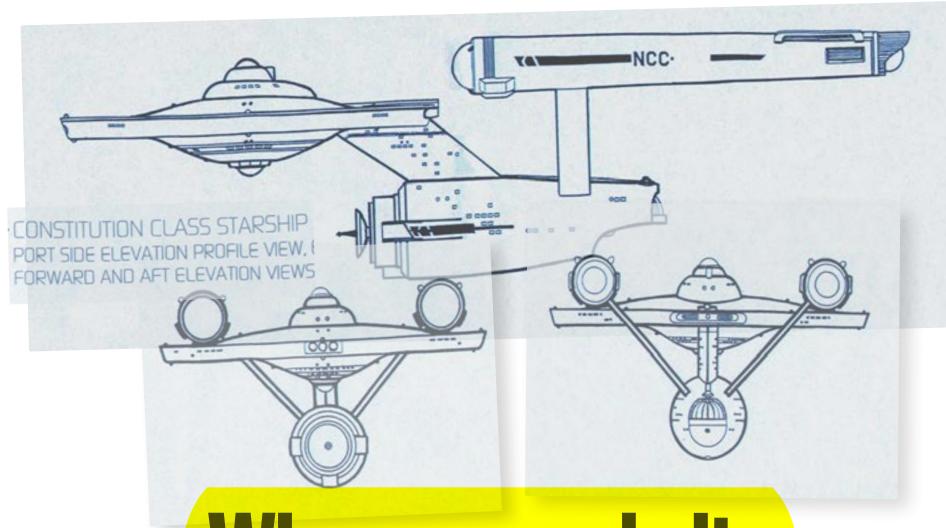
Over the course of the Nationals' season, Mr. Johnson's players repeatedly have praised his keen intelligence, astute observation, calm demeanor and ability to connect — his ability to stay ahead of the curve. Are white and gray matter the hidden reasons?

Mr. Santangelo has a simpler

"We're in first place with a great club and a great bunch of guys, and a good organization that does things the right way," he said. "Davey's just having way more fun here than he ever had in Los Angeles."

THURSDAY, NOVEMBER 29, 2012

SECTION C



e no website

Engineer boldly goes into a project to develop a real-life USS Enterprise

By Patrick Hruby

THE WASHINGTON TIMES

ike shooting stars, the messages might as well come from outer space. There are the people who claim to have discovered major new laws of physics, who just know how UFOs are propelled, who say they are working on artificial-gravity generators and light-speed-beating engines in their garages, projects that are always almost complete.

"I keep an email folder labeled

'bizarre,'" said BTE Dan. A self-proclaimed systems engineer, BTE Dan is the person behind Build the Enterprise, a website devoted to, well, building an actual, functional, space lasers 'n all version of the USS Enterprise, the venerable pop-culture starship featured in the "Star Trek" film and television franchises.

Estimated time frame? Twenty years. Suggested cost? \$1 trillion. Proposed missions? Dropping probes beneath the giant ice sheets of Jupiter's moon Europa, or maybe blasting asteroids before they can smash into Earth, "Armageddon"-style.

And no, BTE Dan does not

bizarre folder.

"We are destined to be in space in a big way," he said in an email interview. "And the idea of traveling around in space, and seeing places beyond Earth, is fascinating to humans. We Earthlings need something to get jazzed up about as a collective civilization, and space exploration can do that.

"We went from shooting the first man into orbit to landing men on the moon in eight years. After the Wright Brothers' first enginepowered flight, fifteen years later the first trans-atlantic flight occurred. Big things can happen quickly given the commitment."

launched in May, shortly before NASA's final space shuttle mission ended an era and left the nation's future of manned spaceflight in doubt. The website details a surprisingly comprehensive, rootedin-reality plan for constructing a nuclear-powered spaceship with ion engines and artificial gravity that resembles the "Star Trek" ship, could transport as many as 1,000 people to Mars in 90 days and theoretically can be built with scaled-up versions of existing technology.

The site has struck a chord with space and science-fiction enthusiasts alike, drawing about a half-million visitors in its first few

consider himself worthy of the Build the Enterprise was weeks of existence and continuing to receive about 2,500 page views per day.

Hence the emails that go in the "bizarre" folder, and hence the desire of BTE Dan — who claims to have worked as an engineer for a Fortune 500 company for the past three decades — to remain anonymous.

"My family all knows, and they get a kick out of it and are supportive," he said. "A few friends know about it, but I have not told anyone about it where I work.

"I work with hundreds of engineers in my day job, and I'd rather not become the Build The Enterprise guy just yet."

From reel life to real life

In "Star Trek," the Enterprise <mark>f</mark>eatures powerful, energy-based deflector shields that protect the ship and its crew. A faster-thanlight-speed, antimatter-powered warp drive propulsion system makes whipping around vast galactic distances as quick as driving to the corner Starbucks for a cup of coffee. A "transporter" that de- and rematerializes matter, allowing Capt. Kirk to beam down to newly discovered worlds populated by green-skinned alien babes — and engineer Scotty to beam him up on demand.

The Build the Enterprise version is a bit more mundane. Retaining the iconic look of the fictional craft — a crew-housing dinner plate attached to oversized two-prong fork engines — Dan BTE's ship loses the warp drive (doesn't exist), the shields (ditto) and the transporter (take a wild

In their place? Nuclear-fueled ion engines that would provide continual acceleration and allow the Enterprise to go from Earth orbit to the moon in three days. A spinning, electromechanical "gravity wheel" that would enable

» see BUILD | C9

RELIGION

Egyptian court declares Fla. pastor should die Tried in absentia over anti-Islam film

BY SARAH EL DEEB

CAIRO An Egyptian court convicted in

absentia Wednesday seven Egyptian Coptic Christians and a Florida-based American pastor, sentencing them to death on charges linked to an anti-Islam film that sparked riots in parts of the Muslim world.

The case was seen as largely symbolic because the defendants, most of whom live in the United States, are all outside Egypt and are thus unlikely to ever face the sentence. The charges were brought in September during a wave of public outrage in Egypt over the amateur film, which was produced by an Egyptian-American Copt.

The low-budget "Innocence of Muslims," parts of which were made available online, portrays the Prophet Muhammad as a fraud, womanizer and buffoon.

Egypt's official news agency said the court found the defendants guilty of harming national unity, insulting and publicly attacking Islam and spreading false information — charges that carry the death sentence.

Maximum sentences are common in cases tried in absentia in Egypt. Capital punishment decisions are reviewed by the country's chief religious authority, who must approve or reject the sentence. A final verdict is scheduled on Ian. 29.

The man behind the film, Mark Basseley Youssef, was among those convicted. He was sentenced in a California court earlier this month to one year in federal prison for probation violations in an unrelated matter. Youssef, 55, admitted that he had used several false names in violation of his probation order and obtained a driver's license under a

» see **PASTOR** | **C9**



Pastor Terry Jones of the Dove World Outreach Center in Florida faces a death sentence in Egypt for his role with an anti-Islam film that led to riots.

TELEVISION

'Men' co-star now sorry after calling show 'filth'

BY DAVID BAUDER

NEW YORK

Teenage actor Angus T. Jones of the comedy "Two and a Half Men" apologized Tuesday for a series of interviews denouncing his own show, an episode that has rivaled former colleague Charlie Sheen's meltdown as an off-screen oddity.

Speaking to religious media outlets, the 19-year-old Mr. Jones called the CBS comedy "filth" and "very inappropriate" and talked about how his religious awakening has affected his attitude toward life and work.

"Two and a Half Men," television's third most popular comedy, remains heavy on sexual innuendo even with Ashton Kutcher replacing bad-boy Sheen following his firing for drug use and a subsequent public meltdown. Mr. Jones, who started on the show when he was 10, plays Jake Harper, son



"I apologize if my remarks reflect me showing indifference to and disrespect of my colleagues" on "Two and a Half Men," said actor Angus T. Jones.

of the uptight character portrayed by Emmy winner Jon Cryer.

In a statement issued late Tuesday, Mr. Jones said he had the highest regard for all of the people he has worked

» see MEN | C9



Lenny Kravitz

Lenny Kravitz to play Marvin Gaye in biopic

Lenny Kravitz has signed on for his first leading film role, playing singer Marvin Gaye in a biopic that will be shot next year.

The rocker's publicist Carleen Donovan confirmed the news Tuesday, The Associated Press reports. Mr. Kravitz has played supporting roles in the past, including a small part in "The Hunger Games."

Rolling Stone first reported details about the 48-year-old performer's part in the film, directed by Julien Temple.

The magazine said the "Are You Gonna Go My Way" singer will portray Gaye during the 1980s when



he was fighting his addictions and attempting to restart his career. Gaye died in 1984 after he was shot by his

Adele's album '21' sells more than 10 million copies

Adele is rolling in the records. The 24-year-old British singer's album "21" has sold more than 10 million copies, according to Nielsen SoundScan. The album reached the

milestone last week, less than two



Adele

years after its release. "21" is the 21st album to sell 10

million copies since Nielsen Sound-Scan began tracking sales in 1991.

Adele's sophomore studio album debuted in 2011 and featured such hits as "Rolling in the Deep," "Someone Like You" and "Set Fire to the Rain."

It's the third album to reach the 10 million mark in 2012. Linkin Park's "Hybrid Theory" and Usher's "Confessions" also have sold 10 million copies this year.

Adele won in all six Grammy categories in which she was nominated this year, including album of the year.

Black Keys' copyright lawsuits settled

The Black Keys told a federal judge that the band has settled copyright infringement lawsuits against Pizza Hut and Home Depot Inc. claiming misuse of their music in commercials.

The band alleged the song "Lonely Boy" was used improperly to sell power tools, and "Gold on the Ceiling" to sell pizza. The Grammy-winning band sued in June. Both companies denied copying the

Attorneys for the band informed a federal judge in Los Angeles of the Pizza Hut settlement Monday. The

agreement with Home Depot was reached earlier this month.

No details of the settlements were included in court filings. Stephen Holmes, a spokesman for Home Depot, and a publicist for the band didn't have an immediate comment. A representative for Pizza Hut did not return a message seeking comment.

Attorneys expect to file formal dismissals by early January, according to court filings.

Both songs appeared on the rock group's seventh album, "El Camino," which was released last year and has sold more than 1 million copies.

The Black Keys are comprised of Dan Auerbach and Patrick Carney. Musician-producer Brian Burton, who is known as Danger Mouse, also sued the companies.

"Lonely Boy" and "Gold on the Ceiling" topped the Billboard alternative music chart after being released.

The Black Keys won two Grammy Awards in 2010 for music from their album "Brothers," which won the Best Alternative Music Album award that year.

Katy Perry to create perfumes for Coty

Katy Perry is adding some more scents to her perfume line.

The singer and songwriter is to



Katy Perry

develop a line of signature scents with beauty company Coty Inc., according to an announcement released Wednesday and reported by The Associated Press. Coty will distribute them on a larger scale than the Purr and Meow perfumes that Miss Perry previously crafted.

The company said Miss Perry's "unique approach to music and life" will drive her inspiration and move toward "new avenues of scent creation."

Other pop stars to concoct their own fragrances include Rihanna, Jennifer Lopez and Taylor Swift. Coty's perfume brands include Calvin Klein, Marc Jacobs and Playboy.

From page C10

passengers to operate in Earth-like levels of gravity. Multiple layers of advanced physical shielding to protect the ship from cosmic debris and radiation. A "universal lander" craft — in essence, a cross between the Apollo lunar landers and a miniature space shuttle — that could ferry humans to the surfaces of planets and moons and subsequently return to the main ship.

According to BTE Dan's schematic drawings, the Enterprise would be 3,150 feet long, more than twice the length of the Empire State Building, and have a mass of 187 million pounds, roughly equivalent to 28 of the Saturn V rockets used in the Apollo program.

The website also offers a road map for funding a real-life Enterprise, proposing \$1 trillion in total expenditures over a 20-year period — about \$50 billion per year, or 0.27 percent of America's total gross domestic product.

To pay for the project, BTE Dan suggests a slight increase in income taxes, coupled with small annual cuts to a number of federal agency budgets, including \$5 billion from the Pentagon and \$2.5 billion from the Department

"It's really a matter of time, money and the will to do it," BTE Dan said. "If I was president and I had a cooperative Congress — kind of funny at the moment, I know — I would start the Enterprise program tomorrow."

As a grade school student, BTE Dan said, he watched the original 1966 "Star Trek" series on his family's black-andwhite television and built a toy model of the Enterprise. However, his desire to build a real version of the spaceship comes less from childhood sci-fi fandom than from disappointment in the state of space exploration.

On his website, BTE Dan calls the International Space Station a "yawner" and even mocks its "comical and primitive" toilets. He also laments NASA's plans for a Space Launch System and Orion Space Capsule that ultimately would facilitate a manned return to the moon and potentially Mars.

In BTE Dan's vision, an actual Enterprise would serve simultaneously as a space station, a spaceship and a spaceport — able to ferry research probes to other moons and planets, big enough to carry materials needed to establish a manned Mars base, comfortable enough to accommodate space tourists while parked in Earth orbit. The vessel's onboard laser could be used to create a night-sky light show while flying over the United States on the Fourth of July.

America, he writes on his website, is an affluent nation that can "afford to dream much bigger" than "one-shot" space missions.

"We were supposed to be in space



The USS Enterprise from the "Star Trek" movies and TV shows has traveled the galaxies and captured the imaginations of fans such as BTE Dan, who is on a quest to build a similar spaceship. "We were supposed to be in space in a big way by now," he says.

in a big way by now, but we can't even get back to the moon," BTE Dan said. "In fact, in the U.S. we now don't even have a rocket to take people into Earth

"The [International Space Station] was a Cold War wind-down program to help keep Soviet scientists busy. The current path of the [Space Launch System] is just a redo of the Apollo program of the 1960s. If that's the best we can do, we would be better off just spending money on probes and research, then wait for the private sector to get us into space."

Flight of fancy?

A doctoral student in mechanical and aerospace engineering at George Washington University, Tabitha Smith has never been much of a "Star Trek" fan. However, she has a keen interest in nuclear-powered rocketry and other forms of space propulsion.

Those nuclear-powered ion engines BTE Dan suggests? Not as simple as adding a nitro boost tank to a Honda

"My adviser at GW is working on ion engines, and they're currently scaled to about the size of a pencil," Ms. Smith said. "It's a nice concept, but you would need a humongous power source for the kind of engines used on this spacecraft. Now imagine launching something like a nuclear power plant into space. For people into propulsion, this is the most obvious problem with [the Enterprise]."

Although BTE Dan may be the first person to officially propose building the Enterprise, he is hardly alone in conceptualizing a working starship. Nonprofit organization Icarus Interstellar hopes to launch a vessel by the end of the century; a similar project, the 100-Year Starship Study, is headed by former astronaut Mae Jemison and has received \$500,000 in funding this year from the Defense Advanced

Research Projects Agency.

Researchers involved in both projects say the Enterprise concept is — to put it nicely — a bit optimistic.

"At best, we've [currently] made the space equivalent of small boats," said Adam Crowl, an engineer with Icarus Interstellar. "Build the Enterprise proposes an ocean liner. Quite the leap. Plus, Mars isn't ready for cruise liners to visit yet."

Mr. Crowl said the nuclear reactors in BTE Dan's design are underpowered and would generate an unworkable amount of heat.

Ralph McNutt, a physicist in the space department of the Johns Hopkins Applied Physics Laboratory, said the Enterprise's protective "gravity wheel" - essential for humans in low gravity on long missions — was likely as achievable as cold fusion, a hypothetical type of nuclear reaction occurring at or near room temperature that was hyped in the late 1980s but later abandoned by mainstream science.

Just getting the components needed to build the Enterprise into space would take more than 1,000 Saturn V rocket launches, a daunting logistical hurdle.

"[BTE Dan] starts with reasonable technical information, ion engines and nuclear power and those sorts of things," said James Gilland, a researcher at the Ohio Aerospace Institute who studies space propulsion. "But when he extrapolates them in power and size, everything breaks down. You can't just linearly scale this stuff. I disagree with his statement that we have the technology now to do this. We don't."

Mr. Gilland took particular issue with BTE Dan's use of hull materials to protect passengers from cosmic rays, high-energy particles originating in outer space.

'Galactic cosmic radiation damage to human beings is one of the most limiting design criteria for a spaceship," he said. "Right now, from what we know, we cannot shield a human being to the level that the safety people tell us we would need."

Even if a safe, working Enterprise could be designed and constructed, the project would face a major Earthbound obstacle — namely, Washington politics. White House and congressional administrations change, changing budget priorities accordingly.

Besides, if a large aerospace procurement program based on relatively mature technology such as the Pentagon's F-35 fighter is delivered years late with billions of dollars in cost overruns, then what happens when experimental technology meets what qualifies as the largest, most complex public works project in human history?

"I give credit to the author of the website because he's daring to think big," said Michael Heil, president of the Ohio Aerospace Institute and former director of the Center for Space Studies and Research at the Air Force Institute of Technology. "But the political realities of making this go would be one in a million.

"Budgets get cut. Things take longer. Time is money. In recent years, from the F-35 to the B-2 [bomber] to the shuttle program, we've had a tough time staying on schedule. And the challenges here are orders of magnitude greater."

After researching the topic for more than two years, BTE Dan remains undaunted. On his website, he states that if someone can convince him that building the Enterprise is not technically possible, he will publicly acknowledge that he has "been found to be wrong."

He has yet to do so.

"I have had high school students write me and say that the website has motivated them to study engineering," he said. "If a consensus could be built, what could be more inspirational for the country? We could certainly use something to pull us together, something to inspire us about the future."

PASTOR

From page C10

false name. He was on probation for a bank fraud case.

Multiple calls to Youssef's attorney in Southern California, Steve Seiden, were not returned Wednesday.

Florida-based Terry Jones, another of those sentenced, is the pastor of Dove World Outreach, a church of less than 50 members in Gainesville, Fla., not far from the University of Florida. He has said he was contacted to promote the film by the filmmaker as well as Morris Sadek, a conservative Coptic Christian in the U.S. who posted the video clips on his website.

In a telephone interview Wednesday, Mr. Jones said the ruling "shows the true face of Islam" - one that he views as intolerant of dissent and opposed to basic freedoms of speech

"We can speak out here in America," Mr. Jones said. "That freedom means that we criticize government leadership, religion even at times. Islam is not a religion that tolerates any type of criticism."

An Associated Press reporter knocked on the door of Mr. Sadek's home in Chantilly, Va. No one

The connection to the film of the other five sentenced by the court was not immediately clear. They include two who work with Mr. Sadek at a radical Coptic group in the U.S. that has called for an independent Coptic state, a priest who hosts TV programs from the U.S. and a lawyer living in Canada who has previously sued the Egyptian state over riots in 2000 that left 21 Christians dead.

The other person is a woman who converted to Christianity and is a staunch critic of Islam.

The official news agency report said that during the trial, the court reviewed a video of some defendants calling for an independent Coptic state in Egypt, and another of Mr. Jones burning the Koran, Islam's holy book. The prosecutor asked for the maximum sentence, accusing those charged of seeking to divide Egypt and incite sedition. All the defendants, except Mr. Jones, hold Egyptian nationality, the agency added.

Some Christians and human rights groups worry that prosecutions for insulting religion, which existed to a degree under the secularleaning regime of deposed President Hosni Mubarak, will increase with the ascent of Islamists to power in

• Curt Anderson contributed reporting from Miami; Matthew Barakat from McLean, Va., and Gillian Flaccus in Orange County, California.

From page **C10**

with on the comedy, including creator Chuck Lorre and Warner Bros. studio chief Peter Roth.

"I apologize if my remarks reflect me showing indifference to and disrespect of my colleagues and a lack of appreciation of the extraordinary opportunity of which I have been blessed," said Mr. Jones, who reportedly makes \$350,000 an episode. "I never intended that."

Mr. Jones wasn't at the studio lot for a rehearsal on Tuesday. He's not scheduled to appear on the two episodes that are being filmed before the end of the year, said a person close to the show who spoke on condition of anonymity because Warner Bros. and CBS haven't commented publicly on Mr. Jones. His character recently has joined the Army and his airtime has been cut down.

His real-life adventure came to light on Monday, when a video posted by the Forerunner Chronicles in Seale, Ala., featured him talking about not wanting to be on "Two and a Half Men" anymore. "Please stop watching it," Mr. Jones said. "Please stop filling your head

with filth." In a radio broadcast, "The Voice of Prophecy," recorded for the Seventhday Adventist Church on Mr. Jones' birthday in October, Mr. Jones de-

scribed his religious path. He has been attending a Seventh-day Adventist Church in the Los Angeles area. Mr. Jones said he felt drawn to God after a tough time in his life when his

parents were going through a divorce

and he experimented with drugs.

"I never drank," he said. "That was one thing God protected me from, and I'm still a virgin. God protected me from those things."

Mr. Jones said, "It's very weird that I'm on a television show, especially now that I am trying to walk with God. My television show has nothing to do with God and doesn't want anything to do with God." Still, he said he had no plans to get out of his contract.

In another interview posted on Tuesday with Christianity Today, Mr. Jones described himself as a "paid hypocrite."

"Even though it's my job to be an actor, I have given my life to God," he said. "I am very comfortable and firm in that, but I still have to be on this show. It's the No. 1 comedy, but it's very inappropriate and the themes are very inappropriate. I have to be this person I am not."

"Two and a Half Men," which has seen its ratings tumble this fall with a move to Thursdays, is now behind "The Big Bang Theory" and "Modern Family" in the comedy ratings.

• AP Religion Writer Rachel Zoll in New York contributed to this report.