Mel says, “This is swell! But it’s not ideal—it’s a free, grainy PDF.”

**Attain your ideals!**

Purchase a nicer, printable PDF of this issue.

Or nicest of all, subscribe to the paper version of the *Annals of Improbable Research* (six issues per year, delivered to your doorstep!).

To purchase pretty PDFs, or to subscribe to splendid paper, go to [http://www.improbable.com/magazine/](http://www.improbable.com/magazine/)
Special Issue: Security

The Gluteal Hardness of Guards

Global Boom

Spider’s Revenge

...and much more!
Other Einsteins (Part 3)

by A.S. Kaswell, with Jessica Girard, AIR staff

As reported in Parts 1 and 2 of this series, people say “There is only one Einstein,” but of course that is not so. In this, the official, “Einstein Year,” when everyone celebrates Albert Einstein, we are giving happy nods also to some of the other Einsteins.

Obsession, Danger, Perfection

Danielle A. Einstein is obsessed, in a professional way, with obsession, compulsion, inflated personal responsibility, exaggerated danger expectancies, and perfectionism.

Einstein is Head (with a capital “H”) of the Anxiety Management Clinic in Wentworthville, Australia. Together with Ross G. Menzies of the University of Sydney, she wrote the provocative report “Role of Magical Thinking in Obsessive-Compulsive Symptoms in an Undergraduate Sample.” It appeared in 2004 in the journal Depression and Anxiety.

Einstein’s experimental conclusion is worded in the lingo of her profession. It can be memorized for use as a conversation starter at cocktail parties:

A general magical thinking tendency may underpin previous observed links between superstitiousness, thought action fusion, and obsessive-compulsive disorder severity.

In 2000, Einstein, Ross, and two other colleagues published a study called “The Relationship Between Inflated Personal Responsibility and Exaggerated Danger Expectancies in Obsessive-Compulsive Concerns” in the journal Behaviour Research and Therapy. Einstein has also researched and written about perfectionism. Her best-known work on this topic is “Relationship Between Perfectionism and Emotional Symptoms in an Adolescent Sample,” published in 2000 in the Australian Journal of Psychology.

More to Come

Previously in this series, we examined the following Einsteins.

Part 1 -- M.E. Einstein (pork carcass composition)

Part 2 -- Rosemarie Einstein (cannabis)

In future installments, we will lovingly look at still other Einsteins.
## Contents

The features marked with a star (*) are based entirely on material taken straight from standard research (and other Official and Therefore Always Correct) literature. Many of the other articles are genuine, too, but we don’t know which ones.

### Special Section: Security

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author/Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Assessing Gluteal Hardness in Uniformed Security Guards</td>
<td>Peter Freundlich</td>
</tr>
<tr>
<td>22</td>
<td>Global Boom*</td>
<td>Alice Shirrell Kaswell and Stephen Drew</td>
</tr>
<tr>
<td>28</td>
<td>Security Guard Research Review*</td>
<td>Nan Swift</td>
</tr>
</tbody>
</table>

### Improbable Research

*iic* Other Einsteins* (Part 3) -- A.S. Kaswell, with Jessica Girard

9     The Name Number for Astronomy* -- Eric Schulman and Caroline V. Cox

10    The 6-Pack Ring Fishing Experiment -- Antoni Chan, Benjamin Stein and Kenneth Bromberg

20    Two Scientists Meet For Lunch* -- L.X. Finegold and E.A. Spamer

### Recommended Research*

8     *AIR*head Research Review* -- Dirk Manley

14    Soft is Hard* -- Alice Shirrell Kaswell, G. Neil Martin, and Bissell Mango

15    *AIR*head Medical Review* -- Bertha Vanatian

19    Scientists Now Know* -- Olph DeShaies

24    Boys Will Be Boys* -- Katherine Lee

25    Reading Textbooks for Pleasure* -- Alice Shirrell Kaswell

26    Icky Cutesy Research Review* -- Tige Lament

29    May We Recommend* -- Stephen Drew

### News & Notes

2     *AIR* Vents (letters from our readers)

7     *AIR* books

16    Puzzling Solutions -- Emil Filterbag

27    Ig Nobel Invitation

28    HMO-NO News: Healthier Genes!

29    Teachers’ Guide

30    Bends on the Learning Curve -- Richard Lederer

31    CARTOON: “Excimer Laser” -- Nick Kim

31    Back Issues

*ibc* Unclassified Ads

---

**On the Front Cover**


**On the Back Cover**


**Coming Events**

(see WWW.IMPROBABLE.COM for details of these and other events)

- Cascadiacon, Seattle, WA -- SEPT 1-5, 2005
- Ig Nobel Prize Ceremony -- OCT 6, 2005
- Ig Informal Lectures -- OCT 8, 2005

**Every Weekday**

Read something new and improbable every weekday on the Improbable Research blog, on our web site: WWW.IMPROBABLE.COM
AIR Vents

Exhalations from our readers

NOTE: The opinions expressed here represent the opinions of the authors and do not necessarily represent the opinions of those who hold other opinions.

The Strategic Jesus

When I saw that title -- “The Strategic Jesus” -- on the cover of the March/April edition, having strong religious convictions, I was worried. I’m not afraid to tell you, that you had finally decided to irreparably offend my religious sensibilities (which are strong). I’m glad to say, however, that upon reading the article, I quickly came to the conclusion that it very much belonged in AIR.

John Darnell
Brookfield, MO

Zoonotic Yawning (Domestic)

Here is my contribution to Dr. Baker’s and Dr. Petersen’s Zoonotic Yawn Project (AIR 11:1). My cat is a six-year-old male neutered mongrel. I have observed that he almost always yawns when he notices me yawning. This can take one to ten consecutive yawns before the cat yawns. I also have a thirteen-year-old spayed female mixed cocker spaniel who never yawns, no matter how much I yawn at her. I have a husband, a 36-year-old male neutered mongrel. I have observed that he almost always yawns when he notices me yawning. This can take one to ten consecutive yawns before he yawns.

Kelly Baker
St. Paul, MN

( Aggregate) 

If Drs. Baker and Petersen would like to set up experiments on the effect of pictures and movies of animals yawning, they should visit www.animalyawns.com, where they will find a large quantity of resources.

Mark Lutton
Brookline, NH

Authors Please, Not Content

Simkin and Roychowdhury observe what many of us have long known: most scientists have not read the papers that appear in their own articles’ reference lists. But in “Do Copied Citations Create Renowned Papers?” (AIR 11:2), they further propose that those reference lists are created by random copying of other papers’ reference lists. While this theory explains the distribution of citation frequency among individual papers, it fails to account for the correlation between authorship and citation frequency -- namely, the “Einstein effect” -- in which a small number of experts have written an inordinate number of frequently cited papers. This effect has the following explanation. The first thing we all do upon receiving a new paper in our field is to check if it cites our own work. Knowing this, authors try to cite the work of those who will referee their paper. The most likely referees are the experts in the field. Since expertise is determined by citation frequency, papers by frequently cited authors are preferentially copied. It is this positive feedback that creates the “Einstein effect.”

Leslie Lamport
Microsoft Research
Mountain View, CA

All About Me

I wasn’t sure what motivated Lynn Braesser (AIR Vents 11:2) to harshly criticize the Arcieri Hypothesis (AIR Vents 11:1) as egocentric fodder. That is, until I looked closely at this line in her letter: “I am intensely jealous of Professor Arcieri for thinking of the idea and writing that letter”.

But is this my problem? I don’t think so. Clearly, she needs to spend more time drinking coffee and hiding from students, as I do. Then she might have the time and energy to think of her own “idea”. In fact, I googled her and found not one citation. Certainly, in contemporary society an individual’s “importance” can be measured by the number of Google pages he or she has. I humbly suggest, from now on, that we call this measure the Arcieri Index or A.I.

Lynn Braesser’s A. I. = zero.

D.T. Arcieri
Biology Department
SUNY Farmingdale
Farmingdale, NY

All About Mel

When are you going to devote an entire special issue to Mel, the little man whose photograph and beard grace your letters page?

Connie Bracco, MD
Monte Carlo
Monaco

Lester’s Hole

My spouse, Lester Q. Lee, is listed as one of the inventors
Angels Reclassified
I enjoyed the article about angels being insects (AIR 10:4). Everything seemed to make sense. But there are two problems.
The first is the exoskeleton. For a creature as large as an angel, the exoskeleton would be too heavy for flight.
The second problem is breathing. Normally, an insect uses spiracles, tiny holes in the body, connected to tubes. These tubes bring oxygen to the body. An angel would be too large for this concept to work. The tubes would be too long, therefore unusable.
I would like to propose that angels should belong to a new class of animals I think this class should be called Pseudoimpossamalia. This class would also include dragons, winged horses, and the occasional pig with wings.

Tempest Lyle, 11 years old
Sixth Grade, Cedar Creek Elementary School
Canyon Country, CA

We would like to thank Prof. Dr. Paul A. Kirschner of Open Universiteit Nederland for bringing Wolter Seuntjens -- and his massive body of research on the sexual aspects of yawning -- to our attention. Dr. Seuntjens’s research was featured in AIR 11:1, and Dr. Seuntjens revealed the marvels of erotic yawning to audiences on this year’s Ig Nobel Tour of the UK.

Spinning an Explanation
It’s well known in the astrophysics community that the rotation rate of the Earth on its axis is not an invariant. Indeed, early in the nineteenth century, scientists discovered that the Earth’s axis rotation rate was actually slowing. What is the cause of that slowing? The answer can be found by watching an ice skater. The skater goes into a slow spin. If she wishes to increase the rate of her spin, she simply tucks her arms closer to her body. If she wishes to decrease the rate, she simply extends her arms away from her body. Early in the nineteenth century mankind built the first tall buildings -- at least on a prolific scale -- exceeding two stories in height. This was, for Earth, the equivalent of the ice skater extending her arms. Earth’s rotation rate decreased. But during the twentieth century, things changed, with the cutting of the rain forests, etc.

Robert Hinckley
Towanda, PA
Assessing Gluteal Hardness in Uniformed Security Guards

by Peter Freundlich
The Peter Freundlich Institute
New York City, New York

Photographs by S. Drew, AIR staff

Here is something that will almost certainly happen to you at some point in your life, if it hasn’t happened repeatedly already: You will be engaged in what seems to you to be an entirely innocent and unobjectionable activity when you feel a tap on your shoulder. Turning toward the tap, you will find yourself facing a Uniformed Private Security Guard (UPSG), who will inevitably say one of two things -- either “Do you have permission to do that?” or “You can’t do that here.”

The author of this study has often been an object of intense study by Uniformed Private Security Guards. In response, he has spent much time in turn studying them and their behavior. Here is the fruit of that study. Read it, and you will have a clear understanding of the concept of Gluteal Hardness.

Private Parts of Behavior

If in the course of doing whatever it is you are doing, you are approached not by a police officer but by a UPSG, then you are not, as you may have thought you were, on public but on private property, and this is a critical difference, because on public property you are up against the law, which is hard and fast and applies equally to everyone.

whereas on private property you’re up against not the law but “rules.” Many spaces that may seem public (and are sometimes for that reason in fact called “quasi-public”) -- plazas, atriums, outdoor cafes, areas adjacent to the sidewalk, walkways leading to lobbies -- are in fact controlled by institutions, corporations, landlords, universities, and so forth. The police enforce the law, as we’ve said, but they have no interest in corporate and institutional “rules.” This is where private security forces -- and the tap on the shoulder -- come in.

Let’s stipulate, as the lawyers say, that there is no point arguing against “the rules.” For one thing, you don’t know what they are. They have been propounded by shareholders, board members, alumni, executive vice presidential conference committees, and cabals of maintenance and security men, and are published -- if published at all -- in employee policy handbooks unavailable to you (and unread by those to whom they are available). In sum, the rules are what “they” say they are -- and there you are. But -- and this is the nub of the current study -- not all uniformed security guards are equally inclined to make an issue of these so-called rules. Far from it. This being the case, what you need to be able to do is to quickly assess the degree to which an individual UPSG will be inclined to get in your face.

Luckily, this is not as daunting as it seems. In fact, it’s rather simple. I herewith offer you the fruits of my long experience in the area of gauging GH (Gluteal Hardness) in security guards.

Just follow these few straightforward guidelines, and you will quickly be able to tell whether or not a particular UPSG is inclined to make trouble, or to “let it slide, this one time, if you don’t do it again.”
Guidelines

GENDER. Women are relative newcomers to the private security game and so (as is true in many other walks of life) many of them still have something to prove. This results in a very high GH rating. All other things being equal, you are much better off tangling with a male than with a female security guard.

AGE. By and large, the younger, the better, for the purposes under discussion. Younger men are “only doing this for the summer,” or for “a hoot.” They tend to get a kick out of almost being taken seriously, and security work is a step up from mending bicycle tires. The older the guard, however, the more likely the work is a step down -- from the police force (twenty years on the psychobunko squad) or, worse yet, the military (two tours in ‘Nam, and a couple of decades of rehab). These are guys who have known real power, and are in no mood to take crap from the likes of you. (Just for definitional purposes, “crap” is anything you open your mouth to say.)

DEGREE OF UNIFORM (General). A guard wearing the full kit -- hat, jacket, shirt and tie, matching slacks, and company-issue shoes -- has the highest GH rating, and is almost guaranteed to get in your face. The more complete the formality, in other words, the greater the problem.

DEGREE OF UNIFORM (Specific). Interestingly enough, the removal of the hat makes no difference whatever to the GH rating, although the removal of the jacket does. A further easing of Gluteal Hardness has been documented when the hat, jacket and tie all are dispensed with. Now you have a SSPSG (Shirt-sleeved Private Security Guard), who is likely to be amenable to joshing, sweet-talk, and other forms of hail-fellow-well-met badinage. Bear in mind, however, that an SSPSG with embroidered patches on his sleeves and a walkie-talkie clipped to his shirt above the breast pocket is in fact a FUPSG (Fully Uniformed Private Security Guard) in disguise. Do not attempt badinage at all with a crypto-FUPSG.

HAIR. Less hair, higher GH, from shave-pates (bald women are 2.3 times as bad as bald men) to buzz, brush, and crewcuts, to “normal-length,” mullet, and pony-tailed. If ever you run into a security guard with a blue Mohawk, deal with him as you would deal with a golden retriever: Throw him a treat and then ignore him.

WIDTH OF BELT. If you are in a sticky situation and do not have time for a full assessment of a guard’s trouble-making propensities, this is the single best detail on which to concentrate. Anything noticeably wider than the average dress belt (about an inch, give or take) is a sign of what may be extreme GH, regardless of how the guard in question scores in any of the other areas covered above. Belts that are three, four and five inches wide suggest past careers in areas (law enforcement, the armed forces, piano moving, professional wrestling) you are almost certainly not equipped to deal with. Also be aware that a belt of an otherwise acceptable width, when fitted with a bizarre outsized buckle advertising some sort of institutional allegiance, is as much a warning sign as a garrison or weight-lifter’s belt.
BELT ACCOUTREMENTS. The number of things hanging from a guard’s belt is directly proportionate to his inclination to enforce the rules. For one thing, you can’t hang much from a normal-width belt (see above for a discussion of belt-width.) For another thing, as trappings are added to the belt (two-way radio; Leatherman tool; flashlight the size of a Genoa salami; large, menacing but entirely mysterious rubberized articles; spray cans in customized holsters; Magic Marker tricked out to look like a truncheon; spiral-bound stainless-steel notebook), the guard’s comfort and walk both are affected, and an uncomfortable UPSG with a bowlegged John Wayne gait is always more trouble than one who is comfortable and light footed. Also, since the accoutrements are largely the guard’s own idea, they provide a very clear indication of how he sees the scope and importance of his duties. When the waistband itself is hardly visible anymore under the gizmos hanging from and clipped to it -- when, in other words, it amounts to a facsimile of Batman’s belt of wonders -- then you are dealing with a man who feels called upon to be ready for an enemy invasion, much less some puny rule-bender like yourself. Imagine a fully-armed big game hunter, frustrated in his attempt to bag an elephant, suddenly bothered by a bug. He is going to be vicious to that bug. In this circumstance, you are the bug.

Summary

Gluteal Hardness is simple to gauge, at least in security guards. The parameters of interest are: gender; age; fullness of uniform; visibility of scalp; and belt-width and -trappings. The values of these parameters reliably distinguish a guard who is basically strolling over to say hello in case his supervisor is watching from a guard who’d shoot you if he could.

A security guard at Nottingham Trent University engages Ig Nobel Prize winner Pek Van Andel in a discussion about some mysterious objects. Moments earlier, Dr. Van Andel had wandered into the office, handed the objects to the guard, and asked “Good sir, do you happen to know what these are?” Dr. Van Andel and several other Ig Nobel winners were visiting the university as part of the 2005 Ig Nobel Tour of the UK, in celebration of the UK’s National Science Week. The objects, it turned out, were dried bull penises.
The Ig Nobel Books!

*Why Chickens Prefer Beautiful Humans*, by Marc Abrahams,
Orion Books, London

*The Ig Nobel Prizes*, by Marc Abrahams

And... editions in JAPANESE, POLISH, SPANISH, ITALIAN, CHINESE, and other languages

...and the “Best of AIR” Book!

The world’s most untranslatable book has been translated into CHINESE, GERMAN, ITALIAN, and, to some extent, the original ENGLISH:


*Der Einfluss von Erdnussbutter auf die Erdrotation*, Marc Abrahams (ed.), Birkhäuser.

*La scienza impossibile—Il meglio degli <<Improbable Research>>*, Marc Abrahams (ed.), Garzanti

...And the book-length version of the famous AIR-birthed article: *A BriefER History of Time*, by Eric Schulman, W. H. Freeman.
AIRhead Research Review

Improbable theories, experiments, and conclusions

compiled by Dirk Manley, AIR staff

Greek Cheek Dimples


Sun and Tan on Light


In Re Cheese Sticks


The authors report that:

A novel modeling technique named MARS (Multivariate Adaptive Regression Splines) can automate variable selection as well as model selection. The main purpose of this study was to apply MARS to consumer preference mapping using consumer test data for cheese sticks. The results show that MARS was capable of modeling consumer’s preference patterns for cheese sticks.

Japanese Nocturnal Kicking Statistics

“Periodic Leg Movements During Sleep in Japanese Community-Dwelling Adults Based on the Assessments of Their Bed Partners,” Y. Doi, Y. Inoue, M. Minowa, M. Uchiyama, and M. Okawa, Journal of Epidemiology, vol. 13 no. 5, September 2003, pp. 259-65. (Thanks to Richard Wilsnack for bringing this to our attention.) The authors, who are at the National Public Health Institute, 2-Wako, Saitama, Japan, explain that:

The results suggest that the prevalence of periodic leg movements during sleep (PLMS) in Japanese community-dwelling adults is not as high as reported from Western countries.

“Dirty,” “Rotten,” and “Dammed”

“Methodological Imperfections and the Formalization of Scientific Activity,” George Svetlichy, International Journal of Theoretical Physics, vol. 26, no. 3, 1987, pp. 221-38. (Thanks to Tom Roberts for bringing this to our attention.) The author, who is at the Pontifica Universidade Catolica, Rio de Janeiro, Brazil, reports that:

Any mathematical formalization of scientific activity allows for imperfections in the methodology that is formalized. These can be of three types, “dirty,” rotten,” and “dammed.”

We welcome your suggestions for this column. Please enclose the full citation (no abbreviations!) and, if possible, a photocopy of the paper.
The Name Number for Astronomy

by Eric Schulman and Caroline V. Cox
Alexandria, Virginia

We have calculated the Name Number for our field, which is astronomy. The concept of the “Name Number” for professions was proposed by Kevin Krajick as a way to quantify a profession’s Nominative Determinism, or the amount to which people choose a particular profession based on their last name.1

Krajick calculated the Name Number for geology by dividing the number of geology-related surnames for those who presented papers at the 2003 meeting of the Geological Society of America by the total number of authorial surnames for that meeting. The geology Name Number presented in Krajick’s study was 117 / 8639, or 0.0135432.

Krajick pointed out that geology is the first branch of science to have a calculated Name Number, and concluded that “it remains to be seen whether other specialties will rise to challenge its supremacy.” On behalf of astronomers everywhere, we have accepted this challenge and present our results here.

Calculating the Name Number for Astronomy

We calculated the Name Number for astronomy by examining the names of the approximately 7000 members of the American Astronomical Society in 2000, and finding the following matches to the profession of astronomy:

Sun -- 1, Sunshine -- 1
Moon -- 1, Mooney -- 1
Starr -- 1, Field -- 1, Starrfield -- 1
Light -- 1, Beam -- 1, Ray -- 5
Argon -- 1, Silver -- 1, Gold -- 1
Greenhouse -- 1, Gass -- 1

Result

By this method, the Name Number for astronomy is 19/7000 or 0.0027143.

What’s in a Name Number

A naive interpretation of these data is that the Name Number for the field of astronomy is a factor of 4.9896126 smaller than the Name Number for the field of geology. However, since cosmology, which is a subfield of astronomy, is defined as “the study of the physical universe considered as a totality of phenomena in time and space” (http://www.answers.com/topic/cosmology), an argument could be made that the Name Number for astronomy is actually 1.0000000.

In fact, we do make this argument, and therefore conclude that the Name Number for the field of astronomy is a factor of 73.837607 larger than the Name Number for the field of geology.

Reference

The 6-Pack Ring Fishing Experiment

by Antoni Chan, Ithaca, New York
Benjamin Stein, New York, New York
Kenneth Bromberg, New York, New York

After purchasing six-packs of soda cans or beer cans, must we cut the plastic rings that hold the cans together? People say that if we discard these rings without first cutting them, birds and fish will get caught in them and die. We decided to test that claim.

The 6-Pack Safety Hypothesis

Is there really a significant problem? Does our environment -- and the survival of several species -- hinge on us snipping these plastic rings? Our goal was to prove that fish and birds will not get caught in 6-pack rings.

To do this, we used baited 6-pack rings to try our hardest to catch a bird or a fish.

Our Equipment

To purchase supplies for this experiment, we went to our local grocery store, the Ithaca Farmer’s Market (see Figure 1). We noticed that outside the store there are both birds in the trees and fish in the water.

Here is a list of the equipment we used:

Figure 1

* 1 set of rings from a 6-pack of soda
* 1 worm (to use as bait for fish)
* bread (to use as bait for birds)
* string, a rock and a stick (for fishing rod)
* potato chips (to snack on while we waited)

And here is a cost analysis of our research project.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>soda</td>
<td>$3.00</td>
</tr>
<tr>
<td>worm</td>
<td>free</td>
</tr>
<tr>
<td>rock</td>
<td>free</td>
</tr>
<tr>
<td>stale bread</td>
<td>free</td>
</tr>
<tr>
<td>stick</td>
<td>free</td>
</tr>
<tr>
<td>bag of chips</td>
<td>free</td>
</tr>
</tbody>
</table>

The Fish Experiment: Procedure

We then prepared the equipment by drinking all of the soda from both 6-packs (see Figures 2 and 3). In
retrospect, it seems we could have skipped this step. After downing twelve sodas, we were left with just the 6-pack ring (see Figure 4).

Next we needed to bait our rings with worms (see Figure 5). You might be surprised at how squirmy these worms are, but after a while we managed to get them tied securely into the rings. (see Figure 6).

We then obtained some string, a stick, and a rock, which we used to build a nifty fishing rod, Huck Finn style. Then we traveled to the docks to test our hypothesis. The Ithaca Farmer’s Market had a very nice pier, which we used. (see Figure 7).

The Fish Experiment: Results

We spent three hours fishing, and didn’t catch a damn thing. Part One of our hypothesis holds true. Fish do not get easily caught in 6-pack rings.
The Bird Experiment: Procedure

After failing to catch a single fish, we tried to catch a bird. We figured it would be much easier to catch a bird than to catch a fish. Birds are much less slippery than fish.

We baited the rings with stale bread, which is well known for being the best thing to feed birds (see Figure 8).

We then found a low-hanging bird’s nest in a tree. There were babies inside, so we were sure the mother bird would be thrilled to have free food nearby. We hung the trap in the tree and waited. (See Figure 9.)

An hour later, nothing had happened. This was horrible. We couldn’t catch a bird for the life of us.

We then tried a new approach. We laid the trap on the ground. Then we made a trail of crumbs on the ground leading towards the trap (see figure 10.)

At first we were really excited because birds came right to the trail of crumbs and started following it down to the trap. But alas, they never got caught in the trap.
The Bird Experiment: Results

We spent two hours bird hunting, and didn’t catch a damn thing. Part Two of our hypothesis holds true. Birds do not get easily caught in 6-pack rings.

Conclusion

The myth is false. Birds and fish do not get caught in 6-pack rings. You can stop the laborious process of cutting them up. From now on you will never have to cut them up. Think of how much time you’ll save!
Soft Is Hard
Further evidence why the “soft” sciences are the hardest to do well
compiled by Alice Shirrell Kaswell, G. Neil Martin, and Bissell Mango

Brain Scans of Pepsi vs. Coke Drinkers
“Neural Correlates of Behavioral Preference for Culturally Familiar Drinks,” Samuel M. McClure, Jian Li, Damon Tomlin, Kim S. Cypert, Latane M. Montague, and P. Read Montague, Neuron, vol. 44, October 14, 2004, pp. 379-87. (Thanks to Nikita Maximov for bringing this to our attention.) The authors are at Baylor College of Medicine, Houston, Texas.

Social Mobility
“Mobile Phones as Lekking Devices Among Human Males,” J.E. Lycett and R.I.M. Dunbar, Human Nature, vol. 11, no. 1, 2000, pp. 93-104. (Thanks to Kees Moeliker for bringing this to our attention.) The authors explain that:

This study investigated the use of mobile telephones by males and females in a public bar frequented by professional people. We found that, unlike women, men who possess mobile telephones more often publicly display them, and that these displays were related to the number of men in a social group, but not the number of women. ... There was a positive relationship between the number of visible telephones and the ratio of males to females. ... We interpret these results within the framework of male-male competition, with males in larger group sizes functioning in an increasingly competitive environment. This competitive environment is suggested to be akin to a lek mating system in which males aggregate and actively display their qualities to females who assess males on a number of dimensions. We suggest that mobile telephones might be used by males as an indicator of their status and wealth.

When That Other Child Screams

We studied stereotypical ear covering in a child with autism. Results of a descriptive analysis were inconclusive but revealed a correlation between ear covering and another child’s screaming. An analogue functional analysis showed that ear covering was emitted only when the screaming was present.

The Wedding Ring Effect
“Human Mate Choice and the Wedding Ring Effect: Are Married Men More Attractive?” Tobias Uller and L. Christoffer Johansson, Human Nature, vol. 14, no. 3, 2003, pp. 267-76. (Thanks to Cajsa Lisa Anderson for bringing this to our attention.) The authors explain:

Females of some species have been shown to copy each other’s choice; in other words, the probability of a female choosing a particular male increases if he has already been chosen by other females. Recently it has been suggested that mate-choice copying could be an important aspect of human mate choice as well. We tested one of the hypotheses, the so-called wedding ring effect -- that women would prefer men who are already engaged or married -- in a series of live interactions between men and women. The results show that women do not find men signaling engagement, or being perceived as having a partner, more attractive.
AIRhead Medical Review

Improbable diagnoses, techniques, and research

compiled by Bertha Vanatian, AIR staff

Visual Revenge of the Spider

“Acute Conjunctival Inflammation Following Contact with Squashed Spider Contents,” Geoffrey K. Isbister, *American Journal of Ophthalmology*, vol. 136, no. 3, September 2003, pp. 563-4. (*Thanks to Dugald McGlashan for bringing this to our attention.*) The author, who is at Mater Misericordiae Hospital, Waratah, New South Wales, Australia, explains that:

A 46-year-old man presented with a painful and inflamed eye after contents of a spider got into his right eye when he squashed the spider with a newspaper. He suffered immediate severe pain in the eye, which rapidly became red and swollen. He had conjunctival edema and periorbital swelling of the eye and severe photophobia.

Listening Post

“Ear Candles -- Efficacy and Safety,” Daniel R. Seely, Suzanne M. Quigley, and Alan W. Langman, *Laryngoscope*, vol. 106, no. 10, October 1996, pp. 1226-9. (*Thanks to Iain Noble for bringing this to our attention.*) The authors explain that:

Ear candles are a popular and inexpensive alternative health treatment advocated for cerumen removal. A hollow candle is burned with one end in the ear canal with the intent of creating negative pressure and drawing cerumen from the ear. If effective, significant savings could result from the use of ear candles. This study evaluates the efficacy and safety of this alternative method for cerumen management. Tympanometric measurements in an ear canal model demonstrated that ear candles do not produce negative pressure. A limited clinical trial (eight ears) showed no removal of cerumen from the external auditory canal. Candle wax was actually deposited in some. A survey of 122 otolaryngologists identified 21 ear injuries resulting from ear candle use. Ear candles have no benefit in the management of cerumen and may result in serious injury.

When Butt Met Bannister


Cause and Effect (1): Pollen and Suicide


Cause and Effect (2): Viagra and Blindness


We welcome your suggestions for this column. Please enclose the full citation (no abbreviations!) and, if possible, a photocopy of the paper.
Puzzling Solutions

by Emil Filterbag, AIR staff

We have a large collection of puzzle solutions for which we have lost the puzzles. Here is a further selection.

THE SOLUTION: (2) Rising labor costs, combined with smaller, simpler manicure and pedicure tools and with the public’s desire to have nails be trimmed more frequently, rendered the technique infeasible. The invention of the pocket-size nail clipper rendered the death blow to the industry that had grown up around the more powerful, yet more cumbersome equipment.
THE SOLUTION: (3)
Dr. Luna B. Leopold.

Because the photograph is upside down.
THE SOLUTION: The hatchling chick is in the left pocket of the man sitting at the front. The tip of the elephant is visible at right.

THE SOLUTION: Because it is a shell of its former self.
Scientists Now Know...  
*Startling discoveries by social scientists, as announced in press releases issued by them and their proud institutions*

compiled by Olph DeShaies, AIR staff

**Vigorously Active Adolescents Are Leaner, Fitter**

AUGUSTA, GEORGIA, USA -- Adolescents who get daily vigorous physical activity tend to be leaner and fitter than their less active peers, researchers have shown.

“The leanest and fittest kids are the ones who have the most vigorous activity for longer periods of time,” says Dr. Bernard Gutin, exercise physiologist at the Medical College of Georgia and lead author on the study published in the April 2005 *American Journal of Clinical Nutrition*.

**CONTACT:** Toni Baker  
<tbaker@mcg.edu> 706-721-4421, Medical College of Georgia

[The study is “Relations of Moderate and Vigorous Physical Activity to Fitness and Fatness in Adolescents,” Bernard Gutin, Zenong Yin, Matthew C Humphries, and Paule Barbeau *American Journal of Clinical Nutrition*, vol. 81, no. 4, April 2005, pp. 746-50.]

The press release accompanying this photo explains that “Dr. Bernad Gutin (left), exercise physiologist, and Matthew C. Humphries, MCG research manager, are authors on a study that shows adolescents who get daily vigorous physical activity tend to be leaner and fitter than...”
Two Scientists Meet For Lunch

A lesson in interdisciplinary cooperation

[EDITOR’S NOTE: The following conversation was reported to us. We requested and received permission to report it to you, our readers.

The “I” of the conversation is Professor Leonard X. Finegold of the Drexel University physics department. “Earle” is Earle A. Spamer of the American Philosophical Society. The city is Philadelphia, Pennsylvania.]

I to Earle:

Do you ever go for lunch-time walks?

Then we could meet.

Earle to me:

I do, as often as I can.

We could meet half-way at 30th St. Station for some semblance of lunch.

I to Earle:

Let’s see, how long does it take to walk from your place to 30th St. Station?

THEN Earle’s brief (!) reply follows. I shall print it out to study on the train during my commute:

A fine question from someone in your line of work! I suppose it depends upon what time I leave, my average rate of travel given a known mass and potential caloric input, and which way the smoke is blowing. Fortunately, the calculation is simple in this part of town because all possible direct routes from hither to thither follow Cartesian coordinates. Of course, we should factor in a correction for whether the resultant vector is plotted as a spherical projection on a plane or on the surface of the three-dimensional geoid. I shall ignore as insignificant the aberrations in plotted values for time between t-zero and t-n that are introduced by changing distance from the center of the earth and the coincident variation in gravitational attraction).
All that said, about 12-15 minutes. It depends upon air temperature (which has nothing to do with air density and resistance, but the “nicety” of the day).

Of course, it all depends upon t-zero. So when should that be?

EDITOR’S NOTE: The two scientists did manage to have lunch together.
Global Boom

*Gutsy Explosions in the Northern Hemisphere*

*compiled by A.S. Kaswell and S. Drew, AIR staff*

Here is a brief and somewhat haphazardly selected guide to some unfortunate, and probably embarrassing, explosions of a particular type.

**Boom (Italy, 1952)**


**Boom (Spain, 1964)**

“Pneumatic Explosion of the Cecum in Patients with Carcinoma of the Colon” [article in Spanish], N. Antonelli and E. Borenstein, *Prensa Medica Argentina*, vol. 51, October 23, 1964, pp. 999-1002.

**Boom (Germany, 1974)**

“Intestinal Gas Explosion As a Rare Cause of Traumatic Colon Perforation” [article in German], F.J. Stucker and H. Molzberger, *Chirurg*, vol. 45, no. 8, August 1974, pp. 373-5.

**Boom (America, 1974)**


**Boom (Denmark, 1978)**


Mrs. Casey, the wife of the minister to the Australian Legation in Washington, D.C., and two children studying global phenomena in 1942. Photo: Marjory Collins, courtesy of the Library of Congress.
Boom (Japan, 1985)

Boom (Israel, 1992)

Boom (Scotland, 1996)

Boom (France, 2003)

***

This type of explosion sometimes raises questions which, being unusual, can be unsettling.

Boom (Query)
“Colonic Gas Explosion -- Is a Fire Extinguisher Necessary?”

Kersplat / Kaboom
“Unusual Blast Colonic Injury Due to a Fall,” E.O. Fashakin and P.A. Ajayi, Tropical Gastroenterology, vol. 12, no. 2, April-June 1991, pp. 83-6. The authors explain that:

Blast injuries are caused by bomb blasts, intracolonic explosion of gases after diathermy, over-enthusiastic bowel insufflation at sigmoidoscopy or by pressure hose applied to the anus. We report the case of a 28-year old man with an unusual blast injury of the colon following a fall from a colanut tree.

Fred D. Fagg, Jr., Chief of the Air Commerce Bureau, U.S. Department of Commerce, looking at globe, photo taken some time between 1920 and 1950. The telephone was used for communications. Photo: Theodor Horydczak, courtesy of the Library of Congress.
Boys Will Be Boys

Research by and for adolescent males of all ages and sexes

compiled by Katherine Lee, AIR staff

Dark Passage 1


Dark Passage 2


Dark Passage 3


Dark Passage 4

“A Micro Creeping Robot for Colonoscopy Based on the Earthworm,” J. Zuo, et al., *Journal of Medical Engineering and Technology*, vol. 29, no. 1, January-February 2005, pp. 1-7. (Thanks to Nick Matzke for bringing this to our attention.)

Night Chills Before the Fall


In-Laws (in Dung)


In the dung beetle, Onthophagus taurus, females mated with large males provide more resources to their offspring. Here, we demonstrate, however, that this may result in manipulation that extends across generations: the care that a mother provides to a developing son influences the parental effort of his mate (the mother’s daughter-in-law).
There are many dying arts. Reading in general may be one of them, but I don’t know how you’d go about truly assessing that. I do know about reading textbooks for leisure. No one would call it a dying art. The practice of reading textbooks for leisure is just as lively now as it has ever been.

More people buy textbooks -- actually spend their own money to do it -- now than ever before. And in deciding what to buy, they -- we -- are kids in a candy store. There’s an ever-growing number of specialized subjects for which textbooks exist, and so the variety of textbooks on offer is always increasing. Even if you somehow manage to exhaust the cream of one genre, you can easily find another genre to sample.

There is much to be gained, potentially, from trying a textbook from a world that’s new to you, especially one that hasn’t yet been hyped by the critics and lit-blogs and talk shows. It’s fun to get in on something while it still has cult status.

Let me make three suggestions off the top of my head. Ferziger and Peric’s “Computational Methods for Fluid Dynamics” is packed with ideas and language you’ll seldom find in anything by Charles Dickens or Virginia Woolf or in most of the Harlequin romances. “Correctional Administration: Integrating Theory and Practice,” by Richard P. Seiter, is bursting with plangent metaphors. And cozying up with a hematology textbook, if you’re not a hematologist, is more of an adventure than many people realize.

An un-timid reader can find lots of other good, meaty reads packed with traditional literary merit. Like the best novels, many of the textbooks in forestry management and ergodic theory and multinational auditing and thousands of other genres try to fill a reader’s mind with ideas and words that, at first read, really do feel completely novel.

But that’s not the best part. Used textbooks offer one thing more to beguile the leisure-time reader. For many of us, the highlight of reading used textbooks is the highlighting, the lines previous readers have drawn under or around or through particular words or passages. Good highlighting makes any used textbook worth the purchase. Bad highlighting makes it even better. And in buying highlighted textbooks, you sometimes get a double bonus. Despite the carefully added interest, they often have drastically reduced price tags.

The subject of pre-highlighted books is not just of non-academic interest. Vicki Silvers and David Kreiner, of Central Missouri State University, were awarded an Ig Nobel Literature Prize for a study they published in 1997. Titled “The Effects of Pre-Existing Inappropriate Highlighting on Reading Comprehension,” their report describes a series of clever experiments. In their acceptance speech, delivered at the ceremony at Harvard, Silvers and Kreiner offered one piece of advice: “Don’t buy a textbook that was highlighted by an idiot.”

I’m not sure I’d agree.

Reference
Icky Cutesy Research Review

Research reports that are icky and/or cutesy

Compiled by Alice Shirrell Kaswell, AIR staff

Cutesy

“Congenital Malformations and Genetic Diseases in Comic Books,” A. Megarbane and S.M. Adib, Genetic Counseling, vol. 14, no. 1, 2003, pp. 3-14. (Thanks to Pat J. Morin for bringing this to our attention.) The authors, who are at Université Saint-Joseph, Beirut, Lebanon, say that:

In many comic books, the appearance and/or the behavior of central or support characters are suggestive of already well-defined medical disorders. The representation of five particular groups or clinical features: mental retardation, abnormal stature, abnormal hair, obesity, and cranial malformations is discussed [here].

Cute


Icky Cutesy


This descriptive study examined the music content of 88 episodes from the PBS television show Barney & Friends... The most common tempo range for presentations on the show was 80-100 beats per minute, while vocal ranges of a 9th, 8th, 6th, and 7th were predominant and most often sung by children’s voices. The adult male voice was also common, with 84% of all adult vocals being male. The tessitura category with the greatest number of appearances was middle C to C above (n = 133), with the majority of the presentations (n = 435, 73%) extending singers’ voices over the register lift of B above middle C.

Icky


Majestically Icky


A free puboinguinal hair-bearing flap was transferred with anastomosis of the external pudendal vessels, for reconstruction of a bearded chin in an adult male. Although the flap does not match the skin of the chin in texture or color, it can provide an excellent beard in terms of the color, density and quality of hair growth. Donor site morbidity is minimal.
Above: Daisuke Inoue, the inventor of Karaoke, is introduced as the 2004 Ig Nobel Peace Prize winner during the ceremony at Harvard’s Sanders Theatre. Photo: Eric Workman / Annals of Improbable Research.

***

Ig Nobel Invitation
The 15th First Annual Ig Nobel Prize Ceremony
Thursday evening, October 6, 2005
at Harvard University. You are invited to attend.

Tickets go on sale in August -- from the Harvard Box Office.
The ceremony will be televised live on the Internet.
For more information, see the Improbable Research web site
Healthier Genes!

Last month we announced that now that thousands of hard-working scientists have mapped the human genome, we have the keys to curing every major disease. That was the promise, we said, and now it is time to celebrate, and to salute the men and women who made this possible!

Henceforth the vast majority of health problems will take care of themselves. The remaining problems, however, are the truly difficult ones. Difficult medical problems, unfortunately, tend also to be very expensive to treat. More difficult than we had realized last month. And so we are pleased to announce the 67% rise in all our medical fees, charges, and surcharges announced last month will now be an 87% increase.

HMO-NO. Because we care about you, and your pocketbook.

Security Guard Research Review

A look at some looks at those who stand guard

compiled by Nan Swift, AIR staff

The Psychotic Patient as Security Guard


The job of the security guard is generally regarded as stressful because of the potential for violent or other hostile confrontation. Although the public assumes that only mentally healthy individuals who possess the capability to handle stressful situations become employed as security guards, this may not be the case. A series of 15 individuals who suffered from psychotic disorders while working as security guards is studied and discussed... One case is described in detail in order to highlight important issues resulting from being psychotic while working as a security guard.

Awake, But Not Very


[M]ale permanent night security guards were interviewed with regard to the occurrence of various symptoms during the previous 12-month period. The results were compared with the results from similar interviews with a representative national sample of males in the Swedish workforce.... The results showed that the security guards had a 2-3 times higher occurrence of sleep disturbances and fatigue than the national sample.
May We Recommend

Items that merit a trip to the library

compiled by Stephen Drew, AIR staff

Ant Trunk Trail Angles


Fear of Hell Might Fire Up the Economy


Reverse-Stink Children


We welcome your suggestions for this column. Please enclose the full citation (no abbreviations!) and, if possible, a photocopy of the paper.

AIR Teachers’ Guide

Three out of five teachers agree: curiosity is a dangerous thing, especially in students. If you are one of the other two teachers, AIR and mini-AIR can be powerful tools. Choose your favorite hAIR-raising article and give copies to your students. The approach is simple. The scientist thinks that he (or she, or whatever), of all people, has discovered something about how the universe behaves. So:

- Is this scientist right -- and what does “right” mean, anyway?
- Can you think of even one different explanation that works as well or better?
- Did the test really, really, truly, unquestionably, completely test what the author thought he was testing?
- Is the scientist ruthlessly honest with himself about how well his idea explains everything, or could he be suffering from wishful thinking?
- Some people might say this is foolish. Should you take their word for it?
- Other people might say this is absolutely correct and important. Should you take their word for it?

Kids are naturally good scientists. Help them stay that way.
Bends on the Learning Curve

Improbable ideas and explanations collected from classrooms

by Richard Lederer

It is with mixed feelings that I lay before you some of the weird science concocted by our students:

- Gravity is a pulling type thing that makes sure that the planets don’t fall or hurt anything.
- When a planet first forms, it is like a big ball of mucus.
- Copernicus’s theory claimed that the sun was on the center of the earth.
- Mars is located halfway between the earth and the sun.
- Some oxygen molecules help fires burn while others help make water, so sometimes it’s brother against brother.
- The sun is a red giant that will be replaced by another red giant before the giant fussies out and dies.
- Before Galileo, no one could see the moon.

Please send your best specimens, together with sources whenever possible, to Richard Lederer, 10034 Mesa Madera Drive, San Diego, CA 92131 USA
For table of contents of each issue, please see our web site WWW.IMPROBABLE.COM

COMPLETE SETS: Phone or email us for details. (NOTE: Each complete set includes original copies of MOST of the issues, and photocopies of every other issue.)

ISSUES MARKED "SOLD OUT": are available, if at all, ONLY as part of a complete set.

AIR 1:1—Premier Issue. SOLD OUT
AIR 1:2—Special Teachers’ Issue. SOLD OUT
AIR 1:3—Special Food Issue. SOLD OUT
AIR 1:4—Special Paleontology Issue. SOLD OUT
AIR 1:5—Special Pediatrics Issue. SOLD OUT
AIR 1:6—Special Animal Behavior Issue. SOLD OUT
AIR 2:1—Special Ig Nobel Prize Issue. SOLD OUT
AIR 2:2—Annual Swimsuit Issue. SOLD OUT
AIR 2:3—Special Symmetry Cover Issue. SOLD OUT
AIR 2:4—Special Type Issue. SOLD OUT
AIR 2:5—Special Generic Issue. SOLD OUT
AIR 2:6—Special Martian Memories Issue. SOLD OUT
AIR 3:1—Special Ig Nobel Prize Issue. SOLD OUT
AIR 3:2—Annual Swimsuit Issue. SOLD OUT
AIR 3:3—Special Managed Health Care Issue. SOLD OUT
AIR 3:4—Special Peculiar Patents Issue. SOLD OUT
AIR 3:5—Special How-To Issue. SOLD OUT
AIR 3:6—Special Parapsychology Issue. SOLD OUT
AIR 4:1—Special Ig Nobel Prize Issue. SOLD OUT
AIR 4:2—Annual Swimsuit Issue. SOLD OUT
AIR 4:3—Special Cough & Apology Issue. SOLD OUT
AIR 4:4—Special Animal Behavior Issue. SOLD OUT
AIR 4:5—Special Social Science Issue. SOLD OUT
AIR 4:6—Special Math & Money Issue. SOLD OUT
AIR 5:1—Special Ig Nobel Issue. SOLD OUT
AIR 5:2—Annual Swimsuit Issue. SOLD OUT
AIR 5:3—Special Movie Issue. SOLD OUT
AIR 5:4—Special Coffee & Tea Issue. SOLD OUT
AIR 5:5—Special Bearded Men Issue. SOLD OUT
AIR 5:6—Special Education Issue. SOLD OUT
AIR 6:1—Special Ig Nobel Issue. SOLD OUT
AIR 6:2—Special How-To Issue. SOLD OUT
AIR 6:3—Special Crimes & UFVs Issue. SOLD OUT
AIR 6:4—Special Pwogs & Handling Issue. SOLD OUT
AIR 6:5—Special Biome: the Bombastic Beetle Issue. SOLD OUT
AIR 6:6—Special Fantasies Issue. SOLD OUT
AIR 7:1—Special Ig Nobel /Sweetie-Poo Issue. SOLD OUT
AIR 7:2—Special Yawning Issue. SOLD OUT
AIR 7:3—Special Physics Issue. SOLD OUT
AIR 7:4—Special Behavior Issue. SOLD OUT
AIR 7:5—Special Animal & Vegetable Issue. SOLD OUT
AIR 8:1—Special Ig Nobel /Wedding Issue. SOLD OUT
AIR 8:2—Special Food Issue. SOLD OUT
AIR 8:3—Special Non-Friendship Issue. SOLD OUT
AIR 8:4—Special Winter Season Issue. SOLD OUT
AIR 8:5—Special Smelly Issue. SOLD OUT
AIR 8:6—Special Art & Science Issue. SOLD OUT
AIR 9:1—Special Ig Nobel Issue. SOLD OUT
AIR 9:2—Dismal Science Issue. SOLD OUT
AIR 9:3—Special Everything Issue. SOLD OUT
AIR 9:4—Special Chicken & Fish Issue. SOLD OUT
AIR 9:5—Special Murphy’s Law Issue. SOLD OUT
AIR 9:6—Special Ig Nobel Issue. SOLD OUT
AIR 10:1—Special Beauty Issue. SOLD OUT
AIR 10:2—Special Way To Go Issue. SOLD OUT
AIR 10:3—Special Loss of Innocence Issue. SOLD OUT
AIR 10:4—Special Astronomy Issue. SOLD OUT
AIR 10:5—Special Cats Issue. SOLD OUT
AIR 10:6—Special Ig Nobel Issue. SOLD OUT
AIR 11:1—Special Everything Issue. SOLD OUT
AIR 11:2—Special Puzzling Solutions Issue. SOLD OUT

FIRST COPY——USA $8, Can/Mex $11, Overseas $16
ADD’L COPIES (purchased at same time)——$6 each

Send payment to: Annals of Improbable Research, PO Box 380853, Cambridge, MA 02238 USA
617-491-4437 FAX: 617-661-0927 <air@improbable.com>

Teachers: You have our permission—and encouragement—to photocopy AIR articles and hand them out in your classroom.
Research that makes you LAUGH, then makes you THINK.

Please:
____ start or ____ renew a subscription FOR ME (____1 year (6 issues) ____2 yrs ____3 yrs)
____ start or ____ renew a GIFT SUBSCRIPTION (____1 year (6 issues) ____2 yrs ____3 yrs)

My name, address, and all that:
Name:_________________________________________
Addr: _________________________________________
Addr: _________________________________________
City:____________________State:_______ZIP:_______
Country:_________________________
Phone:__________________ FAX:__________________
E-mail: _____________________________

I am giving a GIFT SUBSCRIPTION to:
Name:_________________________________________
Addr: _________________________________________
Addr: _________________________________________
City:____________________State:_______ZIP:_______
Country:_________________________
Phone:__________________ FAX:__________________
E-mail: _____________________________
____Send renewal notice to my beneficiary.
____Send renewal notice to me.

As a subscriber to the Annals of Improbable Research, you will receive an official Improbable Research Investigator Card.

Total payment enclosed:____________
Payment method:
____Check (drawn on US bank) or int’l money order
____Mastercard   ____Visa   ____Discover   CARD #:_____________________________   EXP. DATE______

RATES (in US dollars)  
<table>
<thead>
<tr>
<th></th>
<th>1 year</th>
<th>2 yrs</th>
<th>3 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>$29</td>
<td>$53</td>
<td>$79</td>
</tr>
<tr>
<td>Canada/Mex</td>
<td>$33</td>
<td>$57</td>
<td>$85</td>
</tr>
<tr>
<td>Overseas</td>
<td>$45</td>
<td>$82</td>
<td>$123</td>
</tr>
</tbody>
</table>

Send payment to:
AIR
P.O. Box 380853, Cambridge, MA 02238 USA
617-491-4437 FAX: 617-661-0927 air@improbable.com

WWW.IMPROBABLE.COM
Unclassified Ads

The *Annals of Improbable Research* disclaims any and all responsibility for the veracity, existence, safety, or sense of any or all contents or consequences of these advertisements. Proceed at your own risk.

Computer diskettes that I no longer am able to read because I don’t have any disk drives that will take this size. Assorted sizes. Filled with assorted data. Best offer. Box 3.

Drippings. Box 14.

Dental amalgum. Only used once. Box 24.

Nuts suitable for using with screws. Several sizes available. Box 34.

Unsolicited advice. Box 36.

Request for Proposal (RFP) for unsolicited advice. Box 38.

Clavicles. Box 44.

Meteorite fragments from museums I have visited. Box 45

Greased bearings. Box 46.

Photographs of me defending my doctoral thesis. Box 49.

Contents of Box 52. Box 53.


Homemade zygotes. Just like Mom’s. Box 62.

And also see...

**www.improbable.com**

Our web site, featuring many things, including our daily Blog

The once-a-month *mini-AIR* email newsletter
(It’s free!) Pithy news, event schedules, contests, etc.
To subscribe, go to WWW.IMPROBABLE.COM

Our newspaper column

Appearing every Tuesday in *The Guardian* (London) and online

---

**Important:** *AIR* was created by the founders and entire former editorial staff (1955-1994) of *The Journal of Irreproducible Results*; however, *AIR* is in no way associated with that publication or with its publisher, nor should *AIR* in any way be confused with either of those entities.