John Bargh

PROFESSOR of PSYCHOLOGY

Yale University

Email Correspondence
December 20, 2015 – January 12, 2016

PREFACE

In late 2015 I launched an attention-seeking campaign designed to reach a wider audience than just physicists. A few hundred hard-copy postcards and a similar number of digital versions were sent to scholars of not just physics, but also chemistry, history, philosophy, psychology and others. At the end I've attached the image-side of my "Sociology Experiment" postcard and a typical address-side and message. Yale psychology Professor John Bargh was sent only the email version. Among the few responses I received, his was one of the most noteworthy.

In response to Bargh's question: "why me...as I'm not a physicist?" I stated my impression that "physics departments have serious psychological problems." The ensuing discussion revealed Bargh's receptivity to how this may indeed be true. Bargh shared some work he was interested in or co-authored.

Our discussion and Bargh's work on the "warm/cold dichotomy" reminded me of an essay I had written on *Gender-Related Influences on Resource Use...* For no particular reason I failed to send Bargh the essay, but I've included it here, as an enclosure. The societal pattern discussed therein (masculine aggression and displays of violence and wasting resources as a mating strategy) at least peripherally bears, I think, on the present state of theoretical and experimental physics. I would argue that there's a connection between these general traits of human males and the invention of, and preponderance of devotion to hypothetical Big Bangs, Black Holes, various high-energy collisions (*Vroom! Smash! Bam! Kapow!*) nearby, or in the Darkest reaches of the Holographic String-Brane Multiverse.

I sometimes point out the stark contrast between all this adolescent fantasy-like stuff and what is arguably the simplest, most gentle (more feminine?) physics apparatus that remains neglected by status quo academicians. Why have we not built this apparatus (Small Low-Energy Non-Collider) so that we may at last inspect physical reality under our noses, inside matter, into the most ponderous half of the gravitational Universe? The answer is complex; it surely involves tacit psychological and sociological factors. Perhaps it has *more* to do with our level of consciousness (psychological stage of development) than with our scant knowledge of physics.

The essay *Climbing the Depths of Gravity* (enclosed) also dissusses the underlying societal influences on physics and their possible origins. My correspondence with Daniel Kennefick—a physicist who has written on both the sociology of physics and the significance of belief and imagination in life in general—also broadens the perspective that is touched on here.

To: john.bargh@yale.edu

From: Richard J Benish <rjbenish@comcast.net>

Subject: Galileo's Gravity Experiment

Attachments: < Galileo's-Belated-Experiment.pdf > < Gravity-Sociology-Dec-2015.pdf >

Dear Professor Bargh,

I hope you find the attached documents to be within your area of interest.

I'd be grateful for any feedback.

Sincerely,

Richard Benish

On Sat, Dec 26, 2015 at 6:47 AM, John Bargh <johnbargh@yale.edu> wrote:

Hi Richard,

I find this very interesting. Thank you for sending it to me. I'm curious as to "why send it to me?" as I'm not a physicist, but this is just curiosity on my part. I did find your paper and the poster intriguing.

all hest

John

John Bargh, 12/27/15 5:35 PM -0700, Re: Galileo's Gravity Experiment

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To: John Bargh <john.bargh@yale.edu> From: Richard J Benish <rjbenish@comcast.net>

Subject: Re: Galileo's Gravity Experiment

Attachments: Holton-Benish Email Jul 2015.pdf

Dear Professor Bargh,

Many thanks for your reply.

In a nutshell, I've sent the documents to you because, after a protracted and still ongoing experience of sending them to physicists, I've gotten the impression that Physics Departments have serious psychological problems!

After receiving your reply, I looked a bit further into your work, at least as far as your YouTube interview with June Gruber. I am intrigued by the universality of the warm/cold dichotomy in assessment of personalities. Could such judgments have some applicability on a collective scale? With respect to Physics Departments, an affirmative answer would seem to be supported by others. For example, physicist and social historian Helene Goetschel has written of the "unwelcoming culture of physics." [Cult Stud of Sci Edu (2014) 9:531-537.] Are Physics Departments unduly "cold"?

Another example of a psychology-related malady(?) has been pointed out by physicist Daniel Kennefick. After experiencing a challenge by a more senior physicist as to the history of gravitational wave research, Kennefick reflected on the sociology of physics to explain his experience. Note first that the challenge came in response to Kennefick's presentation to an audience of veteran gravitational wave researchers a point that, perhaps, made physicists look a

little less than heroic. Kennefick writes:

"There is a preference not to remember or not to overstress the significance of something which may be seen as vaguely disreputable to the field. It is a characteristic aspect of physics that to pose a problem or a question may, in itself, be taken as a sign of bad character." [Traveling at the Speed of Thought, Princeton U Press (2007) p. 183.]

The RESULT of the experiment proposed by Galileo is so "well known" among physicists, that they are virtually blind to the fact that it has never been done. It is embarrassing for them to admit that they actually don't know the result. And it is a sign of "bad character" for me, (especially as an outsider) to suggest that they admit the fact and take care of the matter in a scientific manner.

I've attached a copy of an email exchange between myself and Harvard (Physics and History of Science) Professor Gerald Holton. You will see that he appraised my essay as "Nice... A very charming article." And yet, after I suggested that the appropriate course of action would be to actually do the experiment, communication (coldly?) stopped. I have often succeeded at making a good first impression, to evoke a positive response from physicists. Yet none of them have seen fit to pursue the matter to its (to me rather obvious) natural conclusion—to at long last perform the experiment proposed by the Father of Modern Science.

I would therefore encourage you to please consider carrying out the sociological experiment described on the poster.

Thanks again.

Happy New Year!

Richard Benish

John Bargh, 1/10/16 8:32 AM -0700, Re: Galileo's Gravity Experiment

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Date: Sun, 10 Jan 2016 10:32:13 -0500 Subject: Re: Galileo's Gravity Experiment From: John Bargh <john.bargh@yale.edu> To: Richard J Benish <rjbenish@comcast.net>

Attachment: < Devil_made_me_do_it_Proofs_01092016.pdf >

Hi Richard

Did I ever send you the (attached) chapter? It is my take on how ideology shapes scientific findings, in the domain of unconscious influences. I have heard of similar efforts right now concerning evolutionary psychology — maybe someday we can all join forces in a book or something.

The warm/cold effect has now been confirmed by several neuroscience investigations, mainly by Naomi Eisenberger and colleagues at UCLA. Same (small) area of insula is active both when texting to family and friends as when holding something warm. We (Kang et al 2011) had earlier shown that being betrayed in an economics game activated same small (different) area of insula as when holding something cold. By "collective scale" I assume you mean, warm climates = warm people and cold climates = cold people but the evidence on that is mixed, it seems to be the contrast between outside and inside that matters (warm home in cold climate). Hans IJzerman of Free University of Amsterdam is the leading researcher on this topic nowadays.

There are certainly social aspects to science, despite the lay belief it is "objective" — scientists are people and just as prone to bias and motivated reasoning as everyone else. In fact they might be

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more prone because of their (arrogant) assumption that they are being objective. Emily Pronin in Princeton Psychology dept has great research showing that when we have disagreements with others, we believe that we are being objective, thus they must be motivated or biased to disagree with us — if they were objective, then of course they would see things the way we do.

all best

John

John Bargh, 1/12/16 3:23 PM -0700, Re: Galileo's Gravity Experiment

To: John Bargh <john.bargh@yale.edu>
From: Richard J Benish <rjbenish@comcast.net>
Subject: Re: Galileo's Gravity Experiment
Attachments:

Dear Professor Bargh,

Thanks for your thoughtful comments and book chapter.

I enjoyed the piece a lot, for its overall wholesome positivity and for several details that struck a resonant chord from my own experience and observations.

Before mentioning a couple parallels, I should first clarify from our earlier exchange what I meant by the "collective" application of the warm/cold dichotomy. To put this in proper perspective I should mention that I've often been involved with groups of visual artists or art students. More recently, my day job involves frequent immersion in groups of "Direct Support Professionals" (= persons whose job it is to help people with developmental disabilities). In these cases, I have often felt a kind of collective warmth, inclusion, and receptivity toward those not in the group.

By contrast, my experience with the physics community has often left me with an impression of collective chilliness, exclusion, and smugness toward those not in the group. I mentioned a possible echo of this impression by social historian Helene Gotschel: "the unwelcoming culture of physics." I have not noticed any geographical or climate-related connection to this pattern.

Now in light of your essay, I would mention two further dichotomies that may somehow connect with that of conscious/unconscious, and prevailing notions as to its significance. The perhaps to-be-connected dichotomies are: inner/outer and feminine/masculine.

You may recall from the Galileo's Belated Gravity Experiment paper, that the experiment in question—proposed by Galileo in 1632—would probe the INSIDE of a body of matter and test the INTERIOR solutions of established theories of gravity (Newton and Einstein). In principle, it is a very simple experiment: Drop a pebble into a hole through the center of a larger body of matter. In practice, the experiment requires overcoming certain technological challenges (mostly to do with neutralizing the influence of the large and spinning planet Earth). But it is quite feasible, and would cost substantially less than many gravity experiments that have been done, have been proposed, or are underway.

As mentioned last time, Harvard Professor Gerald Holton (among others) has saluted my arguments to the effect that Galileo's experiment is overdue to be carried out. Yet he (and others)

has fallen short of taking steps to actually bring it about. Why is that? I believe you hit on the general problem in your conclusion:

"As all-too-fallible human beings in search of underlying scientific truths, we should be on our guard against the deep currents and traditions that lead us to cheer for one horse against the other."

In the present case, the "horse" physicists are betting on is the traditional lesson, repeated over and over again in early physics training, that the RESULT of Galileo's experiment is "well known" (on the basis of various theoretical arguments that I will omit here).

Daniel Kennefick—who I quoted last time—has referred to such deep-seated background assessments as being entrenched in "folk memory." Physicists REMEMBER the result of Galileo's experiment along with any mention of the problem, even though no such result actually exists. To suggest that physicists actually don't know the experiment's result is disruptive to their rigorously trained psychic recollection.

Folk memory thus seems to override doing the scientific thing, to consult NATURE for the result. Folk memory induces physicists to refuse to take the steps needed to probe and test this INNER mental memory with an explicit, outwardly manifest physical experiment. Why do the experiment if they already "know" what happens?

In this case, physicists are evidently blind to the innards of their own psyches and thus fail to critically assess their refusal to do an experiment whose purpose is to look INSIDE a common body of matter, where they have not yet looked. We thus find a kind of compounded failure to look inside, both mentally and physically. The reason for this seems to be that "executive function" is in cahoots with folk memory—a sometimes dangerous combination, as your account of Hitler makes frightfully clear.

Now to the other dichotomy: feminine/masculine. When I write to female physicists I sometimes suggest that they may be especially interested to contemplate that Galileo's experiment may be the GENTLEST conceivable experiment involving two bodies of matter. For it involves observing, for the first time, the behavior of two massive bodies—isolated and undisturbed—that are left to interact with each other so that one slowly nests inside the other with NO COLLISION at all. This is by contrast with prevailing experimental methods that often entail highly energetic, penetrating, violent collisions, using very expensive, monumental (masculine?) machines. (Vroom! Smash! Bam! Kapow!)

Note that Gotschell's article, cited earlier, emphasized that the culture of physics is especially unwelcoming to women. It is well known that men dominate the field. If "feminine energy" had a comparable role and voice in physics, I'd guess that a Small Low-Energy Non-Collider would have been built long ago. We'd long ago have conducted the gentle probe to test our gravitational interior solutions.

I find it encouraging and enlightening to learn that developments in psychology sometimes echo what I think are sorely needed developments in physics and cosmology.

I am grateful that you've seen fit to share your insightful work with me.

Warm regards,

Richard Benish

Date: Sun, 17 Jan 2016 11:04:06 -0500 Subject: Re: Galileo's Gravity Experiment From: John Bargh <john.bargh@gmail.com>

To: rjbenish@comcast.net

Attachment: < von Hippel & Buss 2016.docx >

Dear Richard

The culture of cognitive science is like that too, at least to outsiders such as social psychologists. It is a very condescending attitude. It is very much like the reasons people are racist or sexist. Just by mere virtue of not being black or not being a woman, a white male can feel good about himself, just by his category membership. Cognitive scientists can feel that the worst of their lot is better than the best of the social psychologist lot. And it is so they can feel good about themselves regardless of their own merits. Maya Angelou I believe has been preaching this point about racism recently. It is only there for the dominant group to feel good about themselves.

That is too bad about physics, maybe studying cold matter makes them cold people, as you suspected. It is hard to point out the obvious when such smart people feel bad inside for not knowing it already, so they avoid the topic. Maybe one day you can find someone, probably in a non US physics department, willing to do the study. I am sure it takes a lot of expertise and expensive equipment of course.

Scientists are people and subject to the same motivated reasoning and self esteem maintenance as everybody else. But they pretend to be objective and above such petty motivations. As for motivated reasoning in social psychology I am attaching a fascinating manuscript about resistance to evolution because social psychologists' ideologies (esp regarding sex differences) makes them not want to believe these things are true. It is very disheartening. The manuscript is confidential, please don't share, as it is not yet in press — thanks.

all best

John

Just out of curiosity, you may like to try the following **experiment** in the sociology of physics.

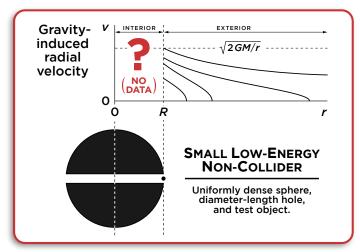




Can anyone in your local

PHYSICS DEPARTMENT

tell you where to FIND the DATA to complete the interior region of this graph concerning the basics of gravity?



YOU WILL FIND THE ANSWER TO BE



NO, because the experiment needed to fill in the missing data has not yet been done.

THE OBVIOUS FOLLOW-UP QUESTION BECOMES

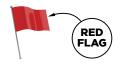


Why doesn't someone in the local Physics Department **DO** the experiment? That is, why don't they build and operate a Small Low-Energy Non-Collider?

STUDIES HAVE SHOWN THAT THE MAJORITY OF PHYSICISTS WILL RESPOND SOMETHING LIKE THIS



"We already know how to complete the graph for this experiment without actually **DOING** the experiment."



AN APPROPRIATE RESPONSE WOULD BE



Isn't that CHEATING on the empirical ideals of science? Isn't GUESSING by extrapolation an unacceptable substitute for real physical data?

In the sequel, be especially alert for behavior that reflects: appeal to popular beliefs or authorities, evasion, condescension, arrogance, self-image, group-image, defensiveness, excuses about money, apathy, equivocation, and thinly-veiled embarrassment.

The rarest, and so far unobtained response, is that the queried physicist candidly **echoes your curiosity** about the physical question at hand.

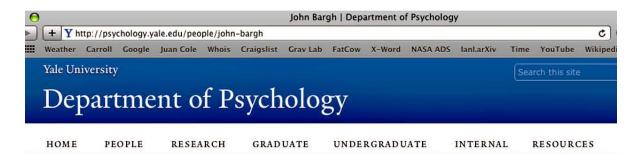
What exactly happens to the falling test mass? If you get a response to the effect: "Hey! Yeah, it looks like we've missed a spot. We've never actually OBSERVED what happens. Let's take care of that right away. Small Low-Energy Non-Collider... the sooner the better!" then you'll have hit the jackpot. You may then celebrate with exuberant joy and anticipation at the prospect of at last filling a large outstanding gap in our empirical knowledge of gravity.

GOOD LUCK!

GravitationLab.com

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John Bargh



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ACME AUTOMATICITY IN COGNITION MOTIVATION + EVALUATION

MEMBERS PUBLICATIONS IN THE NEWS ALUMNI JOIN



John Bargh

The Automaticity in Cognition, Motivation, and Evaluation (ACME) lab focuses on unconscious or automatic ways in which our current environmental surroundings cause us to think, feel, and behave in ways without our conscious intention or knowledge. Past research has shown that these automatic processes play a role in stereotyping and prejudice, social behaviors such as aggression and politeness, as well as our liking and disliking of people, places, and things.

More recently, ACME Lab research has shown how social goals such as achievement and cooperation can become activated and then operate outside of awareness, guiding our behavior over extended time periods, without our intention or awareness of the goal we are pursuing. ACME

research pays special attention to demonstrating how these effects are triggered by the commonly encountered features of real life, such as thinking about the important people in our lives, as well as common situational contexts and physical experiences.

RECENT LAB NEWS

Congratulations to John for winning the <u>2014 Distinguished Scientific Contribution Award</u>, recognizing his significant contributions to the field of psychology. (August, 2014)

Lab Members

Erica Boothby
David Melnikoff
Robert "Bud" Lambert
Yimeng "Allie" Wang
Anton Gollwitzer

Contact Information

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