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Friday, 17 July 2020

The Virus Is a Hawk

[*You can share this essay with friends by mailing or texting them this link:* https://tinyurl.com/y228evwn]

Guest essay written by **Ctein**

Outside of our bedroom window, at the edge of the cliff that overlooks the ocean, is a very large fir tree* that is home to an unkindness** of ravens. Some years ago it hosted two ravens, then three, as ravens are inclined to make more ravens. Now there appear to be eight or nine; I've lost count. Come trash-collection day they wander up and down the street, methodically checking out trash bins for ones that are overflowing. Ravens are extremely opportunistic omnivores.

They are also carnivores and predators. As such they compete for the same eco-niche as the local red-tailed hawks, and there is little love lost between them. (It's also possible that the hawks attempt to prey on the ravens' chicks, so even less reason for endearment.)

Periodically they also compete for airspace, because the hawks' favorite updraft from the sea is not all that far away from the ravens' tree. For birds, it is not good fences but great distances that make good neighbors. This distance is not great enough.

The hawks and ravens are similar in size (red-tailed hawks are among the largest hawks) but there is no question that ravens are stronger, smarter, and more aerobatically adept. They've also got considerably more attitude. They initiate the aerial conflicts.

Two or three of the ravens will soar above the hawk and swoop down on it, sweeping to one side of the very last moment. Neither species wants actual physical contact, which could prove fatal. It's all about intimidation.***

Sometimes the ravens whirl and loop. There is considerable vocalization. In action and words they say to the hawk, "Look, we are superior in every respect, physically and mentally. You are overshadowed. Take a hike."

The hawk's sole response is to slide to one side in the updraft, issuing an irritated "keeee." The ravens regroup, soar up, and swoop down on the hawk again. They repeatedly demonstrate—in terms that even a groundhugging human could understand—that the hawk is outclassed and should relinquish its airspace. Repeatedly the hawk slip-slides to one side or the other, issuing annoyed cries, and continuing to focus its limited attention and prodigious eyesight on the ground. It is looking for prey, and nothing else is on its tiny mind.

This can go on for as long as 20 minutes. By raven—and human—sensibilities, it shouldn't be any contest. The ravens win on style and points. They are clearly the superior predator, and deserve the win. The problem—for the ravens—is that while the ravens are challenging the hawk to a duel and demonstrating unquestionably superior prowess, the hawk is only thinking, "food, hunting for food, quit bugging me, hunting food."

Finally, the ravens give up—they get frustrated and, worse, bored. They go off to find some more entertaining mischief, and the hawk continues doing what it's been doing all along.

The hawk wins every time because it isn't even playing the game!

I feel like the ravens do. I am tired and I'm bored and I'm frustrated and depressed and, most of all, exhausted by four months of navigating through this Brave New World, of living in Plague Times. God knows I've done my part, more than my part. I need a break.

Unfortunately, the virus is a hawk. It doesn't care that our only ways of suppressing it are socio-political, it doesn't care that some people are wrapping themselves in the flags of politics around this. It doesn't care that we, individually and collectively, are frustrated and bored and figuratively sick of it all, and really badly in need of a f*ckin' break.

COVID-19 is not a raven. Our only tools may be sociopolitical, but it's not a political opponent. Just because we're tired doesn't mean it's tired, or that we've worn it down one bit. It's the same hawk it always was, doing the same hawkish things.

If we go back to "old normal" because, well, we've put in a Really Good Fight, it will reassert itself just as vigorously as it did in March. Incidence doubling times of 4.5 to 5 days. Compound interest being what it is, that becomes a ten-fold increase in two weeks, a hundred-fold in a month. The consequences of that, in humanitarian and economic (both!) terms are so catastrophic that they make the last four months look like a cakewalk.

PORTALS

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SEARCH

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CATEGORIES

Around the Web (227)
Baker's Dozen (50)
Blog Notes (572)
Bon Mots (10)
Book of the Week (15)
Books (524)
Camera Reviews (138)
Cameras, new (785)
Cameras, old (256)
Carl Weese (23)
Collecting (53)
Computers (93)
Ctein (372)
Digital Techniques (73)
Eamon Hickey (2)
Editing and Portfolios (76)
Exhibits (84)
Film and Darkroom (133)
Followups (158)
From the Archives (38)
Geoff Wittig (2)
Gordon Lewis (15)
Interviews (7)
Jim Hughes (31)
John Camp (8)
John Kennerdell (17)
Ken Tanaka (11)
Kirk Tuck (8)
Legal and social issues (113)
Lenses (316)
Mini-Portfolios (5)
Morning Coffee (32)
Music Notes (106)
News and Occasions (478)
Obituaries (82)
Off-topic posts (499)
Open Mike (344)
Oren Grad (1)
Past Blasts (23)
Peter Turnley (66)
Photo equipment (346)
Photo industry (171)
Photo-tech (223)
Photographers, current (240)
Photographers, historical (165)
Photographic aesthetics (223)
Photography businesses (27)
Photojournalism (85)
Polls (16)
Print Offers (262)
Printers and Printing (169)

Well, we're not being quite that stupid; we're not going back to the old normal. We're going to a "new normal." It makes a big difference; these days we're looking at doubling times of 3–4 weeks. That's a whole lot better, except—compound interest! Caseloads don't increase by tenfold in two weeks, but they do in three months. By year's end we're back to catastrophe: humanitarian, economic.

Exponential growth is a bitch. Mongo no like exponent > 1.

We don't have the luxury of letting down our guards and relaxing our extraordinarily inconvenient and uncomfortable protections because we are exhausted (and, make no mistake, we *are* exhausted). The hawk just hovers in the updraft, thinking its minimal, hawkish thoughts and waiting for hawkish opportunity.

Topic Two! How to tell good science from bad, revisited

I wrote a couple of columns some years back about things that laypeople could do to figure out if the information they were being fed was good science or not, even if they lacked expertise in the area. I offered textual, contextual, and meta- tools that would help sort the wheat from the chaff. Here are links to those two columns:

Bad Science vs. Good Science: A Guide for the Layperson (Part 1)

Bad Science vs. Good Science: A Guide for the Layperson (Part 2)

I'm going to add an additional tip that wasn't in those columns: good scientists will not intentionally lie to you.

Yes, scientists will get things wrong. Science is only an approximation of our universe and one way to think of it is as an ongoing process of error correction, where every step of the way we try to reduce our misunderstandings and ignorance. But it's not like we've found the answer to Life, the Universe, and Everything (actually, I live at that address****), so sometimes they will tell you things that turn out to be incorrect.

But, they will never outright lie to you. If you catch someone lying to you, really lying to you, they are not doing good science. Doesn't matter what degrees they hold, who they are affiliated with, what reputation they have. They are not Good Scientists, they are Bad.

There are people out there telling you that you should not wear masks to reduce the spread of COVID-19. That wearing a mask is, at the least, ineffectual and at the worst, dangerous.

They are liars. This is not a matter of opinion; it is not a matter for debate. There are not "good people on both sides" of this question. Saying masks aren't effective is like saying the earth is flat or that HIV doesn't cause AIDS or that vaccines cause autism. It is a blatant lie, contradicted by real medical knowledge.

Some people are saying this out of woeful, misinformed ignorance. Others are saying it with conscious, malign intent. Irrelevant. Either way, what they are doing is lying to you. If they are lying about something this obvious, there is a good chance they are lying about other things that will not be so obvious. They are untrustworthy and you should not be relying on them for information.

Cut them out of your life. Close the browser tab, delete the bookmark, don't read them ever again. Any information they present that's correct you'll be able to find in a dozen other places. You won't lose a single thing of value and you will reduce your risk of being lied to further.

In the meantime, wear the %^$#@! mask when you go out. Yes it's annoying, and mildly uncomfortable, and a nuisance, and a constant, extremely unpleasant reminder that we are living in Plague Times, like a little finger incessantly poking you in the face repeating, "Don't forget, don't forget, don't forget, don't forget." I hate that!

Well, I don't know anybody who likes it. But, y'know, on the scale of inconveniences and annoyances that this pandemic has subjected us to, it's way down on the list.

This hawk is very single-mindedly focussed on being a hawk, but a mask makes its life considerably more difficult.

That is your Public Service Announcement for this time. In next month's newsletter I will return to less fraught and contemporary matters.

Probably.

pax / Ctein

[**Ed. note**: *Originally published in "Ctein's (New and Improved) Occasional Newsletter," July 9, 2020.Seems Ctein noticed a rush of signups for his newsletter on Wednesday, suspected TOP, came here, and found my mention of his essay. Last night he kindly offered to allow me to republish the essay here. Thanks to Ctein, and I hope you enjoyed this. You can sign up for his future newsletters at ctein.com.*]

[**ADDENDUM Sunday morning**: *If this article didn't go into enough specifics about masks for you, see Ctein's reply to Gerard in the Comments section. Both together are a bit long to be Featured Comments but there is useful detail there.*]

*Paula says it is a Monterey Cypress. I say if it's got little pointy leaf things and cones, it's a fir tree. OK, not a botanist.

**Yes, that is the collective noun for ravens, in contrast to a "murder" of crows. I'm not sure why; perhaps someone considered ravens—unsupported by observation—to be more genteel.

***I did consider describing it as a game of aerial chicken, but that seemed too groan-worthy. So I didn't, he said contradictorily.

Quote o' the Day (95)
Random Excellence (247)
Random Snaps (126)
Reader Prints (7)
Recommended Cameras (14)
Reflections (199)
Reruns (24)
Roger Overall (2)
Sarge (1)
Satire Alert! (25)
Shooting Skills and Camera Handling (7)
Shooting techniques (158)
Software (75)
Sunday Support Group (73)
TOP contests (6)
TOP's Own Books (10)
Visual Culture (271)
Websites and links (141)
Weekend Exercises (5)
Workshops (19)
Your Turn (9)

ARCHIVES

March 2024
February 2024
January 2024
December 2023
November 2023
October 2023
September 2023
August 2023
July 2023
June 2023

More...

****Ed. note**: *Ctein's address is 42 Skyline Drive. He is, among many other talents, a writer, lecturer, and fan of science fiction a.k.a. speculative fiction, and the number 42 has implications amongst fans of Douglas Adams'* Hitchhiker's Guide to the Galaxy *series*.

(To see all the comments, click on the "Comments" link below.)

Featured Comments from:

Andy Holman: "A great piece on COVID and corvids!"

Aashish Sharma: "This article made my day! Reading something new from Ctein usually does, and this one was no exception. Love the clear and direct writing with a hint of humor. I only want to say thanks for the advice on masks, and that I'm delighted to know you are a Douglas Adams fan like me. :-) I will eagerly wait for the next one."

Scott: "Living in an area where I watch 'our' crows do this all the time, I was rapt (sorry, had to say it) by your article and then loved the pivot to talking about the virus. A superbly written article in my opinion and also the truth. The virus is truly the hawk. I know this from my pertinent scientific background and also deep study of medical history. Bravo."

Posted on Friday, 17 July 2020 at 10:48 AM in Ctein, Off-topic posts | Permalink

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Comments

Kirk Tuck commented on his blog a few days ago that wearing a mask isn't an ideological statement, it's an IQ test.

Posted by: John Csmp | Friday, 17 July 2020 at 11:11 AM

I just shared this on facebook. I noticed the graphic that showed up was oddly appropriate--the ad for the focus tool with the Hawk photo and "Because You Only Get One Chance."

Posted by: John Krumm | Friday, 17 July 2020 at 12:13 PM

Although the viewpoint seems to be evolving, the general message regarding wearing a mask has been that the mask is for the benefit of the other guy-it's a method of protecting the other guy from you. The "social pact" we agree on when we go into our communities tells us we don't have to like the other guy, but we need to realize and respect their right to an expectation of a non-threatening environment.
You can't drive too fast down a City street just because you want to.

If you are careless enough, or even thoughtless enough to willingly expose yourself to something that you have been told could cause you harm, you are probably eligible for a Darwin Award

(https://darwinawards.com/)

However, if you are infected, and possibly asymptomatic, and you walk into the grocery store without a mask on, you could jeopardize the lives and livelihood of your own community.
If one worker in that store gets infected, the Public Health Officials will probably shut down the store.

A recent Petapixel article provides a video demonstration that any mask appears to be more effective than no mask-

https://petapixel.com/2020/07/02/lasers-reveal-how-well-different-types-of-facemasks-work/

Wearing a mask isn't about politics, wearing a mask is a community service.

Posted by: Jimmy Reina | Friday, 17 July 2020 at 12:25 PM

Thanks Mike for posting, and extra thanks to Ctein for allowing it to happen. A fine analogy of persistence vs. exhaustion; may it not bring despair but determination.

While 42 may not be the exact answer (except in base 13?), it's mighty close; I saw recent articles on the presumed number of civilizations in the galaxy and presumed a small rounding error.

Posted by: longviewer | Friday, 17 July 2020 at 12:53 PM

According to Zillow, 42 Skyline Drive (Daly City) has seven bedrooms, amazing for a house of 1900 square feet. Is Ctein running a boarding house?

https://www.zillow.com/homes/42-Skyline-Dr-Daly-City,-CA,-94015_rb/15464595_zpid/

Posted by: Allan Ostling | Friday, 17 July 2020 at 01:15 PM

Bravo Ctein for sharing a well written appeal to good sense, and bravo Michael providing the platform to allow us to read it.

I'll be sharing this with my family this evening, no mask doubters here, but as we all are, we are growing fatigued. This bit of wisdom is rejuvenating and will recharge the batteries of our commitment to socially distance, mask when we can't and wash our damn hands....again!

Posted by: Rick Reed | Friday, 17 July 2020 at 01:29 PM

By the way, it was less than obvious to find Ctein's newsletter with no link.

Posted by: Eolake | Friday, 17 July 2020 at 02:12 PM

Thanks Ctein for sharing this with TOP readership, I was curious about it but wouldn't register to the newsletter. Great story telling to make a solid point.

Posted by: Sylvain G. | Friday, 17 July 2020 at 02:26 PM

Look around the world and you'll see that pretty much everyone else is listening to the scientists. Some of us are listening to politicians and talking heads who have their own self-interests that take precedence over the good of the public. That's why we have over 25% of the worlds deaths yet less than 5% of its population. Listen to the scientists folks.

On the subject of Ravens/Crows. They are very smart and have remarkable memories. My mother was a wildlife rehabilitator and raised some from babies. They would show up the following spring looking for some of that free food they were given as chicks. Smart birds. Very smart.

Posted by: J Williams | Friday, 17 July 2020 at 02:39 PM

Like your raven/hawk description - perfect.
however, where I am, right in the centre of a fairly large city in England, I see just the same game played between the smaller plain crow and the sparrow hawk (above a ridge near my veg garden)- but here the crow wins every time, even if one on one. If it's nesting time they'll even tackle peregrines and the very large, very high flying buzzards; likewise the magpies and rooks, but not so clear-cut as with the plain crow. A very smart and capable family of birds.

Posted by: danny (Sheffield) | Friday, 17 July 2020 at 03:28 PM

I should add to my crow/hawk observation that this is in no way to argue with your main point - I totally agree with your comments on good science/observation/measurement, especially now.

Posted by: danny (Sheffield) | Friday, 17 July 2020 at 03:34 PM

I'm always happy to read something by Ctein, and this piece was spot on. I'm one of those who signed up for his newsletter (...could have sworn I had already done that at some point, but guess not).

I'm hoping for another SciFi story from him. I thoroughly enjoyed the first one, "Saturn Run", coauthored with that Sandford guy.

Posted by: Rick Popham | Friday, 17 July 2020 at 05:01 PM

Most people confuse a raven with a crow. What they see, especially in California, are typically crows. Ravens have hairy beaks, and are much bigger. They are a more northern animal typically.

Posted by: d kostuik | Friday, 17 July 2020 at 05:07 PM

Ctein, thank you.

With best regards.

Stephen

Posted by: Stephen S. Mack | Friday, 17 July 2020 at 07:28 PM

Dear Allan,

A boarding house??? Oh, god, no!

The saga is related here:

I Quit...Again

Ctein in Situ

Ctein and Cliches (Visit to Ctein Part II)

Ctein's Remodel Report

As Zillow will inform you, the typical house here is 1200-1300 sq. ft., with 2-3 bedrooms. Ours was the latter. After the remodel, we had four additional livable rooms, so Zillow calls them "bedrooms." Three really are bedroom-sized with closets: a guest room, Paula's den, and a library. The print studio is 75% larger and no closet, so maybe it should be called a rumpus or family room.

Why do we need so many rooms. You should see how many books we have!

But no boarders.

~~~~

Dear d,

We have both crows and ravens, along with the hawks (and turkey vultures). Ravens also have relatively larger and thicker feet and beaks, but sometimes I can't tell if a particular bird is a large crow or a diminutive raven.

There's an attitude, though. The crows can be brazen and impulsive, but the ravens are ... methodical. I, for one, welcome our corvidian overlords.

Not like they're giving me much of a choice.

pax / Ctein
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-- Ctein's Online Gallery http://ctein.com
-- Digital Restorations http://photo-repair.com
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Posted by: Ctein | Friday, 17 July 2020 at 07:40 PM

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As a true dyed in the wool (small L) libertarian the politicization drives me crazy. But thanks Ctein for making it simple, be polite to your fellow humans, the personal sacrifice is small, and the virus doesn't care about politics. Unfortunately proving it's smarter than most humans...

Posted by: Cliff | Friday, 17 July 2020 at 09:34 PM

Re: masks. Today's Medscape medical news included an article reporting upon a peer-reviewed study that concluded wearing masks not only protected others but also reduced the WEARER's risk of infection by about 65%. Possibly subject to revision, of course, but still reassuring that doing good is also doing right by one's self.

Posted by: Joseph L. Kashi | Friday, 17 July 2020 at 10:07 PM

Thank you for publishing this. To Ctein for the words, both of you for the platform.

Posted by: Graham | Friday, 17 July 2020 at 11:25 PM

Mike. You are a genius. If YOU had posted this, the onslaught would have been epic. But you post it, authored by Ctein. Accordingly, you are the messenger and thus exempt from the ire of those who live looking back, too weary of change to look forward.

In Australia (a lush, rich, corrupt, bipartisan country, supported by the underclass) - 99% of people act as if masks or social distancing never existed. They're exhausted and feel they've done their part for others. Mark. These. Words. We'll be where America is, soon enough. We've merely dodged the first bullet.

Stay the course. Be safe. We need our Mikes and Cteins my brother.

[*It wasn't nearly that calculating. Ctein sent it to me in advance of publication for review. I liked it, waited for it to be published, then recommended it here. Ctein then noticed a bump in new subscribers to his newsletter, got a hunch, and came here and saw my mention of it. He then offered it to me to republish and I said sure. Nothing scheming or devious about it I assure you! -- Mike*]

Posted by: Kye Wood | Saturday, 18 July 2020 at 12:32 AM

Since you mentioned his address, I'll say it again... Google street view Ctein's house. How'd he know that the Google maps car was on its way?

Posted by: David Raboin | Saturday, 18 July 2020 at 01:17 AM

As I understand the effect of masks, they not so much prevent the wearer from inhaling infectious aerosols, but they drastically reduce the spread of aerosols when exhaling. So their protective effect is indirect; as a wearer, I protect others from me. In turn, if everybody wears a mask, I am protected, too. This 'solidary' effect seems to be at odds with the myth of 'individualism' (as in 'take matters into your own hands') in western societies, which might hamper their acceptance. In asian societies, this does not seem to be a problem.

I also believe that masks are effective. In my home country, Germany, wearing a mask is mandatory in shops, public buildings and public transport. As can be seen here, the disease seems to be well under control. Please note the small bump in the curve in the second half of June: this has been due to a few local clusters of new infections. In each of these incidents, masks had not been worn.

Best, Thomas

Posted by: Thomas Rink | Saturday, 18 July 2020 at 02:22 AM

Great piece! From Corvid to COVID! And what is really needed is good science these days. It's unfortunate that there have been missteps, but understanding this virus is a work-in-progress.

One YouTube channel that has been pretty much spot on since January is Peak Prosperity. Chris, the host, looks at the latest scientific papers and findings and dissects them for the viewer. I am sure his advice has saved many lives. Worth a visit.

Posted by: Gavin Wong | Saturday, 18 July 2020 at 02:56 AM

Well yes, but re. masks, it's slightly more complicated than that. I should say I live in The Netherlands. There's more than one type of mask. There are masks that work well and there are masks that don't work so well. Masks that don't work so well are plentiful and cheap. Masks that work well are expensive and hard to come by. Now, in Dutch public transport, wearing a mask is obligatory. You pay a hefty fine and you're thrown off the damn train if you refuse to wear a mask. No argument there. However, the masks that work well (expensive and hard to come by) are reserved for our heroes in health care. So the general public is obliged to wear masks that don't work so well, while wearing masks that do work well is PROHIBITED. You get a hefty fine if you either don't wear a mask, or if you wear a mask that works. The only way to avoid a hefty fine is by wearing a mask that doesn't work so well. Imagine what this situation does to sanity and the general feeling of being sick and tired of the whole thing?

Posted by: Gerard Kingma | Saturday, 18 July 2020 at 03:09 AM

Thank you for this.
As an aside, I believe that we should be forming symbiotic relationships with crows and ravens. Look how well it has worked with dogs.

Posted by: Robert Roaldi | Saturday, 18 July 2020 at 07:34 AM

Mongo only pawn in game of life :(

Mongo wear mask outside house since March.

Mongo get weird looks back then. People give Mongo stink eye. Mongo even scare horse with mask! Dumb horse. Mongo smart! Not dumb, like horse. Smart, like raven!

Now other people wear mask outside house. Smart people! Now Mongo not feel like outcast in Game of Thrones :)

Posted by: John Holland | Saturday, 18 July 2020 at 08:33 AM

"Anti- intellectualism has been a constant thread winding its way through our political and cultural life, nurtured by the false notion that democracy means that 'my ignorance is just as good as your knowledge.'" - Isaac Asimov

"Everyone is entitled to his own opinion, but not his own facts." – Daniel Patrick Moynihan

"Everyone has the right to an opinion. No one has the right to be listened to." - Cyril Connelly

Posted by: Lee | Saturday, 18 July 2020 at 09:31 AM

Imagining Ctein's house, I'd believe the extra bedrooms were interdimensional setups... so he'd end up having a 10,000 sq ft home on a 5000 sq ft lot...

I'm posting my full name this time so that those interested in the data science behind covid can look at my latest animation (movie) on either LinkedIn or Twitter. It show the US county level data of new infections/100K over the last 4 months. The size of circles is the number of infections; the color is the slope of the 14 day trend line. As you can see, we were doing a reasonable job fighting the virus through April (into May), but all hell has broken loose lately.

It's not a fun disease. Lots of people dead, and many severely impacted. I have a colleague who is in her 30's, very healthy, and she's been beat up by this thing for 3 months now. Not hospitalized, but had pneumonia and the virus keeps rebounding in her system to cause fatigue and other issues.

Posted by: Jim Kofron | Saturday, 18 July 2020 at 10:29 AM

As a Canadian, I can tell you we are watching American behaviour aghast and with pity. We see a small group of selfish or ignorant people endangering the silent majority and justifying this behaviour with anti-science or individual rights arguments. I'm not trying to be holier than thou. We have a smaller but just as vocal element in Canada. Fortunately, our leaders have followed the science and we are flattening the curve and have not put our health care system in crisis. Ctein is preaching to the converted. I don't know how you convince those who refuse to follow the science.

Posted by: Kenneth Sky | Saturday, 18 July 2020 at 11:49 AM

Well Mike, like everything, this is not so simple. In my country the authorities are using COVID-19 to oppress the freedom of speech and demonstrations against a corrupt (on trial) prime minister. Sometimes you have to choose between your freedom and the possibility of risking your life !

Posted by: Yoram | Saturday, 18 July 2020 at 01:13 PM

Dear Joseph,

Can you give me a pointer to that study? Or at least the Medscape article? I can't seem to find it among the plethora of tabs I have open on the subject. I'm drowning in data.

My gut feeling (worth very little) is that the two-thirds effectiveness number will turn out to be wrong. Not because there's anything inherently wrong with the study but because it's very hard to squeeze numbers out of imprecise parameters with certainty. But I wouldn't be surprised if masks (any type) prove to be one-third to one-half effective.

This may not sound like a big deal, but the newer drug treatments that make headlines in the newspaper for reducing the mortality rate in hospitals are doing so by "only" one-third to one-half. Anything that reduces your risk of dying by even that much is a good thing.

You can think of a mask as such a wonder drug that reduces your mortality rate without any untoward side effects or wallet-breaking co-pays. Such a deal!

- pax \ Ctein
[Please excuse any word-salad. Dragon Dictate in training!]
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-- Ctein's Online Gallery. http://ctein.com
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Posted by: Ctein | Saturday, 18 July 2020 at 02:20 PM

A very well observed, well written piece. Unfortunately the people who will appreciate this most likely already understand the issue. The people who need to understand the issue probably wouldn't be interested in reading this.

However, tell them that authorities are implementing cctv with facial recognition and they'll have a mask on faster the you can say "wear a mask".

Posted by: ChrisC | Saturday, 18 July 2020 at 08:18 PM

Dear Gerard,

I think you are misunderstanding what the masks are good for and how they work. Here is the very short version (followed by a much longer explanation):

Any mask is good at reducing the spread of Covid-19. Even a cloth bandanna is good. But some professional medical masks are actually bad.

Now for the much longer explanation —

The primary purpose of the mask is to reduce the likelihood that you will give the disease to somebody else if you are infected. In heavily populated areas, the transmission rate [a.k.a. R(0)] for Covid-19 is around 5 without protective measures. That is, each infected person will wind up infecting five other people. The goal is to reduce R(0) below one. If we do that, over generations of infections the disease will die out.

(By comparison, the swine flu had an R(0) around 1.5, while measles is up around 15. That's why we work so hard to stamp out any measles outbreak.)

Any opaque cloth greatly reduces the chances of spreading the disease (see the petapixel article that Jimmy linked to earlier in the comments). Some masks do better than others, but what's important is that they are all good enough to get R(0) below 1 if everybody wears them... and none of them are perfect. If you want zero chance of transmitting the disease to somebody else, wear a bubble suit with a self-contained air supply, like they do in biohazard labs.

N-95 masks do a better job, but they are not perfect. The ones designed for medical professionals with blow-by valves in the sides are, in fact, much worse than a simple cloth! They are not designed to prevent you from exhaling pathogens. The reason they exist is primarily to prevent doctors from getting an infection from their environment, not to prevent them from passing on an infection. Doctors and surgeons can't afford to have their glasses and instruments fogged up by their breath, so the masks have exhalation valves.

Because of all that, and the need to reserve professional medical supplies for the hospitals, you have laws against wearing what you think of as the really good masks.

It also turns out that wearing a mask modestly reduces your chances of getting infected. But only modestly, and if it encouraged people to behave less safely, it would actually do more harm than good.

This is one of the reasons (along with shortage of supplies and wearing the wrong kind of mask) that masks weren't recommended in the early days of the pandemic. Until we knew a lot more about the transmission modes of the disease and had a lot more medical supplies in the pipeline, we didn't know that it wouldn't do more harm than good.

I hope this cleared things up. Please feel free to ask more questions if it hasn't.

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Posted by: Ctein | Saturday, 18 July 2020 at 09:05 PM

I live in Melbourne Oz, where we are at week two of our second round of "Stage 3 restrictions", this time slated last for six weeks - no eating out, entertaining, gyms, theatres etc all shut., backed by criminal sanctions - and pretty hefty fines. Until today, there were three major restrictions: (1) only four lawful excuses to be out of your own home: (a) attending work (which an employer is not permitted to allow you to do if the work is capable of being done from home, which narrows it somewhat), (b) attending eduction (all tertiary education and almost all schools teaching only online anyway),(c) caregiving (including for animals), and (d) exercising close to home (open to interpretation but, in substance, you are not close enough if you have to drive to do the exercise); (2) no visitors at home other than residents and no more than two persons outside the home if not from the same household (so you can exercise with a buddy or carpool to work with one other person but no parties, etc. including family gatherings); and (3) mandatory 1.5 meter social distancing wherever possible outside the home. That all worked okay (at a pretty massive cost to the local and national economy), although it hasn't quelled our latest sets of outbreaks and a mini-epidemic, although only a couple of deaths and at least almost all of the present cases are being tracked to their source infection with lots of testing.

Today, the State Government - at long last - also implemented compulsory masks. When Covid-19 arrived in March, the message was that the medical evidence was unclear and social distancing was sufficient (which it was, as first round of Stage 3 restrictions drove infections to almost nil for a few weeks, when they began rising again after the restrictions were lifted). That position was maintained until the present "lockdown" began when it changed to, "it doesn't seem to make it worse, so you should voluntarily wear a mask if you are in a position where you cannot maintain 1.5 meter social distancing". Now, it will soon be a criminal offence not wear a mask outside the home "without reasonable excuse" (whatever that means).

The changing message was explained (i) first, that the government was awaiting medical evidence that wearing masks didn't make the virus worse (well, duh(!) - I don't recall reading any medical opinion contradicting that masks help prevent infected persons spreading the virus, even if there remains doubt whether masks are particularly useful in preventing wearers catching the virus); (i) next, that the government was concerned that the public would think that masks being worn would solve everything such that other measures - especially social distancing - were unnecessary, thereby reducing compliance (IMHO, a far more honest explanation); (c) now the State Premier (nickname, "Dictator Dan") expressly acknowledges that the "wear a mask" rule is probably overkill but get used to it because the rule is both here to stay for the long term, and can do no harm provided social distancing is also maintained as even more important (IMHO, an even more honest explanation, especially as social distancing will simply not be possible on public transport or in high-rise buildings as the economy re-re-starts post the "lockdown"). And also IMHO, there is strong need for very, very simple messages. Even in Melbourne, where a well-educated population has been highly compliant with the State Government's (mostly bi-partisan) rules, there is an almost unbelievable lack of knowledge about Covid-19; e.g. a largish poll reported in the local rag today disclosed that 80% thought that they would definitely know it if they had Covid-19 without any testing, yet only 42% could correctly identify any three known symptoms. But I nevertheless suspect that the real truth behind the slow implementation of compulsory masks is that it took from March until this week for sufficient masks to be imported into the State to support the whole 6 million odd population wearing them without creating shortages for medical and other frontline workers (bearing in mind that, per capita, Oz led the world by a large margin in the panic buying of toilet paper, etc.).

Oh well, better late than never. Let's hope it works. Stay safe everyone and keep well.

Posted by: Bear. | Saturday, 18 July 2020 at 11:00 PM

There is a limitation to this method as defining what "really lying" is left up to the reader, who will have to interpret it through their priors.

With the example given of wearing masks, until partway through June the WHO were saying exactly as above, that masks shouldn't be worn by the general public:

"There is no specific evidence to suggest that the wearing of masks by the mass population has any potential benefit. In fact, there's some evidence to suggest the opposite in the misuse of wearing a mask properly or fitting it properly"

Their advice has now changed, of course. Unless something has massively changed about the situation globally or some incredible research has been done in the last couple of months we are left that we have to conclude the WHO were lying to us, and therefore we should never read anything from them again.

Assuming this isn't the conclusion Ctein wants us to draw, you can explain this away as the WHO isn't a true Scotsman but then we're left with a very subjective definition of lying. And in that situation you can just use this to dismiss those who you don't like whilst patting yourself on the back.

[*I think Ctein's reply to Gerard addresses the issues you raise, so take a look at that. --Mike*]

Posted by: Timothy | Sunday, 19 July 2020 at 04:39 AM

This is lovely and effective story but in fact represents common misconception of raptors (hawks and falcons) as hunting machines.

I am not falconer (do not ever think you can just buy a bird and become one: it is an entire life looking after birds), but have hunted several times with hawks (mostly Harris). Not falcons, but while they are very different to hunt with they are the same for discussion here.

In fact hawk is not a hunting machine: hawk is a sleeping machine. Hawk hunts so it can not be hungry and can sleep and make more hawks (really hawks are hawk-making machines, but this is innate nature of all species, so not interesting here). If a hawk is not hungry it will not hunt: it will sleep. This is one of the most important secrets of falconry: falconers know about 'flying weight' of birds and will weigh their birds at least every day to assess weight of bird and control food. 'Flying weight' is, well, hungry enough to hunt but not so hungry bird gets out of condition.

So if you feed hawk or falcon it will not hunt, it will sleep. Hawks are optimised cats: we feed our cats and they mostly do not hunt, but they still hunt for play as they have big brains which need play or get bored. Hawks have optimised that useless big heavy brain away and do not get bored: belly full, do not hunt but sleep.

Virus is not like this: virus can only hunt. Virus is like a virus.

In fact perhaps agent Smith is right: virus is most like humans. We seek ever more and are unable to stop seeking even we have more than enough. We want ever more cameras, ever more everything, and we will not stop because our brains are too small. Like virus we are now killing our host, like virus this means most of our species will die with our host. Oh, well.

Posted by: Zyni Moë | Sunday, 19 July 2020 at 07:16 AM

A lot of the discussion is about numbers, and what we say about those numbers matters. I hear a lot about ICU capacity and numbers of ventilators. Simplistically, it's a good thing not to overrun these capacities. But is that the goal, the main thing? It is a TERRIBLE thing to be anywhere near ICU capacity or the number of available ventilators. It is an indication of suffering and death. Hospitals can heroically and "successfully" manage the patient load in ICUs, but let's not forget those refrigerated trailers in the parking lots. Social distance. Wear a mask. Stay home if you can.

Posted by: latent_image | **Sunday, 19 July 2020 at 09:04 AM**

Ctein's reply to Gerard (CRTG), especially the part about the N95 masks working in the opposite direction than most people think, is a true gem. Many thanks to Ctein and to Mike for publishing it.

Posted by: Tony Rowlett | **Sunday, 19 July 2020 at 09:37 AM**

Dear Timothy,

First, in the last couple of months the situation has, in fact, changed massively and globally and incredible research has been done. Remember that the real thrust of the pandemic is only four months old! God, it feels a whole lot longer, I know. But think back to mid-March, we were just barely starting to see the surge.

So, y'know, someone changes their recommendation in 6-8 weeks, yup that's gonna happen. A lot. At which point laypeople ask, "But should we believe what they say now, or what they said then?" The answer to that is always, "What they say now, because we know a hell of a lot more now than we did then."

Also, a reminder of something Mike mentions regularly — this is a US-centric publication, because it's published in the US and almost entirely edited and written by US citizens. Yes, we have an international readership and we're really interested in them, but it's not what we know. This usually comes up when topics of laws and legal rights are raised, but it applies in this circumstance.

What works for Country X will not work for Country Y or Z. Heck, even within the US, what works for State X will not necessarily work for Y or Z. The hawk's success in her daily hunt depends on the behavior of the lizards and the mice, she's pretty much doing the same thing every day. That behavior is modulated by sociological, political, geographic, and demographic factors. Every jurisdiction is a different Petri dish running a slightly different experiment. Unfortunately for us Petri dish dwellers.

With regards to WHO, if you want to ignore them as a "liar" based on statements made 6-8 weeks ago, for the purpose of sorting good science from bad, then go ahead! They aren't providing any US-relevant information that you can't get from the CDC, the (J)AMA, or John Hopkins University (to mention only three). You shouldn't — because then you're comparing calendrical apples and oranges — but you won't be worse off.

Personally I deprecated WHO information two months ago, not because I considered them an unreliable source but because they are the WORLD Health Organization. They aren't focused specifically on the US. We may have 25% of the cases but we have only 5% of the population and are geographically isolated. India has four times as many people as we have. You think WHO should be focused on the US? I don't. I read what they have to say but I get my information from the aforementioned US-based sources.

A final comment — with 20-20 hindsight it's also easy to find people who were dead right. I have a paper from EARLY April, before things got out of hand and the shutdowns were just starting, whose model predicts accurately just what has transpired in the three and a half months since.. Based upon their models, they were firmly stating in early April that mandatory masks would be necessary, even with sheltering-in-place, to wipe out the pandemic.

Now, with three months more of historical data, we can say they have a really good model and we should be paying attention to it. But, at the time, all sorts of models were predicting all sorts of different things, because a lot of the details of the pandemic were uncertain or even unknown. We didn't have a crystal ball and we couldn't wait three months to find out who was more right.

What I can guarantee you that two months from now, the situation will be different again.

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Posted by: Ctein | **Sunday, 19 July 2020 at 12:52 PM**

"The goal is to reduce R(0) below one" - I always thought that R(0) (The Basic Reproduction Rate) was a feature of the virus. What you can reduce is R(1), the Effective Reproduction Rate. You do that by reducing the susceptibility of the population by measures such as mask wearing, vaccination, social distancing etc

Posted by: Rick | **Sunday, 19 July 2020 at 01:33 PM**

Dear Rick,

Good question!

Since COVID-19 is a human-vectored disease, there isn't any basic reproduction rate that's independent of socio-geographic conditions. I truly don't know if the right terminology would be R(0), R(1) or R(t). I've seen the first and the third used in papers, but not the second. Doesn't mean they have it right.

So long as we all know what it is we're talking about, and we seem to, I don't see a problem.

I also don't know what the standard is for defining R(whatever). That is, when typical flu is reported having a value of 1.5; COVID-19, 3-4; and measles, 15-20, I have to assume that is standardized to some sort of official unit sociodemographic metric, but I don't know what that is.

No, it's not important that I know, but if anyone here can point me at the definition I'd love to find out.

Help! Is there a professional epidemiologist in the house!?

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Dear Zyni,

You are correct, of course. It's so annoying when real life fails to entirely conform to a clever metaphor. He whined.

I don't know if cats would be offended more by being compared to hawks than hawks would be offended by being compared to cats. Assuming that either actually cared what we monkeys compared them to, which seems doubtful.

So long as the food dish is full...

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Posted by: c | Sunday, 19 July 2020 at 03:57 PM

Very much enjoyed this, despite its focus on this awful year.

Posted by: Scott | Sunday, 19 July 2020 at 10:59 PM

Hello Ctein,
Thank you very much for your clear and detailed explanation, much appreciated. But unfortunately I'm afraid I haven't clearly explained my point. I (sort of) know what different types of masks do or don't do. But that's not the point. The point is that the general public don't, and that the measures taken by the public transport authorities are obtuse, seem random and aren't explained very well. They give people the impression that it's government policy that taking effective measures is prohibited while taking poor measures is mandatory. I was inviting you to ponder the (mass-)psychological consequences of that: instead of taking measures that make sense, people get the feeling that they're being patronized and lied to by the authorities. That's where the danger lies, not in the technicalities of the masks. Confronted with measures that make no sense to them and aren't explained, while being enforced with hefty fines, will have the opposite effect of what we're trying to achieve. People don't trust the autorities anymore and are, as I indicated, increasingly sick and tired of the whole thing, and give up on trying to protect themselves and (perhaps more importantly) others.

Posted by: Gerard Kingma | Monday, 20 July 2020 at 02:11 AM

Dear Gerard,

Unfortunately, there is no fix for that. It is not possible to explain the nuances of the epidemiology and of the scientific method to the general lay public. Honestly, it's not.

It's not that people are stupid, but that it involves modes of thinking and constructing logical chains that require training. Without those mental tools, it doesn't work. I say that as a popular science writer with 40 years experience.

All you can do is try to get the lay public to accept that (a) scientists and medical officials know more than they do and (b) what they know is constantly being added to and modified, so the recommendations will change.

No, it's not going to make sense to them. That's a fact we're stuck with, and wishing it were otherwise won't make any difference.

pax / Ctein

Posted by: Ctein | Monday, 20 July 2020 at 09:31 PM

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https://blogs.cdc.gov/niosh-science-blog/2017/11/02/noshave/

Posted by: N.B.C. Trainer | Tuesday, 21 July 2020 at 02:37 PM

In view of yesterday's news (21st July), I conclude that Donald Trump is reading TOP !

Posted by: Andrew J. | Wednesday, 22 July 2020 at 03:16 AM

Dear NBC,

Those NIOSH recommendations are for respirators that are used in (potentially) extremely hazardous environments.

For COVID-19, even a bandanna worn over the nose and mouth makes a usefully great difference in transmission rates. A tight-fitting mask is best, but any mask is good.

pax / Ctein

Posted by: Ctein | Wednesday, 22 July 2020 at 05:01 PM

The comments to this entry are closed.
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