

## **Out, Damn Spot: The Physical Impact of Thinking Dirty**

Kellie Fitzgerald

"Out, damn'd spot! out, I say!—One; two: why, then 'tis time to do't.—Hell is murky.—Fie, my lord, fie, a soldier, and afeard? What need we fear who knows it, when none can call our pow'r to accompt?—Yet who would have thought the old man to have had so much blood in him?" - William Shakespeare, Macbeth

I type on a keyboard that has never been cleaned, and I wonder why. It is the dirtiest thing I have touched in a long while, since the last keyboard I used in the university library. The never-touched mirror in the bathroom is cleaned every night according to the sign out sheet on the back of the door. I wonder if the lever on the water fountain is ever wiped down. I wonder if the soda button on the machine upstairs is ever washed. I know the door handles are washed; I just witnessed the cleaning company washing it myself. Why are certain often-used things washed regularly while others are ignored? I wonder if it really makes a difference, when most of us are not sick at all times. I wonder if others wonder, and what of those that obsess. I try my best not to obsess.

According to a New York Times article, 18% of adults do not wash their hands after using the bathroom; 23% do not wash up before handling food; 25% do not wash after changing a diaper. With this 20-something percent of the population roaming the streets, touching door knobs, elevator buttons, gas pumps, bank pens, ketchup pumps, half and half containers and so on, how

safe from germs will we ever be? How have we escaped the destruction of germs as a society for thousands of years? How did we live just over a hundred years ago? Before we felt the need to eliminate every single germ we encountered with soaps and powders.

Consumers are told by their trustworthy televisions to believe that one certain soap kills 99.9% of germs. An air freshener will only kill bacteria on surfaces, so buy a different one - it will kill the bacteria in the air! Carry Purell around with you everywhere in order to ward away the horrible sickness that your friends and family transmit. This foam hand soap will kill more germs than that liquid hand soap. Antibacterial dishwashing liquid - antibacterial plastics - antibacterial hand lotion - antibacterial towels and washcloths, all promise a completely germ-free life.



I just ate a bagel that was handled by a person with gloves on. But - he took my money with that same glove! Money is the dirtiest thing - everyone under any circumstance handles money without regard to sanitization. That money touched the glove that touched my bagel. I almost wish he did not wear gloves at all - I would have better chances with the leftover soap he (hopefully) used when washing his hands.

I refuse to use Purell, or any of its incarnations. The smell is overpowering and it just feels wrong to me. I refuse to use Lysol disinfecting wipes, for the same reason. I will use bleach products to clean my kitchen and bathroom. When my desk at work is particularly messy, I will use baby wipes. I wash my hands every time I use the bathroom. The Centers for Disease Control and Prevention suggest, when washing your hands, to rub with soap for 20 seconds. I do not think I have ever rubbed my hands for 20 seconds. Think about it, count to 20 in your head. As a good measure, they suggest singing the birthday song... twice through! (Clean Hands... 2009) However, as far as the common cold or other peer-to-peer contact illnesses are concerned, I am rarely infected. Though I try not to, I do touch my face all the time, including my eyes and my mouth. I have noticed this especially since beginning this research process. How am I spared when I go against almost all advice given by my television?

This got me wondering. While I may get often get a cold, I do have some contact dermatitis issues. I spoke to my primary care physician about the possible link between my supposed mediocre sanitization habits and the horrible condition of my skin. He assured me that I have legitimate conditions - Rosacea and Eczema, and that I am surly more sanitary than, say, the average homeless person - who does not have the luxuries of a

daily shower. He did mention, however, how telling my fear is. Americans have so much comfort, so many luxuries; they need to fear something, anything, and the fad of today is instant cleansing with hand sanitizer and disinfecting wipes.

*Travel Kit*

*Once there was a scam,  
Where a trickster would  
Stick money in soap bars.*

*And then sell them for twice  
The price.*

*Only his fellow con-men got the  
Money. The rest were left with soap.*

*White bars.*

*Just inside the cathedral bubbles a small pool  
Where the babies are made clean.  
Though the water is yellow it's a different clean.*

*That clean.*

*Clean For Christ.  
Neat and Clean for Eugene.*

*It's all a soap  
Opera. Flakes. Powder.*

*Both the divine  
And the profane  
Are holy.*

*Holy is just something you shouldn't touch -  
Like baby Jesus or a subway pole.*

*Your hands smell like copper after you held St. Sebastian in  
your palm. It smells like too many coins.*

*You wipe them - your holy hands - on your cargo pants. And then  
move on to other temples. To other relics.*

Consumers, by definition, need to consume. If that is a symptom of humanity or a disease created by capitalism, I cannot say. Either way, money can be made off new ways to market to people's everyday worries. A new fad with daytime-television-watching-stay-at-home-moms is *Activia*, the probiotic enriched yogurt. It is supposed to promote healthy digestion. A probiotic is bacteria, the healthy bacteria we have been missing in our day-to-day lives because those same stay at home moms have been told to eliminate all germs - good bacteria included. Hooking moms onto the sanitization fad is a nearly century-old tradition, "[Even the term] 'soap opera' stems from the original dramatic serials broadcast on radio that had soap manufacturers such as *Procter and Gamble*, *Colgate-Palmolive*, and *Lever Brothers* as sponsors. These early radio serials were broadcast in weekday daytime slots when mostly housewives would be available to listen; thus the shows were aimed at and consumed by a predominantly female audience." (Retrovision.tv 2010)

Consider that no matter where we get our news, at least one Fortune 500 corporation owns the station. General Electric (consumer electronics, plastics and transportation systems) owns NBC, CNBC and MSNBC. ABC, CBS, ESPN, A&E, History Channel and Disney are owned by VIACOM (movie studios, several magazines, newspapers, crude oil and gas and all Disney theme parks). CNN,

TBS, TNN, and WB are owned by AOL/Time-Warner (movie studios, biggest owner of magazines and sports teams). NEWS Corp (biggest owner of newspapers, Phillip Morris Corp. and several sports teams) owns FoxNews and Fox Broadcasting. (The Nation 2001) These big corporations have stock in the companies that supply cleaning products. They see nothing but earning potential in modern germ warfare.

*"Cleanliness, then, should be understood not as a natural progression from a prehygienic age to an era of cleanliness based on scientific rationale, but in terms of a psychological process caused by the phenomenon of consumption." Juliann Sivulka, Stronger Than Dirt: A Cultural History of Advertising Personal Hygiene in America 1875 - 1940*

Back to *Activia*, the yogurt that promotes healthy digestion through the enrichment of probiotics. The producer of *Activia* is *Dannon*, or *Groupe Danone*



as the rest of the world knows it. *Dannon* is the biscuit maker for *Kraft Foods*, the biggest food and drink firm in the world. The president of *Kraft Foods* is W. Anthony Vernon, also the director of *Medivation, Inc.* and *Uluru, Inc.* both healthcare related companies in the biotechnology field and in the drug delivery field. He spent most of his professional career before *Kraft Foods* at *Johnson and Johnson*, heading up their independent business units like *Tylenol* and *Splenda*. *Johnson and Johnson* is

the top worldwide manufacturer of baby health care products and pain relievers. Mr. Vernon launched two prescription drug franchises for *Johnson and Johnson*, now both worth a billion dollars each. (Forbes 2010) So it's safe to say that *Dannon* has an interest in making money off "good bacteria" while making sure the American public has an interest in "eliminating all germs".

A recent article on Slate.com reports: "Purveyors of antimicrobial products are happy to indulge our worries about germs surrounding us. During the H1N1 pandemic, public-health agencies encouraged their marketing pitches despite evidence the products do little to help. It's likely that hand-sanitizer users falsely believed they were protected from flu and thus deferred vaccination, which is by far the more effective way to prevent its spread." (Sanghavi 2010)

So... I am sick today. I was very sick yesterday and somewhat sick the day before. That day, the sort of sick day, I volunteered for a New York University campus event. I spoke to, and touched, hundreds of people. Some of them are surely sick right now because of me. I feel guilty, annoyed, sad and powerful, but in my defense, I thought I was suffering from allergies (this is a reportedly record year for allergy sufferers), not this pestering cold I now know I have. The day I had many transactions with many people, I washed my hands three

times - the three times I went to the bathroom. Between those washings, I sneezed and blew my nose too many times to count. I was asked if I was sick many times, each time I (lied) told them it was allergies. How often does this happen? How often do people infect other people unintentionally (ok, maybe semi-intentionally)? I have been immersed in information about germs since starting this research five months ago. Even someone who knows as much as I do about the transmission of germs treated the multiple interactions as if they were every-day and nothing to be worried about.

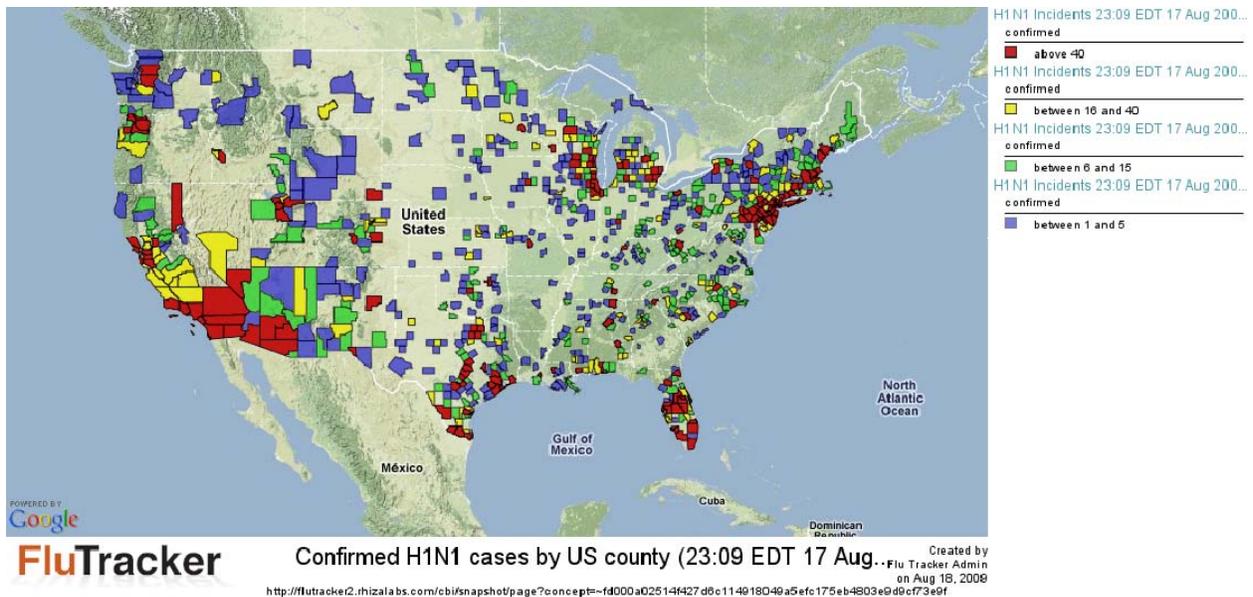
"Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick. Although we all prefer to use only the good passport, sooner or later each of us is obliged, at least for a spell, to identify ourselves as citizens of that other place." Susan Sontag, *Illness as Metaphor and AIDS and Its Metaphors*

The fear of pain, the fear of society's rejection, the fear of being imprisoned by physical illness is very real. With that fear, is it safe to assume the overabundance of sanitization products have been marketed to those anxieties? Those cartoon germs on my telephone could make my kids or me sick, you imagine. The germs in the air are not being destroyed by my air sanitizer - am I doing enough, one can wonder.

Thinking back, I wonder how I became sick today. I am pretty sure it was from my coworker who was sick just a few days ago. I cannot say for certain because he lathers himself with

Purell every chance he gets. He always wipes down his desk and his phone with disinfecting wipes. As far as contact goes though, he is the only one I knowingly spent time with in close quarters that had the same symptoms I have now. And if he is so careful with the hand sanitizer and wipes, how did he get sick in the first place? Along with instant sanitizers and rubber gloves, my office offers face masks as a prevention method of H1N1. The Centers for Disease Control and Prevention website states: "Very little is known about the benefits of wearing facemasks and respirators to help control the spread of influenza. In the absence of clear science, this information offers a "best estimate" to help guide decisions." (CDC.gov) The US government is unsure of its benefits, yet there are several coworkers that wear the masks every day. Germs are tricky things, and no matter how much we want to control them, they seem uncontrollable.

After the installation of the H1N1 supplies box, two of the 60 employees in our office contracted the H1N1 virus. This is not surprising; New York County has some of the biggest recorded H1N1 incidents in the United States (Flutracker.com 2010):



If my coworkers have anything to say about it, it is not because of them.

### *Sound Advice*

*Employees must wash their hands.  
A good rule. Cooks and clerks  
All need the sink that cleanliness demands.*

*Under the shower head no dirt withstands  
The pressure, the shampoo. Some smirks:  
"Employees must wash their hands."*

*Bathroom etiquette is different in different lands  
Some toilets just pits others but stone works—  
All need the sink that cleanliness demands*

*No matter if women, men, pots or pans  
A plunge into soap and a scrub. All the perks!  
Employees must wash their hands*

*The small sign reads. You wash yours. Sans  
Enforced rules. It's not simple quirks  
All need the sink that cleanliness demands*

*It calls like a siren, hands full as marshlands  
Of swampy dankness. Full of germs--what lurks?  
Employees must wash their hands  
All need the sink that cleanliness demands.*

In the past month, I have conducted a survey with 14 responders. They were between the ages of 18 and 56. All currently live on the eastern seaboard of the United States.

**Gender:**

*93% of responders are female, 7% are male.*

**Career:**

*35% of responders work or volunteer in the medical field.*

*100% of them use alcohol based hand sanitizer*

*100% of them are vaccinated yearly.*

*100% of them consider themselves moderately healthy.*

*60% of them are sick enough to call out of work or not go to class between 0-5 times a year, 40% are sick 5+ times a year.*

*35% of responders work in an office environment.*

*80% of them use alcohol based hand sanitizer, 20% do not.*

*80% of them consider themselves to be very healthy,*

*20% consider themselves to be unhealthy.*

*60% of them do not get vaccinated yearly, 40% do.*

*60% of them are sick enough to call out of work or not go to class between 0-2 times a year, 40% are sick 3-6 times a year.*

*29% of responders work in a job dealing with the public on a daily basis.*

*100% of them consider themselves to be very healthy.*

*100% of them are never sick enough to call out of work or not go to class.*

*75% of them use alcohol based hand sanitizer, 25% do not.*

*75% of them do not get vaccinated yearly, 25% do.*

**Other data:**

*71% noted, without provocation, that over-sanitizing could create the problem of super germs. 78% of this 71% noted that they do not care about this possibility, they will continue to sanitize, as much as makes them feel mentally healthy.*

I found this study to be quite fascinating in where 100% of the responders that work in a field where they deal with the public on a day-to-day basis feel they are "very healthy." 100% also claim **never** to



feel sick enough to call out of work or not go to class. The responders that work in the medical field or in an office environment were not as confident with their overall health or their need to take sick time.

Moreover, the final data point, 71% of responders know that using antibacterial products when it is not necessary could create super germs. They are so fearful they cannot even stop themselves from being irrational. Why is this rational and

irrational fear of sickness part of human nature? Everyone has been and will get sick, so why is even just the idea of being sick so upsetting? Aside from pain and suffering, there is a sociological reasoning for it. The sick are shunned, turned away. As if helping those who are in the most need will make the helper ill.

Being recently diagnosed with Rosacea, I have been witness to the utter contempt some people feel towards the sick - especially when the sickness is as obvious as the large red blotches on my face. The social rejection is made especially obvious when I am taking public transportation or at a restaurant. Some stare, most try not to look. I understand his or her fear - no one wants to be sick and therefore rejected by society. However, the self-imposed dismissal of society plays a large role here also. Feeling like a victim is an easy way to cope with the symptoms, but the outward reflection of the self-victimizing can turn people away. I feel vast social differences when I am secure with my looks and when I am not happy with my outward appearance.

*Dissolve*

*My body was once dirt.  
Or at least  
Atoms.*

*My body was once filth  
Or at least  
Filthy.*

*Like when I made mud castles  
And my mother would get*

*The green garden hose  
The burping snake that barfed  
Water all over me.*

*Water they say in the universal solvent  
All things come apart in water.  
Even water.*

*Water will dissolve water.*

*What's that about?*

*My body was once water  
Or at least  
most of it.*

*No wonder I sweat so much.  
No wonder I wonder so much.  
No wonder it's a wonder I don't*

*Dissolve.*

With all this fear of infection and illness, patients have been demanding antibiotics for infections that should not be treated with such, and doctors are giving in to the pressure. With this overuse comes a fear in the medical community of super viruses. (Reuters 2009) "A study of sinus infections (acute and chronic rhino sinusitis) and the use of antibiotics were recently released in March 2007. ...results show that although most sinus infections are caused by viruses, in more than 70% of the infections, patients were prescribed antibiotics. In extensive studies, antibiotics have been proven to be ineffective against viruses. ... the over use of antibiotics has

caused antibiotic resistant bacteria to evolve and grow into a serious health hazard." (Quan 2007)

"They fancied themselves free, and no one will ever be free so long as there are pestilences." - *Albert Camus, The Plague*

With this information, it is surprising that people are becoming more fearful of vaccinations. Maybe there is something to the psychological aspect of illness. Mind over matter, as they say. However, this is a dangerous idea to inhabit, especially when you have the ear of the media. Recently a video was broadcast on network news and viewed over a million times on the internet. (Inside Edition 2009) Allegedly, a professional cheerleader and marathon runner had an adverse reaction to the flu vaccine. She could not speak, walk down the stairs or have complete thoughts without running or walking backwards. If she wanted to have a regular conversation, she had to be in a state of relatively fast movement. In order to stop her muscles from twitching or to speak and think clearly, she would have to run. Lorie Anderson at SelectSmart.com reported, "Doctors at Johns Hopkins and Fairfax Inova hospitals, both highly reputable mainstream institutions, had diagnosed Jennings [with] dystonia as a side-effect of her seasonal flu vaccination." (Anderson 2010) But, as reported by Orly Avitzur, medical advisor: "there are many features that are not consistent with the diagnosis of true dystonia, but are much more in keeping with what is called

a psychogenic movement disorder." (Avitzur 2009) Essentially, it was all in her head. She was given a chelation therapy, the administering of chelating agents that is supposed to remove heavy metals from the body, a nonsense treatment, and was healed right away.

However, before it became public knowledge that her illness was in her mind and not caused by a medical effect of the flu vaccine, she became the poster girl for nearly every anti-vaccination group, including Jenny McCarthy's Generation Rescue, an organization that challenges vaccinations as the cause of autism. Jenny McCarthy is best known for her stint on MTV in the 90s, hosting game shows and music video blocks. In 2008, Ms. McCarthy appeared on *Larry King Live* denouncing the Measles, Mumps and Rubella vaccine. As reported in *Neurology Today*, "Although several studies have failed to show a link between autism and vaccines, lay concerns about a possible cause and effect continue to arise. In the past year, those concerns have been flamed by celebrities, such as comedian and former Playboy centerfold Jenny McCarthy, whose son is autistic; she has appeared on television to insist that vaccines cause autism." (Fallik, 2008) She has garnered a lot of attention from the generation she entertained back in the 90's - who are now new parents.

Just a few months ago, the doctor who initially claimed the MMR vaccine was linked to Autism was convicted of criminal negligence. "Andrew Wakefield, the doctor who suggested the MMR vaccine might cause autism, leading to a collapse in immunization (sic) levels nationwide, "showed a callous disregard" for the suffering of children and "abused his position of trust" during the conduct of his research, a disciplinary panel ruled yesterday." (Laurance, 2010)

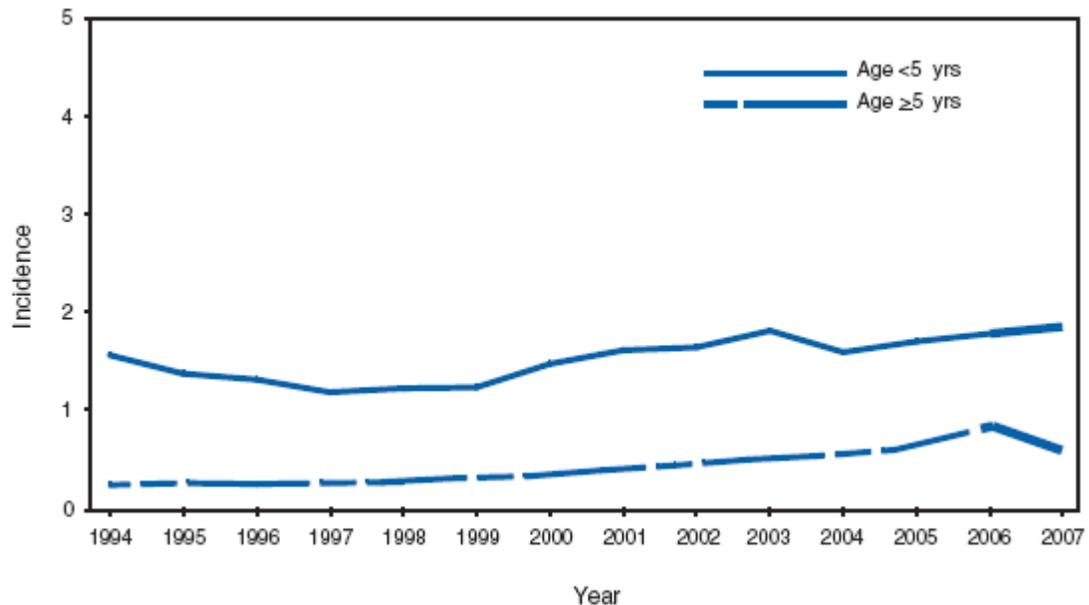


Some editorial websites can be found as direct responses to the decline in vaccinations after Ms. McCarthy's television appearances. One site claims, as of the publication date of this paper, there have been 57,961 preventable illnesses and 510 preventable deaths since McCarthy's anti-vaccination debut. "As the unofficial spokesperson for the United States anti-vaccination movement, [Ms. McCarthy] may be indirectly responsible for at least some of [the unvaccinated] illnesses and deaths. . . even one vaccine preventable illness or vaccine preventable death is too many." (JennyMcCarthyBodyCount.com, 2010)

When did it become standard to ignore our doctor's advice, only to obey without trepidation celebrities, commercials and large news corporations? When did we become fearful of those who try to help us and become devoted to those who are in the

pockets of very large corporations - the corporations who stand to make a lot of money off our fears? The medical community and the Centers for Disease Control and Prevention have proved the success of vaccinations repeatedly:

*Haemophilus influenzae*, Invasive Disease. Incidence, Per 100,000 population, by age group -- United States, 1994–2007



Substantial reductions in the incidence of *Haemophilus influenzae* serotype b (Hib) disease have been achieved through universal Hib vaccination. Before introduction of conjugate vaccines in 1987, the incidence of invasive Hib disease among children aged <5 years was estimated to be 100 cases per 100,000 population. To monitor the epidemiology of Hib invasive disease and to detect the emergence of invasive non-Hib, serotyping of all Hi isolates in children aged <5 years and thorough and timely investigation of all cases of Hib disease are essential. (MMWR 2009)

"A bodily disease, which we look upon as whole and entire within itself, may, after all, be but a symptom of some ailment in the spiritual part." - Nathaniel Hawthorne, *The Scarlet Letter*

This massive fear of vaccinations cannot end well. Say just one child contracts measles, then goes to school and plays with the toys, and his friends, and encounters a whole classroom full of children. 91.5% of children in the United States are vaccinated, that is about 1 out of 10 that are not. (Estimated Vaccination Coverage 2009) In a classroom of thirty, three children will get sick and possibly die. Who is to blame? The self-righteous parents who exclaim: I will not sacrifice my child for the greater good! I wonder what they would be saying if they were on the other side of that fence?

So, some are near obsessively fighting the germs they come in contact with every day; and not vaccinate their children; and at the same time eat yogurt that will replace the natural bacteria in their body; while suffering from allergies and sicknesses that were not abundant before the 1950's. There has been a very significant rise in the past fifty years of asthma, hay fever, diabetes and multiple sclerosis and some scientists think our obsessive sanitization habits may be to blame. Joel Weinstock, the chief of gastroenterology and hepatology at Tufts-New England Medical Center, believes "the parasites that we have been told to avoid - such as hookworm and pinworm - may be the good guys, while excessive hygiene may be the bad guy.



...aspects of cleanliness prevent the immune system from programming itself to fight off disease," states Weinstock. (Baker, 2007) "Some researchers argue that improved hygiene throughout the developed world may be responsible for inflammatory bowel disease, as well as a whole range of autoimmune disorders. According to this "hygiene hypothesis," immune systems require exposure to infections of all sorts early in life in order to develop sufficiently." (MSU News 2006) We are at such a critical mass that "the USA has an infant mortality rate of 5 per 1,000, the same as Poland, Hungary, Slovakia and Malta. Of 33 developed countries, America is just above Latvia, the bottom of the group." (Nordqvist, 2006)

*Lady M's Hand Soap*

*The queen's hands  
are speckled  
with red.*

*She washes. Washes. Washes . . .*

*You're not fully clean, unless you're-*

*Still the marks, come, crimson, like  
The backs of ladybugs.  
Swarming.*

*Until. Until.*

*The sputtering noise of the plastic  
Pump. The glob  
Hits.  
Cool.*

*Smells of apple. Lavender. Special  
Balls of moisturizer so small they can kill*

*A piece of plankton.*

*She washes.*

*Repeats.*

*A sigh . . .*

*You're not fully clean, unless you're-*

*The come back slower*

*But*

*Redder. Like a kiss.*

*Like lipstick. Her face in the mirror.*

*Her hands are so smooth they slip off her wrists and fall.*

*Long.*

*And far.*

After my doctor told me my Eczema and Rosacea were not caused by my refusal to use instant hand sanitizers, I did some research on the internet. A study done by Northeastern University in 2009 showed that the severity of childhood Eczema was reduced when the child was immersed in a diluted bleach bath. "It is a component that helps a bit, but it's not God's gift to eczema patients," Robert Brodell, a professor of internal medicine and dermatology at Northeastern Ohio Universities College of Medicine. (Berman 2009) This creates huge doubts for me. Maybe there is something to this hand sanitizer. Maybe I should be doing more to keep myself clean. Or maybe I shouldn't obsess, like my doctor suggests.

How can we know what is right? And exactly how much of the sicknesses we experience in our minds have a physical outcome? How much of our sanitization habits do more for our state of mind than it does for our bodies? Do we somehow feel more in control of our lives by sanitizing every inch of them? Language makes a huge impact on how we see a situation. "A rose by any other name would smell just as sweet." I wonder if sanitation by any other name would be as clean.

There is a logical plot hole in my research. How is it if I don't rub my hands with soap for longer than a few seconds my hands aren't as clean as the milliseconds it takes to splash antibacterial gel into my hands? If I cannot trust the CDC, whom can I trust? I believe, after all this time, the lesson I will learn is: take all information with a grain of salt. Consider the source. Wash your hands after using the bathroom - get vaccinated when you are in a high risk group. Don't let corporations tell you how to take care of yourself. Don't let celebrities scare you into doing something that is not medically sound. Listen to your body and feel at ease knowing that, while you will probably get sick at some point in your life, you are not alone - many others have once gone through and will go through the same thing.

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