

Parachutes, are they scientifically sound?

Oscar Faber

Original paper:

Parachute use to prevent death and major trauma related to gravitational challenge: a systematic review of randomized controlled trials

Reference for the original paper:

Smith, G. C., & Pell, J. P. (2003). Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials. *Bmj*, 327(7429), 1459-1461.

Link to original paper online:

https://www.bmj.com/content/bmj/327/7429/1459.full.pdf?casa_token=pLVsg6tpyWQAAAAA:c2WPENY2eDgAm0ow12Z2igF0g8K1XJzUe4yjo7DQ3HvJX4vTcsJzlxQjS8XbKPWfFbEonmqkgE

Project created for the class:

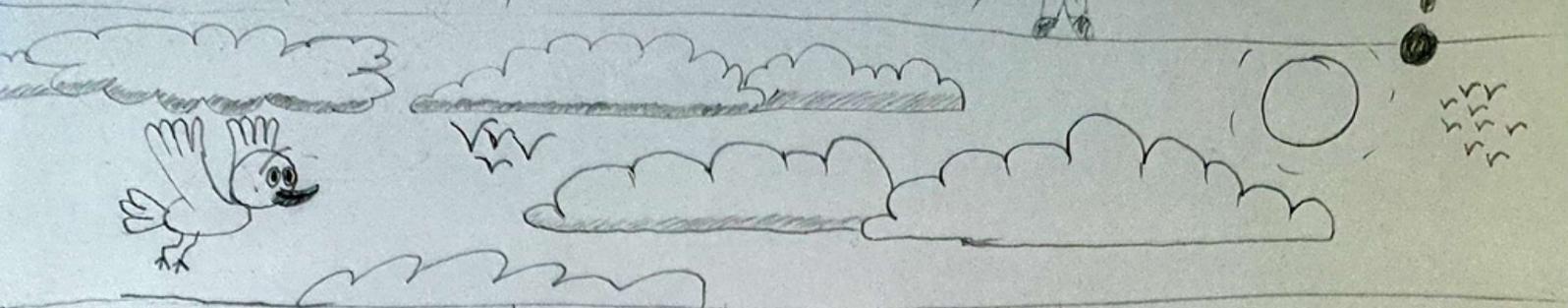
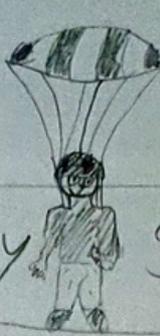
Visual Thinking and Composition, Fall 2021

Tilburg University, Department of Communication and Cognition

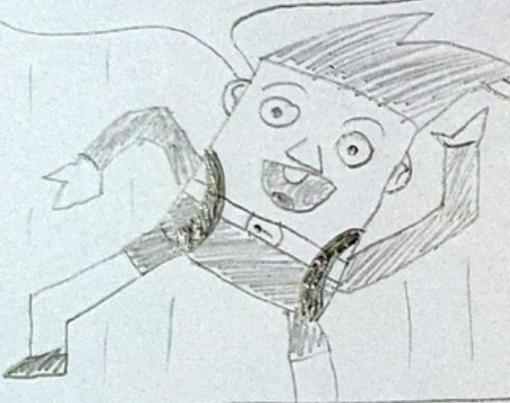
Instructor: Neil Cohn, neilcohn@visuallanguagelab.com, www.visuallanguagelab.com

PARACHUTES,

ARE THEY SCIENTIFICALLY SOUND?



Oh Hi, I didn't see you there

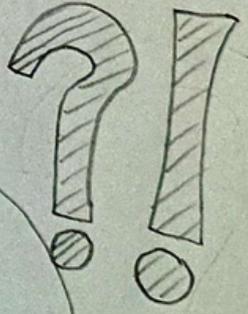


As you can see I'm a bit gravitaionally challenged at the moment

Luckily, I have my trusty parachute with me!



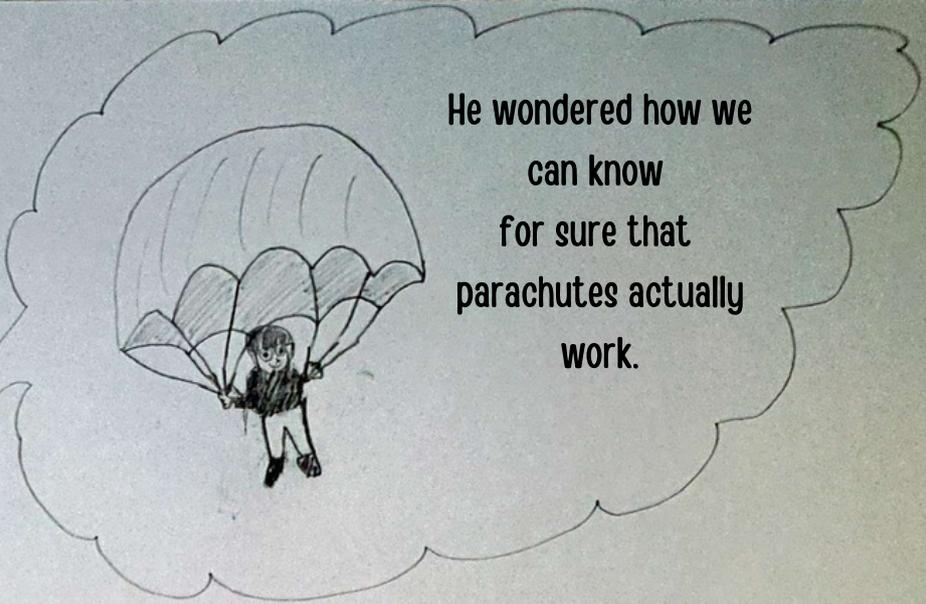
I say "trusty", but how do we actually know that a parachute is a good way to make sure you don't un-alive yourself after jumping out of a plane?!



Dr. Gordon Smith from the University of Cambridge had the same question



He wondered how we can know for sure that parachutes actually work.



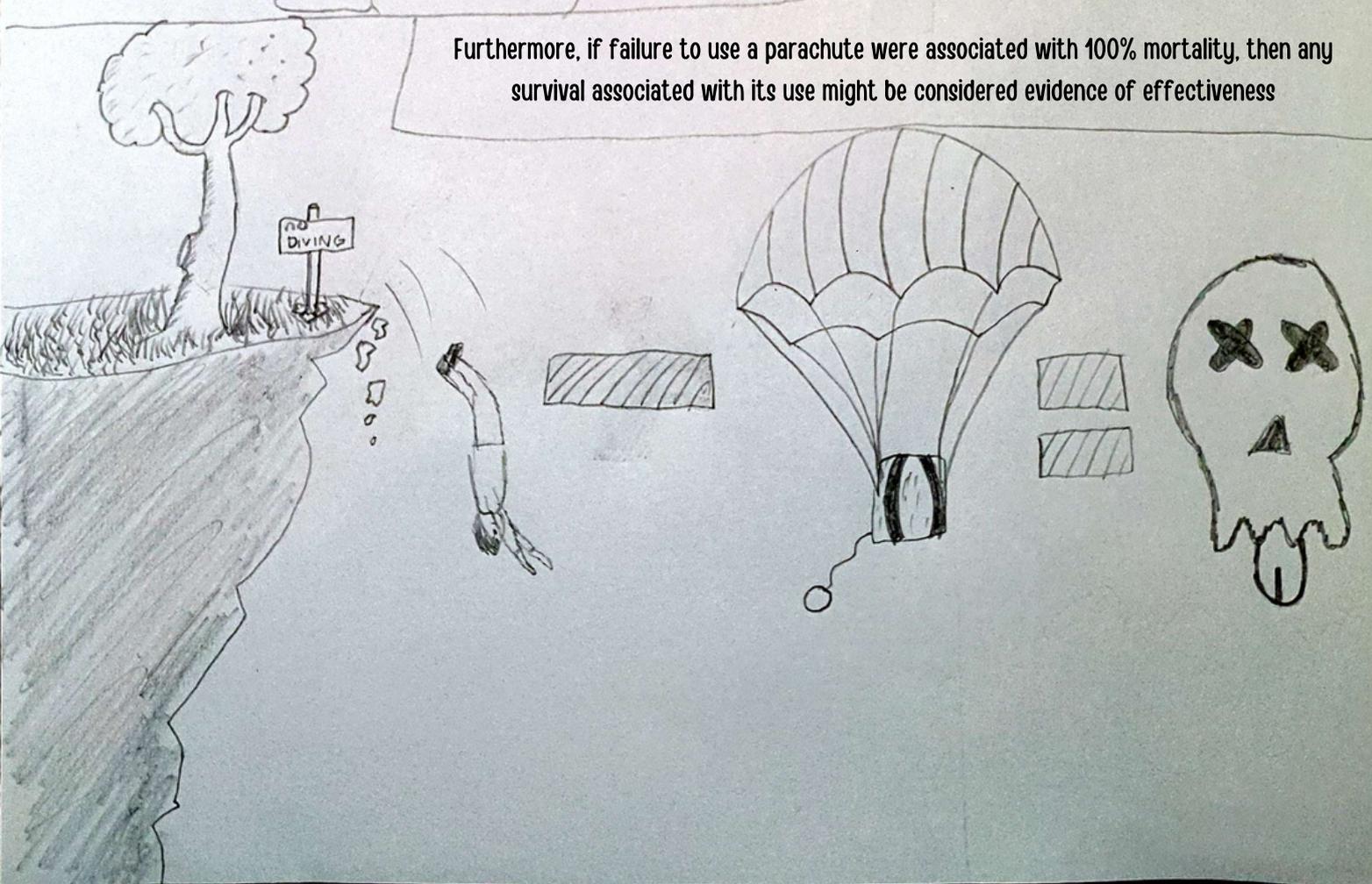
We know parachutes work, purely based on observational and anecdotal evidence from the recreational sector and military situations



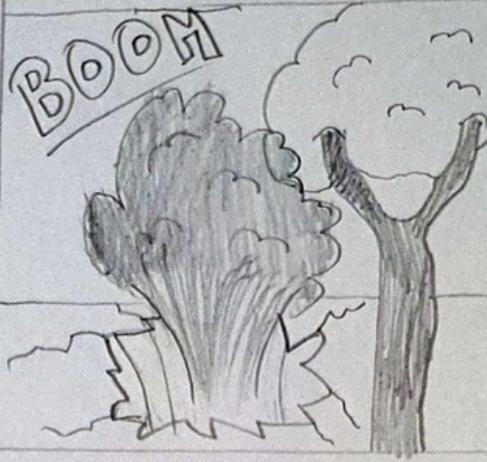
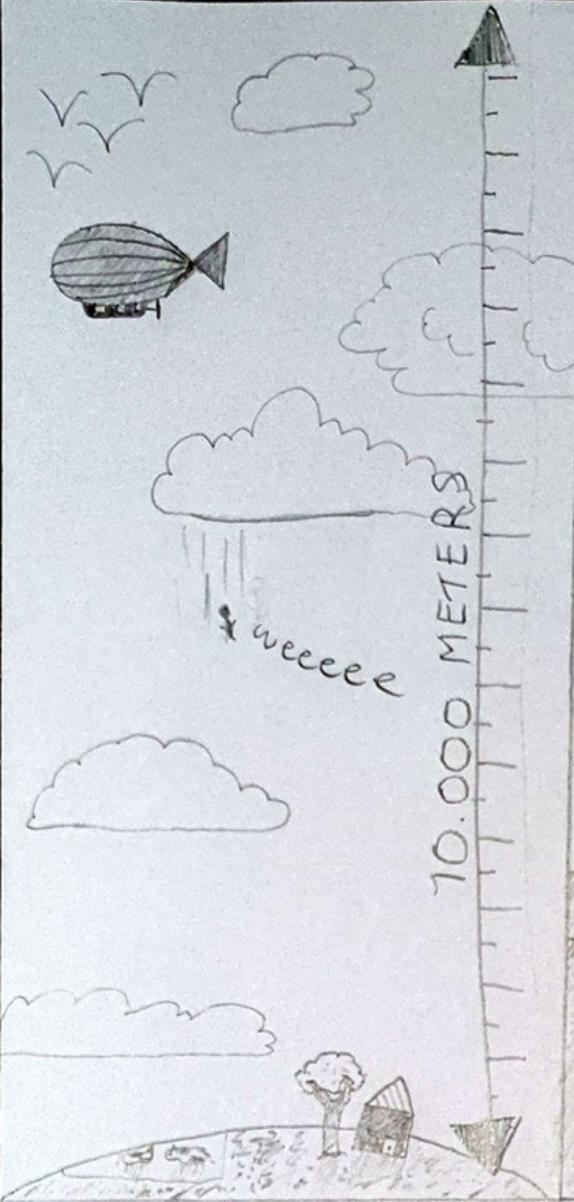
However, no randomized control tests have ever been done to test this theory



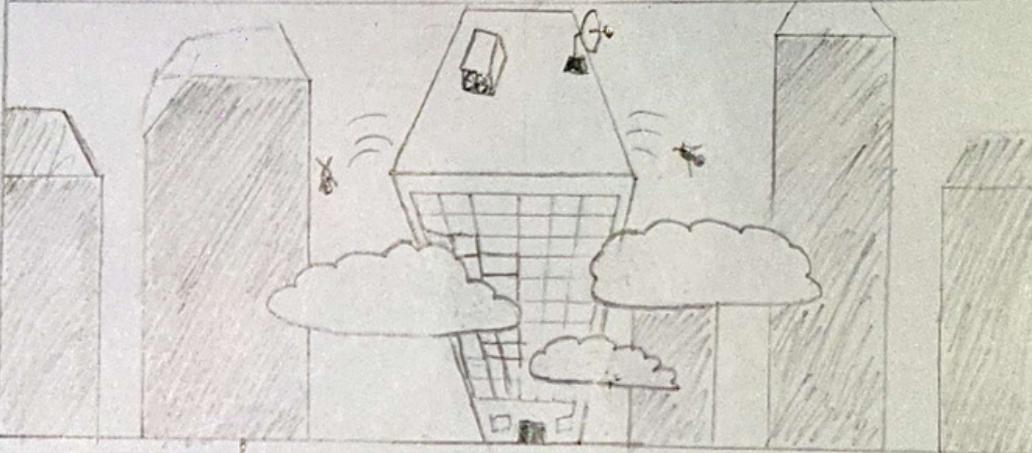
Furthermore, if failure to use a parachute were associated with 100% mortality, then any survival associated with its use might be considered evidence of effectiveness



However, survival has been reported after gravitation challenges of more than 10.000 meters

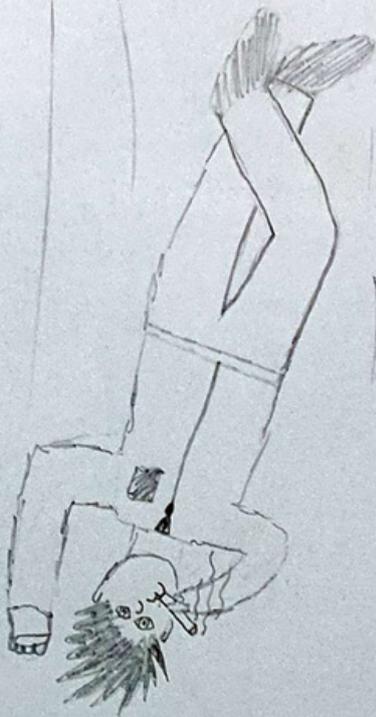


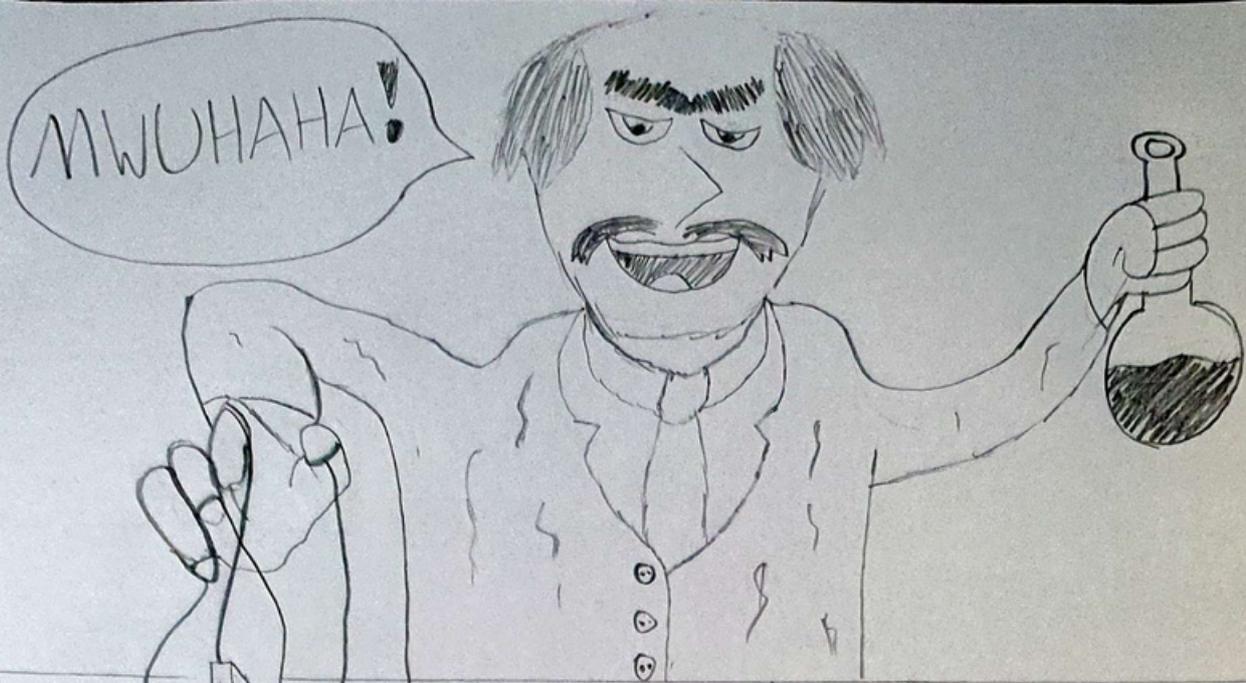
The problem with observational data is the possibility of selection bias and reporting bias"



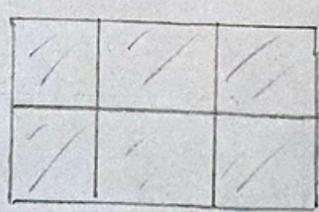
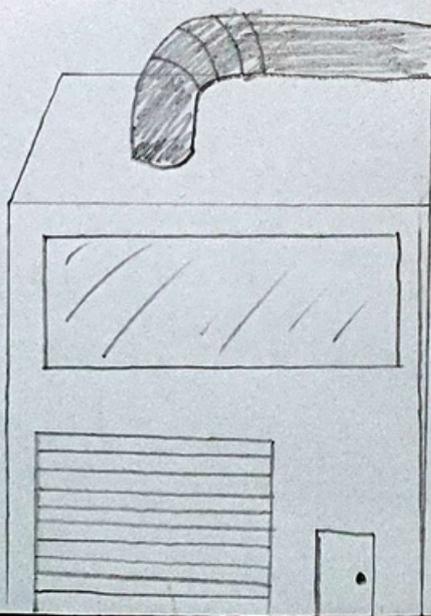
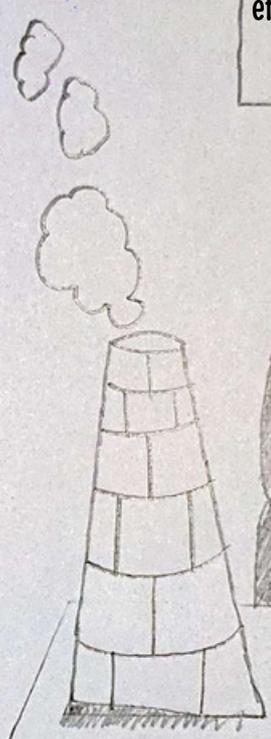
The relevance to parachute use is that individuals jumping from very high up without the help of a parachute are likely to have a high prevalence of pre-existing psychiatric morbidity

Individuals who use parachutes are likely to have less psychiatric morbidity and may also differ in key demographic factors such as income and cigarette





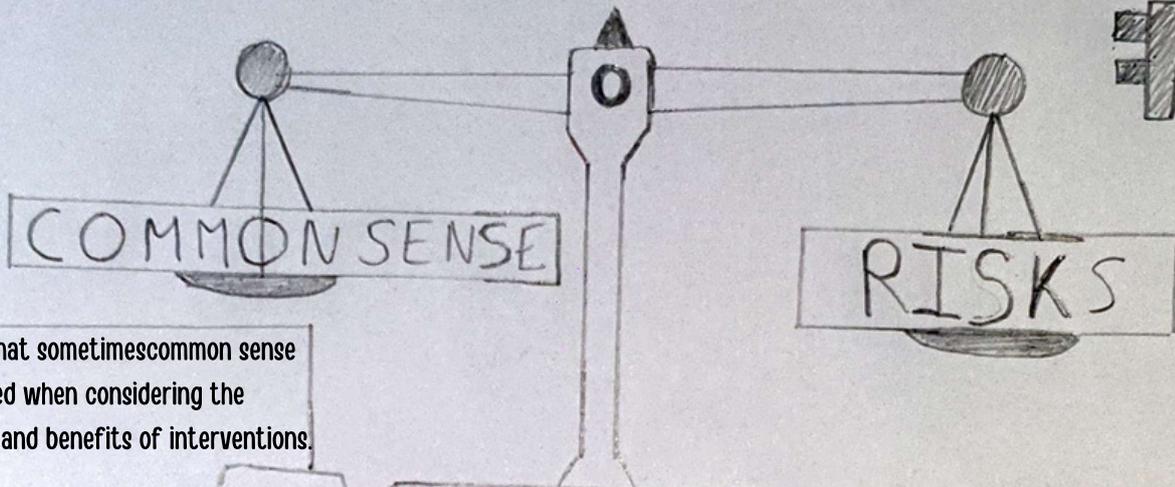
Or parachutes may just be another example of doctors' obsession with disease prevention and their misplaced belief in unproved technology to provide effective protection



**PARACHUTE
FACTORY.**

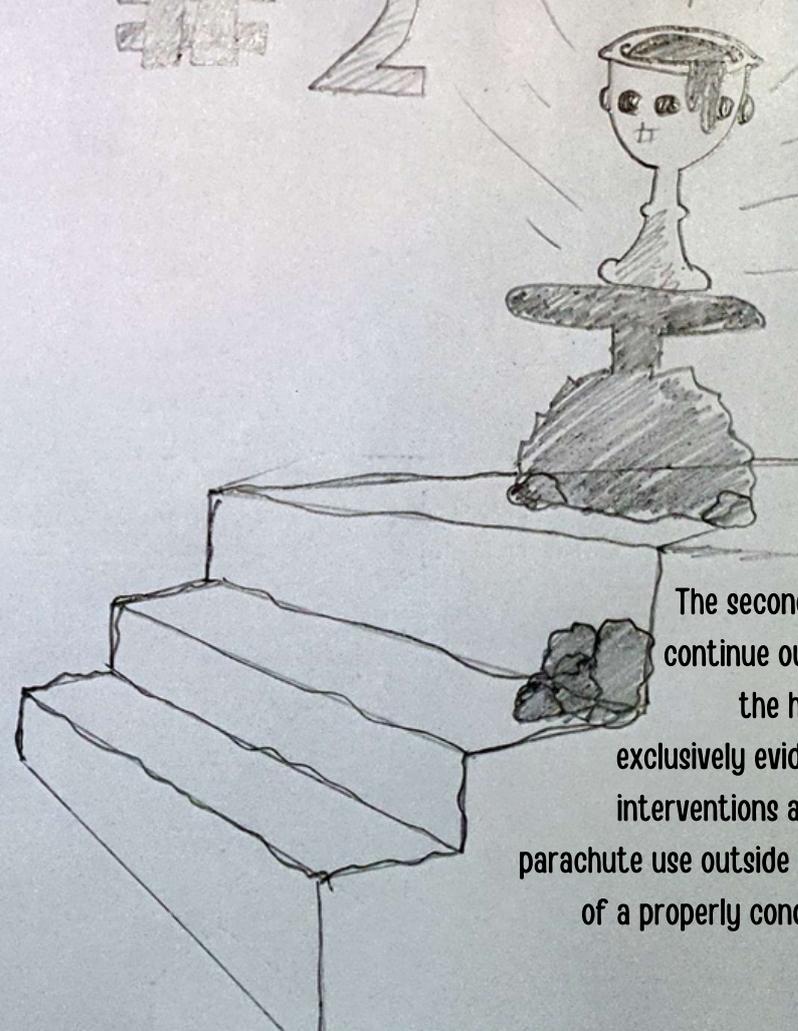
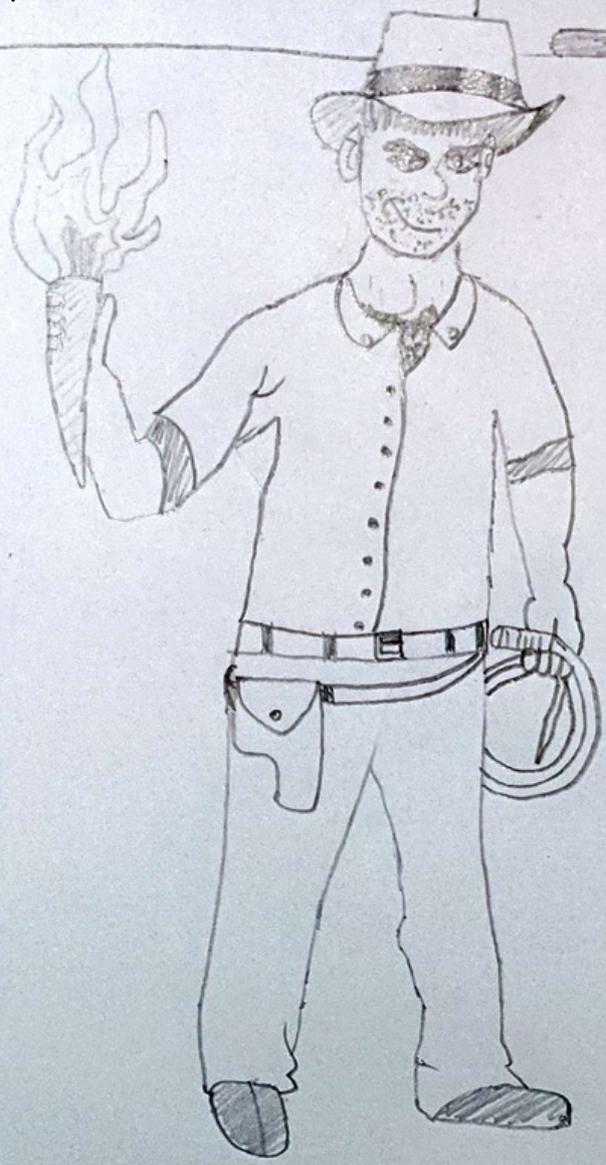
Or is it a devious ploy from the parachute industry, who's vast multinational corporations depend on belief in the efficacy of their product?

Only two options exist:

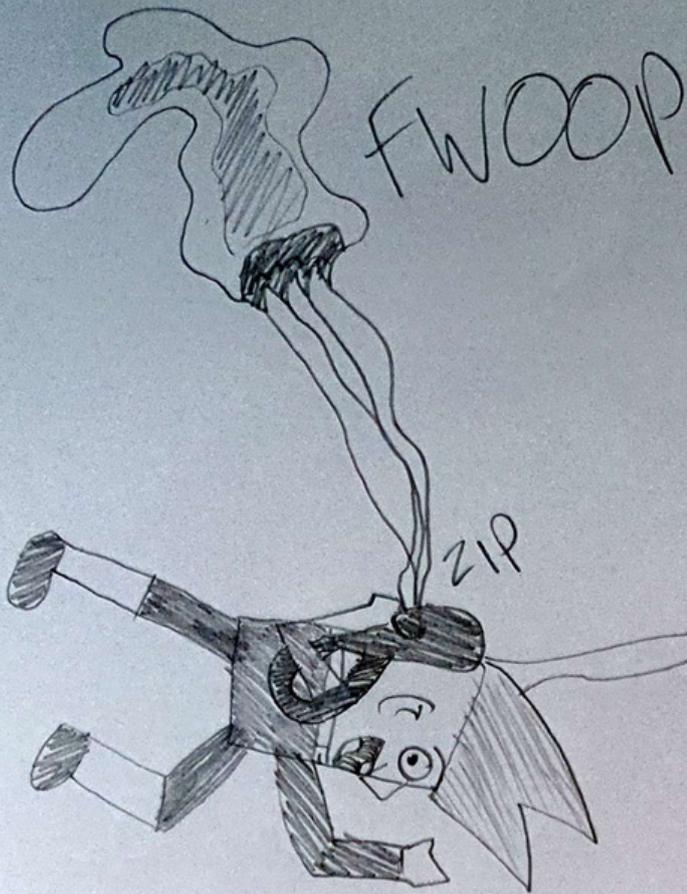


First, accept that sometimes common sense might be applied when considering the potential risks and benefits of interventions.

#2



The second is that we continue our quest for the holy grail of exclusively evidence-based interventions and preclude parachute use outside the context of a properly conducted trial.



If so, we feel assured
that those who
advocate evidence
based medicine and
criticize use of
interventions that lack
an evidence base...

...will not hesitate to
demonstrate their commitment
by volunteering for a double-
blind, randomized, placebo-
controlled, crossover trial

