Why we should wear masks (even hand crafted ones).

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Haut les masques ! (même artisanaux)

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In the controversy surrounding the usefulness of wearing a mask to stem the CoViD-19 epidemic, it is very irritating to see the "experts" and the medical world base their discourse only on the capacity of FILTRATION of the masks ("FFP2", surgical, etc.). The SARS-CoV-2 "particle" (the virus) is a sphere with an approximate diameter of 125 nanometers, *i.e.* 0.125 micron. It is obvious that the manufacture of masks impermeable to objects that small (10 times smaller than most bacteria) but allowing effortless breathing requires sophisticated industrial processes. BUT the hygienic and social interest of wearing a mask is NOT linked to its microbiological quality (its ability to stop each particle), but to its ability to modify the flow of air exhaled through the mouth (when we cough and speak) and through the nose (when you breathe or sneeze). This is a FLUIDICS problem, not one of microbiology. The superb video published on YouTube (see the link below) illustrates better than a long speech the effect of wearing a mask:
https://www.youtube.com/watch?v=kYJvU81DKgk In addition to redirecting the air flow, a mask, whatever its nature, will also serve to protect its wearer by mopping up the so-called "droplets" carrying viruses that could reach it (from the inside and from the outside). In summary, masks capable of stopping virus particles are only necessary in an atmosphere in which particles constantly float (*e.g.* emergency rooms), which is fortunately not the case in the air we breathe when we go shopping. As far as social life is concerned, making sure that the air flow exhaled by our neighbor (possibly carrying the virus) does not reach us must be our main concern. The best solution for this is for them to wear a mask, even if very handcrafted. And as long as we don't know if we are carrying the virus ourselves (in the absence of a test), we owe them reciprocity, and therefore should wear one too.

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