

Ethics of Precaution: Individual and Systemic Risk

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RECAUTIONARY decisions do not scale. Collective safety may require excessive individual risk avoidance, even if it conflicts with an individual's own interests and benefits. It may require an individual to worry about risks that are comparatively insignificant.

Assume a risk of a multiplicative viral epidemic, still in its early stages. The risk for an individual to catch the virus is very low, lower than other ailments. It is therefore "irrational" to panic (react immediately and as a priority). But if she or he does not panic and act in an ultra-conservative manner, they will contribute to the spread of the virus and it will become a severe source of systemic harm.

Hence one must "panic" individually (i.e., produce what seems to an exaggerated response) in order to avoid systemic problems, even where the immediate individual payoff does not appear to warrant it.

This happens when the systemic risk is small to the individual but common to all, while an individual's other idiosyncratic risks dominate her or his own life. The risk of car accident may be greater for an individual, but smaller for society.

Under such conditions it becomes selfish, even psychopathic, to act according to what is called "rational" behavior – to make one's own immediate rankings of risk conflict with those of society, even generate risks for society. This is similar to other tragedies of the common, except that there is life

and death.

In addition, there is a tradeoff short-term vs. long term for idiosyncratic risk. Over the long run, there is convergence between idiosyncratic and systemic: your risk rises if all others are infected and the risks of survival from other diseases drop.

For instance, during a pandemic that mostly spares young, healthy individuals, an independent emergency that would typically be routine may become untreatable because of lack of resources. Further, in conditions of severe societal breakdown, many additional risks will emerge for all agents that can't be reduced to the initial short term risk of infection to the individual.

In the current COVID-19 outbreak, such effects can be observed by a complete inundation of hospitals and their ICUs as local outbreaks take hold. This and other less visible thresholds change the dynamic of the pandemic as they are exceeded. Initially small risks become amplified and produce novel and unanticipated risks as the contagion makes impacts system-wide.

For these reasons, the prudent and *ethical* course of action for all individuals is to enact systemic precaution at the individual and local scale. The breakdown of scale-separation that a multiplicative contagion induces connects the individual to the collective, making everyone both a potential bearer and source of risk.

Precaution scales in a convex way for cross-dependent small idiosyncratic risks that end up dynamically extremely large at the systemic level.

You are harming others by not "overreacting"

In short you will end up harming yourself by ignoring these "irrational" risks

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