

## Covid and personality

Chapter from a book 'Institutions, morality and Covid-19

There have been many studies of Covid-19. Many are medical or concern effects of Covid on the population in general, such as depression and anxiety, and policies to fight it. Here I focus on effects of personality and demography. In another essay I will consider effects of morality.

### The big five

In the consideration of the effects of personality, one can use the 'Big Five' personality traits: extraversion, neuroticism, conscientiousness, agreeability, and intellect/openness. These five categories are customary and widely used, though the characterisation of each varies (Digman 1990, 421-7):

Extraversion has been alternatively associated with 'surgency', assertiveness, power, activity, positive emotionality and interpersonal involvement.

Neuroticism: emotional instability, emotionality, anxiety, affect and lack of adjustment. Covid creates fear, and combined with feelings of inadequacy, as in neuroticism, this creates stress.

Conscientiousness: will to achieve, dependability, task interest, conformity, superego strength, prudence, work, constraint and self-control. This can create feelings of adequacy that make fear adaptive. (van Bavel et al. 2020).

Agreeability: friendliness, conformity, compliance, likeability, love, sociability, socialisation, the opposite of paranoia, hostility, indifference, self-centeredness, spitefulness and jealousy.

Openness: inquiring intellect, intelligence, culture, independency. Variation and ambiguity of interpretation are greatest concerning this category of openness/intelligence (Digman 1990 433).

Different virtues can be salient for different people. The cardinal virtue of reason is salient in openness and conscientiousness. The virtue of courage is salient in extraversion, and perhaps in conscientiousness. The virtue of moderation is salient in conscientiousness and agreeability. The virtue of justice is salient in those two and neuroticism.

Clearly there are interactions between the traits, and shared inclinations. Thus, loving interacts negatively with neuroticism and positively with agreeableness, though less than one would have expected (Digman 1990, 433). Extraversion is not necessarily immoral. It is the basis of daring, courage, taking risks and exploration that pushes ambitious entrepreneurs, discoverers, politicians, and scientists. Plato offered the metaphor of reason as a charioteer controlling two wild horses, of desire and 'Thymos', the urge to manifest oneself, the same perhaps as extraversion. It can be combined with conscientiousness and/or agreeableness. It is morally disastrous when combined with narcissism or sociopathy.

I have not conducted a statistical study of personality effects, so what follows is speculative. One would expect people with a dominant streak of extraversion to be of dubious trustworthiness, in their drive to action and exploration that may become ruthless and irresponsible, unless combined with conscientiousness and/or agreeability. I would expect them to go for hierarchy and contracts, rather than trust based on morality or personal bonding

In case of neuroticism, trustworthiness would be in doubt, due to the attendant fear and suspicion. Trust and trustworthiness take a certain amount of self-confidence: with feelings of weakness or inferiority, one may see threats even in benevolent actions, generating mistrust.

Openness/intelligence can go both ways. There also, as in neuroticism, one may perceive threats too much, or, on the contrary, adaptively, be more perceptive to sources of trustworthiness, and deal with the governance needed for risky relations.

Concerning trustworthiness, conscientiousness might go for contracts and hierarchy, but also for generalised trust and bonding. Agreeableness would probably go for the latter two.

Covid and measures against it have different effects for different people, on their mental condition and beliefs, such as sense of freedom. Loneliness, depression, beliefs, trust in personal control, legitimacy, validity of measures taken, professionalism and intentions of policy makers, beliefs of others, and in preventive actions, such as washing hands, isolation, social distancing and cancelling holidays.

Concerning the effect of Covid on mental condition, one would expect a comparatively large negative effect on people with neuroticism. Concerning actions, one would expect the trait of neuroticism to generate apprehension, stress, anticipation and avoidance of contagion. There are, however, surprising effects: the insecurity generated by that trait can lead to denial and irresponsible conduct. On the other hand, with the will to rise above it, this trait can generate resilience. One would expect the trait of extraversion to generate pro-active behaviour of taking responsibility and helping others when it is combined with conscientiousness and agreeableness, but when combined with the lack of those, one might expect denial, vulnerability and evasion of public rules, with the feeling of being unduly constrained in one's freedom.

### **Effects found**

There is an intriguing phenomenon, shown by studies in the US (Hamilton and Safford 2020, Conway et al. 2020), that conservatives feel less threatened by Covid than liberals, while generally they feel more threatened by disease. The explanation was that this came from ideology, not experience such as perceived medical and economic vulnerability (Conway et al. 2020). Conservatives were against government intervention and aid to victims of economic decline, and this resulted in more disregard or indifference concerning Covid. On the basis of a survey of 1000 participants, Conway et al. found that 42 % of republicans feared own or family exposure, 73% of democrats, and 64% of independents (Hamilton and Safford 2020) found that 87% of people who voted for Clinton in 2016 had trust in science agencies during the pandemic, vs. 62% of those who voted for Trump.

On 7 April 2020, Qian and Yahara (2020) conducted a survey of about 2000 respondents in Japan on the effects of personality, morality and ideology, testing 5 predictions for personality and 3 for ideology. The results on the effects of morality will be discussed in a later chapter. The effects were controlled for demographic effects of age, gender, marital status, parental status, household size, employment, education and postal code. Effects were tested on epidemic consciousness, evaluation of others, preventive behaviour, material self-sufficiency and medical sufficiency. Ideology was measured as preference for equality and resistance to change. Here also, a negative effect of conservatism was found on stress, anxiety, underestimation of self rated health status, and a positive effect on information sufficiency, evaluation of others and confidence in doctors.

Concerning effects of personality, Qian and Yahara (2020) find many things one would expect. For extraversion they found underestimation of Covid, but also medical sufficiency,

preventive behaviour, positive self-rated health status and concerns regarding family and children.

Concerning neuroticism they find a number of undesirable effects, as one would expect, such as stress, anxiety, depression, dissatisfaction with material goods, with medical care and disclosed information, distrust of others including doctors, negative considerations of individual health. Positive effects are nonunderestimation of the virus and preventive behaviour.

As expected, they find mostly positive effects of conscientiousness and agreeability, in following regulations, taking and sharing responsibility, and solidarity, with little difference between them.

Concerning openness/intelligence they find a positive influence of limited stress, epidemic consciousness and preventive behaviour. As also indicated by other studies, intelligence/openness can be a mixed blessing.

Qian and Yahara also looked at the effects of ideology, with as indicators preference for equality and resistance to change. Similarly to other studies, mentioned before, they found that conservative ideology has a negative effect on stress and anxiety, underestimation of self-rated health status, and a positive effect on feeling that information was sufficient, and confidence in doctors.

I would like to see a study that investigates whether there are personality differences between conservatives and liberals.

Concerning demographic factors, Qian and Yahara found the following:

Age had a negative effect on stress, anxiety, depression, prevention behaviour, medical sufficiency, likelihood of infection, survival and concern about family, and positive on epidemic consciousness, material sufficiency and confidence in doctors.

Males had a higher score than females on epidemic consciousness, evaluation of others, medical sufficiency, confidence in doctors and underestimation of the risk. Females had a higher score on preventive behaviour, health status, likelihood of infection and concern for family.

Concerning marital status, unmarried and divorced or widowed people had more stress, anxiety and depression, and married people had a higher score on epidemic consciousness, preventive behavior, material sufficiency, health status, concern for family, and influence on life.

Fairness was positive on depression and negative on material and information sufficiency.

High education yielded more epidemic consciousness, evaluation of others, material sufficiency, confidence in doctors and likelihood of survival.

All the effects mentioned were statistically significant, but the authors indicate that their study is preliminary.

On the basis of a survey of 502 respondents in the US, for neuroticism, Blagov (2020) found threat sensitivity, and health and risk liability, but they noted that 'fear appeals' can also be a prod to change behaviour.

For extraversion, Blagov found aversiveness to social distancing. These findings accord well with what was found in the other studies, discussed above. Agreeableness and conscientiousness predicted endorsement of social distancing and hygiene. Blagov also investigated the effects of 'dark personalities' (psychopathy, meanness, disinhibition). Most participants preferred a message appealing to compassion, but dark traits predicted lower

appeal. Dark traits predicted low endorsement of social distancing, and the intent to knowingly expose others to risk.

Blagov used the term 'adaptive' for personality traits that have positive effects on mental health, and on beliefs and conduct that are conducive to the perception of Covid risk and positive response to remedial behaviour and corresponding public messages. Summing up, adaptive effects were consistently found across studies of the traits of conscientiousness and agreeableness, and maladaptive effects of neuroticism. Extraversion may yield aversion to health policies and related messages, for their interference with freedom. Openness/intelligence has mixed effects, as it does in studies of other phenomena. Conservatism predicts lesser concern with the pandemic, as also found by others.

On the basis of 1041 self-reports Murphy et al. (2020), investigating the effect of Covid on generalised anxiety disorder and depression during the first week of lockdown in Ireland, found the following effects of demographic factors:

A positive effect of young age, female sex, loss of income, and, as one would expect. Covid infection and higher perceived risk of infection. They found higher levels of anxiety among those older than 65 than those 18-34 years old.

### **How can differences of personality persist?**

Nettle (2006) asked the question how it is possible that differences in personality can persist. Would evolution not have favoured adaptive traits and selected out the maladaptive ones? His answer is that every trait has costs and benefits, and what what is adaptive depends on the selection environment, which has varied much in evolution, in war and peace, economic conditions, climate, natural disasters etc. In one condition one trait or combination of traits is most adaptive and under other conditions another, and as a result difference is maintained

Nettle illustrated this with examples from animal worlds. When there is no rain, for a certain kind of bird seeds are dry and hard, and the bird needs a strong beak of a certain shape, and when it rains much, the seeds are soft and other beaks suffice. Also applying to humans is the principle that when there is prosperity, with ample resources, there are many competing individuals, and being strong and aggressive is adaptive, and when there is scarcity there is less competition, and it is not adaptive to incur the metabolic costs and the risks of aggressiveness. Perceptiveness of threat may be adaptive, favouring neuroticism, but also restricts endeavour and daring needed for survival, depending on the circumstances. Openness/intelligence favours the seeking of novelty, perception of threat and opportunity, making mappings between disparate domains, and creativity, which as a male characteristic is valued by females But all this can yield too much reflection and doubt, and too little action. It is correlated with psychosis and schizophrenia, yielding reduced reproduction. For sexual reproduction, strength, size, demonstrativeness and aggression of males, in the trait of extraversion, may attract more females, but being small and creeping unobtrusively into nests, cuckold and procreate on the sly is an alternative. Fitness can be enhanced by a capacity to free ride, break rules and cheat on others.(Nettle 2006 627) .For this one needs high mobility and migration to escape censure and punishment. All this can be part of conscientiousness.

### **Summary**

In sum, it is convenient to use Blagov's notion of adaptability, with comparatively positive effects on mental health, perception of the epidemic, taking precautions There is considerable

agreement between the studies: Across studies, conscientiousness and agreeability were found to be adaptive, and neuroticism maladaptive. Extraversion can lead to disobedience or disregard of rules, unless combined with conscientiousness or agreeableness. Openness/intelligence has mixed effects, as it does in other areas. There can of course be combinations. I think I myself have a mixture of extraversion, conscientiousness, agreeableness and openness.

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