Clinical Inertia

Gérard Reach

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A Critique of Medical Reason

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To Isabelle

*First law of motion, or principle of inertia:
Every body persists in its state of being at rest
or of moving uniformly straight forward,
except insofar as it is compelled to
change its state by force impressed.*

Sir Isaac Newton, Mathematical Principles
of Natural Philosophy (1687)

*Insanity: doing the same thing over
and over again
and expecting different results.*

Einstein

Foreword

In this book, and in his other writings on the psychology of the doctor-patient relationship, Dr. Gérard Reach breaks new ground. He does so because he comes to the issues as practicing doctor and as a medical researcher, not as a moral philosopher or cognitive psychologist. He is able, therefore, to identify the questions and problems *that really matter*. I find his bottom-up approach highly attractive. At the same time, Dr. Reach is thoroughly familiar with the relevant philosophical and psychological literature, from the classical writings by Daniel Kahneman, Amos Tversky, George Ainslie and Donald Davidson to the recent work by Roy Baumeister, Walter Mischel, and Pascal Engel.

I shall not attempt to summarize the work, only offer some reflections on it. In doing so, I shall draw not only on the present book, but also on the ideas that Dr. Reach presents in a companion volume, *The Mental Mechanisms of Patient Adherence to Long Term Therapies*. Although his ideas on clinical inertia are briefly presented at the end of the latter book, they are less fully developed than in the present one, which is devoted exclusively to that topic. This book also contains a remarkably sophisticated discussion of evidence-based medicine and its pitfalls.

The basic schema of the analyses in the two books can be presented as follows:

Thus Dr. Reach asks (i) why doctors sometimes do not adhere to the recommendations of medical authorities such as, in France, the Haute Autorité de Santé and, in the United States, the National Guideline Clearinghouse, and (ii) why patients sometimes do not comply with the prescriptions and other recommendations of their doctors. I shall discuss both issues, beginning with the latter.

Nonadherence by Patients

It might seem that nonadherence by patients to a medical or behavioral regime prescribed to them by their doctors can only be characterized as irrational. They *want* to get better; they *know* what to do to get better; and yet they *don't do it*. In some cases, this characterization seems correct. Patients may fail to take their medication because it reminds them of their mortality, just as people sometimes put off writing a will until it's too late because they don't want to entertain the thought of their death. Anyone can forget to take their medication, but sometimes the forgetfulness is *motivated*. They may fail to do their midday injection because they would feel ashamed to do so in front of their peers. People who are told by their doctor to cut down their wine consumption to two glasses a day, may start using larger glasses; if told not to drink before dinner, they may move up their dinner-time.

In other cases, the epithet “irrational” is less obviously appropriate. As Dr. Reach emphasizes, people may stop taking their medication if it has negative secondary effects that appear before the curative effects *and* the patient is myopic, that is, has a high rate of time preference. In itself, the second factor is not necessarily irrational, at least if one adopts, as I do, a purely subjective conception of rationality (Elster 2007, Ch.11.) A myopic person may act *unwisely*, as judged by an external observer, but that is a different matter. If, however, the patient discounts the future *hyperbolically* (Ainslie 1992), he or she may have a firm intention to abide by the regime only to find her preferences reversed when the time for action arrives. Such behavior is indeed irrational. Yet hyperbolic time discounting is not the only, and probably not the most important, source of preference reversal. As Dr. Reach notes, the initial enthusiasm to fight an illness typically wanes with time. As these energetic but short-lived emotions wane, so does treatment adherence. In this case, the irrationality consists in the failure to understand that the emotion is unlikely to last – the “hot-to-cold empathy gap” (Loewenstein 2005).

The last remark suggests the following question: if patients become aware that they have “an adherence problem”, what can they do about it? Let me first use a fanciful example. Dr. Reach refers to the substance Antabus (disulfiram) that some ex-alcoholics take to prevent themselves from backsliding: when taken at the same time as alcohol, it induces vomiting. Suppose now that for a given medication, to be taken once a day, one could invent a substance, to be ingested once a month, so that failure to take the daily medication would induce acute nausea. I assume that this can't be done, but are there any more realistic technologies of self-control available? One possibility would be an automated phone-call, “It is time to take your daily medication”. If the doctor has ordained regular physical exercise, the patient can motivate himself by going to a fitness center where he pays a large down payment that is reimbursed in part after each visit.

In his writings Dr. Reach often discusses the idea of patient autonomy, or (roughly speaking) informed consent, and notes that patients sometimes do not want to exercise their autonomy, preferring to leave the decisions in the hand of the doctor. In a variation on a phrase by T. S. Eliot, one might say that humankind cannot bear very much freedom. Some people, though, are obsessed with their freedom and

autonomy of choice, and hate doing what they are told to do. As Dr. Reach notes, this is the phenomenon of *reactance* that has been observed in many other contexts as well. In his analysis of the psychoanalytic phenomenon of resistance, Lacan (1977, p. 13) refers to “that resistance of *amour-propre*, to use the term in all the depth given to it by La Rochefoucauld, and which is often expresses thus: I can’t bear the thought of being freed by anyone other than myself”.

Let me mention some sources of rational non-compliance. First, there may be *rational distrust* of the doctor – either of the doctor’s *competence* or of his *honesty*. In the case of psychiatric treatment, for instance, the low degree of intersubjective agreement among doctors that belong to different schools of thought would seem to justify skepticism and sometimes nonadherence. Prescription of medication for attention deficit disorder may be an example. In the case of surgeons, their notorious eagerness to operate, sometimes motivated by a financial interest, can justify resistance to their advice. Four years ago, a doctor told me that I needed to have knee surgery immediately, since there was no cartilage left, only “bone on bone”. I discarded the advice, and instead lost weight, resumed biking, and am doing just fine. In such cases, one might want to seek a second opinion – but not tell the second doctor what the first doctor concluded!

The mirror image of rational distrust is that of *irrational trust*. When deciding whether to follow the doctor’s advice, patients may attach unwarranted importance to his or her bedside manners. Psychologists have labeled this phenomenon the *halo effect*, and found it in a number of situations. “If we think a baseball pitcher is handsome and athletic, for example, we are likely to rate him better at throwing the ball, too” (Kahneman 2011, p. 199). Patients, in other words, should learn to *distrust their trust*, just as doctors should learn to distrust their beliefs in their own competence and be willing to admit ignorance (see below).

Second, there may be *excusable ignorance* on the patient’s part. As Dr. Reach mentions, if the doctor fails to educate the patient, he or she may pay excessive attention to the list of scary secondary effects – most of them very rare – that are usually listed on the instruction sheet that comes with the medication. In a very different set of cases, the patient may be exposed to a biased sample. People on dialysis sometimes refuse an offer to get a transplantation because the only transplantees they meet at the dialysis center are those whose grafts failed to take.

Nonadherence by Doctors

Earlier, I mentioned why patient nonadherence could be rational, because of lack of trust in the doctor. The failure of doctors to adhere to recommendations can also be quite rational. In their case, the source of their nonadherence may not be lack of trust, but simply reflect their understanding of the limitations of recommendations generated by evidence-based medicine. As Dr. Reach notes, if the double-blind randomized trials that were the basis for recommending a given medication excluded older patients or patients with multiple pathologies, the doctor may in a given case well be justified in ignoring it. The well-informed doctor might also wonder whether the trial

results might be biased because of nonadherence by subjects who suffered negative secondary effects. Also, nonadherence by the doctor may be rational in the face of the nonadherence on the part of the patients. Thus if a given level of some substance in the blood is not attained, the doctor may seek to improve the adherence of the patient rather than, as recommended by the guidelines, intensify the treatment.

Among the sources of irrational or unjustified nonadherence, Dr. Reach singles out, once again, myopia as a main culprit. In a phrase, *myopia causes inertia*, that is, under-treatment or non-treatment. Before I proceed, I want to mention the possibility of *overtreatment*, not, as in the case of my knee-surgery, because of the pecuniary interest of the doctor, but because of an engrained medical “tendency toward action rather than inaction”. Such an error is more likely to happen with a doctor who is overconfident, whose ego is inflated, but it can also occur *when a physician is desperate and gives in to the urge to ‘do something’*. The error, not infrequently, is sparked by pressure from a patient, and it takes considerable effort for a doctor to resist. ‘Don’t just do something, stand there’, Dr. Linda Lewis, one of my mentors once said when I was unsure of a diagnosis”. (Groopman 2007, p. 169; emphasis added). Even when the recommended procedure is to “wait and see”, the doctor’s *inaction-aversion* might get the better of him (see also Elster 2009).

Although doctors as well as patients are no doubt often subject to myopia, I suspect that in the case of doctors *uncertainty* as well as *blame-avoidance* may be more prominent causes of inertia. Few patients are so knowledgeable that they will blame their doctors for *not* prescribing a novel and recommended medication, but they might blame him if he does prescribe it and it turns out to have undesirable effects. Knowing this, the doctor may well stay with the status quo. From the doctor’s personal point of view, risk-avoidance may not be irrational. If a recommended but risky operation fails and the patient brings suit for medical malpractice, the jury is very likely to be subject to *hindsight bias* and conclude that the doctor should have known that it was *too* risky (Sunstein et al. 2002). Anticipating this outcome, the doctor may decide that in the trade-off between the patient’s expected health and his own expected income, the latter weighs more heavily. One may question the morality of his decision, but rationality and morality do not coincide, any more than do rationality and wisdom.

Let me conclude by citing two irrational sources of nonadherence by doctors to the official recommendations. The first, once again, is reactance. In an article cited by Dr. Reach, Dijkstra et al. (2000) show that “resistance to imposed activities (cookbook medicine)” is an important barrier to the implementation of diabetes guidelines in the Netherlands. The second and probably related source is the doctor’s exaggerated belief in his or her clinical competence. Experts in a number of domains claim that their experience makes them sensitive to tell-tale signs that designers of a controlled study might ignore. Moreover, when different pieces of evidence point in different directions, experts claim to be able to draw on their experience to decide which, in any given case, should be given most weight. However, this favorable self-image, induced by the amour-propre of the doctors, is demonstrably false. Almost without exception, a simple mechanical formula based on a few variables will outperform the diagnoses and prognoses of experts, including doctors (Dawes et al. 1989).

Conclusion

In the present book and in its companion volume, Dr. Reach brings out with unprecedented clarity and synthetic skills the realities of the medical universe. It may not surprise us that patients can be irrational, either when not complying with the doctor's prescriptions or complying when they should have questioned the advice. They are, after all, often in a highly stressful situation where normal critical faculties and decision-making capacity can be suspended. Groping after straws, terminal cancer patients often ignore the evidence-based advice of the oncologist and turn instead to a quack. By contrast, we would expect doctors to be calm, detached, and rational in their role as mediators between the medical authorities and the patients, disregarding recommendations when and only when they have adequate reasons for doing so. Unlike the patient, they have nothing at stake. As Dr. Reach shows, however, this idyllicizing picture is inaccurate. The amour-propre of doctors is at stake, and so is their professional reputation. Also, like the rest of us, doctors are subject to the *horror vacui*: "Many of this world's abuses are engendered – or to put it more rashly, all of this world's abuses are engendered – by our being schooled to be afraid to admit our ignorance and because we are required to accept anything which we cannot refute" (Montaigne 1991, p. 1159).

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Foreword to the French Edition

It is not surprising that an experienced diabetologist, author of a book of reflection on patient adherence, turns to a hypertension specialist to draft an introduction on what is clinical inertia.

Being at the same time diseases and cardiovascular risk factors, hypertension and type 2 diabetes live together since 1970. At that time, indeed, the performance of a randomized clinical trial concluded that there are cardiovascular benefits to the treatment of hypertension [1], whereas the same technique applied to diabetes care instead drew attention to the risks derived from certain treatments [2]. From 1970 to 1990, the discovery of new anti-hypertensive therapeutic classes multiplied. This led each time to new clinical trials, whose meta-analysis establishes, without ambiguity, that independently of the class of medication used, a pharmacological reduction in blood pressure reproduces the benefits expected from observational studies on cardiovascular and renal mortality in its various components, and even on total mortality. Though the path was the same regarding the prevention of diabetic micro-angiopathy, the prevention of coronary events and strokes by the pharmacological reduction in blood glucose, and in its integrator HbA_{1c}, proved disappointing, glitazones included. Diabetes care, awaiting proof, benefits from new therapeutic classes which provide hope, beyond metformin and sulfonylureas [3, 4].

For both diseases, or risk factors, the multiplicity of results and the exponential growth of knowledge led the medical world to organize itself in groups of experts who regularly produce recommendations. The solemnity of this term is appreciated more by the administrators of the health care system than its relativity is perceived by those to whom they address. And the health care world wonders: why is it that what is demonstrated does not find itself entirely in care practices? Why aren't the results demonstrated by randomized clinical trials confirmed a hundred percent in populations? Is it a social phenomenon, linked to disparities of all kinds and all places, which makes it impossible, in the medical domain as in others, to establish an ideal world? Or should one look at the personal responsibility of those for whom the recommendations should provide, if they are patients, a brighter future, and if they are health care providers, a practice without reproach?

The second explanation seems more encouraging, and those who want to make the quality of long-term care progress concentrate their attention here. The discord between theoretically possible and desirable results and those obtained in current

practice implies numerous responsibilities. They fall roughly into three areas. (1) The health care system in general, its imperfect organization, its limited accessibility. (2) The people with a disease and their lack of adherence. (3) The health care providers and their inertia. The term is new, dating a little more than ten years, and translates a lack of reactivity of medical decisions faced with a diagnostic or care situation which is nevertheless well codified [5]. The doctor sees the imperfection of results without reacting. The French term of “observance” is over forty years old, when the inappropriate English word of “compliance” was replaced by the appropriate name of “observance”. Though necessary, the word compliance, useful in hemodynamics, has still unfortunately not been completely left behind, and the word still sometimes reappears. Those who worked on chronic inflammatory rheumatism and hypertension had chosen the word of observance to express the concordance between patient behavior and doctor prescriptions, with a touch of religious rule which translated the physician-patient relationship such as it was conceived and wished at the beginning of the 1970s.

Therefore it is logical that a hypertension specialist can be invited to introduce a diabetologist’s book, and there is a logic of thought that this diabetologist extended his initial reflection on patients’ adherence by an analysis of doctors’ inertia.

In a first analysis, the lack of adherence can be felt as disobedience by patients, and the inertia of doctors as lack of conscientiousness and a superficiality of their practices. I’m doing what you prescribed, says the patient, without following the entire diet and without always taking all medications. I’m doing enough for you, says the doctor to her patient, without modifying a treatment which is working poorly, or even not at all. According to this mode of reasoning, it is necessary to obtain a “confession” of her nonadherence from the patient, to make her correct it (no, doctor, I did not take your ..., it gives me a stomach ache. Impossible, take it or I cannot make you better...) In the same way, one must just as rationally denounce inertia (it’s not perfect, but it’s better than nothing, says the doctor, and the common sense of both partners makes them prefer the probability of not having the disease which one wants to prevent over the complexity of the prescription and the risk of the treatment ...)

Officially, awareness of patient nonadherence and its multiple components – a first book – and awareness of medical inertia and its mechanisms beyond those of simple ignorance – another book – lead Dr. Reach to confide us his secret thoughts. Can one resist? Can nonadherence be considered as the normality of a person whom the medical intrusion disturbs, and who has the right to flee, even if, in addition to lack of respect for the doctor one should consider the cost to the health care system? Morality, or immorality? [6].

Likewise, can medical inertia translate a distrust of the “rule of the hour”, and the norm? In a medicine defined by norms, is the justification of these norms sufficient to transform them into a quality requirement? In reality, the norm arises from clinical trials performed on volunteer people by volunteer health care providers, and their external validity is unreliable because 90 % of the people on whom the treatments are applied are not included in the scientific studies, generally due to a social, psychological or medical complexity. The lower the better, it is said, for blood

pressure, glycated hemoglobin, or cholesterol levels, generally based on observational studies associated with randomized clinical trials [4, 7, 8]. But in daily life, age is associated with multiple pathologies, prescriptions become longer, psychology includes distrust and doubt [9].

Professor Reach's book will illuminate the complexity of human behavior. It will decrease nonadherence, it will fight inertia. The part which persists will be reduced so that rules are better applied, but between rules and medical error, will persist a grey area, shrunk little by little, a bit less dark, but the trace of an apparent common sense which one must know to distrust and of a part of humanism which one must cultivate ...[10].

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