

Chapter 1

Introduction: The Doctor, Her Patient, and Their Reasons

Abstract Patient nonadherence refers to a lack of coincidence between the patient's behavior and clinical prescriptions. At each step in the doctor-patient encounter—from making a first appointment, to undergoing screening tests, to taking medications and accepting changes in lifestyle, adherence is an issue: For instance, roughly half of the medication prescriptions are not filled. Nonadherence has been demonstrated repeatedly to erode the effectiveness of medical care and is linked with an increased rate in mortality. It has a major impact on health expenditures. A WHO report concluded that “increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatment.” In this book, I shall try to understand in general the phenomenon of nonadherence. To achieve this goal, I will attempt to describe what our patients are doing when they are adherent, for example, when they come to an office visit, take a tablet, stay on a diet or refuse a cigarette. These various manifestations of adherence must have something in common, i.e. their homology: My goal is precisely to discover what makes these phenomena homologous, without losing sight of differences. This will lead me to suggest that in each one of these cases we are dealing with not just a behavior, but an action. Thus I shall propose an interpretation of the mental mechanisms of adherence to long-term therapies based on the philosophy of human agency: Mind and Care.

A patient visits her doctor; the doctor makes a diagnosis, prescribes a medication, and the patient takes the medication as prescribed.

Experience shows that this is not always the case, by any means: A number of patients will never complete treatment for an acute illness, and the rate is even higher in chronic diseases. Our patient might not fill the prescription at the pharmacy, or stop the treatment prematurely, or follow only a portion of the doctor's recommendations. And when doctors themselves are patients, their compliance with prescribed treatment is no better, notwithstanding the fact that doctors are even less likely to have their own regular primary care physician and more likely to self-prescribe. The existence of physicians who are overweight, smoke cigarettes, do not exercise, or who abuse alcohol or drugs attests to the fact that sticking with treatment is not a problem limited to patients.

1.1 Adherence and Nonadherence to Therapies: A Definition

“Patient non-compliance” refers to a lack of “coincidence between the patient’s behavior, in terms of taking medications, following diets, or executing lifestyle changes, and clinical prescriptions” (Haynes et al. 1979, 1–15). Aristotle understood this problem, as the epigraph of this book shows; it was not until the 1970s, however, that the term “compliance” became commonplace in medical parlance. This is perhaps partly in response to popular recognition of patient rights and growing awareness that medical science too is fallible. The diffusion of medical knowledge through the Internet has likely amplified this critical outlook. Today, the term “adherence” is preferred, as it suggests more active collaboration between physician and patient (Lutfey and Wishner 1999).

As this book will argue, adherence is not an all-or-none phenomenon, and varies not only between people, but also may vary in a given patient over the course of therapy. However, it is a general problem. At each step in the doctor-patient encounter—from making a first appointment, to undergoing screening tests, to taking medications, or any of the myriad other activities of modern healthcare, adherence is an issue.

1.2 Nonadherence: How Common Is It?

Bearing in mind the difficulty of knowing exactly which actions (or non-actions) are instances of nonadherence (for example, is not contacting your physician at the onset of an illness nonadherence?) rates of nonadherence are typically high. Roughly half of the medication prescriptions written in the United States are not filled: A study of 100,000 women taking an osteoporosis medication found that after 2 years, only 60 % of the total medication prescribed was actually taken (Curtis et al. 2009). Another review found that anywhere from 16 to 80 % of persons with diabetes do not stick with treatment over the long run (Cramer 2004). Yet another diabetes study found that two-thirds of patients followed dietary recommendations, but only one quarter adhered to advice on physical exercise. Only 7 % of the patients were adherent to all the treatment recommendations (McNabb 1997). Finally, when patients call the office to make their own appointments, 75 % will actually show up; but when the appointment is made on the patient’s behalf (by a spouse, for example), the show-up rate drops to around 50 % (Meichenbaum and Turk 1987, 22).

Though these studies produced straightforward results, one should not get the impression that evaluating patient adherence is easy. It often depends on physicians’ assessments, patients’ self-observation, pill counts of untaken medication and, more recently, electronic surveillance systems that involve the placement of electronic circuits in the pill bottles registering each use (Blackwell 1997, 6).

Researching treatment adherence is complicated by the fact that it varies so widely: From the trivial (not taking a pill at the exact hour prescribed), to the catastrophic (going into a diabetic coma), to the “maybe serious, maybe not” (taking three of the four medications prescribed). Nonadherence can engulf the entire treatment, or be limited to one of its aspects. Moreover, adherence might vary over a period of time. A patient may be impressively adherent in the beginning of her treatment, but she may then suddenly become nonadherent; and later, just as suddenly, she may return to adherent behaviors. One would guess that this is a result of some events in her life—pregnancy is renowned for spurring a woman into adherence—but this isn’t always the case. Often the reasons for patient behavior remain unavailable to the researcher, the treating physician, and even the patient herself.

It is unrealistic—and perhaps uncalled for—to expect perfect adherence. If a patient takes at least 80 % of a prescribed medication, for example, most practically-minded physicians would regard this as sufficient adherence. In this way, accommodation is made for patient forgetfulness, lapses in refilling a prescription at the pharmacy, and so forth. This forgiving approach also respects the fact that no system of safeguards can, in normal outpatient care, guarantee that the theoretical limit of adherence is met. However, with a disease like AIDS, it is very important that patients are 95 %-adherent: A lower rate runs the risk of inducing viral resistance.

However, a number of patients take fewer than 80 % of the prescribed pills: A study evaluated nonadherence in seven chronic diseases: Hypertension, hypothyroidism, type 2 diabetes, epilepsy, hypercholesterolemia, osteoporosis and gout. Sample sizes ranged from 4,984 patients for epilepsy to 457,395 for hypertension. Taking more than 80 % during the first year of therapy (good adherence) was observed in 72.3, 68.4, 65.4, 60.8, 54.6, 51.2 and 36.8 % of patients, respectively, for the seven disorders. Unexpectedly, the lowest adherence was observed in patients with gout, a disease in which flare-ups are renowned for their exquisite pain (Briesacher et al. 2008).

1.3 The Consequences of Nonadherence

Given this acknowledgement that routine medical care is able to tolerate some “slop”, is it possible that nonadherence is not such a big deal after all? Perhaps—if patients took 80 % of their medication. But as we saw, the percentage is frequently much lower. Thus, unfortunately, nonadherence has been demonstrated repeatedly to erode the effectiveness of medical care. For example, in a study of antidiabetic medication use, researchers found that as adherence rates dropped, dangerously high blood sugars became more common (as measured by the percentage of glycated hemoglobin, or HbA1c) (Lawrence et al. 2006).

Nonadherence may have a direct impact on mortality. A study in the diabetes field showed that nonadherence is significantly associated with increased risks for

all-cause mortality (Ho et al. 2006). The impact of nonadherence on mortality is quite strange, as shown by the following puzzling observation. In the Beta-Blocker Heart Attack Trial, the mortality at 1 year after a first myocardial infarction was higher in patients in the placebo group (3 %) than in the beta-blocker group (1.4 %). However, these rates were seen only among patients taking at least 75 % of the tablets (either the beta-blocker or the placebo). In nonadherent patients, the mortality rate in the beta-blocker group was 4.2 %—in other words, taking less than 75 % of the medication was worse than taking correctly the placebo! And even more intriguingly, among patients who were non-compliant with the placebo, the mortality rate was 7 % (Horwitz et al. 1990). This remarkable study demonstrates that adherence (whether to drug or placebo) is a substantial factor determining mortality. These curious findings have been replicated in a number of studies (Simpson et al. 2006).

Why should nonadherence to a placebo lead to the highest mortality rate? One explanation is that it is a reflection of a more general nonadherence to healthy behaviors. Nonadherers perhaps are less likely to follow a healthy lifestyle, with nonadherence to the medication (beta-blocker or placebo) being just one example. In support of this interpretation is a 2009 study which found that patients who were adherent with one medication (a cholesterol-lowering drug) were more likely to be adherent to a second medication (for osteoporosis) as well. In addition, the adherent patients were also more likely to follow through with screening tests such as mammograms and colonoscopies (Curtis et al. 2009). Recently, we observed that declaring that one does not fasten seatbelt when seated in the rear of a car is an independent determinant of nonadherence to medication in a validated questionnaire (Reach 2011).

Nonadherence can be financially costly as well, mostly through an increase in hospitalization (Lee et al. 2006; Sokol et al. 2005). For instance, in one reported case, a patient who skipped several doses of a diuretic medication (15 cents worth) was hospitalized for treatment of fluid overload. The six day hospital stay cost was \$10,000 (Urquhart 1999, 119–145). In the United States, the economic cost of treatment nonadherence is estimated at \$100 billion annually (Vermeire et al. 2005). There may be a vicious circle between nonadherence and associate health care costs (Iuga and McGuire 2014): Medication nonadherence leads to poor outcomes, which then increases health care service utilization and overall health care costs. The financial pressure is passed to patients by payers through higher copayments. Increased patient cost sharing beyond a threshold negatively impacts the level of medication adherence. An analysis of literature showed that patient cost sharing is associated with nonadherence (Eaddy et al. 2012).

A wide range of medical and public health areas are concerned with understanding and mitigating the effects of nonadherence: Management of AIDS, asthma, diabetes, hypertension, organ transplantation; schizophrenia and other serious mental illnesses; obesity and smoking; and even non-medical concerns, such as seatbelt use. Indeed, the effects of nonadherence are so pervasive that the World Health Organization noted in 2003 that “increasing the effectiveness of adherence interventions may have a far greater impact on the health of the

population than any improvement in specific medical treatment (Sabaté, WHO report 2003).” What this means is that getting patients to adhere to existing treatments may be more important than discovering new treatments. New treatments avail us nothing if we don’t actually use them.

Imagine a disease which causes 100,000 deaths per year, with a medication A that saves 20 % of patients, therefore 20,000 people. But if medication A is prescribed to only 80 % of patients which could benefit from it, it will save only 16,000 people. One would need a medication B saving 25 % of lives to have the same effect (to save 20,000 people) when it is given to 80 % of patients, as medication A if it were prescribed to everyone. Now, if medication A is prescribed to only 60 % of patients, medication B should save 33.3 % of patients: The greater the gap of lack of prescription, the more the increase in the effectiveness of medications to compensate for it becomes important, at a level which may be unrealistic. It should thus be more profitable to tackle the problem of access to care than to develop new medications (Woolf and Johnson 2005). The access to care includes patients’ adherence to medication.

To date, efforts to improve treatment adherence have met with scant success: In a review of 83 adherence interventions reported in 70 randomized, controlled clinical trials, only 36 were associated with improvements in adherence and only 25 interventions led to improvement in treatment outcome (Haynes et al. 2008). This relative failure suggests that the medical and public health professions—and perhaps our society more generally—are missing something. The apparent inability to solve what seems to be a well identified problem is the motivation of this book.

1.4 Scope of the Book

In taking a step back to see the problem of nonadherence anew, we consider this question: How well do we understand adherence itself? Perhaps we fail to understand nonadherence *because we don’t really understand adherence*. Why, after all, do some people take care of themselves in the first place?

This book investigates not only the how of adherence, but the why. Why, for example, does a patient take a blood pressure medication which has no discernible benefit and may have bothersome side effects? Why would the reformed smoker refuse a single cigarette, even though it will have no deleterious effect and will definitely provide pleasure? Why does a person take all of an antibiotic prescription when taking all but the last dose would be just as effective?

How indeed then does a person choose adherence (or nonadherence)? Certainly, we understand why the doctor makes his recommendations—that is, we know why the doctor wants the patient to be adherent—but why does the patient choose to follow (or not) those recommendations?

We may ask a more basic question: Is it *a choice*?

For example, how can we understand the curious behavior of the 20 % of transplant recipients who do not take their anti-rejection medication? (Rovelli et al.

1989) Can we decide between the physician's reasons and her patient's? And how is it possible that some people engage in such behaviors, where nonadherence seems to contravene one's own health interests?

In order to make headway on these questions, we must undertake a more global, perspective, and this perspective will necessarily be *philosophical*.

As a starting point, let us assume that people—doctors and patients—have their reasons for what they do. Let us set aside dismissive explanations such as “the patient is being irrational”, or the even more unhelpful “she's being emotional”. This starting assumption does not mean that every reason is clear, conscious, sensible, or consistent over time; we shall see that many reasons are opaque, transient, or unconscious, yet every bit as significant when it comes to understanding why people do what they do.

1.5 Some Simple Explanations for Nonadherence

Ignorance: If a patient does not understand what she needs to do, she cannot follow her doctor's recommendations. For example, some patients do not know how to use asthma inhalers unless instructed, and may administer the medication improperly. Some people believe that a seatbelt is not necessary when sitting in the back seat.

Forgetfulness: Patients forget to take medications, forget a doctor's appointment, forget to fast before blood drawing for cholesterol levels, and so forth.

Ignorance and forgetfulness, though pervasive, are usually easier to ameliorate: The use of educational brochures, teaching by specialized nurses (as in diabetes care, breastfeeding instruction, etc.), medication timers, and automated telephone appointment reminders are all innovations which have reduced ignorance and forgetfulness. But it is clear that nonadherence can also be intentional: Some patients very frankly say that they don't want to follow the advice they are given. After all, what would one say today of a patient who refused a bloodletting at the time of Molière?

On the other hand, some patients may believe that their doctor won't prescribe an antibiotic because the insurance company doesn't want him to; or that the doctor is ordering a test for defensive/legal reasons—or that the doctor is more worried than the patient, etc. In short, patients may think that doctors are also not fully autonomous, and react accordingly.¹

Thus we may suppose from the start that two factors are at work. First, there is the patient's understanding of the prescription. The explanation of the prescription may have been insufficient, or the treatment may be so complex as to be virtually incomprehensible. *Health literacy* is defined as “the degree to which individuals have the capacity to obtain, process and understand basic health information and

¹ I am grateful to John Meyers for this remark.

services needed to make appropriate health decisions”. Diabetic patients classified as having a low health literacy less frequently have a basic knowledge of diabetes care and more frequently have a high HbA1c level and retinopathy. *Health numeracy* refers to “the degree to which individuals have the capacity to access, process, interpret, communicate, and act on numerical, quantitative, graphical, biostatistical, and probabilistic health information needed to make effective health decisions”. Patients with a low level of numeracy have a lower ability to perform a number of tasks required for their treatment, such as carbohydrate counting, identification of self-monitored blood glucose values within the target range and adjustment of insulin doses (Cavanaugh et al. 2008; Reach 2009). Or the patient might not grasp the importance of the advice. For example, consider packs of cigarettes bearing the warning “smoking can cause cardio-vascular disease”. It is not certain that everyone understands what that means, and the warning “smoking can cause serious health problems” may mean very little to someone who has never been sick. In this case, we are not truly dealing with nonadherence, but with a failure of communication, a failure that a new medical field, patient education, is now trying to correct.

But as gratifying as it is to address fixable problems, the fact remains that nonadherence cannot be due to cognitive problems alone: The case of the overweight physician who smokes is proof enough that countless years of education and well-honed rationality are no match against the appetite for food and nicotine.

One might object—smoking is an *addiction*, and the smoker cannot stop smoking because of the symptoms of withdrawal, which appear as soon as she quits. And while this is an important factor in explaining the perpetuation of the habit, it does not explain why some smokers resume after months or years of abstinence. And what about other manifestations of nonadherence, in which one ignores medical prescriptions or advice concerning diet or physical exercise? Obviously, addiction is not a sufficient reason.

Clearly this first, simplistic explanation does not adequately explain patient nonadherence.

1.6 A Typology of Adherence? Analogous or Homologous Phenomena

Are some people more adherent, in general, than others? Is there some commonality shared by the endless variety of adherence behaviors, a quality which is stable and perhaps even measurable? The intuition is that a common denominator will help us understanding the phenomenon and will have heuristic value.

One starting point for delving into adherence phenomena more deeply is therefore an analysis of *analogy* and *homology*, like Roy Wise and Michael Bozarth did when they tried to set up a general theory of addiction (Wise and Bozarth 1987). They noted that “in biology, there are examples of superficially similar behaviors or organs that have evolved independently”: For these “analogous” behaviors or

organs look similar, but one cannot draw further conclusion from their similarity. They gave as examples the eye of the octopus and the eye of the vertebrate, the jealousy of the goose and the jealousy of the human: “In each case, the analogous details are striking, but there is no commonality of origin, and thus no *necessary* commonality of mechanism.” By contrast, “homologous” organs or behaviors derive from common ancestral origin and, in biology, from common embryonic tissue, whereas analogies do not. Here “knowledge of one of a set of homologous organs or behaviors almost necessarily has some degree of heuristic value for the study of the others, even if the organs or behaviors are superficially dissimilar” and they gave as examples the wings of bats and birds, the fins of dolphins and whales, and the limbs of dogs and humans.

Human behaviors can be profitably organized along these lines: Elster, in his far-reaching work on social behavior, calls two behaviors homologous if they accomplish the same end; behaviors which involve the same physical actions but which have different intended outcomes are analogous (Elster and Skog 1999). For example² consider these behaviors:

1. Yelling “stop!” at a child running into the street.
2. Yelling “stop!” while playing a game with a child.
3. Grabbing a child’s arm as he runs to the street

The first two behaviors, nearly identical in their outward features, are analogous behaviors in that they have the same external features. However, if we ask which behaviors are most similar in terms of their intention and underlying meaning, (1) and (3) are: Both are actions intended to keep a child from running into the roadway and getting hurt. These two behaviors have a homologous relationship.

Homology refers to functional similarity; analogy refers to structural similarity. Analogy helps us understand *how* something works; homology helps us understand *why*. Searching for homologies among diverse phenomena is a first step towards explaining those phenomena. For example, knowledge of the reproduction or the metabolism of whales can help us form hypotheses about bats, and vice versa. This is why, as pointed out by Wise and Bozarth, discovering a homology has a heuristic value: In the case of homologous phenomena, their definition becomes *ipso facto* inseparable from their explanation.

This will be precisely the method used in this book: I will try to *explain* the phenomenon of nonadherence which, *by definition*, is opposed to the effective completion of a medical treatment and can manifest itself in any stage of the treatment. As we have seen, it is clearly not the same thing to smoke or to omit taking one’s pills, and these two behaviors cannot be treated (in the medical sense of the word) in the same way; and yet, they must have something in common. My goal is precisely to discover what makes these phenomena homologous and not simply analogous, without losing sight of differences. I believe that it is only by

² An illustration given by John Meyers.

following these steps that we may hope to explain nonadherence, *to understand it in general*. And understanding it in general is the object of this book.

1.7 The Real Question

Nonadherence seems irrational, it makes no sense. Why would someone not take a prescribed medication after going to the trouble of visiting the doctor in the first place? To keep one's health, to avoid putting one's life at risk, aren't these the goals of the reasonable person? Shouldn't we then conclude that those who do not are irrational?

The doctor who has to deal with a nonadherent patient is often amazed and even exasperated. But, as we have said, the patient who doesn't take her pills must surely have a reason—when can we really say that those reasons aren't good enough? Who is to decide between the doctor's reasons and the patient's reasons if they should differ? The medical profession has a great deal to say about *how* one might take care of a medical problem. The problem of nonadherence forces us to address *why* one might take care of a medical problem: *Why do we take care of ourselves at all?*

Nonadherence perplexes the physician because it involves two paradoxes: First, it is both rational and irrational. Its rational to not take a medication which has no near-term benefit, yet its irrational to miss the long-term benefits. Likely, its irrational to drive rather than fly (as many did after the 9/11 terrorist attack), yet its rational to choose a mode of travel which allows for more control if problems start to arise (as being the driver of a car does, but not being a passenger on an airplane).

There is another paradox, maybe more subtle: Nonadherence is both *natural* and irrational. As we shall see, our reasons for doing something depend critically on how we see our future, and how far into that future we look. We will see that some of us are unable to look far into the future, making it natural (and therefore rational!) to be nonadherent. Yet sometimes we also feel that such a behavior is irrational, since we *know* that we are acting against our own interest.

1.8 From Behavior to Action

Patient adherence and nonadherence are behaviors, and, as such, are the proper study of psychology. There is a wealth of literature in this discipline concerning the matter of adherence to therapies. Psychological methodology is varied, but its essence consists of: (1) observing human behavior, (2) modeling it, and (3) testing the models. One such model developed by psychologists is the *Health Belief Model*, which will be described in more detail shortly.

But it is also possible to view the problem from a different angle, and it is this angle that we shall focus on. Adherence and nonadherence are two sides of a coin which embody a deep paradox in human nature. Beyond the phenomena themselves, beyond traditional psychological explanations of causation, lies a *philosophical* question which holds the key to this vexing clinical problem.

The philosopher of mind Pascal Engel, commenting on a Somerset Maugham novel—in which an overweight woman goes on a diet but then stuffs herself more than ever—points out the direction our inquiry will take:

The writer is interested in [nonadherent persons] because she wants to show a particular trait of human nature, the psychologist because she wants to know how these things happen. The philosopher wonders how these things are *possible* (Engel 1991).

David Pears similarly describes the difference between psychology and philosophy: Philosophers are interested in the conceptual line that separates the possible from the impossible. The psychologists want to see how certain phenomena exist: Their question is not: ‘how can these things happen’, but rather ‘how do these things happen’ (Pears 1998, 1).

In this book, I will attempt to describe what our patients *are doing* when, for example, they come to an office visit, take a tablet, stay on a diet or refuse a cigarette. This will lead me to suggest that in each one of these cases we are dealing with not just a behavior, but *an action*: Actions encompass behaviors and all their associated underpinnings (meaning, intention, etc.). In moving from the study of behavior to the study of action, we necessarily move beyond the traditional bounds of psychology into the realm of philosophy.

Patient nonadherence, as will be shown, may be far better understood from this *action* perspective: It is an instance of *incontinent* action. We perform an incontinent action when we do something even though we know that, all things considered, we shouldn’t be doing it. The concept of incontinence has been used by philosophers since at least the time of Aristotle, and modern philosophers have drawn many illuminating insights from this puzzling phenomenon.

We will see that by applying some of these insights we will come to better understand patient nonadherence. One central idea is the *principle of foresight*, which will be defined and elaborated in this book. We will find that patient adherence and nonadherence are outward expressions of the presence or absence of a deeper faculty, that of foresight.

Deep down, the problem is to understand how we choose between options which often differ in their temporal aspect: Nonadherence is usually satisfying in the concrete, here-and-now, while adherence aims at a necessarily more distant and abstract reward, such as lengthening one’s life or reducing the chances of developing emphysema. The study investigating adherence in seven chronic diseases, quoted above, found that young age was a strong predictor of nonadherence in six of them (Briesacher et al. 2008). It is tempting to explain this finding by hypothesizing that in chronic diseases, the choice between a smaller-sooner, and a larger-later, reward will have to be made day after day on a longer term basis in

younger patients, increasing the risk of non persistence to therapy. This problem of “intertemporal choice” is currently the object of numerous studies and it will be at the heart of our investigation.

1.9 A Philosophical Understanding of Adherence to Long-Term Therapies

So far, we have been using terms such as “belief”, “intention”, “desire”, and “choice” in an open-handed and naïve way. But as we search for less casual, more precise definitions of these everyday ideas to better understand what role they play in generating our actions, philosophy of mind again comes to our aid. Frank Ramsey, the British mathematician and philosopher, noted in his essay entitled *Philosophy* (1929) that

In philosophy we take the propositions we make in science and everyday life, and try to exhibit them in a logical system with primitive terms and definitions, etc (Ramsey 1990).

Similarly, we shall try to craft a logical framework of simpler concepts to help us understand the how and why of human action, and therefore of adherence to medical treatment.

Analytic philosophy, or more generally, *philosophy of mind*, attempts to describe the mechanisms which connect ‘mental states’, such as knowledge, skills, beliefs, emotions, desires, and even visceral perceptions (for instance, hunger), using logically primitive terms and concepts. Our goal is to understand what we mean when we talk about the ‘reason’ for a behavior (for example, why I do or don’t take my medication), by asking the question: In general, *why do I do this?*

This book proposes a philosophical interpretation of the problem of adherence to long-term therapies. Our interpretation leads to a theoretical model in which mental states interact in a hierarchical manner, and in which emotions and desires, rather than beliefs, have priority—in contrast to the cognitive emphasis in classic psychological models. Thus one of the ambitions of this work is to show how the application of philosophical concepts sheds new light on issues in medical anthropology (non adherence, disease denial, the doctor-patient relationship); and how in turn it may enrich philosophical concepts with empirical medical research.

In the beginning of this introduction, we saw that when the doctor writes a prescription and when the patient follows or doesn’t follow the medical advice, both have *their reasons* for doing so. Applying concepts from philosophy of mind to the domain of medical anthropology, we will find a new theoretical basis for the relationship between doctor and patient. We may describe it as a relationship between their reasons. The reasons of care: *Mind and Care*.

Following this first introductory chapter, Chap. 2 is an overview of classical psychological models of nonadherence. Chapter 3 introduces basic philosophical concepts, and presents a short account of the concept of “Intentionality”. Chapter 4 provides an “intentionalist” model of adherence. Chapter 5 presents a dynamic

view of intentionality, by integrating in this model the concepts of motivational force, self-control, habit and resolution. Chapter 6 describes patient nonadherence as a case of weakness of will, or *akrasia*. Chapter 7 considers more specifically the temporal dimension of adherence and nonadherence in chronic diseases, focusing on the description of a principle of foresight, a concept introduced in this book: Nonadherence may be understood as a failure to give priority to the future. Chapter 8 outlines the consequences of this insight on the therapeutic alliance between doctor and patient and addresses ethical issues. Chapter 9 shows that doctors too may fail to consider the future interests of the patient: Thus, like patients' nonadherence to medical recommendations, doctors' *clinical inertia* could represent a case of *clinical myopia*. Chapter 10 generalizes the problem of adherence and proposes a relationship between the fact of taking care of oneself and self-love.

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