Useful Lies: The Twisted Rationality of Denial

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Abstract

Denial, or the habit of treating a real problem as if it were a nonissue, has both rational and irrational features. The interplay between these is best captured by a utilitarian-rationalist framework stretched to its limits. When in denial, people follow what they feel to be in their best interest by minimizing the psychosocial cost of acknowledging their problems. At its core, denial is thus based on a self-interested rationale of pain avoidance and harm minimization. Depending on the characteristics of the issue at hand, some of the effects are deeply ironic. I demonstrate this by starting from the simplest and most beneficial form of denial, before moving on to cases that are more complex and harmful. I also show how people can be liberated from denial when the practice has become counterproductive. Most of the mystery surrounding denial disappears when we accept that it is premised on a twisted kind of rationality.

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He who increases knowledge increases sorrow.

Ecclesiastes 1:18

The truth will set you free.

John 8:32

Denial is a ubiquitous social and psychological phenomenon (Goleman, 1985; Cohen, 2001; Zerubavel, 2006).[1] Any kind of problem, from personal trauma to planetary challenges such as climate change, can be obfuscated by denial. Denial can be seen at the individual level, for example when a cancer patient disavows his or her terminal illness (Weisman, 1972). It can also be studied in social constellations, from the denial of marital infidelity to the denial of race discrimination. Some cases are deeply political, for example when a nation state such as Turkey denies genocide (Alayarian, 2008). A particularly worrisome manifestation is found at the global level, where most of humankind is in denial of the fact that infinite growth on a finite planet is impossible (Meadows, Randers, & Meadows, 2004).

There are good reasons to see denial in a negative light. Disavowing one's problems is both cowardly and dishonest, and it often gets in the way of finding and adopting effective solutions. The consequences can be disastrous. As one author notes:

"Denialism has already killed. AIDS denial has killed an estimated 330,000 South Africans. Tobacco denial delayed action to prevent smoking-related deaths. Vaccine denial has given a new lease of life to killer diseases like measles and polio. Meanwhile, climate change denial delays action to prevent warming" (MacKenzie, 2010, p. 41).

For the purposes of the present article, denial is defined as the habit of treating a real problem as if it were a nonissue. A real problem is one that makes us suffer regardless of whether or not we acknowledge it. Such a problem can be real in a naturalist sense, for example the fact that as humans we are bound to die. However, it can just as well be the result of social construction, for example negative discrimination. Therefore, the term "real" in the above definition should not be misconstrued in a purely naturalist sense.[2]

Denial is best understood as a specific form within a conceptual taxonomy of motivated reasoning.[3] While each of the following four different forms of motivated reasoning constitutes an interesting objects of research, my focus is only on the third, namely denial.

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[2] It is perhaps worth adding the following proviso: denial presupposes that in principle there is or would be a choice between knowing and not knowing. For example: smokers in the 1930s did not have access to medical information about the harm inflicted by smoking, so did not have a choice between knowing and not knowing, and therefore were not in denial.

[3] On motivated reasoning, see Kunda (1990).

1. Self-deception is a *simulative* form of motivated reasoning to *enhance* wellbeing. Self-deceivers adopt desirable views even when they are inaccurate.

2. Less typically, *simulative* motivated reasoning can also *reduce* wellbeing. People sometimes (foolishly) adopt undesirable views even when they are inaccurate.[4]

3. Denial is a *dissimulative* form of motivated reasoning to *enhance* wellbeing. Deniers fail to adopt undesirable views even when they are accurate.

4. Less typically, *dissimulative* motivated reasoning can also *reduce* wellbeing. People sometimes (foolishly) fail to adopt desirable views even when they are accurate.[5]

Denial can be half-conscious or unconscious.[6] Either way, the denier suppresses or represses a problem that is real because it is bound to make him suffer. When the denier is entirely successful in doing so, denial is buried at the level of unconsciousness. When the practice of denial is challenged, either by circumstances or by other people, it is raised to the level of half-consciousness. Only when denial is bluntly disrupted does it resurface to the conscious level. If the problem is then acknowledged rather than pushed back, denial ends.

To stabilize their dissimulative practice, deniers often also engage in simulative forms of motivated reasoning (Kunda, 1990; see also Mele, 1998; Scott-Kakures, 2000). As a conse-

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[4] An example is hypochondria. See also Mele (1999) on "twisted self-deception"; but note that Mele uses the term "twisted" differently from this article.

[5] For example, some people don't believe others like them when they actually do.

[6] Conscious denial, i.e. the dissimulation of a problem before others but not oneself, equals deliberate deception and does not fall under the conceptual umbrella of motivated reasoning.

quence, denial often entails an element of self-deception as defined above.[7] In fact, it can be very difficult to be in denial of one thing without deceiving oneself about some other thing. Despite this overlap, the two phenomena should be kept analytically separate. Their separation can also be justified by empirical considerations. Thus, it is easily conceivable that somebody suppresses an undesirable thought, for example that he has the duty to reciprocate a certain favour, without thereby engaging in any kind of simulative motivated reasoning.

At least in principle, denial is not irrational. When in denial, people follow what they feel to be in their best interest by minimizing real or perceived harm, thereby maximizing subjective and/or intersubjective wellbeing.[8] Acknowledging a problem may lead to negative psychic and social effects such as fear, shame, and embarrassment. Many people have a predisposition to minimize such psychosocial cost by establishing regimes of denial, rather than seeking long-term solutions while relentlessly facing up to their problems. Such behaviour may be short-sighted and morally dubious, but it is by no means irrational.

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[7] As a resource on self-deception, the theological treatise by Dyke (1614) remains unsurpassed. More recently, there has been an ample philosophical and psychological literature on self-deception (see e.g. Sartre, 1957 [1943]; Fingarette, 1969; Rorty, 1972, 1994; Champlin, 1977; Haight, 1980; Bach, 1981; Elster, 1984, pp. 172-179; 1985; Goleman, 1985; Taylor & Brown, 1988; McLoughlin & Rorty, 1988; Jopling, 1996; Barnes, 1997; Dupuy, 1998; Mele, 1999; Patten, 2003; C. Martin, 2009; Ito, Pynadath, & Marsella, 2010; Trivers, 2011).

[8] Insofar as their aim is to enhance well-being, denial and self-deception have a utilitarian-rational core, unlike the other two forms of motivated reasoning listed in my conceptual taxonomy. In fact, dissimulative and simulative motivated reasoning aim to *reduce* well-being.

Still, the rationality of denial is seriously tainted. Denial often has the effect of defeating rational projects that people might otherwise pursue, and it is also highly dubious on moral and ethical grounds. This is similar to what happens in self-deception. When people deceive themselves, they follow what they feel to be in their best interest by maximizing subjective and/or intersubjective wellbeing. And yet, self-deception can be self-defeating (Elster, 1985), and it is morally dubious (Rorty, 1994). Thus, as in the case of self-deception, the study of denial pushes us to the limits of rational analysis. The challenge, then, is to try to understand precisely when and how denial is rational, and when and how it is irrational. My most fundamental claim is that denial is based on a twisted kind of rationality that can be captured by a utilitarian-rationalist framework stretched to its limits.

At its core, denial is a psychosocial coping mechanism. Precisely because humans are psychic and social beings, problems are not simply "out there": acknowledging them carries psychosocial costs. These can be considerable: negative emotions such as fear and helplessness; cognitive dissonance; loss of identity or friends; and social conflict about the attribution of blame and responsibility. When facing the alternative of either avowing or denying a problem, people are driven to choose the easier option. In other words, denial is based on a self-interested rationale of pain avoidance and harm minimization.

When denial is perceived as less costly than avowal, there are good utilitarian reasons to deny the existence of the problem. This does not alter the fact that, depending on the characteristics of the issue at hand, denial can have deeply ironic effects. For example, in treating a real problem as a nonissue, people often get themselves into a tussle of short-term versus long-term considerations. From a short-term viewpoint, denial is preferable when it is less costly than avowal *at any given moment*. From a long-term viewpoint, it is preferable when it low-

ers the cumulative cost incurred *over the whole duration of the problem*. Obviously, and as we shall see, the two viewpoints frequently contradict each other.

Roadmap

My core argument is threefold: that denial has both rational and irrational features; that the interplay between them is best captured by a utilitarian-rationalist framework stretched to its limits; and that most of the mystery surrounding denial disappears when we accept that it is premised on a twisted kind of rationality. To develop this argument, I start from the simplest and most beneficial form of denial, before moving to cases that are more complex and harmful. As we will see, the nature and gravity of denial's negative side effects depends on whether a problem is tractable or intractable, and whether it is permanent or escalating. The denial of intractable problems is less harmful than the denial of tractable problems, and the denial of permanent problems is less harmful than the denial of escalating problems.

Sections 1-3 are dedicated to intractable problems—problems that cannot be solved. Folk wisdom has it that, when a problem is intractable, denial is a reasonable strategy to deal with it. The following statement represents a popular philosophy of dealing with intractable problems: "If we can do something to solve a problem, we will perhaps do it. If there is nothing we can do, we should try to forget the problem." There is undoubtedly a kernel of truth in such folk wisdom, but it makes a huge difference whether the problem we are talking about is permanent, temporary, or escalating. Or, in other words: will the problem remain the same (Section 1); will it disappear after a climax (Section 2); or will it spiral out of control (Section 3)?

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In Section 1, on *escapist denial*, I demonstrate that denial can be an optimal strategy both in the short and in the long term: when an intractable problem is permanent, then denial is entirely rational as a way for people to evade the discomfort of acknowledging the predicament in which they are caught. In Section 2, on *phlegmatic denial*, the first problems with denial become apparent: when a tractable problem is temporary, then denial is tempting at the initial stages but can later lead to certain disadvantages. In Section 3, on *fatalist denial*, the problems with denial become even more apparent: when a tractable problem escalates, then denial is initially advantageous but is likely to have detrimental long-term consequences.

In Sections 4-6, the focus is shifted to tractable problems, problems that can actually be solved. We shall see that, for a variety of reasons, the collateral effects of denial tend to be even more harmful for tractable than for intractable problems.

Section 4, on *defeatist denial*, shows that the denial of a tractable problem typically leads to a situation where possible solutions are procrastinated or simply overlooked, very much to the detriment of the denier. In Section 5, on *fateful denial*, I offer an even more pernicious scenario. When a tractable problem has a tendency to spiral out of control, then denial may obfuscate possible solutions until it is too late. In Section 6, I discuss the possibility of *pathological denial*: when a problem is pushed into the subconscious, the cost resulting from the situation can seriously spiral out of control without the deniers even noticing it. The effects can be deeply tragic, as Sophocles has shown in his famous drama *Oedipus the King*, which offers a kaleidoscopic picture of denial in its most pathological and damaging form.

Finally, in Section 7, I ponder the chances for social intervention. How can a regime of denial be challenged when people would be better off if they acknowledged their problems? What

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can outsiders do to liberate people from denial when the practice has become counterproductive? As we shall see, deniers can sometimes be liberated by means of rational persuasion. Other modes of social intervention are less likely to have the desired effect.
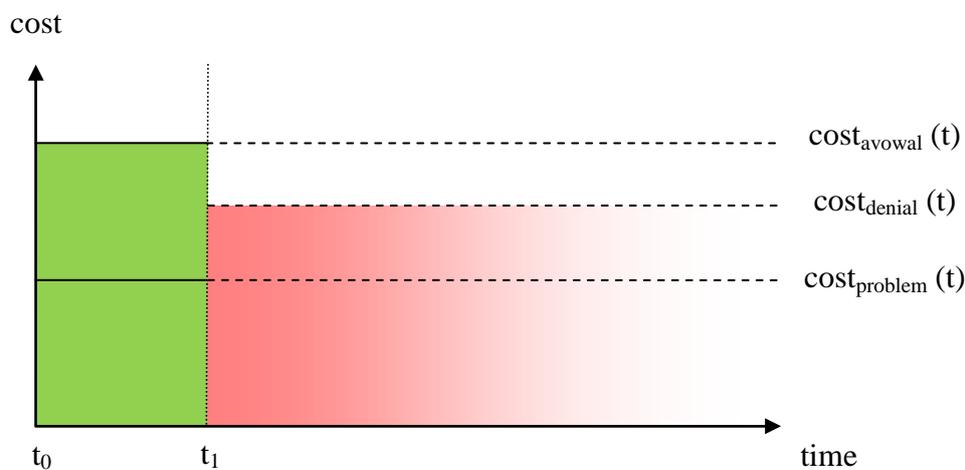
1. Escapist denial

Escapist denial is the denial of a permanent intractable problem. It is the most benign form of denial, insofar as it is fully rational both in the short run and in the long term. Myopic and hyperopic individuals alike will be attracted by the possibility of denying such a problem, and thereby avoiding unnecessary cost.

Let us take a simple example: Jane is being teased at school for her ugly nose, which deeply humiliates her. One fine day she meets Jim, who never even mentions her nose. Instead, he makes compliments about her angelic face. Jane knows it is only sweet talk, but it makes her feel so good. She marries Jim, who knows full well how much she loves his compliments. He keeps oozing charm on his spouse, and this way their marital life turns out far better than it would otherwise be.

Before fusing this into a formal model, three cautionary remarks are in order. First, denial is not always possible. At school, denial was not an option. Jane suffered humiliation from her classmates, whether she wanted to or not. She might have withdrawn, as some teenagers do, but the loneliness would have been worse than the teasing. Denial becomes possible only when she meets her college sweetheart and husband-to-be. From that point on, she is no longer confronted with the problem.

Second, denial is not "for free". Denial must be less costly than acknowledging the problem, as reasonable people would otherwise not engage in the practice. Even so, it comes with psychological and social cost. This can be intuited in the case of Jim and Jane. Although he may prefer a happy wife, Jim will find it exhausting to make compliments that are not entirely heartfelt. Even Jane will sometimes resent his disingenuousness. Thus, living in denial is costly in its own way.

Third, denial does of course not solve the problem. The fact that Jim and Jane are in denial about her ugly nose will not prevent outsiders from tacitly discriminating against her due to her looks. While denial makes their marital life considerably more pleasant, it does not fix the problem as such.

cost

$cost_{avowal}(t)$

$cost_{denial}(t)$

$cost_{problem}(t)$

t_0 t_1 time

Model A: Escapist Denial

In Model A, a problem appears at t_0. The problem causes direct cost ($cost_{problem}$). However the total cost of the situation ($cost_{avowal}$) is higher due to the psychological and social cost resulting from avowal. A regime of denial is established at t_1, when disavowing the problem be-

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comes possible. While the direct cost of the problem remains unaltered, the total cost of the situation is somewhat reduced (cost_denial).[9] The green area indicates the cumulative cost incurred until t_1, while the red area indicates the cumulative cost incurred thereafter. Fading colours and dashed lines indicate that deniers conceal the situation from each other and from themselves.

The model shows that when denying a permanent and intractable problem is less costly than acknowledging it, escapist denial has the beneficial effect of minimizing cost. After t_1, the cost incurred at any given point in time is lower than before. As a consequence, escapist denial is beneficial from the short-term viewpoint of myopic individuals. It is also beneficial from the long-term perspective of hyperopic individuals because the cost incurred over the whole duration of the problem is equally lowered.

Long-term cost for avowers: $\int_{t_0}^{t} cost_{avowal}(t)$

Long-term cost for deniers: $\int_{t_0}^{t_1} cost_{avowal}(t) + \int_{t_1}^{t} cost_{denial}(t)$

Denial is better than avowal when: $\int_{t_1}^{t} cost_{denial}(t) < \int_{t_1}^{t} cost_{avowal}(t)$

As the fading colours and dashed lines in Model A suggest, denial also has a numbing effect. This becomes clear if denial is contemplated not only as a cost-saving device but also as a mental habit and social institution. Experimental psychology suggests that once a habit has been established, it usually becomes automated unless and until there is a major disruption in the context of action (Ouellette & Wood, 1998). Similarly, a key insight of new institutional

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[9] In mathematical terms: $cost_{denial}(t) > cost_{avowal}(t)$.

economics is that once a cost-saving social institution has been established, it is rarely questioned (David, 1985; North, 1990, 1991).

All of this is particularly true about denial, which is a mental rather than a behavioural habit and thus even less accessible to control. When people are in denial, they cover their problems with a mantle of silence. Even the fact of being in denial becomes an object of denial. For example, if Jim and Jane have erected a taboo around her ugly nose, then they can also not acknowledge that there is such a taboo. As a consequence, denial obfuscates the true situation not only from outsiders but from the deniers themselves (Goleman, 1985).

2. Phlegmatic denial

When an intractable problem is temporary, phlegmatic denial can be a highly reasonable way of "toughing it out". A temporary problem is a problem that disappears over time, even when nothing is done. Insofar as the problem will disappear anyway, ignoring it may be better than wasting energy in confronting the situation. As any professional user of email knows, certain "action items" simply go away when you stubbornly disregard the reminders sent by over-anxious colleagues. This does not alter the fact that if you ignore their reminders, your colleagues may value you less. Another drawback is that you may not find out when the problem disappears and thus feel bad about a situation longer than necessary. Nevertheless, the advantages may outweigh the disadvantages. Some people prefer the resentment of their colleagues to chasing nugatory messages, and some people prefer a lingering sense of remorse to irksome industriousness.
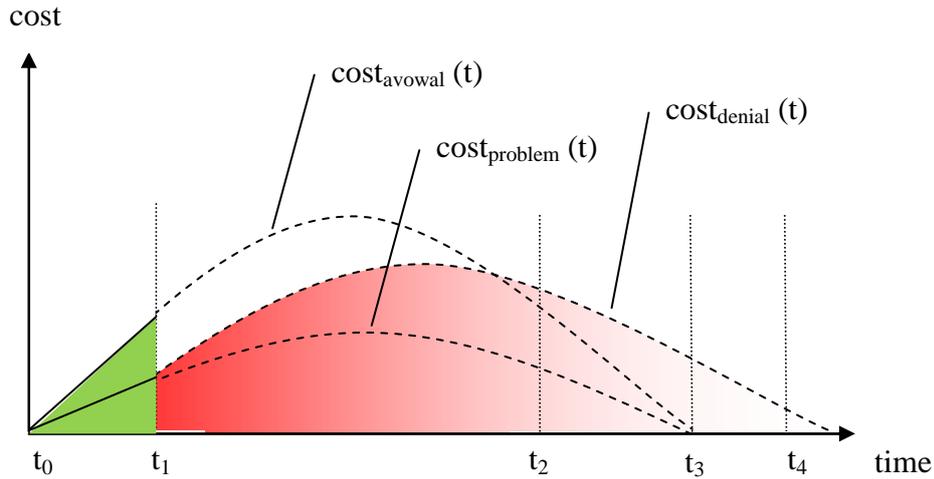
Model B: Phlegmatic Denial

Phlegmatic denial is graphically presented in Model B. If the problem is acknowledged, the total cost resulting from the situation (cost$_{avowal}$) will reach a peak and then diminish, and disappear altogether at t_3. If there is denial at t_1, the cost of the problem itself (cost$_{problem}$) is not affected and still disappears at t_3. However, the social and psychological cost is initially reduced, which diminishes the total cost incurred (cost$_{denial}$). Due to the numbing effect of denial, however, deniers cannot track the situation and emerge from denial when the problem disappears (at t_3). As a consequence, the cost resulting from the situation may outlast the problem itself for a certain period of time (until t_4).

Long-term cost for avowers: $\qquad\qquad \int_{t_0}^{t_3} cost_{avowal}(t)$

Long-term cost for deniers: $\qquad\qquad \int_{t_0}^{t_1} cost_{avowal}(t) + \int_{t_1}^{t_4} cost_{denial}(t)$

Denial is better than avowal when: $\qquad \int_{t_1}^{t_4} cost_{denial}(t) < \int_{t_1}^{t_3} cost_{avowal}(t)$

To make this more tangible, let us discuss an example. One morning, a teenager discovers pimples all over her face. She knows that first they will blossom out and become itchy, but

then they will fade, and one fine day they will be gone. If our teenager is an avower, she will look in the mirror with a heavy heart each morning until her blemishes have finally disappeared.

Let us now imagine another teenager who is more prone to denial. She also wakes up with pimples one morning and feels the same sense of embarrassment and shame. At some point in time (t_1), however, she is tired of looking in the mirror. The pimples are of course still itchy, but she tries to pay no attention to them. This costs her a certain effort, but on balance she suffers less than if she kept looking into the mirror. What she does not realize is that, at some point (t_2), denial becomes more costly than avowal. Her spots have already faded and are not itchy any more, but our teenager does not realize this. If she does not look in the mirror, she is even bound to miss the moment when her pimples have entirely disappeared (t_3). Even after they are gone, she will continue to feel like an ugly duckling for a while (until t_4).

In Model B, denial becomes available as a strategy at t_1. From a myopic viewpoint, it is then optimal until t_2 because denial is less costly than avowal. After t_2, however, it becomes more costly than avowal and is therefore suboptimal. What is more, an avower will end her ordeal at t_3 while a denier is destined to keep on silently suffering from a nonexistent problem until t_4. The ideal long-term strategy of pain avoidance would, of course, be to avow the problem until t_1, then deny it from t_1 to t_2, and again avow it from t_2 to t_3—thus incurring the lowest possible long-term cost.[10] The crux, however, is that due to its numbing effect denial works like a trap. Once a regime of denial has been established, opportunistically reverting to avowal is difficult. This becomes clear if we take into account the numbing effect of denial. Once

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[10] In mathematical terms: $\int_{t_0}^{t_1} cost_{avowal}(t) + \int_{t_1}^{t_2} cost_{denial}(t) + \int_{t_2}^{t_3} cost_{avowal}(t)$

you have chosen the path of denial, you are unlikely to emerge unless there is a strong external stimulus. For all practical purposes, if you have abandoned avowal at t_1, then you are likely to stay in denial all the way until t_4.

3. Fatalist denial

Fatalism is a defiant attitude in the face of escalating problems that cannot be solved. Escalating problems are problems that have an inherent tendency to spiral out of control. Since there is a tolerance limit to how much people can take or survive, any strategy to cope with such problems is destined to break down at some point. When an intractable problem escalates, breakdown must happen regardless of whether or not people acknowledge the problem, because eventually the tolerance limit will be exceeded. Nevertheless, myopic individuals have a tendency to engage in fatalist denial for at least two reasons. First, denial tends to be less costly than avowal at any given point in time. Second, in cases of denial, the tolerance limit is reached at a somewhat later point in time.
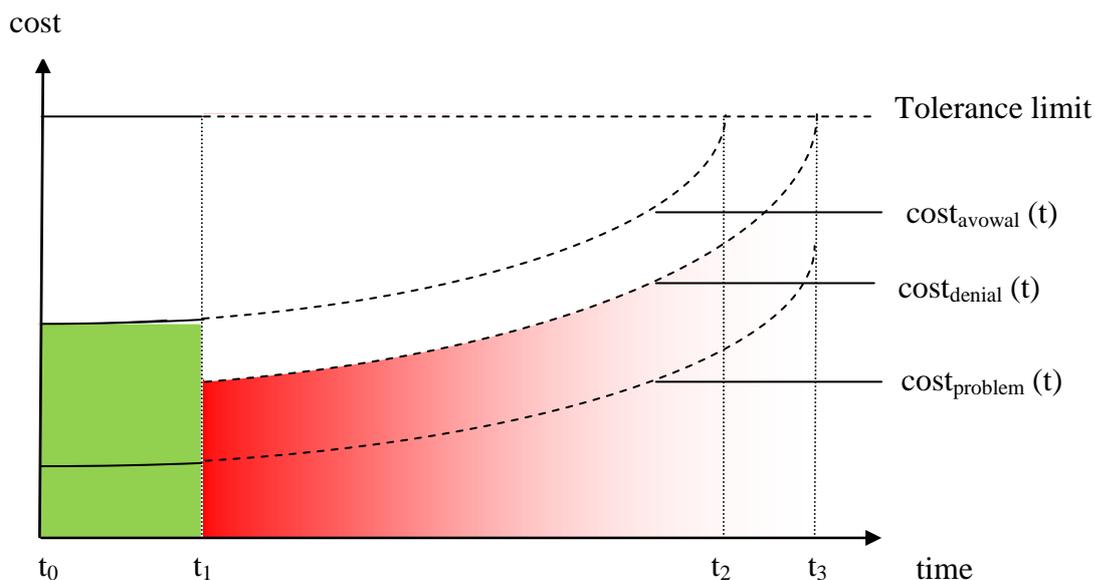
Model C: Fatalist Denial

Model C expresses this pattern in formal terms. There is an escalating problem, with breakdown bound to occur when the total cost resulting from the situation hits the tolerance limit. As usual, denial is expedient insofar as it reduces psychological and social cost. If no regime of denial is established, the tolerance limit will be reached at t_2. If a regime of denial is established at t_1, then the social and psychological cost resulting from the situation is somewhat reduced. As a consequence, the situation can be protracted a bit longer until the tolerance limit is finally reached at t_3.

Thus, fatalist denial has two advantages: it reduces cost and it buys time. It is possible to express these advantages in mathematical terms.

Long-term cost for avowers: $\qquad\qquad \int_{t_0}^{t_2} cost_{avowal}(t)$

Long-term cost for deniers: $\qquad\qquad \int_{t_0}^{t_1} cost_{avowal}(t) + \int_{t_1}^{t_3} cost_{denial}(t)$

Denial is better than avowal when: $\qquad \int_{t_1}^{t_3} cost_{denial}(t) < \int_{t_1}^{t_2} cost_{avowal}(t)$

To illustrate this, let us imagine a couple that has a problem of escalating debt. They both agree that their prodigal lifestyle is not negotiable. Consequently, there is no solution to their problem. On top of the cost of servicing their debt, they incur the psychological and social cost of acknowledging the fact that they are living beyond their means. Since this is highly unpleasant, at some point (t_1) they stop talking about their mounting debt. They feel much better. Their debt keeps rising, but instead of lamenting their problem they have now swept it under the carpet. Initially, this seems to work very well indeed. But over time there is more

and more fallout from their skyrocketing debt, and at some point (t_3) the entire situation is doomed to break down.

Despite the benefit of reducing discomfort and buying time, there are three reasons why fatalist denial may lead to long-term disadvantages. First, it is far from clear that fatalist denial leads to lower cost incurred over the entire duration of the problem. In fact, the opposite may be true because fatalist denial extends the duration of the problem. It may easily happen that the total cost incurred over the duration of the problem is increased by the fact of being in denial.[11]

Second, fatalist denial leaves people with a greater mess. When the situation breaks down, the cost of avowal/denial disappears but the fallout from the problem is even higher. Since the problem keeps growing from t_2 to t_3, deniers end up even worse than avowers.[12] For example, the consequences for the prodigal couple in our example are bad enough if they make their oath of disclosure at t_2. But if they stay in denial until t_3 when the bailiff finally knocks at their door, they will end up with an even greater burden of debt.

Third, even escalating intractable problems can be mitigated. But when people are in denial, they conceal from themselves essential information such as their own cost functions and tolerance limit. Like other deniers, fatalists hide from themselves even the very fact that they are in denial. Thus, they cannot anticipate the moment when the whole situation will come to a head. If the couple in our example ignore their bank statements and payment summonses,

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[11] This happens when: $\int_{t_1}^{t_3} cost_{denial}(t) > \int_{t_1}^{t_2} cost_{avowal}(t)$.

[12] In mathematical terms: $cost_{problem}(t_3) > cost_{problem}(t_2)$.

they will become fully aware of their predicament only when the bailiff comes to take their belongings away. This is too bad because, had they not been in denial, they could have second-guessed the moment when servicing their debt was going to become impossible. As a consequence, they would have been able to bunker cash and hide some of their belongings before the arrival of the bailiff. Having removed the problem from their consciousness, however, they are bound to miss any opportunities for mitigation.[13]

4. Defeatist denial

So far we have assumed problems that cannot be solved. Let us now turn to tractable problems. What are the effects of denial when a problem can actually be solved? Simply put, the denial of a tractable problem can prevent an effective solution. It may therefore be called defeatist denial.

There are two straightforward reasons why tractable problems are less likely to be solved when there is denial: the numbing effect of denial, and the greater likelihood of procrastination.

First: the numbing effect of denial. As we have already seen, regimes of denial are unconscious or half-conscious regimes of silence. Usually, the deniers are only dimly aware of their problem. They hide the true cost of the situation from themselves. They may not even have

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[13] Virtuosos in doublethink will awake from denial for a short time around t_2, try some mitigation strategies, and then relapse into denial until the day of final reckoning. However, this is difficult due to the numbing effect of denial.

accurate knowledge of their own utility functions. By implication, deniers limit their own access to information that might challenge the status quo and help them overcome their unacknowledged problem. This makes it impossible for them to access and freely exchange information about possible solutions. As a consequence, the availability of a solution will be obfuscated. Even an effectively resolvable situation is then unlikely to be solved.

Second: the greater likelihood of procrastination. Deniers are not stupid. Somewhere deep down, they know that there is a problem. But even when they become aware of a possible solution, they are more likely than others to miss the train because denial reduces cost, and thus the incentive to tackle the issue. To see this, let us consider procrastination (Akerlof, 1991). From a long-term perspective, a problem should be tackled when the benefit of getting rid of the problem outweighs the cost of the solution. Usually this is the case, because the cost of the solution is one-off, while the problem, if not solved, will continue to cause pain. From a short-term viewpoint, however, it is often tempting to postpone a painful solution to tomorrow rather than tackling the issue today. As a consequence, even reasonable people have a myopic tendency to procrastinate.[14] Based on this, it is easy to see why procrastination is more likely when there is denial. Problem solving becomes less urgent once a regime of

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[14] The easiest way to see this is by contrasting entirely myopic and entirely hyperopic behaviour, as I have done here. It would be more realistic to consider discount functions. However this would not alter the basic finding.

denial has been established because, insofar as denial is less costly than avowal, the incentives for tackling the problem have been reduced.[15]

To exemplify this, let us assume a permanent and tractable problem. Let us revert for the sake of simplicity to the example of Jane, the lady with the ugly nose. In Section 1, we assumed that an ugly nose is destiny. However this is not entirely true. An ugly nose can be fixed with plastic surgery. Without a regime of denial, Jane is likely to fix her nose as soon as she has accumulated enough wealth to afford the cost of cosmetic surgery.

Once Jane has found Jim, however, the numbing effect of denial is likely to stifle any initiative. Jim cannot broach the issue of plastic surgery without undoing his sweet talk about Jane's angelic face. By considering plastic surgery, Jane would destroy the illusion that she feels loved by her husband just as she is. Action would be likely if Jim and Jane could openly access and freely exchange information about the benefits of the solution. The crux, however, is that having established a regime of denial they simply cannot openly talk about the issue. If either of them allows the idea of plastic surgery to cross his or her mind, he or she will be confined to pondering it in private. Even though in theory an effective solution is available, in practice Jim and Jane are unlikely to tackle and solve the problem.

The other impediment is that procrastination becomes more likely if there is denial. Let us assume that Jane becomes aware of the possibility of plastic surgery, despite the numbing

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[15] There is an additional, closely related reason why procrastination is most likely when people are in denial: procrastination is about myopic pain avoidance, and deniers are the myopic pain avoiders par excellence.

effect of denial. Insofar as the regime of denial has considerably reduced her suffering, the problem has already been reined in. Jane still has the same ugly nose, but she feels the stigma less than before. As a consequence, addressing the problem feels less urgent and she is more likely to procrastinate.[16]

5. Fateful denial

Fateful denial occurs when a tractable problem escalates. It is a characteristic of escalating problems that, as the problem gets worse, possible solutions also become more difficult, and finally impossible. Therefore, the denial of escalating tractable problems can have pernicious consequences, since it obfuscates possible solutions until it is too late.

Let us imagine a man who is fearful of suffering from a serious, progressing illness. He goes to the doctor and is diagnosed with lung cancer. At this point (t_1), he enters denial because he cannot cope with the anxiety of having a terminal illness. A few weeks later (t_2), the doctor calls him at home and points out that in his case the disease need not be fatal. There is a painful operation that is very likely to succeed, but only if he undertakes surgery in the next couple of months. After that (t_3), it will be too late for an intervention, and the disease will enter its terminal stage. Will our man stay in denial about the fact that he has lung cancer, or will he undertake surgery to save his life?

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[16] For temporary problems, the situation is more mundane. Denial of temporary problems is not always an optimal strategy (see Section 2), and failure to embark on possible solutions can be unfortunate. However, this is not a very serious concern, precisely because temporary problems are destined to disappear anyway.
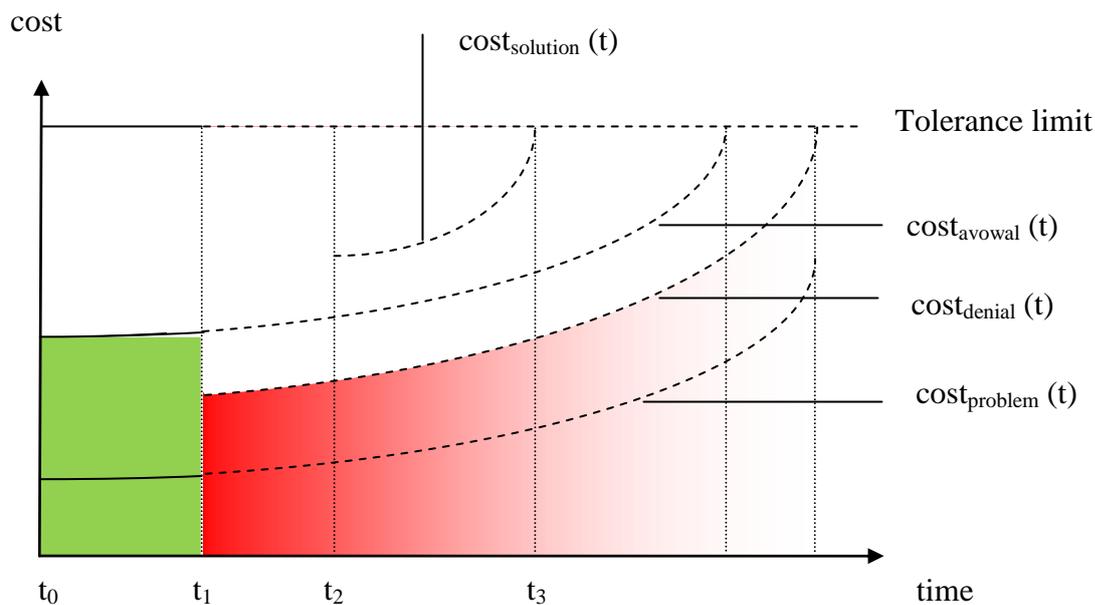
Model D: Fateful Denial

As Model D indicates, there is a window of opportunity between t_2 and t_3 to solve the problem, and thus avoid an impending disaster. Far-sighted people acknowledging the situation would certainly solve the problem during that time. After all, the cost of the solution is only momentary while the situation, if unchecked, endures and increases to catastrophic proportions. Only a myopic fool would procrastinate until the point in time when the cost of the solution exceeds the tolerance limit (t_3), and it is too late.

If there is denial, however, there is a real danger that the window of opportunity between t_2 and t_3 will be lost. For the reasons stated above, the availability of the solution will be obfuscated by the numbing effect of denial, and deniers are more likely than other people to procrastinate. As a result, denial may take a possible solution to an escalating problem off the table. At the end of the day, this may lead to fateful consequences that could have been avert-

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ed in the absence of denial. For example, a cancer patient who could have been healed through a painful operation may die from his disease.
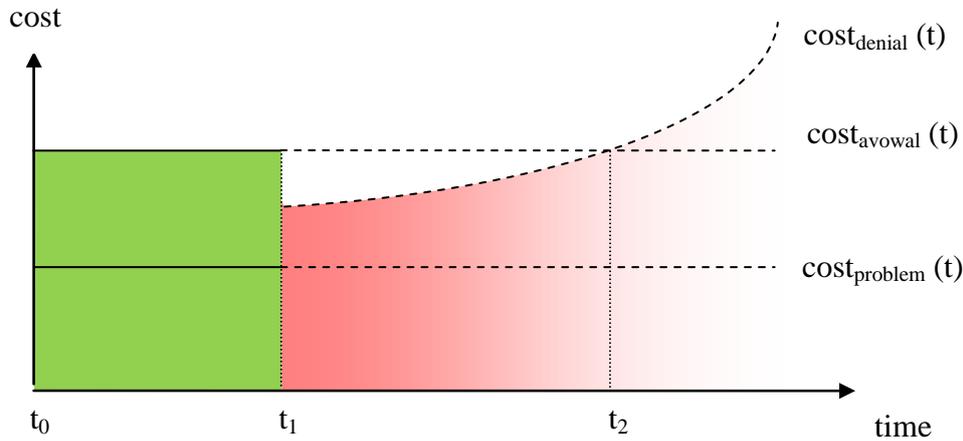

6. Pathological denial

The vision of denial so far presented is utilitarian to the point of cynicism, although from section to section we have observed increasing pathologies of this seemingly rational coping mechanism, such as tensions between short-term benefits and long-term negative effects.

1. Escapist denial is beneficial both from a short-term and a long-term perspective. If there is nothing we can do about a problem, it may indeed be better to forget.

2. Phlegmatic denial is beneficial at the early, but not at the later stages of a situation. When seen over the entire duration of the problem, the cost may outweigh the benefit.

3. Fatalist denial is beneficial when seen from a short-term perspective, but in the long run it leaves people in a greater mess and prevents them from cutting their losses.

4. Defeatist denial is highly problematic because it can prevent an effective solution that would become available if the problem were openly acknowledged.

5. Fateful denial is even worse because, when a tractable problem has a tendency to spiral out of control, denial may obfuscate possible solutions until it is too late.

Denial can also be problematic for pathological reasons, apart from more strictly utilitarian considerations. Ever since Freud, authors writing in the psychoanalytical tradition have argued that denial is a potentially deadly trap because the negative effects can seriously spiral out of control without the deniers even noticing it. At the moment when a regime of denial is established, the cost of denial is of course lower than the cost of avowal. Otherwise, people

would not engage in denial in the first place. Due to the numbing effect of denial, however, it is possible that over time the actual cost of denial may greatly surpass the hypothetical cost of avowal. Since this unnecessarily increases suffering, I call it pathological denial.

Model E: Pathological Denial

Model E presents pathological denial, assuming a permanent problem where $\text{cost}_{\text{problem}}$ is constant. As usual, once a regime of denial has been established, both the problem and the fact of being in denial are unconscious or, at best, dimly known to the deniers. Psychoanalysts argue that, while the trauma never goes away, the negative effects of denial grow considerably without the deniers themselves being aware. Eventually, the actual social and psychological cost of denial can, without the deniers being aware, outgrow the hypothetical social and psychological cost of avowal. Thus, a regime of denial that is adaptive at the foundational moment (t_1) can become maladaptive at a later moment in time (t_2).

The psychoanalytical school of thought claims that denial is a germ of significant evil, from personality disorders to psychosomatic illnesses and wider social pathologies.[17] Psychoanalysts suggest that, in such cases, the patient needs to be aided to overcome the regime of denial via the cathartic process of psychotherapy. Psychoanalysis can be understood as a practice to foster this process, injecting reflexivity into patients and thus helping them to confront the painful truth rather than living with the pathogenic consequences of denial.

The classical exponent of this line of thought is Anna Freud. Based on remarks by her father, she claimed that, due to their helplessness, children have no other choice than to engage in "primitive denial" (Freud, 1948 [1936]). They are compelled to deny and repress negative experiences, even though this may lead to increasing pathologies later in life.[18] In a similar vein, Adorno and colleagues argued that an authoritarian upbringing leads to denial, which in turn leads to exactly the same kind of authoritarian personality, thus producing an escalating cycle of suffering from generation to generation (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; cf. Milburn & Conrad, 1996). The most radical proponent of pathological denial was the cultural anthropologist Becker (1973) who attributed all "excess evil" of the

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[17] Many clinical psychologists and psychiatrists are more sanguine (e.g. Goleman, 1985; Taylor & Brown, 1988; Jopling, 1996; Lazarus, 1998).

[18] The most serious risk of pathological denial is posed when a permanent and intractable problem such as childhood trauma is pushed into the subconscious. Denial of temporary problems is less prone to pathologies, although deniers may be left with enduring personality disturbances. For example, a female denying her teenage pimples may unconsciously suffer from inferiority complexes long after her blemishes are gone.

world, from war and genocide to materialism and environmental destruction, to "immortality projects" designed to disavow mortality.

While psychoanalytical scholars and practitioners have been the most vocal proponents of pathological denial in recent times, Freud *et al.* were not the first to discover that denial can have pathological consequences. A kaleidoscopic picture of pathological denial had already been developed by the ancient Greek writer Sophocles in his tragedy *Oedipus the King* (ca. 430 BC). While the myth provides the archetype of the "Oedipus complex", the drama is about people in a pathological form of fateful denial and their idle attempts to evade nemesis.[19]

After a traumatic era subsequent to the murder of King Laios, when the Sphinx was haunting the town, Thebes has returned to prosperity under the kingship of Oedipus, who had freed the town from the Sphinx. However, Oedipus' kingship and Thebes' newly acquired prosperity is premised on various "skeletons in the cupboard". Queen Jocasta knows of an oracle that her son will kill his father Laios and marry his mother. She conveniently persuades herself that the problem was solved by crippling her son's feet and exposing him as a baby. Strikingly, however, her second husband Oedipus has crippled feet and "could be" her son. Similarly, Oedipus suspects he is not the real child of his parents, and has received an oracle that he will kill his father and marry his mother. In fact, he has killed a man who "could be" his father and married a woman who "could be" his mother. There are a few people in Thebes who "know too much" but keep their mouths shut, such as the blind seer Tiresias.

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[19] My interpretation is directly derived from the tragedy, although some authors before me have come to similar interpretations (Vellacott, 1971; Steiner, 1993, pp. 116-130).

At some point, the gods send a plague to punish the town for not avenging the murder of the previous king. The strategy of the gods is to increase the cost of the situation and thereby force a solution. Oedipus investigates the affair, and it soon becomes clear that he has unwittingly murdered Laios. The obvious route is for Oedipus to assuage nemesis by admitting the murder and going into exile. This would be painful, but it would effectively solve the problem. Thebes would be released from the plague, and Oedipus would be free to become the ruler of Corinth, the town of his adoptive parents. He could remain in denial about Laios being his father and Jocasta his mother. However, Oedipus and the Theban townspeople are not able to see this pragmatic solution. They are not able to opportunistically negotiate an optimal equilibrium between denial and acknowledgement. Precisely due to this inability, in the end the full truth becomes undeniable. Oedipus' mother and wife Jocasta commits suicide, while Oedipus blinds himself and leaves the town as a broken man. The upshot is that, even under the most compelling circumstances, exiting a regime of denial can be utterly tragic.

7. Social intervention

Despite the harmful side effects, deniers themselves are mostly unable to end their denial because ostensibly they do not even know that there is a problem in the first place. Deep down, of course, they know that something is wrong. However, except in those instances where a situation breaks down under its own weight, it normally takes a social intervention to end denial. This raises the question of what can be done when denial does more harm than good.

In this section I propose a strategy for social intervention that logically flows from my models. Subsequently, I contrast it with other, seemingly well-intended strategies that are less

likely to succeed because they disregard the fact that denial is a quasi-rational strategy of pain avoidance.

My recommended strategy is rational persuasion: convincing deniers that it is in their best interest to admit their problems. Rational persuasion is premised on a combination of two insights: one utilitarian; the other constructivist. The utilitarian insight is that most deniers will acknowledge their problems only when the practice of denial is exposed as counterproductive. The constructivist insight is that this will happen only if there is a sea change. Deniers need to be told plausible stories about the situation they are in and the counterproductive effects of their practice.

A situation is never entirely objective and given, but it is always to some extent (inter)subjective. It is therefore sometimes possible to "renegotiate" the way deniers understand their situation. When deniers accept an alternative framing whereby denial is counterproductive, then an end to their denial is close at hand.

If we apply these considerations to our models, then rational persuasion is most likely to succeed if the following prescriptions are followed:

1. Deniers should be persuaded that their orientation ought to be long-term rather than short-term. As we have seen, denial is tempting as a short-term strategy, but often has pitfalls in the longer term. It is therefore necessary to turn the gaze of deniers to the long-term consequences of their failure to acknowledge the problem.

2. Deniers should be persuaded that their problem is getting worse. When deniers feel the problem is permanent (Section 1), they will hang on to denial because, as we have seen, the denial of permanent problems can be rational, not only in the short term, but also in the long run. They will do so even more when they feel that the problem is temporary (Section 2), because nothing is more comfortable than to assume that a problem will simply go away. Only escalating problems (Section 3) are scary enough to awaken deniers from their slumber.

3. Deniers should be persuaded that their problem, painful as it may be, can be solved. The best way to do this is to propose a specific solution. When a problem is intractable, deniers have a point: acknowledging the problem may not be worth the headache. But when a problem can be solved (Section 4), they only damage themselves by denying it.

4. To counteract the risk of procrastination, deniers should be persuaded that, unless they act quickly, it will be too late because the solution will not be available any more (Section 5).

In short, rational persuasion is most effective when deniers are persuaded that they should see their problem from a long-term perspective, that they are facing an escalating problem, and that an effective solution is possible—but only if they act quickly, because otherwise it will be too late. Thus, the best way to create the "last minute panic" necessary to galvanize deniers into acknowledgement and action is to persuade them that their situation resembles the

one described under the rubric of fateful denial (and that, in the process outlined in Model D, they are somewhere between t_2 and t_3).[20]

Apart from rational persuasion, there are other methods of social intervention; but they all have serious downsides. The most obvious alternative is to manipulate cost functions in such a way that the incentives for denial disappear. This may offer a promising strategy of social intervention when it genuinely makes denying a problem more costly than acknowledging it. Unfortunately, however, it will usually require a "paternalistic" large-scale intervention that is costly in its own way. Short of that, attempts to tweak the cost functions of deniers are unlikely to have the desired effect.

For example, environmental activists have tried to create an atmosphere in which climate change deniers should feel ostracized, while those believing in climate change should feel in sync with scientific consensus and the "do-gooder" mainstream. They have tried to persuade deniers that there will be psychological or social benefits from adopting an unvarnished view of the situation. However, this clashes with the laws of social gravity. When it comes to mobilizing social sentiment, the game is tilted in favour of those who tell people that all is fine—and anyone who says otherwise is a "scare-monger".

An even worse strategy is to make the problem appear more menacing. Some people believe that deniers will immediately acknowledge their problem once they understand its gravity.

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[20] This is somewhat similar to the strategy adopted by the proponents of psychoanalysis (Section 6). But there is one significant difference: psychoanalysts usually do not suggest that problems can be solved.

Insofar as denial is in essence a strategy of pain avoidance, however, this cannot work. On the contrary, the incentives for denial are bound to increase as the situation feels more menacing. For example, many have been scared to death by the apocalyptic movie *The Day After Tomorrow*. After watching the film, however, people were actually less likely to acknowledge climate change than before (Lowe et al., 2006, p. 443).

Yet another doubtful method is moral proselytism, or trying to use deontological rather than consequentialist arguments to convince deniers that they should acknowledge their problem. Although proselytism has a bad press these days, it springs only from the best motives. From a Christian viewpoint, for example, it is wrong for people to deny their sinfulness. People should humble themselves and hope to obtain forgiveness by repenting of their sin. They should acknowledge that God only knows their wicked hearts, and only his grace can redeem them (Jeremiah 17:9-10; Dyke, 1614). Despite the noble motives, most unconverted people see religious proselytizers as intrusive and prevent them from trying to save their souls.

A similar situation exists for non-religious proselytizers, or "truth apostles." Idealists of all colours agree that only a life in truth is a life worth living (Havel, 1989; Rowe, 2010). Denial is dishonest and objectionable. Elephants in the room must be exposed (Zerubavel, 2006). There is something respectable about this moral impetus to convert people to "inconvenient truths" (Gore, 2006). Nevertheless, deniers are not amused. They sometimes even persecute truth apostles, for example by mobilizing opprobrium against "grumblers."

Once again, there is a simple utilitarian reason why moral proselytism is successful only in rare cases: denial is inherently about pain avoidance. Insofar as people have a tendency to minimize pain in the short term, they prefer comfortable lies to inconvenient truths. As many

would-be prophets[21] and truth apostles have had to find out the hard way, deniers often lash back when their self-deceit is challenged by people "speaking the truth." Organizations even systematically ostracize "whistleblowers" and destroy their careers (Alford, 2001).

To be sure, it is sometimes possible to end denial by being disruptive. Deniers can be ambushed and cornered into admitting their problems. The downside of this crusading approach is that the cure may be worse than the disease. At least, this is what was famously discovered by the nineteenth century Norwegian playwright Henrik Ibsen. In a period when Victorian morality was holding sway in Europe, small and intimate groups such as petty bourgeois families were the ideal breeding ground for denial. Ibsen exposed the realities behind the charades typical of such families. At the same time, he demonstrated that denial was integral to the very fabric of these families and the happiness of their members. In *The Wild Duck* (Ibsen, 2006 [1884], pp. 117-118), a worldly-wise doctor states: "You take away the life-lie from the average man, and you take away his happiness with it."[22]

As an afterthought, and to state the obvious: when people are in denial, it cuts no ice to offer them "objective" information in a dispassionate way. It is simply not true that deniers would acknowledge their problem and act upon it "if only they knew." While this may happen in

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[21] The true prophet knows that the task is not to convert the masses, but to separate the sheep from the goats (Isaiah 6:9-10).

[22] The positive view of "vital lies" is shared by social psychologists (Taylor & Brown, 1988; Goleman, 1985; Jopling, 1996; Lazarus, 1998), and even philosophers sometimes acknowledge their benefits (Rorty, 1994). However, psychoanalysts hold a more negative view, as we have seen in Section 6.

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situations where there is genuine ignorance, information campaigns are doomed in situations where people have clandestine reasons for not wanting to know.

8. Areas for further research

The present article has focused on the twisted utilitarian rationality of denial. It is not about the morality, or immorality, of denial (M. W. Martin, 1986; Jopling, 1996). Nor is it about the politics of denial (Milburn & Conrad, 1996; Cohen, 2001; Triandis, 2009). It is also not about the specific social and psychological mechanisms that make denial possible (Champlin, 1977; Goleman, 1985; Elster, 1985; Noelle-Neumann, 1993; Patten, 2003). This is not to deny that denial can be morally repugnant and is frequently rife with power, intimidation, secrecy, complicity, manipulation, and corruption. Nor is it to deny that there are numerous open questions on how exactly denial operates at the level of the human psyche. All of these are important issues and questions, and as the references indicate there is ample literature that can be harnessed by others to come up with innovative ways of confronting them.

The following more specific areas may be promising for further research. First, denial can have negative externalities. Even if we assume that some regime of denial is optimal for a married couple, for example, it may not be good for their children to grow up in a climate where dishonesty is the norm. There can be negative externalities even for the deniers themselves, for example when issues surrounding a taboo also become taboo. If you cannot talk to your partner about his fatal disease, then you can also not talk about making a will. Even assuming that you live more happily without discussing death, if there is no will you may wake up one day as a widow or as a widower and face an absurdly difficult situation.

Second, there can be backlash even against the most diligent attempts to end denial. For example, climate scientists have worked for decades to convince decision makers and the public that the problem of climate change needs to be acknowledged and acted upon. They have intuited all of the prescriptions provided in Section 7. To begin with, they have developed scenarios projecting climate change far into the future, thus extending people's time horizons. Next, they have used dramatic visualizations of growing CO_2 emissions, such as the famous "hockey stick" diagram, to convince people that climate change is an escalating problem (Mann, 2012). Moreover, they have contributed to specific policy prescriptions such as carbon reduction targets. Finally, they have warned that in the absence of an adequate response there is a point of no return. And yet, there has been fierce backlash. After the fiasco of the 2009 Copenhagen summit, decision makers and the wider public have lost confidence that climate change is a tractable problem. As a consequence, "climate sceptics" have become emboldened (Oreskes & Conway, 2010; Washington & Cook, 2011; Dunlap & McCright, 2011) and climate change denial (Norgaard, 2011; Hamilton, 2010) is back with a vengeance.

Third, the models developed in this article are about problems continuously unfolding over time. However, denial can also be about threats and risks. Threats can be understood as undesirable events that will occur at some point in the future, unless precautionary action is undertaken.[23] If one were to model the denial of future threats, one could employ cost functions derived from temporal discounting. In doing so, one could either follow classical assumptions of exponential discounting and temporal consistency; or one could assume time inconsistency and hyperbolic discounting (Strotz, 1955; Ainslie, 2001, pp. 27-47).

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[23] Take, for example, a military ultimatum.

Fourth, the denial of risks also has some specific features. While problems unfold over time and threats are certain to occur under specified conditions, risks are about an uncertain future. For example, the future risks related to climate change are clouded by uncertainty. Such uncertainty makes denial more likely. Why would you *not* be in denial about something uncertain? When a future threat is certain, or when you are dealing with a problem unfolding over time, you may shrink back from denial to avoid its numbing effect: if you hide from yourself the fact that you are in trouble, then you are also likely to miss out on any solutions that may become available. But insofar as risks are by definition clouded by uncertainty, the numbing effect of denial is less of a concern. Maybe that is one of the reasons why the denial of global risks is such an important characteristic of late modernity (Beck, 2009).[24]

Fifth, there are important differences between *psychological denial* at the individual level and *social denial* at the group level. In social denial, the amount and quality of information available to one participant depends on other participants. Vested interests often use manipulative techniques to promote denial (Oreskes & Conway, 2010). Especially in large groups, there is frequently a divorce between what is individually and what is collectively rational. For example, it may be rational for the individual to deny a serious social problem even though the collective consequences are catastrophic. This can be explained in terms of collective action dilemmas. It can also be explained in terms of evolutionary psychology. Arguably, "mind your own business" was the most adaptive strategy prior to the era of planetary risks.

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[24] Another reason is that thinking in terms of risk and uncertainty requires a considerable degree of scientific and intellectual literacy. This makes denial easier and social intervention more difficult: fewer people will feel compelled to persuade themselves rationally, or to be so persuaded, that the denial of a specific risk (say, climate change) is dysfunctional.

Sixth, it may be useful for understanding denial to replace the concept of unified personhood by the notion of the "multiple self" (Elster, 1985). If we assume that people are composed of multiple interests vying for control (Ainslie, 2001), then regimes of denial can perhaps be understood as commitment devices whereby the myopic interest in a more comfortable life manages to engrain itself. As we have seen, denial has the potential to defeat the hyperopic interest to remain aware of a problem and its possible solutions. By the same token, it may also thwart the moral impetus of "living in truth" (Havel, 1989).[25]

Finally, a cautionary remark. Denial-talk is sometimes abused to dismiss opposing views: "What? You are saying that you are not a racist? You must be in denial!" This is inadmissible. It is a fallacy to assume that an assertion must be true because somebody has denied it.[26]

9. Conclusion

Denial, or the habit of treating a real problem as if it were a nonissue, has both rational and irrational features. The interplay between these is best captured by a utilitarian-rationalist framework stretched to its limits. When in denial, people follow what they feel to be in their best interest by minimizing the psychosocial cost of acknowledging their problems. At its core, denial is thus based on a self-interested rationale of pain avoidance and harm minimization. Depending on the characteristics of the issue at hand, however, some of the effects are deeply ironic. I have demonstrated this by starting from the simplest and most beneficial form

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[25] Similar points have been made in the literature about self-deception (Rorty, 1994).

[26] Milburn and Conrad (1996) and Triandis (2009)sometimes commit this fallacy.

of denial, and then moving on to cases that are more complex and harmful. I have also shown how people can be liberated from denial when the practice has become counterproductive, contrasting rational persuasion with less effective modes of social intervention. My overall finding is that, despite the problematic side effects, most of the mystery surrounding denial disappears when we accept that this all-too-human practice is premised on a twisted kind of rationality.

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