

Chapter 2
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Choosing Strategies

1. TWO KINDS OF STRATEGIES

Suppose I need to decide whether to go off to fight for a cause in which I deeply believe, or stay home with a family that needs me and that I deeply love. What should I do? My friends say I should determine the possible outcomes of the two proposed courses of action, assign probabilities and numerical utilities to each possibility, multiply through and then choose whichever alternative has the highest number.

My friends are wrong. Their proposal would be plausible in games of chance where information on probabilities and monetarily denominated utilities is readily available. In the present case, however, I can only guess at the possible outcomes of either course of action. Neither do I know their probabilities. Nor do I know how to gauge their utilities. The strategy of maximizing expected utility is out of the question, for employing it requires information that I do not have.

Nevertheless, my friends have not given up trying to help, and so they point out that I could simulate the process of maximizing expected utility by assuming a set of possible outcomes, estimating their probabilities, and then making educated guesses about how much utility they would have. I could indeed do this, but I decide not to, for it occurs to me that I have no reason to trust the formula for maximizing expected utility when I have nothing but question marks to plug into it. Better strategies are available, and explaining what they are is the purpose of this chapter.

This section distinguishes between optimizing and satisficing strategies, and between moderate and immoderate preferences. The following three sections discuss, in turn, when satisficing strategies are rational, when they are not, and when cultivating

moderate preferences is rational. Later sections offer a way of characterizing rational choice in situations where the agent's alternatives are incommensurable.

In the simplest context, one has a set of alternatives clearly ranked in terms of their utility as means to one's ends. If one is an *optimizer*, one chooses an alternative that ranks at least as high as any other. In contrast, if one is a *satisficer*, one settles for any alternative one considers satisfactory. In this static context, though, it is hard to see the point of choosing a suboptimal alternative, even if it is satisfactory.

In a more dynamic and more typical context, we are not presented with a set of nicely ranked alternatives. Instead, we have to look for them, judging their utility as we go. In this context, optimizing involves terminating one's search for alternatives upon concluding that one has found the best available alternative. However, although optimizing involves selecting what one judges is best, it need not involve judging what is best "all things considered," because sophisticated optimizers recognize that considering all things is not always worth the cost. There may be constraints (temporal, financial, and so on) on how much searching they can afford to do. A person who stops the search upon concluding that prolonging the search is not worth the cost is also employing an optimizing strategy, albeit one of a more subtle variety.

Satisficing, in contrast, involves terminating the search for alternatives upon concluding that one has identified a satisfactory alternative. What distinguishes satisficing from optimizing in the dynamic context is that the two strategies employ different *stopping rules*.¹ Thus, if options emerge serially, a subtle optimizer might choose a known option in preference to the alternative, namely, searching for something better with no guarantee of ever finding it. The difference between satisficing and this more subtle kind of optimizing has to do with what the two strategies take into account in reaching a stopping point. At any point in the search, we may let the expected utility of stopping the search equal U , the utility of the best option we have turned up so far. The expected utility of continued search equals the probability of finding a better option,

$P(fbo)$, multiplied by the utility of finding a better option, $U(fbo)$, minus the cost of further search, $C(fs)$. At some point, the satisficer stops because he believes U is good enough. In contrast, the subtle optimizer stops because she believes $P(fbo)U(fbo) - C(fs)$ is less than zero. Even if the two stopping rules happen to converge on the same stopping point, they do so for different reasons and require different information.²

Unlike the optimizer, who stops searching when she either has considered all her options or has run up against things like time constraints, the satisficer stops the search upon identifying an alternative as good enough.³ For example, suppose you enter a cafeteria seeking a nutritionally balanced and reasonably tasty meal. You proceed down the cafeteria line surveying alternatives. If you are satisficing, you take the first meal that you deem nutritionally and aesthetically adequate. If you are optimizing, you continue down the line surveying alternatives until you reach the end of the line or run out of time. You then take the meal you consider optimal, either in comparison to the known options or in comparison to the alternative of further search. A satisfactory meal may or may not be optimal. Likewise, as cafeteria patrons know only too well, the best available meal may or may not be satisfactory. Of course, if you switch from one stopping rule to the other, you may end up choosing the same meal, but you will be choosing it for a different reason. Therefore, neither rule is reducible to the other. (One could employ both stopping rules simultaneously, of course, resolving to stop as soon as one finds a satisfactory alternative *or* runs out of time *or* has considered all available alternatives—whichever comes first.) Nor can satisficing be equated with a more subtle optimizing that takes the cost of searching for more-than-satisfactory alternatives into account.

By definition, satisficing means selecting x *because one has information that leads one to believe x is satisfactory*, not because stopping the search at that point would maximize utility. (By contrast, and again by definition, optimizing means selecting x because one has information that leads one to believe that x beats the alternatives, where the set of alternatives may include spending more time exploring options.) The fact that

we receive information and evaluate options sequentially, in real time, has everything to do with what strategy is called for. Not all models can adequately represent how pivotal it is that information about our options comes to us in real time. Not all models can adequately represent the contingency of the different kinds of reasons we can have to stop looking and make a choice. Whether a reason is available at all depends on what kind of information we have, and that varies with circumstance. But such contingency remains one of the momentous (and fascinating) facts about the nature of humanly rational choice.

With this characterization of satisficing in mind, we can now clarify the difference between satisficing and *moderation*. Satisficing contrasts with optimizing. Being moderate, however, contrasts not with optimizing but with being immoderate. Being an optimizer does not entail being immoderate. Likewise, being a satisficer does not entail that one would be satisfied with a moderate bundle of goods. A person could be both a moderate and an optimizer, for the maximally satisfying bundle of goods for a given person may well be of moderate size. Likewise, a person could be both a satisficer and an immoderate, for a given satisficer may have wildly immoderate ideas about what counts as satisfactory. Consider a person whose goal in life is to be a millionaire (not a billionaire, mind you, just a millionaire) by the age of thirty.

2. WHEN SATISFICING IS RATIONAL

There is an apparent incongruence between the theory and practice of rational choice. Theory models rational choice as optimizing choice, yet our reliance on satisficing strategies is standard practice. We could explain the incongruence away by saying that when people think they are seeking something satisfactory, they are deluded, for what they really seek is something optimal. But satisficing can be reconstructed as a subtle kind of optimizing strategy only on pain of attributing to people calculations they often

do not perform (and could not perform with the available information) and intentions they often do not have.

The point is not that the two strategies are different by definition, but simply that they are different. It would be a shame to let a pointlessly imprecise definition of optimizing obscure subtleties that matter. This section tries to explain satisficing in terms of thought processes we can recognize in ourselves. Satisficing will emerge as a real alternative to optimizing, and thus as a strategy that can be evaluated, criticized, and sometimes redeemed as rational. (Again, to belabor the point, satisfying strategies are alternatives to optimizing *strategies*. They are different ways of deciding when to stop.)

We begin with the observation that people have a multiplicity of goals. For example, a person can desire to be healthy, to have a successful career, to be a good parent, and so forth. Some goals are broad and others narrow, relatively speaking. Further, a given goal might be encompassed by another in the sense that the narrower goal's point—the reason for it being a goal—is that it is part of what one does in pursuit of a larger goal. For example, Kate may want to upgrade her wardrobe because she cares about her appearance because she wants a promotion because she cares about her career. Suppose she believes that achieving her various goals is instrumental to, or constitutive of, achieving a broader goal of making her life as a whole go well. To mark the difference in breadth between Kate's concern for her life as a whole and her concern for particular aspects of life (such as her health or her career), let us say Kate seeks a *local* optimum when she aims to make some aspect of her life go as well as possible. She seeks a *global* optimum when she aims to make her life as a whole go as well as possible.⁴

Optima can be defined as such only within the context of constraints under which goals are pursued. (Thus, when economists speak of maximizing utility, it goes without saying that they are talking about maximizing utility subject to a budget constraint.) We pursue goals subject to the limits of our knowledge, time, energy, ability, income, and so on. More intriguing, however: we typically operate under additional constraints that we

deliberately impose upon ourselves, as if constraints imposed by external circumstances were too loose. For example, if Tom spends an evening at a casino, he is externally constrained (by his life savings and his available lines of credit) to spend no more than, say, a million dollars. What actually limits his options over the course of the evening, though, is the hundred-dollar budget constraint that he *chose* to impose on himself.⁵

What I have come to believe since first publishing this book is that if we observed a person operating under no constraints other than externally imposed constraints, we would think of the person as undisciplined to a point of being mentally ill. For example, someone who stops gambling only upon smashing up against hard external constraints is what we call a compulsive gambler. Here, then, is another momentous (and fascinating) fact about humanly rational choice. Humanly rational choice is not merely choice under constraint; it is choice under self-constraint.

Here is a further thought: modern life is effectively removing one external constraint after another from our lives, and increasingly is putting historically unfamiliar pressure on us to develop a more internal discipline. It was once true that sundown effectively imposed an external constraint that effectively ended our work day. With the invention of electric light, we became an astonishingly more capable species, but also became a species with an increasingly desperate need for a reliable internal sense of when it is time to quit. Incredibly, since the first edition of this book, we have acquired an ability to talk to just about anyone, just about anywhere, just about any time, almost for free. It is an incredible power, but it forces us to confront our lack of natural internal discipline. The world used to determine that our conversations would be confined to those within earshot. Now, only very recently, our health and peace of mind has come to depend on our developing an internal compass that gives us the strength to unplug.

To give another example, in fleshing out the task of buying a house, we need to make prior decisions. We decide how long to look, how much money to spend, what neighborhoods to consider. We knock only on doors of houses displaying “for sale”

signs rather than on every door in the neighborhood. To some extent, these constraints are imposed on us by mundane external factors, but they also have a striking normative aspect, for they are in part rules of conduct we impose on ourselves; we take it upon ourselves to make our constraints more precise and more limiting so as to make our choice set more definite. Local optimizing would often be neurotic and even stupid if local goals were not pursued within compartments partly defined by self-imposed constraints. Constraints we impose on our narrower pursuits can help keep narrower pursuits from ruining the larger plans of which they are part.⁶

If we look at life as a whole, we see that life as a whole will go better if we spend most of it pursuing goals narrower than the goal of making life as a whole go better. That makes it rational to formulate and pursue local goals. But it also is rational to prevent narrower pursuits from consuming more resources than is warranted by the importance (from the global perspective) of achieving those narrower goals. Accordingly, when we pursue narrower goals, we pursue them under self-imposed constraints.

Although constraints we impose on ourselves are imposed from a more encompassing perspective, it is only within the narrower perspective that we become subject to self-imposed constraints. (Of course, we are subject to *external* constraints, limited incomes and such, from any perspective.) Self-imposed constraints can be applied only *to* narrower pursuits and only *from* the perspective of a more encompassing pursuit. In other words, because we have broader objectives, there are limits to what we will do for the sake of our wardrobe, or for the sake of a promotion, or for the sake of a career.

Having distinguished between local and global optimization, we can now explain when satisficing is rational. Michael Slote believes the optimizing tendency can be self-defeating. He says, “A person bent on eking out the most good he can in any given situation will take pains and suffer anxieties that a more casual individual will avoid...” And he asks us to consider “how much more planful and self-conscious the continual optimizer must be in comparison with the satisficer who does not always aim for the best

and who sometimes rejects the best or better for the good enough” (1989, 40). In short, that one has an opportunity to pursue the good is not by itself a compelling reason to pursue the good. Surely, Slote has an important point. Just as surely, however, his point applies to local optimizing rather than to optimizing as such. From the global perspective, seeking local optima can be a waste of time. Global optimizers seek local optima only when doing so serves their purposes. For that reason, satisficing is a big part of a global optimizer’s daily routine. A compulsive seeking of local optima is associated with being immoderate, perhaps, but not with being a global optimizer. Effort can have diminishing returns, so a global optimizer will be careful not to try too hard. Local optimizing often gives way to satisficing for the sake of global optimality.

From the global optimizer’s point of view, the process of buying a house provides a good example of how satisficing can be rational. When we choose a house, we might proceed by seeking the best available house within certain constraints—within a one-month time limit, for example, or within a mile of the office. We impose limits because we have goals other than living in a nice house. Looking for a house competes with our other goals for our time and energy. Or we might look for a satisfactory house and cease looking when we find one. Most of the people I have asked say that, in that circumstance, they would optimize within constraints, but would not deem satisficing irrational. Like local optimizing, satisficing can serve our larger plans by setting limits on how much effort we put into seeking a house at the expense of other goals that become more important at some point, given the diminishing returns of remaining on the housing market. An optimizing strategy places limits on how much we are willing to invest in seeking alternatives. A satisficing strategy places limits on how much we insist on finding before we quit that search and turn our attention to other matters.⁷

The two strategies need not be inflexible. People sometimes have reason to switch or revise strategies as new information comes in. If we seek a satisfactory house in an unfamiliar neighborhood and are shocked to find one within five minutes, we may

stop the search, acknowledging the stopping rule we previously imposed on that activity. On the other hand, we may conclude that, having formulated our aspiration level under unrealistically pessimistic assumptions, we should resume our search with a satisficing strategy revised to reflect a higher aspiration level. More likely, we may switch to a local optimizing strategy, spending another day or two looking at houses, then taking the best we have found so far. Or we may do both, looking until we either hit our new aspiration level or hit our time limit. In this way, the two strategies often are interactive.

Likewise, suppose we started out aiming to find the best house we can within a one-month time limit but have so far been terribly disappointed with our options. Then, after two weeks we finally find a house that meets our plummeting aspiration level. That sort of experience leads people to consider switching to a sadder but wiser ceiling of aspiration as a stopping rule, abandoning the original plan to seek a local optimum relative to a one month time constraint.

Typically, the more concrete our local goals are, the more reason there is to satisfice. If we do not know exactly what we are looking for, then we usually are better off setting a time limit and then taking what we like best within that limit. By contrast, if we know exactly what we are looking for, then it is rational to stop searching as soon as we find it.⁸ In sum, having detailed information about our *goals* weighs in favor of using that information in formulating aspiration levels as stopping rules. Conversely, the more we know about what is available, the easier it is to identify which alternative has the highest utility, which weighs in favor of seeking local optima.

The stakes involved are also pertinent—indeed crucial. The less we care about the gap between satisfactory and optimal toothpaste, for example, the more reason we have to satisfice—to look for a satisfactory brand and stop searching when we find it. Note the alternative: instead of satisficing, we could optimize by searching among brands of toothpaste until we find the precise point at which further search is not worth its cost. But an optimal stopping point is itself something for which we would have to search, and

locating it might require information (about the probability of finding a better brand of toothpaste, for example) that is not worth gathering, given the stakes involved in the original search for toothpaste.

Against this, one might object to my assumption that we need precision in the search for an optimal stopping point. Why not seek to learn *roughly* when looking for better toothpaste is not worth the cost? In the search for a stopping point that we might graft onto the original search for toothpaste, it can be more rational to seek to be tolerably close to an optimum than to seek to be at an optimum. But that is precisely the point: there are cases where we do not care enough about the gap between the satisfactory and the optimal to make it rational to search for the optimal. Searching for optimal toothpaste can be a waste of time, but so can searching for the optimal moment to quit looking for toothpaste. One way or another, satisficing is an irreducibly essential time-saving strategy in the normal toolkit of humanly rational choice.

There will be times when even the most sophisticated optimizing strategies will be inappropriate, for they require information that we may not have and that may not be worth acquiring. And a less sophisticated “all things considered” strategy is typically inappropriate. Rational choice involves considering only those things that seem worthy of consideration, which is to say rational choice involves satisficing, i.e., a stopping rule that limits how comprehensive a body of information we insist on gathering before stopping the search, making a judgment call, and turning our attention to other matters.

There is also something to be said for having a moderate disposition—a disposition that lets us be content with merely satisfactory states of affairs. Consider that starting a search too soon can be every bit as wasteful as stopping a search too late. Searching for a house is costly. It is costly partly because people have other goals; the time and energy you spend searching for a house could have been spent on other things. Even if you find a better house than you already have, moving will also be costly. Moreover, it takes time living in and enjoying a house in order to recoup these costs. If

you move every month, you are always paying the costs and never enjoying the benefits of better housing. Moving into a house is one part of a decision to stay a while, for it is only by staying that you collect on the investment of time and energy you made in moving. The general lesson is that costly transitions to preferred states of affairs require intervening periods of stability so that transition costs can be recovered and thus justified. The stability of the intervening periods requires a disposition to be content for a while with what one has—to find something one likes and then stop searching.

Further, even if transition costs are relatively minor, there still can come a point when we should abandon the search for, say, a better job or a better spouse, not because such goals are unattainable or even because the transition costs are too high, but rather because such goals eventually can become inappropriate. At some point, we have to start collecting the rewards that come only when we make a genuine commitment—when we stop looking for something better, and pause to enjoy what we have. We need to be able to satisfice within various local compartments (those defining our searches for spouses, jobs, and so on) in order to make our lives as a whole go well.

3. WHEN SATISFICING IS NOT RATIONAL

Slote says “choosing what is best for oneself may well be neither a necessary nor a sufficient condition of acting rationally, even in situations where only the agent’s good is at stake” (1). For example, a person who is moving and must sell his house might seek, “not to maximize his profit on the house, not to get the best price for it he is likely to receive within some appropriate time period, but simply to obtain what he takes to be a good or satisfactory price” (9). When the seller receives a suitable offer, he may rationally accept it immediately, even though there would be no cost or risk in waiting a few days to see if a higher offer materializes. “His early agreement may not be due to undue anxiety about the firmness of the buyer’s offer, or to a feeling that monetary

transactions are unpleasant and to be got over as quickly as possible. He may simply be satisficing in the strong sense of the term. He may be moderate or modest in what he wants or needs” (18).

Slote does not offer an analysis of rationality. Neither would I want this chapter’s argument to rest on any particular analysis of rationality. I do, however, offer this as a necessary condition of rationality: one’s choice is rational only if one does not recognize clearly better reasons for choosing any of one’s forgone alternatives. This necessary condition is compatible with the means-end supporting condition introduced in the previous chapter. Further, it begs none of the questions that concern us here. It does not entail that rational choice is optimizing choice. Rather, it allows that one could rationally choose an alternative because it is satisfactory, terminating the search of one’s choice set at that point.⁹ Moreover, it also allows that if one has two satisfactory alternatives, one could choose the more moderate of the two on the grounds that it satisfies a preference one happens to have for moderation.

On the other hand, although a sub-optimal option may be good enough to be worthy of choice in a given case, that does not mean it is worthy of being chosen in preference to something that is clearly better. If one has two choices and one alternative is satisfactory but the other is not, then the satisfactory choice is rational because it is *better*. But suppose one has two choices and both are satisfactory. (E.g., suppose your house is for sale, and you simultaneously get two satisfactory offers, one for \$200,000 and another for \$210,000, and you prefer the larger offer.) In this case, one does not give a rationale for choosing the inferior alternative merely by pointing out that the inferior alternative is satisfactory. The inferior option is satisfactory, but since this is not a difference, it cannot make a difference either. By hypothesis, the superior option is also satisfactory.

Why, then, should we choose the superior option? Presumably because it is better. Whatever it is in virtue of which we deem that option superior is also a reason for

us to choose it.¹⁰ Oddly, Slote denies this. It can be rational to choose the inferior option, Slote insists. Nor do we need a reason to choose the inferior option, Slote argues, because rationality does not always require people to have a reason for choosing one alternative rather than another (p. 21). For example, Kate might rationally grab a blouse out of her closet in the morning without being able to explain why she chose that one over the similar blouses hanging beside it. To call her irrational simply because she cannot explain her choice would be a mistake.

This seems right, as far as it goes; not all choices have to be or can be explained. To deem a choice rational, however, is to imply there is an explanation of a certain kind. A person can be rational without being aware of reasons for everything she does, but the things she does for no reason are not rational, and we do not show them to be rational merely by pointing out that a rational person did them. The person who simply grabs a blouse may be choosing, perhaps rationally, to forgo the opportunity to rationally choose which of her several blouses she ends up wearing. If Kate is running late for the train, then under the circumstances anything that counts as a blouse will also count as satisfactory, so she leaves to impulse the selection from her set of blouses. (In this case, the process of searching among alternative blouses virtually vanishes—there is hardly any choice at all. If she instead gives herself a few seconds to make sure she avoids the blouses with valentine or hammer & sickle patterns on them, then she will be choosing within a very small but still real local compartment.)

There may be a blouse in her closet that, given time, would emerge as best. Kate judges, however, that it is not worth her time to wait for this to happen. She is not literally compelled to simply pick something, but it serves her broader ends to forget about seeking the optimal blouse and instead just grab something out of the closet. If Kate is running late for the train, she has reason to simply grab a blouse in preference to the clearly inferior alternative of wasting precious minutes seeking the optimal blouse. Initially adopting an end and creating a compartment within which to pursue it is itself a

goal-directed activity and, from the standpoint of the global optimizer, not one to be engaged in frivolously. Therefore, we can endorse her *method* of selecting a blouse even though we anticipate having no particular reason to endorse her actual selection.

On the other hand, *deliberately* choosing the worse over the better would be irrational, and we do not give ourselves reason to soften this verdict merely by reminding ourselves that rational people sometimes leave their choices to impulse. Rational choice theory can tell us a story about why Kate finds herself going to work in a green blouse with orange polka dots, but the story will require an implicit or explicit distinction between more and less encompassing perspectives. Without the distinction, an optimization story would be blatantly false, for she does not in fact choose the optimal blouse, and a satisficing story would have neither explanatory nor justificatory power, for the point of choosing a merely satisfactory blouse when better ones were available would remain a mystery. To see the point of what she does at the local level, we step back and look at her actions from a broader perspective. From a broader perspective, Kate has reason to simply grab a blouse out of the closet, trusting that it will be satisfactory even if it is not her favorite. However, it cannot be rational to choose something because it is satisfactory while at the same time having a clearly better option already in hand.

4. WHEN MODERATION IS RATIONAL

We saw that, when deciding between two satisfactory alternatives, it does not help to point out that one of them is satisfactory. We could, however, choose on the grounds that one of them is more moderate. Consider an example of Slote's. He says it "makes sense" for someone to desire "to be a really fine lawyer like her mother, but not desire to be as good a lawyer as she can possibly be. This limitation of ambition or aspiration may not stem from a belief that too much devotion to the law would damage other, more

important parts of one's life. In certain moderate individuals, there are limits to aspiration and desire that cannot be explained in optimizing terms..." (p. 2).

I agree that common sense can recognize moderate aspirations as rational, but to note this fact in an off-the-cuff way is hardly to provide an explanation of moderate aspirations. Our common sense recognition is precisely what has to be explained. If all we have is an intuition that an act makes sense, but cannot say what the act makes sense *in terms of*, then we would be jumping to conclusions if we said we were approving of the act as rational. In contrast, if we explain a show of moderation in terms of its conduciveness to overall satisfaction, we thereby explain it as rational. We do not merely claim it makes sense; rather, we actually make sense of it. We thereby show that we had reason to choose as we did, while not having better reasons to choose differently.

How, then, might we explain having moderate career goals? First, there is the issue of tradeoffs mentioned by Slote. One might cultivate an ability to be content with moderate career goals, not because one prefers moderate success to great success, but because one cares about things other than success. Thus, one point of cultivating modest desires with respect to wealth is that it might improve a person's ability to adhere to a satisficing strategy with respect to income, thus freeing herself to devote time to her children, her health, and so on.

There are also ways in which moderation can have instrumental value that do not depend on the need to make tradeoffs. There can be reasons for striving to be as good a lawyer as one's mother even if one wants to be as good a lawyer as possible. For example, a person might aim at being as good as her mother as a stepping stone to becoming the best lawyer she can be. The modesty that enables a person to concentrate on successfully making smaller steps may eventually put her within reach of loftier goals. There is also value in concreteness. A person may have no idea how to become the best possible lawyer, but may have a much clearer idea about how to become as good as her mother because the more modest goal is more concrete. Further, even given two equally

concrete goals, an optimizer might very well choose the lesser on the grounds that only the lesser goal is realistic. Thus, one might become a better lawyer by emulating one's highly competent mother than by wasting one's time in a fruitless attempt to emulate her superstar partner.

Finally, we can at least conceive of moderation being a preference in itself—not just a quality of a desire but itself the thing desired.¹¹ One might explain cultivating such a preference on the grounds that moderation is less distracting than extravagance, with the consequence that a moderate life is a more satisfyingly thoughtful and introspective life. In various ways, then, moderation can have instrumental or even constitutive value from a global perspective. Insofar as moderate preferences can be deliberately cultivated, their cultivation is subject to rational critique, and can thus be defended as rational.

5. WHEN SEEKING OPTIMA IS NOT RATIONAL

To seek optima strikes us as generally pretty reasonable, but not always. Section 2 noted that local optimizing can be a waste of time from a global perspective, but this is not the only circumstance that can make it inappropriate to seek optima. For one thing, a set of alternatives need not contain a well-defined optimal choice at all, let alone one that can be easily identified. To borrow a fantasy example from John Pollock (1984, 417), suppose you are immortal, and are also fortunate to have in your possession a bottle of EverBetter Wine. Wine can improve with age, but EverBetter wine improves so steadily and so rapidly that no matter how long you wait before drinking it, you would be better off, all things considered, waiting one more day. The question is, when to drink the wine?

A rational *person* presumably simply drinks the wine at some point (perhaps after artificially constraining himself to drink the wine by year's end, and then picking New Year's Eve as the obvious choice within that time frame), but the person would not be able to defend any particular day as an optimal choice. Indeed, it is part of the story that

no matter what day the immortal chooses, waiting one more day would have been better. There are no constraints with respect to which he can regard any particular day as the optimal choice, unless he imposes those constraints on himself.

There is something rational about choosing New Year's Eve, but the rationality lies in something other than how that day compares to the alternatives. Although the immortal cannot defend choosing New Year's Eve in preference to waiting one more day, the choice is defensible in the sense that he did not have a better alternative than to pick *something or other*. Indeed, picking something or other was optimal, because it was better than the only alternative, namely, sitting on the fence forever. The distinction between local and global optimizing thus allows us to explain without paradox the sense in which choosing New Year's Eve was rational. Picking something or other—and thus closing the compartment within which he seeks to set a date for drinking the wine—was rational from the global perspective despite the fact that from within that compartment, it was not possible to have a rationale for the choice of any particular day.¹²

The EverBetter Wine story is fantasy, but it shows that we can imagine cases where a set of alternatives has features making it inappropriate to seek the set's optimal member. Seeking optima may serve our ends, but whether it does so is not a necessary truth but rather a contingent truth about the world and the kind of choice sets we find within it. In the EverBetter Wine case, the set of alternatives has no optimal member. Consider a more realistic story with a somewhat similar structure. Suppose a house comes up for sale in January. Out of curiosity, you take a tour and find that you prefer it to the house you now own. When you look into the cost of selling your house and buying the new one, you find that the only cost you care about in the end is the cost and inconvenience of actually moving your belongings and settling into the new house. Suppose this cost, all things considered, amounts to a thousand dollars. Moreover, it is clear to you that such moving costs will be amply repaid eventually. You see that the stream of benefits from the new house will be worth one hundred dollars per month more

than what you will receive if you stay where you are. Thus, the cost of the move will be repaid in ten months. This is hardly a wild fantasy, and so far buying the house is intuitively reasonable. We see the point.

Now, to make the story more improbable, suppose you change houses in January and, four months later, it happens again. You find another house for sale. The move will cost another thousand dollars but the new house will be worth a hundred dollars per month more than the one you now own. However, if you choose to move in May, that choice will make your January move retroactively suboptimal, a net loss of around six hundred dollars. Should you move? (Is it irrational to take this “sunk cost” into account? Economists usually would say no, and for good reason. But investments you make today can set you up to have reason to walk away from a sunk cost a year from now. The contingencies of life as actually lived affect how rational it is to take steps to avoid being in that situation.) Perhaps opportunities to move to ever better houses will surface again and again. You do not know.¹³ But you do know this: for any move to be optimal, something must subsequently make you stay put long enough to recover the cost of that particular move. If you keep waiting for and expecting the day when the world stops presenting you with such opportunities, and if that day never comes, then sooner or later you will have to begin turning your back on them. You will be in something resembling an EverBetter Wine situation, where there is no particular point at which it is especially rational to stop moving. Indeed, whenever you finally reject an opportunity to move, it will be true that if you moved one more time before stopping, you eventually would be better off. Nevertheless, you have come to see that there is a point in committing yourself to being satisfied for a time with the house you have. Recall that optima are defined with respect to constraints. If you resolve in May that, once you choose, you will not look at another house for at least ten months, then choosing to move is optimal with respect to that self-imposed constraint. Your January move will then have been a waste

of money, but your move in May will have been a good move, provided that your self-imposed constraint remains firm.

Satisficing strategies strike us as reasonable in part because of contingent facts about ourselves and our world. For creatures as limited as ourselves, satisficing often makes a lot of sense. Perhaps less obvious is that the intuitive reasonableness of optimizing is no less contingent. Seizing on opportunities to make optimal moves serves a purpose partly because the real world is such that we can take for granted that we will have time between moves to enjoy our improved situation. Real world opportunities to improve our situation do not come along so rapidly that we find ourselves stepping higher and higher without having time to enjoy the steps along the way.

Life as we know it limits our opportunities to improve our situation, but if such limits did not exist, we would have to invent them. We would have to give ourselves time to enjoy our situation even if that meant rejecting opportunities to improve it.

This section argued that seeking optima is only contingently rational. The argument went beyond the idea that different local goals can come into conflict. To be sure, there can be conflicts between pursuing local optima and attaining global optima, and such occasions give us reason not to pursue local optima. This section, though, articulated a different kind of reason not to pursue local optima, because the conflict discussed in this section could occur even if one had no goals beyond, for example, living in the best possible house. The nature of the conflict is that, ironically, seeking to live in the best possible house could leave us with no time to live in the best possible house, or at least no time to enjoy the perfectly satisfactory houses in which we find ourselves, or more generally, no time to become the kind of person who can enjoy life as it is.

Here is another example. When I first wrote this chapter in the early 1990's, word processors were a new invention. I remember how liberating it was to have a word processor in which footnotes could be created with a few keystrokes—footnotes that would automatically follow if I subsequently moved the associated text. But if I had

stopped every few months or weeks to learn a new and better word processor, instead of settling on one and running with it, I would have been giving up the opportunity to become a more expert user of whichever word processor I settled on.

To be the best writer I could be, I needed to commit and recommit to not letting myself be a person who optimized only with respect to external constraints. I needed discipline, which is to say, a sense of when to impose internal constraints. In addition, I needed to have a sense of what was serving my purposes perfectly well. We all need a sense of when to turn off the search for optima and just go with what we know.

6. TRADEOFFS AMONG INCOMMENSURABLE VALUES

As explained, moderate preferences and satisficing strategies can be of instrumental value from the global perspective. Section 4 closed by speculating that moderate preferences might even be considered essential constituents of the good life, and thus might have more than merely instrumental value. Satisficing strategies, however, can be of instrumental value only. This is because to satisfice is to give up the possibility of attaining a preferable outcome, and giving this up has to be explained in terms of strategic reasons one has for giving it up. Local optimizing must likewise be explained, for it too consists of giving something up, namely the opportunity to invest one's efforts in some other compartment.

Global optimizing, however, is not open to question and subject to tradeoffs in the ways that local optimizing and satisficing are. Local goals can compete with each other, but in the arena of rationality there are no goals that compete with optimizing at the global level. A global optimum is not one of several competing goals; rather, in encompassing our lives as a whole, it also encompasses our competing goals. It represents the best way to resolve the competition from the standpoint of life as a whole.

Local optimizing can be a waste of time from the global perspective, but global optimizing cannot.

What, then, is the nature of the global perspective? Do we ever actually assume the global viewpoint or is this merely a theoretical postulate? The answer is that we can and do assume the global viewpoint every time we do what we call “stepping back to look at the big picture.” We do sometimes ask ourselves if the things we do to advance our careers, for example, are really worth doing. We do not spend all our waking hours looking at the big picture, of course. Nor should we, for when we look at the big picture, one thing we see is that it is possible to spend too much time looking at the big picture. Reflection is a crucial part of the good life, but only a part. Part of attaining a global optimum involves being able to lose ourselves for a time in our local pursuits.

In the previous section, we saw that, at least in fantasy cases, there can be rational choice regarding a set of alternatives even when the set has no optimal members. The lesson applies to more realistic situations as well. In particular, as Isaac Levi notes, a person torn between ideals of pacifism and patriotism need not feel that his eventual choice is best, all things considered. Rather, he may feel that his eventual choice is best according to one of his ideals and worst according to another. What we have in such a case is what Levi (1986, 13ff) calls “decision making under unresolved conflict of values.” If you have several goals, none of which are subordinate to any other, and you find yourself in a situation where these goals are in conflict, the globally optimal tradeoff may not exist. And such situations (involving concerns for one’s loved ones and for one’s ideals, for example) may be rather common.

Yet, even in situations where there is no such thing as a global optimum, we can still take a global perspective. We can still look at our lives as a whole even if nothing presents itself as optimal from that perspective. Indeed, conflict of values is precisely what drives the emergence of broader perspectives. We confront the big picture precisely when we stop to consider that there is more to life than pursuing a career or buying a

house or raising children. It is from broader perspectives that we confront conflicts of values, with or without an algorithm for resolving conflict in an optimal fashion.¹⁴

One might think unresolved conflict is a sign of poorly chosen values. Why should would-be global optimizers risk adopting goals that could leave them having to make decisions under unresolved conflict? One reason is that some of our goals realize their full value in our lives only when they develop a certain autonomy, when we pursue them not as means of making our lives go well but as ends in themselves. We begin to tap the capacity of our ideals, our spouses, and our children to enrich our lives only when we acknowledge them as having value far beyond their capacity to enrich our lives. (Cherishing them becomes more than an instrumental means of making life go well; it becomes constitutive of life going well.) And goals we come to cherish as ends in themselves inherently tend to become incommensurable.¹⁵ We may, for instance, find ourselves in a position where we cannot fight for a cause in which we deeply believe without compromising the care that our loved ones need from us and that we wholeheartedly want them to have. Such is the price of the richness and complexity of a life well lived. To have both ideals and loved ones is to run the risk of having to make decisions under unresolved conflicts of value.

Because some of our values are incommensurable, we sometimes have no method by which to identify optimal tradeoffs among conflicting local goals. In such cases, the goal of making life as a whole go as well as possible remains meaningful, although there may not be any course of action that unequivocally counts as pursuing it. Even if would-be global optimizers cannot identify optimal options, they can still reject alternatives that fail to further any of their goals. In particular, if no better way of resolving the conflict emerges, simply picking something or other will emerge as optimal compared to the alternative of remaining on the fence, for we eventually reject fence-sitting on the grounds that it fails to further any of our goals.

This may seem a grim picture of rational choice at the global level, but there are two points to keep in mind. First, when faced with a situation in which we must simply pick something, we are likely to have regrets about paths not taken, but we naturally adapt to the paths we take, and regret can fade as we grow into our choice. Thus, an alternative somewhat arbitrarily picked from a set within which no optimum exists can eventually come to be viewed as optimal from the perspectives of people we are yet to become, even if it could not have been considered optimal at the moment of choice.

Second, this discussion of underdetermined rational choice concerns a worst-case scenario. Global optimizers carry out the highest-ranked life plan when they have one. Often, however, there is no highest-ranked plan for life as a whole and thus no well-defined global optimum; there is only a need to cope with competing and sometimes incommensurable local goals. In the worst case, no course of action unambiguously qualifies as making life as a whole go as well as possible, except insofar as it is unambiguously better to move in some direction rather than none. But this gives us enough to avoid paralysis even in the worst case. By hypothesis, simply picking something emerges as the best the agent can do, and thus to pick something is to optimize with respect to the choice of whether to spend more time sitting on the fence.

It would be natural to say rational choice is choice “all things considered.” The trouble is that we often find ourselves not knowing what to consider, and it would be bad advice to tell us to consider all things. We can consider all things within a limited range, perhaps, but the limit of that range is itself often a matter of choice in large part. We start out knowing that in some sense we want each aspect of our lives to go as well as possible, yet we realize that our resources are limited and that our various pursuits must make room for each other. When looking at our lives as a whole, what is most clear is that rationally managing a whole life involves managing tradeoffs among life’s various activities. If the benefits that will accrue from our various pursuits are known and commensurable, then managing the tradeoffs is easy, at least theoretically; we simply

maximize the sum of benefits. However, we have pondered everyday cases where the benefits are neither known nor commensurable with other benefits. Even so, we can effectively manage tradeoffs among particular pursuits by setting limits on how much of our lives we spend on particular pursuits. We can also set limits on how much benefit we insist on getting from particular pursuits. To impose the latter kind of stopping rule on a particular pursuit is to embrace what I have called a satisficing strategy.

Both kinds of constraint—both ways of knowing when to stop—play a role in rational choice. Why? Because if we recognized only temporal limits, say, then we would automatically spend our full allotment of time in a given compartment even when we already had an acceptable option in hand. But if we also have strategically limited aspiration within that compartment, then finding an acceptable option will trigger a second kind of stopping rule. The second stopping rule closes the compartment and diverts the unused portion of the compartment's time allotment to other compartments where our need to find an acceptable option has not yet been met. Cultivating moderate preferences may also be advantageous in a supplementary way insofar as moderate preferences may help us adhere to the kind of limit we impose on a pursuit when we embrace a satisficing strategy.

Against the idea that our most important goals tend to become incommensurable with each other, one might suppose our global end is simply to flourish or to be happy—and that our local goals therefore *must* be commensurable in such terms. This would be a tidy climax to an otherwise rather untidy story about rational choice under unresolved conflict of values, but the tidiness would be superficial. One hardly gives people an algorithm for resolving conflicts when one advises them to be happy. What makes such advice vacuous is that flourishing and being happy cannot be concrete goals at the global level in the way that finding a house can be at the local level. Of course we *want* to flourish, but we *aim* to flourish only in an especially metaphorical sense. The fact is that

we flourish not by aiming at flourishing but by successfully pursuing other things, things worth pursuing for their own sake.

Likewise, happiness can be a standard by which a life as a whole is judged, perhaps, but it cannot be a goal at which a life as a whole is aimed. We do not become happy by pursuing things there would otherwise be no point in pursuing. Rather, there must be a point in striving for a certain goal before striving for it can come to have any potential to make us happy. To aim at happiness is to aim at a property that can emerge only in the course of aiming at something else.¹⁶ So, the point about happiness and flourishing leaves us where we started, having to choose among things we value for their own sake, hoping we will be happy with our choice.

We might add that happiness derives from a variety of local sources, and the different elements of a person's happiness are not interchangeable. Our various local pleasures are not fungible; different pleasures are not experienced as interchangeable units of the same kind of stuff. We can find happiness in our careers or in our marriages, but the vacuum left by a shattered career cannot be filled by domestic bliss.¹⁷

7. AN INFINITE REGRESS OF PERSPECTIVES?

The global perspective is the perspective encompassing our lives as a whole. Decision making at this level disciplines the amount of time we devote to particular local compartments. It seems that we are capable of taking a perspective this broad even in worst-case scenarios where there is no well-defined global optimum. But even if we suppose we can take a perspective encompassing our whole lives, why should we suppose this is the broadest perspective we can take?

Perhaps there can be broader perspectives than what I call the global perspective. Indeed, Part II of *Rational Choice and Moral Agency* argues that we do have access to a larger perspective, that there are aspects of morality that we cannot appreciate except

from a larger perspective, and that it can be rational to try to achieve this perspective. On the other hand, it would be unrealistic to suppose there is an infinite regress of levels. I need not prove that an infinite regress is impossible, but because an infinite regress is unrealistic, I do need to show that my theory does not *presuppose* an infinite regress.

The threat of infinite regress arises in the following way. I said we cannot spend all our time looking at life as a whole; we must be able to lose ourselves (or find ourselves) in our local pursuits. How much time, then, should we spend pondering conflicting values? How much time should we spend looking at life as a whole? From what perspective do we choose to limit the amount of time we spend looking at our lives from the global perspective? Perhaps we need a “superglobal” perspective in order to answer these questions. After all, how could we decide how much time to spend at a given level unless we did so from a still more encompassing perspective? It seems my theory can explain the time we allot to a given perspective only by supposing that we retreat to a broader one, *ad infinitum*.

But the theory presumes no such retreat. There are more realistic ways to explain how much time we spend looking at life as a whole.¹⁸ First, there are things, like sleeping, that we do as the need arises; when we do not *decide* how much time to spend sleeping, then we do not decide from a broader perspective, either. Indeed, we might be better off sleeping as we feel the need rather than trying to calculate how much time to spend. So too with the activity of reflecting on life as a whole. Insofar as our purpose in looking at life as a whole is to resolve conflicts arising between various aspects of life, so that life as a whole may go well, there comes a time when taking a global perspective has served its purpose. At that time, the compartment in our lives reserved for the activity of resolving local conflicts naturally closes until subsequent conflict forces it open again. There is no residual conflict awaiting resolution at a higher level.

Thus, the question of how much time to spend in contemplation need not itself require contemplation. Rather, we take whatever time it takes to genuinely resolve a

conflict, or else we reach a point where we must simply pick something. More generally, we stop contemplating when we judge that pursuing our local goals has come into conflict with—and has become more important than—the activity of thinking about how to juggle them. (For example, we would not dwell on the big picture if we were starving. Conflicts are rarely so important that contemplating them could preempt securing our immediate survival.) In this scenario, we are driven *to* the global level by local conflict and eventually are driven *from* that level by a need to get on with our lives. The question of how much time to spend looking at life as a whole resolves itself.¹⁹

We also can imagine a second kind of scenario in which the question does not resolve itself but is instead answered by deliberate calculation, in the same way that we could imagine deliberately calculating how much time to spend sleeping. Could we make a conscious decision of this kind without taking a superglobal perspective? Yes, we could. Consider that contemplation is an activity that must find its place in our lives along with other activities. For example, I may spend the month of July in a rented cabin, not doing anything to pursue my career, but just thinking about why I ever wanted to be a philosopher and about whether my original reasons still hold. This compartment in my life is reserved for contemplating my career. It is separate from compartments within which I actually pursue my career. I also have a compartment, similar in many respects, within which I contemplate life as a whole. But although the *subject* I contemplate is the whole of my life, the contemplation itself is not. The contemplation is only one of many activities about which I care.

Now, if I need to decide how much time to reserve for contemplating life as a whole, I take a global perspective, trying to gauge how important such contemplation is to my life as a whole. Notice, then, what is unique about the compartment I reserve for the activity of contemplating my life as a whole. The compartment is unique because *its boundaries are set by the activity that takes place within it*. In the course of contemplating life from the global perspective, I decide how much time to reserve for any

given activity, including contemplation in general and contemplating life as a whole in particular. In this scenario, as in the previous one, no boundary setting issue is left to await resolution at a higher level.

We have outlined two possibilities. In one case, we use whatever time it takes to resolve conflicts, subject to preemption by activities that in the short run are more important than conflict resolution. In this case, no decision is required. The discipline is automatic. In the second case, we discipline the compartment from within, as our contemplation of tradeoffs leads us to conclude that we should reserve time for contemplating tradeoffs along with our other local activities. In neither case is there any need for a superglobal perspective to decide how much time to reserve for the activity of taking the global perspective. Such decisions are precisely the kind we make from the global perspective itself, if we need to make them at all. Unless we introduce something that competes with the goal of making life as a whole go as well as possible (such as, perhaps, a recognition of moral obligations), there is no reason to step back from a global perspective to something even broader.

8. CONCLUSION

This chapter sets out part of a normative ideal of rational choice suitable for the kind of beings we happen to be, beings who would only hurt ourselves if we tried to maximize our overall utility in every waking activity. It defines satisficing and local optimizing as strategies for pursuing goals within constraints that are in part self-imposed. Satisficing emerges not as an alternative to optimizing as a model of rationality, but rather as an alternative to local optimizing as a strategy for pursuing global optima.

Under normal conditions, we employ a combination of heuristics, such as (1) compartmentalizing our pursuits so as to narrow the scope of any particular optimization problem to the point where our limited knowledge becomes sufficient to identify an

optimal solution, (2) accepting self-imposed constraints for the same reason as well as to keep particular pursuits from preempting more important ones, and (3) satisficing, which has the effect of closing compartments as soon as they serve the purpose for which they were created. Under normal conditions, where we lack the information we need to assign probabilities and utilities, this combination of strategies is more effective at making our lives as a whole go well than the alternative of plugging guesswork into a formula for maximizing expected utility. Thus, it is no wonder we so rarely make any attempt to calculate expected utilities, for the truth is that we usually have better things to do.

When goals conflict, there may not be any well-defined sense in which one way of resolving the conflict is, from the viewpoint of life as a whole, better than alternatives. Of course, we do well to cultivate moderate preferences that reduce the frequency and severity of conflicts of value. At the same time, there are limits to what we should do to avoid situations of underdetermined choice, for the risk of finding ourselves in such situations is a risk we assume in the process of becoming rationally committed to particular ends as ends in themselves. A life with no regrets (about decisions made under unresolved conflict) is preferable, other things equal, but if the lack of regret is purchased at a cost of not having goals that can come into unresolvable conflict, the price is too high. To have more than one aspiration is to risk finding oneself in situations where global optima do not exist, but there are reasons why a global optimizer would take that risk.

Admittedly, these conclusions about rational strategy are not neat and tidy, certainly not in comparison to simple maximization models. But tidying up conclusions at the expense of realism would be a mistake, for the conclusions are meant to be about us, not about mathematically tractable caricatures of us. Rational choice theory developed along lines indicated here and in chapters to follow has more power than simple maximization models to explain how we actually live, but it does not thereby become merely a self-congratulating description of how we live. Rather, it remains (or

becomes) a tool for evaluating and criticizing the ways in which we actually live. It sets out a normative ideal of rational choice that it would be natural and healthy for us to try to live up to.

Epilog 2015: So, Why Be Moral?

In this chapter, I sought to clinch the point that rationality is nothing so simple as an imperative to maximize. First, it is not always rational to maximize. Second, when maximizing is rational, especially when maximizing something as crude as wealth and income is rational, such rationality is a local and compartmentalized thing. What is rational to aspire to do with our life as a whole is not what mainly conflicts with being moral. It is *within* compartments, where we think in relatively narrow terms, that rationally seeking to achieve narrow ends, given by the parameters of a compartment, can conflict with being moral. That is precisely the sort of conflict that rationally drives us out of our compartments and makes us step back to look at the big picture.

I do not mean to trivialize that conflict, but I note that rationality so conceived—*narrowly* conceived—is as much in tension with a broader conception of rationality as with morality. If we do not step back to look at the big picture at those critical junctures where the meaning of our life is hanging in the balance, we are mishandling the tension.

I am not saying that there is no tension. My point is only that neither rationality nor morality come out in *favor* of mishandling that tension—ignoring alarm bells telling us to step back and rethink the parameters of a given compartment. What we aim to *get* can conflict indeed with what we (rationally and morally) aspire to *be*.

Bottom line, even before we get into how humanly rational choice engages moral agency: the fact that we receive and process information and evaluate options in real time—in sequence—has a lot to do with what strategy is called for. We talk about the irrationality of caring about sunk cost, but when we defend that thesis, we end up having

to be pretty precise, which raises questions about ways in which the irrationality of caring about sunk cost is contingent, and ways in which what looks irrational on the blackboard might be selected for within a particular ecological niche.

That we are beings who process information by attaching defeasible credences means that we are massively vulnerable to various forms of confirmation bias. The order in which we receive the bits of information will affect later bits of information that may not be entirely consistent with bits previously accepted provisionally. Our criteria for what to regard as satisfactory are adaptive. Some people adapt more readily than others. Not adapting may often look irrational from the outside. However, adapting expectations and beliefs can be pro-survival without being pro-happiness, so what feels rational on the inside can be quite a different thing.

Paul Weirich (2004) is helpful on these topics, covering a lot of this ground in an admirably nonjudgmental way. Millgram has a lot to say about the normalization of utility baselines.

Appendix

The Difference Between Satisficing and Local Optimizing

The opening section distinguished between satisficing and local optimizing as stopping rules. Some readers may want to consider a graphical representation of that distinction. We might represent a choice among alternatives in 2-dimensional Cartesian space with Utility on the y-axis and our alternatives arrayed along the x-axis. If we know the shape of the utility curve, we simply pick the highest point. No controversy. See Figure 2.1.

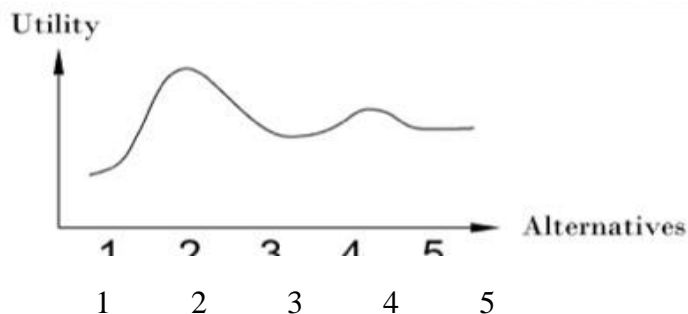


Figure 2.1. Searching Among Alternatives With Known Utilities

Chapter 2 concerns what to do when we are looking at a blank; i.e., we may suppose there is some curve or other, but often we do not know what it looks like. See Figure 2.2.

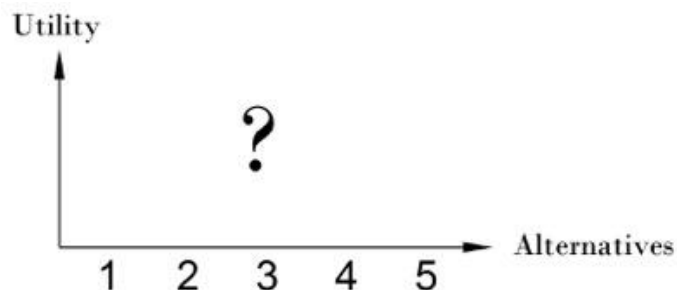


Figure 2.2. Searching Among Alternatives With Unknown Utilities

Further, suppose we look at life from a global perspective, wanting life as a whole to go well. What do we see? Not one big graph, blank or otherwise. Rather, we see a collection of little graphs, some of which are more or less blank. A question then arises: within a particular compartment, how do we make decisions when we do not know the utility function's shape? The answer is that we search the set of alternatives. We see how much utility a_1 has. We see how much a_2 has, etc.. And since other decisions (searches) are also calling for our limited resources, we pick something at some point.

At what point do we rationally stop searching and pick something? The answer is that we impose two kinds of constraints on our search of the particular local utility space. We impose vertical constraints on how many alternatives we will consider (or if we

defined the x -axis differently, constraints on how much time or money or whatever resources we invest in the search). In other words, we operate with limited *inputs*. Or we impose horizontal constraints on how much utility we insist on getting before we stop searching. In other words, we operate with limited aspirations, limits on aimed-at *output*. Or we do both. Then, when we run up against either kind of limit, we stop searching in that local utility space, pick something, and turn our attention to some other local utility space. See Figure 2.3.

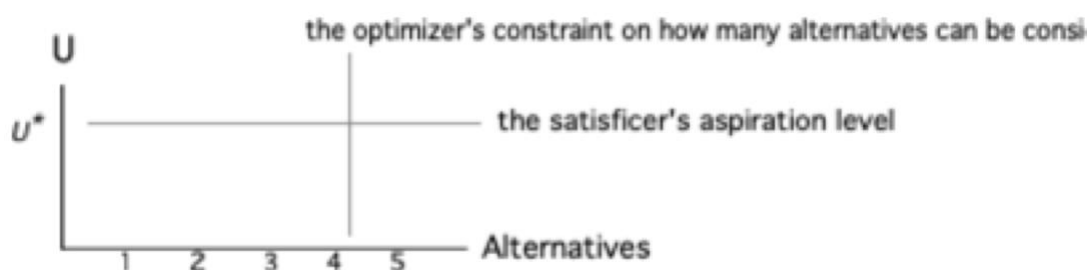


Figure 2.3. Two Stopping Rules Contrasted

In Figure 2.3, the horizontal line represents the point at which $U = U^*$, where U^* is the level of U with which the agent will be satisfied. As mentioned earlier, we can let the expected utility of continued search equal the probability of finding a better option, $P(fbo)$, multiplied by the utility of finding a better option, $U(fbo)$, minus the cost of further search, $C(fs)$. In that case, the vertical line in Figure 2.3 represents the point along the x -axis at which, the agent judges, it becomes true that $P(fbo)U(fbo) - C(fs) \leq 0$, where $P(fbo)U(fbo)$ is the expected utility of further search. $C(fs)$ is the cost of further search.

In Figure 2.3, vertical constraints are constraints on inputs, and define the search as local optimizing, taking the best alternative we discover prior to hitting that constraint. Horizontal constraints are constraints on aimed-at output, and define the search as satisficing, taking the first alternative we find with that high a utility. The two strategies

can be used together, of course. The argument here is that this is how we actually live and that a global optimizer would have no reason for wanting to do things differently.

The vertical constraints partition our various activities in terms of how much of our total resources are allotted to those activities. Note that we do not need to be able to prioritize our activities in order to ration our resources among them. If necessary, we can arbitrarily set vertical constraints on how much (time, money, and so on) we are willing to spend within a particular compartment. As illustrated by the story about imposing time constraints on our search for optimal toothpaste, we tend to be satisficers when gathering information about where to set vertical constraints. The less we know about what our different endeavors mean to us, relatively speaking, the more arbitrariness there will be when we set the vertical constraints that delimit the different compartments. By the same token, the more comparability we have in terms of the relative importance of our different activities, the less arbitrary will be the boundaries we draw between them.

- 1 What Herbert Simon (1955) means by satisficing is that, given our limited capacity to acquire and process information, we economize on our limited capacity by setting a concrete goal and then reasoning back to conclusions about what course of action would achieve that goal. The notion of satisficing as a stopping rule is implied, and later becomes explicit (Simon, 1979, 3). See also James March (1988, 270). Simon treats satisficing as a surrogate for optimizing under particular information constraints and, so far as I know, treats our limited information as an external constraint. I think such constraints are more fruitfully understood as being partly self-imposed. In particular, the distinction between satisficing and optimizing becomes more interesting, as explained in Section 2.
- 2 When pressed to justify stopping a search upon finding a satisfactory alternative, people may say further search was not worth the cost. Does that mean they were optimizing after all? Only if the cost of further search was what in fact stopped them. If what stops a search is the finding of a satisfactory alternative, then it is a case of satisficing, no matter what is said after the fact to defend the choice. For more on how stopping rules differ and how they work in combination, see the Appendix.
- 3 There may not be any precise way to characterize ‘good enough’. Options promising disease, imprisonment, or premature death are typically held in low esteem, however, so the notion has certain objective elements. But what people consider satisfactory also seems relative to expectations. As expectations rise, the standards by which an option is judged good enough also tend to rise. This fact can be tragic. It can render people unable to appreciate how well their lives are going. Of course, it is rational to set *goals* with an eye to what is attainable, raising one’s sights as higher goals become attainable. But raising the standard by which we deem our situation satisfactory is harder to fathom. Perhaps people are psychologically incapable of aiming at higher goals without simultaneously reformulating their notions of what is satisfactory. I do not know.
- 4 I borrowed the terms ‘local’ and ‘global’ from Jon Elster (1984, 9), although a rereading of his text reveals that the way he uses the terms bears little resemblance to the way they are used here. (He says the definitive difference between locally and globally maximizing machines is that the latter, unlike the former, are capable of *waiting* and *indirect* strategies.)
- 5 Someone wanting a tractable mathematical model might decide to ignore the felt experience of pursuing local goals under self-imposed constraints and concentrate instead on a global perspective from which self-imposed constraints appear, roughly, as preferences about how to operate within external constraints. I want to explain satisficing in terms of thought processes we can recognize within ourselves, though.
- 6 As I learned from Jules Coleman in conversation, what David Gauthier (1986, 170) calls constrained maximization is a particularly interesting kind of local optimizing under self-imposed constraints. Constrained maximizers seek maximum payoffs in Prisoner’s Dilemmas, subject to this constraint: they cooperate (and thus pass up the opportunity to unilaterally defect) if the expected payoff of cooperating exceeds that of *mutual* defection, which it will be if and only if they expect their partners to cooperate.
- 7 The Appendix to this chapter graphically distinguishes the two kinds of self-imposed limit.
- 8 Jay Rosenberg tells me that, before he looked for a house, he made a list of key features, telling himself he would take the first house having 85% or more of those features. As it happens, the first house he looked at scored 85%. He stopped looking, bought the house, and lived there for the rest of his life.
- 9 That is, an optimizer might choose a satisfactory option in preference to searching for better options that might never materialize. Slote, however, says we intuitively recognize the rationality of taking the first satisfactory offer even in abstraction from the real-world risks and anxieties of having to sell one’s house (18). However, if we are going to talk about common sense allowing a seller to immediately accept the firm offer even though the seller has the option of waiting a few days in hope of a higher offer, then we have to stick to conditions under which common sense holds sway. We do indeed have intuitions about what to do in risky situations, but we cannot, as Slote wants to do, simply *stipulate* that our intuitions regarding risky situations have nothing to do with the fact that in the real world such situations are risky. In the real world housing market, to turn down an entirely satisfactory offer in quest of something better is to court disaster, to tempt fate. This is one reason why it is common sense, and rationally explicable

- common sense, for a global optimizer to be hesitant about turning down a satisfactory offer. Even from a local perspective, the expected gain from further search may not be worth risking the potential loss.
- 10 Philip Pettit (1984, 172) makes the same point.
- 11 I thank Mark Ravizza for this point.
- 12 Edna Ullmann-Margalit and Sidney Morgenbesser (1977, 758-759) say one *picks* between A and B when one is indifferent between them and would rather select either than select neither. What I call “picking something or other” presumes the latter but not the former condition, for one could be in a picking situation even if one was not indifferent between one’s alternatives. In the EverBetter Wine case, one cannot find even a pair of alternatives over which one is indifferent. Even so, one still is forced to simply pick.
- 13 If you knew that ever better opportunities would keep coming in a steady stream, the optimal long run strategy would be to make a big move up every ten months, skipping intervening steps.
- 14 As Allan Gibbard (1990, 321) says, we have ways of coping other than by resolving everything.
- 15 Seung and Bonevac (1992) distinguish between *incommensurate* rankings (in which no alternative comes out best) and *indeterminate* rankings (in which several alternatives come out tied for best). Most of what follows is about incommensurate rankings. In contrast, most of the cases discussed in Ullmann-Margalit and Morgenbesser (1977), like the case in which a shopper chooses among identical cans of tomato soup, are about indeterminate rankings.
- 16 As Bernard Williams (in Smart & Williams, 1973, 113) puts it, one has to want other things for there to be anywhere that happiness can come from. See also the eleventh of Joseph Butler’s *Fifteen Sermons* (1874, 139).
- 17 I thank Nick Sturgeon for a discussion from which this point emerged. See also Chapter 6 of Michael Stocker (1990) and, of course, Chapter 2 of John Stuart Mill’s *Utilitarianism*.
- 18 The simplest way to explain the amount of time spent at the global level would be to say we take whatever time we need to consider *everything*. The trouble is that we do not have time to consider everything that might be relevant to life as a whole, any more than we have time to consider everything that might be relevant to the purchasing of a house. The explanation will have to be more complicated than this; hence the line of thought pursued in the following text.
- 19 Note in passing that not only conflict, but conflict resolution can drive us to take a global perspective. Thus, when we finish a major project that had forced other pursuits to take a back seat, the sudden relaxation of the self-imposed constraint to focus on the major project may leave us reflecting on stuff we have neglected. Conflict did not drive us to take this particular big picture, but conflict can be what terminates this particular taking of a global perspective, as continuing to reflect on the big picture begins to compete with an emerging need, say, to start making dinner.