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CHAPTER 11: NOTES ON AN APPLICATION *

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Chapter 11 Notes on an application

Learning about observations from the theory and learning how to use the theory from work with observations is an interactive enterprise. Beginning in Chapter 7, we have been pursuing that with respect to how a NSNX + cognition view might give insight into what was happening in data from cooperation experiments. But I have often mentioned, because it is essential not to let it out of sight, that what motivates all this concern with the artifactual cooperation games is that that a theory which works well in accounting for experimental data should yield insight into how cooperation works beyond the lab. And translating what can be learned from working with data from the artificial context of laboratory games into something that can be fruitfully applied in natural settings also requires learning by doing. Can situations in the world be found where the theoretical apparatus developed here has some bite? If so, how would that work? This is a large and difficult topic, certainly not to be settled by the few pages I will offer here. But I do hope to open the door on this large topic.

By way of a not-so-academic exercise in using NSNX + cognition, I sketch out a few illustrations tied to the particularly salient (as I write) question of the relation of the war in Iraq with the broader problem of jihadist terrorism.

As used here, *jihadist terrorism* means terrorist tactics aimed broadly at the West and in particular terrorism targeted on American interests. So I set aside here terrorism focused on more local issues within Iraq, or in the Israeli/Palestinian or Turkish/Kurdish conflicts, or in numerous other conflicts even further removed from any plausible connection with 9/11. I write in early 2007, but with some confidence that what happens between when this is written and when it is read is unlikely to make it out of date for the purpose at hand, which is to explore how the NSNX + cognition argument might be put to work.

Since comment on this topic is vast, saying something no one has said (and that has any serious prospect of turning out to be right) may be impossible. But it is useful in general, and especially so dealing with a novel kind of account, to manage to say something that is only novel in the limited sense that that seeing a point from the novel perspective brings some aspects of an insight more sharply into focus. And I will try to get at least a little beyond that.

The key issue for us concerns the persistently proclaimed view by supporters of the Bush policy in Iraq that the war diverts jihadist effort into Iraq to American advantage since we get to destroy jihadist resources sent there to oppose us, rather than have those resources used against us, perhaps in some repeat of 9/11. The overwhelming view among people seriously immersed in work on terrorism from early on has been that on the contrary, the war in Iraq fuels recruitment to jihadism worldwide that by a wide measure exceeds any attrition that can be claimed in Iraq. I will reach that usual conclusion, by way of a discussion in terms of NSNX. By that route I also reach a conjecture -- it would too strong to say a conclusion -- on how the Bush Administration could have performed so badly. That the war has been handled badly is a point that no longer seems in much dispute even among supporters of the Administration. But the conjecture about how this could have happened is unconventional, hence certainly might be wrong. But if correct, it has serious consequences.

We have (from the earlier chapters) four main points to work with.

(1) The basic NSNX equilibrium developed in Chapter 1, turning on the pair of NSNX rules governing how an agent finds a balance between competing propensities favoring self-interest and group-interest. This yields the NSNX equilibrium condition, $W = G'/S'$. W is weight to self-interest, which goes up as an agent perceives himself as sacrificing more for a cause than other people in his situation. G' is the perception of social value (utility), S' of the private value (utility) that must be traded-off in a choice. $W > G'/S'$ favors self-interested choice, $W < G'/S'$ favors group-interested choice. An agent favors the choice that gets closer to equilibrium.

(2) The S-diagram developed in Chapters 4 and 5 captures implications for *social* equilibrium of the *individual* equilibrium condition in (1). The logic which leads from the NSNX individual equilibrium condition to the S-diagram points to the characteristics and importance of an initiating seed, of tipping point effects, and of a set of tactics available to agents motivated to tip a social situation to a different equilibrium.

(3) What I have called *neglect* defaulting was developed in Chapter 6. A human being could not get through the day unless she neglected the vast bulk of what comes within the range of detailed attention. In familiar settings we are very good at choosing

what to attend to (we don't *choose* to ignore anything: that is the default). In unfamiliar settings that reliability must begin to fade, which has consequences for choices outside the range of familiar experience, and which also effects how NSNX interacts with context. .

ED: Fig 7.6 either reprinted here, or a page reference to Ch 7.

(4) The NSNX cascade developed in Chapter 7 and reprinted as figure 1 here concerns the subjective frames which might guide intuition in a social interaction. Some social interactions are competitive, some cooperative. Of competitive contexts, some are zero-sum, others payoff-maximizing. Of cooperative contexts, some are pure coordination, others subject to free-rider risk. The frame that (usually covertly) guides intuition in a context governs what sort of choices seem sensible to an agent. But an extension of (3) points to the possibility of adverse defaulting within the cascade, where an agent sees a context of social interaction from a frame that on reflection she would regard as mistaken.

At the extreme, a situation which is actually zero-sum may be somehow framed as a problem of coordination, or the reverse, but in either case yielding a result the chooser would on reflection see as a blunder. So analysis in terms of NSNX of choices in a context that is complicated, conflicted, and out of the range of familiar experience needs to allow for difficulties due to what I have labeled *adverse defaulting*, leaving a person blind to important information that is plainly in sight, or leaving a person with a sense of the kind of social context he is in that does not fit the situation he is actually in.

In sum, the S-diagram (2) and framing within the NSNX cascade (4) follow from the basic NSNX logic (1). And in cognitively difficult conditions, how they work will be complicated by the vulnerability of agents to adverse defaulting (3). Earlier chapters have taken up a number of what seem to me downright startling examples of experimental results that diverge from what standard theory and often also from what common sense would expect, but in ways that invite an explanation in terms of NSNX + cognition. In the experiments there is no real complexity, but also no rich context of the sort routinely available to guide intuition in natural situations. But when we turn to natural situations that are novel, and conflicted, and complex, and out-of-scale with

everyday choices -- which describes many contexts of large-scale cooperation (or failures of cooperation) -- that is not at all an unusual situation.

Directly from the NSNX equilibrium condition (1), making G/S' larger (or smaller), or making W smaller (or larger), would increase (decrease) any propensity to favor what the agent sees as group-interest. We want to consider what would move things one way or the other. We also want to consider what would diminish support even though G/S' for commitment to jihadist terrorism is not changed. That possibility arises mainly because a person who sees social value in jihadism very likely also sees social value in any number of other cleavages (Sunni/Shiite, Arab/Persian, and others) that might compete with his sense of G' with respect to supporting violent attacks against American or friendly-to-America targets. And if the salient focus of concern shifts (in NSNX terms, if the most promising outlet for group-interested choice changes), the agent's sense of the relevant "people like me" governing W would also change. This competition among alternatives for what is salient as group-interest is like the mundane competition of items on a menu: You are not going to have room for everything. And another way there might be competition is in the sense that a side-effect of attacking Americans might have an adverse effect on another cleavage an individual cares about. Or a person might see the two concerns as complimentary, not competitive, and either way parallel to the analogous point in a mundane context of consumer choice.

Another dimension is the scale of the political goals, which range from pathological (the world is evil so destruction is good), to grandiose (re-establishment of the caliphate), to highly ambitious (forcing US and European withdrawal from any influence in the Middle East.) to relatively modest (forcing the US to pressure the Israel to make major concessions to the Palestinians or move away from intervention in support of pro-American governments in the area. The possibilities are complicated, and the first is entirely beyond the each of rational analysis and also beyond the scope of these notes. For the rest, grandiose goals attract some supporters and alienate others, but if treated as long-range aspirations in some contexts and heralding imminent return of the Prophet in others a jihadist might hope to keep both utopians and realists in hand, while enemies on the right (opposing jihadism) and on the left (radical splinters) would try to make that

difficult. But to the extent that G' for attacking the US seems overwhelmingly high across the spectrum, the problem of papering over cracks in the jihadist platform of course must be eased.

The possibility of adverse neglect defaulting is relevant here (and at several later points). Recalling the distinction in Chapter 3 between aspirational and pragmatic norms, here observers without an intimate familiarity with the context will easily miss distinctions between aspirational and pragmatic goals that are easy to see from inside, even when in a conscious sense they "know" about the distinctions. For without the visceral prompts that make an insider quick to notice distinctions, an outsider can neglect what is logically plainly on view, as in a number of examples in the experimental games of earlier chapters. Misjudgments can follow of either a hawkish or dovish form. A hawk inclined to see the adversary as intransigent (so it is a mistake to encourage him by concessions) may not register good evidence that a goal is aspirational, while a dove fails to register good evidence that an entirely intolerable goal is actually seen as pragmatic, not merely aspirational. And misframing within the NSNX cascade could then follow, with a hawk seeing a situation as zero-sum when payoff-maximizing would be more sensible even from his hard-line perspective while the dove might see a coordination problem where the more prudent framing would be one of very risky cooperation.

But jihadism of course is not just another outlet for group-interested motivation. The targets are civilians. Inhibitions have to be overcome. What is needed is evidence and argument that provokes a severe visceral sense of outrage. And arguments that make sense to potential supporters, justifying extreme actions, are needed to lock down what has been put in place by visceral responses. Sheer anger and outrage cannot be at hand continually, so argument is needed to keep conviction alive, ready to be stoked into passion again by new evidence of outrageous behavior. Extreme actions incite visceral responses from the other side. Each side attends to what inflames passions ready to ignite and easily neglects what ignites passions on the other side. But since contemporary people in the West do not feel they have been subject to humiliation and domination by Muslims, there will be a very large asymmetry in readiness to be provoked. In terms of the neglect defaulting introduced in Chapter 6 (and recalled in the previous paragraph), consequently, it would be hard for someone in America to notice how outrageous in

Middle Eastern eyes images might be of American troops kicking in doors, perfectly routine and appropriate military behavior as it may be, and mild as the abuse may be relative to what is commonplace in that part of the world. And of course there are many more provocative images are commonly on view.

Reducing the occasions for sparking fresh ignitions lets G' (for jihadism) cool down. Since it is impossible to be impassioned in two directions at once, competition between opportunities for group-interested choice will be inevitable. Sometimes passions will be diverted from outrage at the West to outrage dividing the Muslim community. Passions directed one way might be eventually judged a diversion from more important interests, or more effectively pursued interests. Outrage is not the only element in choice. But passions, being passions, are not easily set aside to allow reflection. Arguments might make violent attacks seem unlikely to be effective, or misdirected, or likely to provoke painful retaliation, but effective arguments might be hard to find. All sides would warn against expecting immediate results and point to historical examples of the success of sustained campaigns.

So there will be many ways in which terrorists and counter-terrorists will seek to inflame or moderate passions, communicate arguments, sustain commitment, impose costs, offer rewards that will move the NSNX value ratio (G'/S') of agents they would want to deter or to encourage. Well-chosen concessions, for example, reduce G' both by making extreme tactics less urgently justified and by making the extreme tactics less likely to succeed (what is left after the concessions is what those who offered the concessions will fight harder to keep). Badly chosen concessions, on the other hand, can backfire by making it seem that the adversary is in retreat. And, returning to a point already introduced, a campaign of extreme violence profits from actions (or purported actions, or portrayed actions) that put people in a frame of mind where nothing seems too outrageous in the face of the outrage being imposed. Among other difficulties, this creates temptation to provocateurs.

So there are many possibilities, sometimes conflicting, to consider with respect to G', but as will be seen reasonably secure judgments can sometimes be made anyway.

For S' things are simpler though not simple. Private wealth of course makes it easier to provide any given level of support to whatever an agent sees as socially good,

which extends to jihad, and especially if no personal risk is involved. The more wealth the less severe the bite (S') from whatever private value is sacrificed, making G'/S' larger. Since S' is cost *net* of any loss or gain from side effects, criminality of a sort which complements the jihadist needs for such things as forged documents offsets, or perhaps more than offsets its direct private cost. Most commonly S' is small because the person is not doing much, recalling (from Chapter 1) that S' and G' capture the differential private cost and social benefit of a finite choice, not the marginal cost and benefit of an arbitrarily small increment of resources. Neither a small value of S' nor a large value of G' of itself implies substantial participation. S' may be small merely because the choice being considered would not entail much of a private cost even for someone not particularly well-off, in which case G' can also be small and still allow a high value of G'/S' . The significance of this point will become clearer when we move on to considering implications of the S-diagram (item 2 in the earlier listing). But we can note that how far the public is sympathetic even though most are not doing very much is not a small element, since in the aggregate modest but low cost participation by many people will not be negligible compared to large cost participation by a dedicated few. The large cost activity by a dedicated few may be substantially enabled by the low-cost participation of many mild sympathizers.

For the special case of criminal activity complementary to jihadist effort, cooperation with jihadists may have a negative cost ($S' < 0$). It is profitable to self-interest not a sacrifice of self-interest. We would then get (for that special case) cooperation even if G' is negligibly small, as discussed in more general terms in Chapter 1 (p. 10). And net S' will be small for a person in a social context where failing to be sympathetic to jihadism would be socially costly or even dangerous (because you are part of a community where that is seen as what any decent person would be). Social costs (or social rewards) affecting ordinary people in a community will be contingent on how far the terrorist campaign has general support. And there would be individual threats from activists to individuals seen as harming the effort, or even merely insufficiently enthusiastic. That would be most significant in contexts where individual threats complement rather than run against general sentiment in the community. So general

support may enable threats to individuals which might otherwise risk alienating too many people.

How would improving economic conditions affect terrorist propensities./1 In terms of G' , economic improvement would reduce anger and frustration in the community, hence reduce G' for drastic and risky measures which might harm the community. And the opportunity cost to individuals of jihadism increases if opportunities for pursuing a "normal" career improve: a potential especially likely to be important in a context of severe unemployment rates. On the other hand, both effects would be at least partly offset by increasing the number of people who can afford to devote time and resources to a social cause. Within a community the effects would be mixed, especially to the extent the improving community is one that supplies funds and other sorts of support for terrorist operations elsewhere (perhaps even within the same country). So a mix of effects should be expected, some alleviating terrorist dangers, some the converse, with much depending on the details of the situation.

The final element of the NSNX equilibrium, W , turns on how far an individual seems to be exceeding, or just matching, or falling short of what others "like me" are doing. In the Darwinian story in Chapter 1 this was simple. Others "like me" might not be anyone I know (there would be differentiation by sex or age) but still would be drawn from my immediate living group of perhaps a few dozen people I am with essentially all the time. But we are now vastly removed from that hunter-gatherer context. What counts in a particular context as people "like me", hence governs where I stand with response to the NSNX "neither selfish nor exploited" balance, may be people very remote than my immediate companions. This is not entirely new. There have always been isolated individuals whose sense of mission was vastly out of scale with that of anyone else they might have been expected to sense as "like me". But with the coming of vivid, responsive, immediate communication worldwide, including imagery and sound as well as text, it has become far more likely that perfectly ordinary people might find themselves marching to the beat of a distant drummer.

And now the internet has vastly extended such possibilities, which have multiple consequences in terms of NSNX effects. Relative to a world without the internet, it becomes easy to communicate, easy to get and share information, easy to find and

establish a working relationship with like-minded people, and all in ways that involve very little risk of detection. An image can be concealed in another image, a message sent from a one-time location (a few minutes in an internet café) to a one-time use free email address, and so on. Even elaborate exchanges of information would be hard to observe. The main risk to either party would seem to be the risk that the other party is an agent for the opposition, and in various ways that risk can be reduced as well. And easily available postings on the internet will tell you how to do all this.

We can consequently expect a great expansion of the sense of people "like me" that governs W to allow for a reference set which includes people I have never met and even never could meet. Not long ago, that would have to be because I infer that they would behave like me and have interests like me. But with the coming of the internet, a much stronger sense that we are on the same team becomes available, because we can be active, interacting, cooperators.

We can notice multiple bases which might guide a person's sense of what "people like me" are doing for a cause, hence what will guide the "neither selfish nor exploited" sense of equilibrium. At a critical moment what is crucial for terrorists, as for on a great many other things, and very well documented in military matters, is "unit cohesion". People develop intense loyalty to their local unit and judge their appropriate level of commitment by comparison with the comrades in the unit. But what makes a person a willing candidate for such a unit? There has to be a prior stage where willingness to commit goes beyond what is common. On a wider scale, elite units in any country's Armed Forces judge themselves by comparison with others in the elite forces (airborne, marines, rangers). On a much wider scale, individual see their effort in comparison to admired leaders who could be leading completely comfortable lives but commit themselves to the cause, here the wealthy Bin Laden choosing to live a rough life for a cause. But all such effects are magnified by the new opportunities for cooperation offered by the internet, which offer opportunities to enter a path which may lead to life-sacrificing commitment, on a front far-removed from a person's own neighborhood (hence going beyond the usual situation for suicide bombers with local targets, who are not the focus of attention in this discussion of jihadism).

Setting aside jihadist terrorism for a moment, what has emerged with the internet has proved to be downright astonishing. Collaborative work on (most remarkably) FOSS -- free-and-open-source-software -- has yielded exceedingly complex projects in a way that certainly would have been predicted to be hopelessly vulnerable to free-riding and multiple other difficulties until actually demonstrated to be workable. A computer operating system and a large suite of subsidiary programs able to compete on reasonably equal terms with Microsoft Windows has been created largely out of voluntary cooperation among people who have never met. For a survey and references see http://en.wikipedia.org/wiki/Free_and_open-source_software, where the Wikipedia free encyclopedia providing this URL is itself another example of voluntary cooperation on the web, but not so completely astonishing as the ability to create something as complex as a computer operating system able to rival Windows. As both standard theory and NSNX would expect, a closer look reveals various sorts of returns to self-interest in participating. But on the standard theory it is obvious that these cannot possibly add up to enough to allow this utopian project to fly. But it soars! NSNX can make sense of this, but I freely allow, only in hindsight. That is not the story here, however, where the relevance of FOSS is only to alert us to potential of the terrorist dark side of cooperation on the internet. What FOSS can manage, terrorists and aspiring terrorists can notice and hope to emulate. Consequently a new element of social comparison appears, which is being "neither selfish nor exploited" relative to others engaged in internet cooperation intended to support jihad.

And without extending this quick survey, we now have enough of the table to prompt some general remarks bearing on the substantive question at hand.

It is easy to see how from the jihadist perspective it would make sense to promote the war in Iraq as (with a suitable change in labeling) "the central front in the war on terror", but not clear at all why Americans would promote that idea. Huge costs are being imposed on the Americans. Propoganda victories are unending with each day's televised reports on what can be portrayed as American atrocities against Muslims. Every helicopter shot down or tank destroyed is a victory. Chaos reigns. So long as the war goes on, the jihadists can point to a war aim of ending the American occupation that

commands wide support; and if the Americans leave they will claim victory. There has rarely been so clear a "heads we win, tails you lose" situation.

G' for jihadist activity must be partly contingent on sympathy in the Muslim world for claims that striking at America is in the interest of the worldwide Muslim community, and partly on the credibility of claims that jihadist tactics get results. S' is substantially contingent on how far, in Mao's famous phrase, the jihadists are able to swim in a sea of sympathizers. And W decreases as others are seen to be active, but if G' is nudged up and S' nudged down by effects of the war in Iraq, then participation in jihadist activity increases and this feeds back on W, nudging it down, aggravating the problem by the feedback described in Chapter 1. So one might think that shrewd American policy would be minimize the importance of Al Qaeda in Iraq, and seek to minimize not endorse claims that moving towards American disengagement would be a victory for Al Qaeda.

Given the multiplicity of cleavages within the Muslim community (not only Sunni vs. Shia, but in several combinations among Arabs, Persians, Kurds, Turks, and within these categories between Bedouins and Palestinians, and more, and at a yet more detailed level tribal rivalries within these communities, the last thing American policy would want to do is to facilitate uniting all the passions of these divisions on America as the root of all problems in the Muslim world. So there would appear to be a considerable burden on claims that disengagement from Iraq would make the problem of jihadist terrorism worse.

But turn now to the S-diagram, reprinted here from Chapter 5. The NSNX equilibrium is presented as $WS' = G'$ (instead of $W = G'/S'$), with one curve in the figure showing WS' as it varies with the fraction of a community participating, and the other showing G' . Where WS' is above G' the marginal person will avoid contributing to the cause at issue (here jihadism), and the opposite where G' is above WS' . The pair of NSNX rules introduced in Chapter 1 follow from a simple Darwinian argument. The NSNX equilibrium condition follows from the pair of rules. The S-diagram follows from the NSNX equilibrium. I will come to cognitive effects as those interact with NSNX in the next section. But the logic of the S-diagram is not contingent on any such effects.

And that logic will motivate what in (Chapter 5) I introduced as *vertical* and *horizontal* tactics implicit in the diagram. Vertical tactics operate by changing the vertical relation between the curves. Horizontal tactics operate by shifting the anticipated level of participation along the horizontal axis, probably in conjunction with vertical tactics, to the right of the tipping point, with both calibrated to exploit exogenous shocks to the system.

The argument in Chapters 4 and 5 explains why the curves shown on p. -- will have the characteristic shapes shown here, with a low equilibrium at Q^- , where few people are active (the *seed*) and a high equilibrium at Q^+ where many are participating, and a tipping point at t . Agents in the seed will want to find some way to shift expected participation as far as t , beyond which the social situation will tip to a high participation equilibrium at Q^+ . The logic of the diagram captures the incentive of agents in the seed to seek to push the WS' down or the G' curve up and the opposing interest of agents who want to discourage whatever sort of cooperation is at issue to push the curves the other way. I have tried to give some sense of the dynamics by the contrast between figures 5.1. and 5.2 (p. ---), where you can see what happens if indeed the WS' curve could be shifted down relative to the G' curve. The seed (core of committed supporters) at the left of Q^- would expand, the *hump* that must be overcome to reach the tipping point would be deflated, the tipping point would move to the left, the *cushion* that would secure a new social equilibrium at Q^+ would fatten.

In Chapter 5, and then here in the particular context of jihadism, I sketched something of what activists would want to do to shift W, or G' or S' in ways they would wish (vertical tactics), . Now consider the three horizontal tactics identified in Chapter 5, which were *top-down*, *segment & coalesce*, and *intensity/prevalence tradeoffs*.

If the status quo can be moved to any point beyond the tipping point, movement all the way to the high participation equilibrium then follows. So if a credible voice can be found to assert that we are beyond the tipping point that becomes a self-fulfilling assertion. A simple example is when we are told that as of 2am tonight we will be on daylight savings time. Even if you happen to object to daylight savings time, it is extremely likely that you will conform anyway. A grand historical example was when Constantine announced that his Empire was Christian. A vastly smaller but important

example was the Montgomery bus boycott, where timing of the announcement of a boycott was shrewdly judged and consequences obtained out of all proportion with the scale but not the aspirations of this peaceful insurrection. Constantine could threaten terrible consequences for anyone who defied his edict. The black leaders in Montgomery could overtly threaten no one. But the ability to coordinate by a credible announcement of what was to happen was powerful.

And the internet allows world-wide announcement and world-wide publication of specifics of what is to happen. In circumstances more dire than any currently in sight, it could be an important possibility, and adds weight to risks entailed (or reduced) by US choices that magnify or reduce adverse perceptions of American actions and policies. Attention has been focused on risks of major terrorist attacks, which require careful planning and coordination across a dedicated group. But another tactic certainly capable of killing many Americans in a spectacular way requires only random murder of Americans around the world in some identifiable way, coordinated by internet instruction of what to do (including how to reduce risk to self, S') and when to act, broadcast to potential self-appointed agents world-wide. Perceptions of the social value (G') of punishing Americans would make the difference between such a call to action being self-defeating or appallingly successful.

Segment & coalesce arises as a tactic because a tipping point that is wholly out of reach on a large scale might not be out of reach on a small scale in a particularly favorable context. Indeed the Montgomery bus boycott which just provided an example of *top-down* tactics on its local scale also provides an example of *segment & coalesce* tactics on a national scale. The S-diagram for the large-scale context would have a tiny seed and a huge hump, but in a favorable small-scale context there may be no insurmountable problem in reach an effective level of cooperation. Examples used in Chapter 5 were the origins of national labor unions (from especially favorable local situations) or spread of a new religion (where Constantine's *top-down* choice could only come after considerable Christian success with *segment & coalesce* tactics. New norms or social practice usually follow that route, with recent examples being recycling and smoking bans in restaurants. Successful local ventures become mutually reinforcing, provide advice and perhaps resources and an example of success to other local situations,

and eventually may coalesce into larger scale cooperation. This is obviously happening for terrorist cells, commonly discussed under the label of "franchising", but misleadingly since there need be no central entity organizing or sanctioning the "franchises". Indeed from the chilling discussion in Bruce Hoffman's (2006) discussion of "religion and terrorism", we no doubt would find some sorts of cooperation via the internet that engage groups whose aims are not merely orthogonal but violently incompatible. People who would kill each other had they the opportunity may be cooperating to kill other people, and the cooperation need not even always be unwitting.

Prevalence/intensity tradeoffs. The S-diagram is not fixed even within a given context, since the diagram treats the commitment required of a cooperator as also given. But clearly that is not so. Cooperators can be asked to do a lot or asked to do very little. A situation in which an impossible hump must be traversed to secure a basic shift in the social equilibrium may be transformed into a manageable context if the commitment required of cooperators is made smaller. As shown in Chapter 5, G'/S' will typically increase as S' is reduced even though in order to reduce S', G' (the social valued increment obtained from a cooperator's private sacrifice) also must be reduced. This is a consequence of generally diminishing marginal utility. Cutting the material private cost in half will typically cut the private utility cost by more than half. The situation motivating attention to the *prevalence/intensity tradeoffs* in Chapter 5 was that of getting past a tipping point by making cooperation easy and then increasing what was being asked of cooperators in that far more favorable context. With a high level of participation in place, social conformity and other considerations spelled out in Chapter 5 would favor rather than inhibit cooperation. The term most likely to be used by activists is "consciousness raising" or some equivalent, which engages widespread participation at a minimal level and gradually escalates the commitment. Even without ever reaching a very high level, that may nevertheless provide the level of background support needed for Mao's sea to swim in.

But the *prevalence/intensity tradeoff* is also very relevant to the recruitment process of deeply engaged terrorists, who may find recruits who are willing volunteers without this sort of transitioning too untested, unstable, untrustworthy, or unskilled to be the people really needed.

Heterogeneity across people who might be sympathetic to jihadism complicates matters for both terrorists and counter-terrorists. Across vast numbers of people there will be many individuals for whom what seems to be low risk collaboration is a consumption good, allowing participation in some large, mysterious, or otherwise intriguing secret life, perhaps far more interesting than their routine existence. S' is then negative, so that minimally positive G' is enough to attract their interest. Indeed such a person has positive motivation to come to believe what if believed opens this new dimension to him. On the other hand, the hard to detect character of communication on the internet should make it possible to recruit some such people into counter-terrorist surveillance if G' for jihadist activity seemed even minimally negative, as might occur in very different ways, in particular from revulsion against extreme tactics or due to splintering and rivalries within the terrorist camp.

And here is a concluding conjecture on a related topic. A real puzzle exists about how the Bush Administration could have so absolutely misjudged the difficulty of the Iraq campaign. Pre-war planning at the highest level, a small library of accounts makes clear, prepared for essentially *nothing!* It assumed a smooth transition to a pro-American, American-style democracy. Iraq would be like conquered Germany and Japan, which indeed became pro-American democracies. And a leader in exile would come from London and be accepted as the natural leader of the country.

These are staggering things to assume with such confidence as to simply neglect contrary considerations. But in earlier chapters we considered an argument about how what I labeled adverse defaulting might account for neglecting what it would logically seem nonsensical to neglect. And then we repeatedly saw laboratory games in which intelligent subjects indeed neglected essential information that is right in front of them. Highly intelligent subjects looking right at information relevant to their choice sometimes act as if they do not see it, as the most senior officials in this case act as if unaware that the Sunnis, Shiites and Kurds in Iraq might have difficulty cooperating, or as if the model of post-war Germany and Japan were unproblematical and the very different case of post-Tito Yugoslavia were irrelevant, or as if Ahmed Chalabi's standing in Iraq in 2003 would

be like De Gaulle's standing in France in 1945. Any sign that the key decision-makers were troubled by potential difficulties seems to be invisible.

A point of agreement across all accounts of the matter is that there was, at the heart of American policy, essentially no post-war planning at all, generating account with titles like Ricks' *Fiasco* (2006) and Isikoff & Corn's *Hubris* (2006). There is nothing that seriously challenges the appalling lack of foresight these authors and many others have reported. The State Department engaged in elaborate planning exercises, but the Defense Department was put entirely in charge and ignored anything the State Department had to offer. Yet the most senior officials who did this all knew something about Iraq from close connections to the White House at the time of the first Gulf War. Indeed Vice-President Cheney had been Secretary of Defense. It was as if the critical figures (Bush, Cheney, Rumsfeld) neglected to notice what might cause difficulties though many people were warning of that, including the Secretary of State. It is hard to find any evidence that the possibility of difficulties was ever treated seriously, so that even if a risky venture was judged worth the gamble, precautions would have been put in place to ease the gamble. But there seems to have been nothing. The results have been terrible, including terrible results for the Bush presidency. How could that possibly happen?

In terms of the NSNX cascade interacting with neglect defaults (point 3 and 4 of this chapter's opening discussion) it as if the situation was framed as an easy matter of coordination rather than as a very difficult case of risky cooperation.

All this is hard to believe. But it happened. Absent the now extensive indications that it happened, no one would believe that the post-war dangers in Iraq could have been so completely neglected. But there are historical parallels, such as Stalin's utter neglect of repeated warnings of Hitler's impending attack. There is a much closer parallel as well. How could Saddam remained confident that the invasion so clearly on the horizon would not come? Saddam's explanation (to Charles Duelfer, who headed the US postwar search for Saddam's terror weapons) of why he wanted to leave people thinking he had the weapons is convincing.² But it becomes incredible that he would continue to hold to that as indications that the invasion was coming became unmistakable to, apparently, everyone in the world except Saddam.

The circumstances under which such extreme case of neglect defaulting can occur warrant attention, since it is hard to deny that what has actually occurred in the past could possibly occur again. So it would be worth some effort to look carefully into the record with this outlandish possibility in mind. Note especially that the puzzle is not that the key figures, determined to proceed, did not want complications that might interfere put in their way. That would imply that they were aware of what was readily in sight but as a matter of tactics did not want to acknowledge it. But if that was the situation they would have wanted care to be taken about minimizing a risk, even if they did not want that risk visibly on the table. But on the record they did not see the risk, however clearly the logic of the situation should have alerted them.

And an element worth flagging is tied to the issue of social illusions mentioned at the outset. What about the choices of subordinates who lacked the zeal of the principals. At least some such people must have found the process disturbing. But they might have assumed that their concerns were certainly getting attention elsewhere, and anyway what could they do alone that would turn the process another way, and at what cost to their standing within the Administration? But, to make one final use of the NSNX formalism, if others might already be onto the difficulties (so perhaps your voice was not needed), or making noise was not likely to do any good (so your voice would make no difference), and in either case at considerable career risk, then G' for raising the warning flag would be reduced and S' for annoying superiors might be high, and noticing that no one else was speaking out would make W higher, so that just quietly hoping for the best might seem as much as a prudent person would do.

The case cries out for the sort of post mortem Richard Neustadt (1983, 1999) provided to Kennedy for the Skybolt fiasco and to Johnson on the Swine Flu fiasco, neither remotely so damaging as this case has proved to be.