NOTES ON

MICHAEL TOMASELLO, *WHY WE COOPERATE*. (CAMBRIDGE: MIT, 2009)

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INTRODUCTION

Tomasello defines imitation as "exploitive" rather than cooperative. Many animals have culture qua differences in behavior in different populations of same species.

Human culture is qualitative different:

1. Cumulative cultural evolution. Ratchet effect. This is a key complaint for me: he seems to assume individual benefits from cultural evolution. That is, a sort of cultural adaptationism: T writes: "just as individual humans biologically inherit genes that have been adaptive in the past, they also culturally inherit artifacts and behavioral practices that represent something like the collective wisdom of their forebears" (xi).
    a. Everything depends here on question of group selection vs individual selection. Do the adaptations have to be individually beneficial? Or can they distribute costs and benefits differentially within the group as long as the group benefits vs other groups?
2. Social institutions: "sets of behavioral practices governed by various kinds of mutually recognized norms and rules." But there is a big debate in anthropology about whether this isn't too mentalistic. Bourdieu would want to locate a corporeal affective structure: "habitus." That's the concrete reality: X or Y feels like the right thing to do. The object of study has to be the practices that produce habitus. It's only an abstracting, intellectualizing, observer viewpoint that makes these into "mutually recognized norms and rules." Tomasello acknowledges we need discussion of Searle's social ontology and the "background" for "shared intentionality."

Shared intentionality: "involves, most basically, the ability to create with others joint intentions and joint commitments in cooperative endeavors." The key term here is "cooperative." I can imagine a neutralization of the term which would include coerced or exploitive behavior (in the sense of differential cost / benefits), that is, as long as the different agents' behavior was functionally integrated, but there seems a default connotation of "cooperative" as "mutually agreed upon because costs and benefits will be fairly shared." Again, there's a mentalistic / individualist / normative fringe here that T doesn't seem aware of. "These joint intentions and

commitments are structured by processes of joint attention and mutual knowledge, all underlain by the cooperative motives to help and to share with others" (xiii-xiv).

While "exploitive" imitation is "most basic process," there are two cooperative processes here. (Again, it's this distinction of "exploitive" and "cooperative" that bothers me. There's plenty of exploitation in the sense of differential costs / benefits in cooperative social action, if cooperation just means functionally integrated joint action.)

1. Active teaching of non-kin is a form of altruism: "founded on a motive to help, in which individuals donate information to others for their use." "Donating information" is way too abstract to describe corporeal affective subjectification practices.
2. Imitation for sake of conformity, backed by punishment. This is collective enforcement of group norms of conformity. I'm okay with this discussion.

So, human culture is cooperative more than other animal cultures. "To an unprecedented degree, homo sapiens are adapted for acting and thinking tougher in cultural groups" (xv). OK.

But here's the naïve progressivism: "indeed all of humans' most impressive cognitive achievements—from complex technologies to linguistic and mathematical symbols to intricate social institution—are the products not of individuals acting alone, but of individuals interacting" (xvi). It depends on how picky you want to be here, but is "individuals interacting" really enough to indicate our collective bio-social reality? If anything, some cultures produce "individuals" as an ideal of human life, but they're not *really* individual, qua absolutely independent, etc. So individual comes at the end, not at the beginning, even in "interaction." But that's probably too picky. In any case "interacting" is preferable to "cooperating" as it doesn't have the "free and fair agreement" connotation.

Continuing on: "as they grow, human children are equipped to participate in this cooperative groupthink through a special kind of cultural intelligence, comprising species-unique social-cognitive skills and motivations for collaboration, communication, social learning, and other forms of shared intentionality." A couple of points here: "cultural intelligence" needs distinction of corporeal know-how and mental know-that. Hence we're back to corporeal affectivity, Bourdieu and habitus, etx. Also, "collaboration," if you define that in terms of "mutual benefit" (xvii) brings up back to problem of exploitation, social hierarchy, etc.

Here's the adaptation question again: "These special skills arose from processes of cultural niche construction and gene-culture coevolution; that is to say, they arose as adaptations that enabled humans to function effectively in any one of their different self-built cultural worlds." (xvi).

Here's the key I think: let's assume human evolved for cultural life, bracketing for the moment the question of intellectualism of "shared intentionality" vs corporeal affective subjectivity as habitus. As long as those cultures are egalitarian (and let's say hunter-gatherer bands, which were the dominant social form for much of human history, are egalitarian, even granted some sexual division of labor), then you could say there was individual selection: it was adaptive for everyone to fit into a culture. And you can say there's group selection here too, as more cooperative groups outcompete less cooperative groups.

But, once you get cultural hierarchy (let's say, to be crude about it, post-agriculture) then you get cultures that produce practices that differentially distribute costs and benefits. So it's an adaptation to be primed for cultural cooperation (qua functionally integrated group action), but that readiness is now put to work in inegalitarian societies. So for some people in bad / exploited positions, the cooperation adaptation is no longer adaptive? But here you need to work out "fitness" question. Lower class people might have more kids (biological fitness), but they live miserable, short lives (they can't be said to flourish).

I guess the habitus question comes back here too. Wouldn't it be easier to explain acquiescence to inegalitarian societies on the basis of habitus than on basis of a mentalistic notion of shared intentionality? Then you wouldn't have "ideology" or "false consciousness" questions, because the action is corporeal / affective rather than consciousness.

CHAPTER 1: BORN (AND BRED) TO HELP

Epigraph from Machiavelli: "A prince must learn how not to be good"

T begins by saying he'll take Rousseau vs Hobbes, but will add some complexity. He will present "evidence that from around their first birthdays—when they first begin to walk and talk and become truly cultural beings—human children are "already cooperative and helpful in many, though obviously not all, situations. And they do not learn this from adults; it comes naturally" (4). OK, my constant complaint: what about corporeal affectivity? Aren't we linked with mother by rhythms even in utero? What about Trevarthen's great stuff on turn-taking and rhythmic body interaction in very early stages? There's a question as well about how to integrate Meltzoff and Moore and imitation: Shaun Gallagher picks up on this to talk about body schema. Then I guess metaphysically we need to talk about Simondon and transduction: individuation as always ongoing link to metastable pre-individual field.

"but later in ontogeny, children's relatively indiscriminate cooperativeness becomes mediated by such influences as their judgments of likely reciprocity and their concern from how others in the group judge them, which were instrumental in the evolution of humans' natural cooperativeness in the first place" (4).

Behavior measured relative to primates. “All viable organisms must have a selfish streak; they must be concerned about their own survival and well-being or they will not leave many offspring. Human cooperativeness and helpfulness are, as it were, laid on top of this self-interested foundation” (4-5). There’s a lot to say here about “selfish streak” and “self-interested.” If by this you mean physiological homeostasis, then sure, of course. This is the biological panpsychism of the mind-in-life school; there has to be a subjective concern with continuation. But here we start to get tricky: is there a “will to power” qua drive to flourish, not just “continue”? Also, when you get to humans, then “selfish” and “self-centered” are political terms as well as biological (homeostasis as object of “selfish” concern). T has just gotten done telling us that cultural conformity is an adaptation for humans. So each human selfishly wants to be like the others, because that group life is in his / her self-interest. By this time we need to re-define our terms!

For T, human altruism is not a single trait. Different cost / benefit structures for each:

1. Altruism with goods (e.g., food) = generous, sharing
2. Altruism with services (e.g. fetching an object) = helpful
3. Altruism with information (e.g., gossip) = informative

HELPING (6-13)

T reports on experiments with 14 and 18 month infants helping unrelated adults. Help offered immediately; controlled for situations when adult shows doesn’t need help. Flexible help; “able to perceive others’ goals in a variety of situations, and second, to have the altruistic motive to help them” (7).

Five reasons to think such help is “naturally emerging human behavior” (7).

1. Early onset: “before most parents have seriously started to expect, much less to train them, to behave pro-socially.” But children would have seen others help by then.
2. Parental rewards / encouragement do not seem to increase infant helping behavior.
    a. Overt rewards lessen help in second round. “overjustification effect.” This shows the help is intrinsically motivating; external rewards undermine this.
    b. NB that Elinor Ostrom shows this too with adults and shared resource problems.
3. Primate heritage: chimps engage in same helping behavior for fetching out of reach objects. Thus we don’t think culture plays a role in inducing early helping behavior but that it’s inherited.
4. Cross-cultural: children in “traditional cultures” (= less adult intervention) help the same amount as Western kids.
5. Empathic: helping behavior mediated by “empathetic concern.” Infants have concerned facial expressions when looking at adults needing help. Also, children tend to help the

adult “victim” in a situation. The more concerned the infants’ look, the more likely to help.

INFORMING (14-21)

Only children, not chimps, provide info, but this is not dependent on language, but is done by pointing. “informative” pointing implies Gricean cooperation: others inform me of things relevant to me. Infants understand imperatives cooperatively, as suggestions or indications of need: “get me the water” = “I need some water.”

Apes will only point for humans to get food for them. “Imperative” pointing. Chimps compete for food, so don’t do Gricean cooperation and hence don’t understand informative pointing. What about alarm calls? These aren’t informative; even if everyone else is there and already screaming, chimps join in on the screaming. It seems to be an automatic behavior aimed at their own direct benefit.

SHARING (21-28)

Food is the paradigm case here. Apes aren’t very “altruistic” when it comes to sharing food.

Odd remark: T says “and if our plane crashes in the Andes, and I have one granola bar left in my pocket, I, a human, am not likely to be so generous with it either” (22). He repeats a similar remark, comparing humans and chimps: “Starving humans are not so generous with food, either. It is just that chimpanzees act as if they were always starving” (28). This is very odd, because the plane crash in the Andes is (or should be) famous for extreme group-bonding and pro-social behavior. In any case, Tomasello doesn’t present any evidence whatsoever for this disaster hypothesis. This is crucial, because Hobbesians will point to social breakdown as revealing individualist truth about human nature. But I think it’s other way around: people are much MORE prosocial in disasters than in everyday life. If anything, disasters bring about the breakdown of artificial capitalist atomization, and that allows truth of collective / prosocial human being to be revealed.

From an interview right after the Andes plane crash disaster: “If after the accident only 4 or 5 of us would have survived, we would certainly be dead because surviving depends almost entirely on the state of mind of the others. In a group of more than fifteen people is always possible to find six or seven in a good mood and those are the ones that hold the group up; when these ones are no longer in that mood there will certainly appear another six or seven to hold up the rest of the group. The cold does not affect only your body but it affects also your soul.” http://www.viven.com.uy/571/eng/EntDelgado011973.asp.

Although it should be noted that another of the survivors credits them being on a rugby team together: "- How did the fact that you were all friends and from a rugby team influence your survival? - It was crucial. We didn't reach the barbarism, the bordering on the animal behavior, because we were friends. In any other situation nobody would have survived that, but we were a much closed group. Each of us was passing through a different state of mind so we took turns to put up with the other's state of mind. About Rugby, I can say it's a sport that teaches you to sacrifice yourself for you're the other members of the group. It helped us to organize our duties since the very first day, we had discipline."
http://www.viven.com.uy/571/eng/EntParrado022000.asp

RECIPROCITY AND NORMS (28-44)

Socializing plays role in shaping development of these innate / early onset behaviors.

1. Direct experience: reciprocated helping prompts differential help.
2. Group norms / values through "modeling, communication, and instruction"
    a. Probably evolved via punishment of non-conformity (in group homogeneity is adaptive on group selection level – of course, this can be internally differentiated: as long as you conform to your role, there can be multiple roles that are functionally integrated).
    b. Criticism of De Waal study of norms of social fairness. T claims results can be replicated with isolated animals; it's the food being compared, not the distribution.

This one is a lot of fun: Cf, again, Ostrom. Ultimatum game in experimental economics. Humans will turn down unfair share; rather have zero than just 20 or so. But chimps are rational maximizers: they'll take anything. Chimps and economists!

Two types of social norms:

1. Cooperation, including moral norms (involving harm)
2. Conformity, including "constitutive rules" (conventions for social games)

Why do children obey social norms? Piaget claims authority and reciprocity with coequals. Obedience to authority is not really normative qua agreed upon; that emerges only with reciprocity, where there is mutual recognition.

But T says children will participate in enforcing norms as soon as they learn to obey them.

1. Rules or norms are not just regulations for successful social interaction; they constitute the game to be played, even when the game is played as solitary agent.
2. Children could infer rules of game from observation.

So, early child norms are true social norms. T posits that what's needed to explain children's norms is "shared intentionality" (39). So they have a "kind of social rationality" as Nagel discusses in Possibility of Altruism: identification with others and conception of self as one among many, leading to impersonal view from nowhere. Individual rationality becomes "shared rationality of interdependence" (41). T cites George Herbert Mead: "we-ness" moves from significant other to generalized other (41).

Universality of social norms. "Humans have developed special emotions adapted for the presence of norms, further demonstrating their critical role in the evolution of the species. Guilt and shame presuppose some kind of social norms, or at least social judgments, that people internalize and use to judge themselves (with feeling)…. Guilt and shame are thus biologically based emotional reactions, which presuppose the kinds of normative (or at least punitive) social environments that humans have constructed for themselves. They are thus particularly good exemplars of the co-evolutionary process between human biology and culture" (43). There's a lot to say here! But the bio-culturality of social emotions needs to be discussed.

UNTITLED CONCLUSION (44-47)

Predisposition to help that is later shaped to favor reciprocity "may be seen as a kind of ontogenetic reflection of the famous tit-for-tat strategy for cooperation" (45).

This is hugely important (again, echo of Ostrom): "adults who assume that children are not naturally helpful and cooperative and attempt to make them so through external reinforcements and punishments do not create children who internalize social norms and use them to regulate their own behavior." Self-fulfilling prophecy or what Ian Hacking in "Making Up People" calls "dynamic nominalism." Assume people are externally motivated and you produce people who are externally motivated

Preview of chapter 2: "mutualistic collaboration as the evolutionary source of human skills and motives for shared intentionality (including conventional communication and social institutions)" (47). T also argues that "mutualistic collaborative activities were the original source of human altruism as well."

CHAPTER 2: FROM SOCIAL INTERACTION TO SOCIAL INSTITUTIONS

Epigraph from Christine Korsgaard: "primal scene of morality … one in which we do something together"

Problem of evolution of altruism includes problem of free-riders on punishment. But T doesn't think this is the central problem anyway. Altruism (costly help) is not as important as mutualism (collaboration for mutual benefit) in evolving human sociality. Free-riding in concrete / physical cases (moving a heavy thing) is immediately obvious. T proposes that mutualism is precondition for altruism.

Nonhuman primate societies work via "kinship and nepotism, with a healthy dose of dominance thrown in in most cases" (53). Human paradigm for collaboration is not prisoner's dilemma (individual benefits vs group benefits), but stag hunt (mutual benefit only via collaboration).

Three processes to move from apes to human collaboration:

1. Evolve "serious social-cognitive skills and motivations for coordinating and communicating with others in complex ways involving joint goals and coordinated division of labor among the various roles—what I will call skills and motivations for shared intentionality" (54-55).
2. To even begin collaboration, "early humans had first to become more tolerant and trusting of one another than are modern apes, perhaps especially in the context of food" (55).
3. More tolerant humans "had to develop some group-level, institutional practices involving public social norms and the assignment of deontic status to institutional roles" (55).

Concrete example of starting and end points of this evolution of sociality story: foraging vs shopping. Foraging is individual; shopping is social; requires us to "understand shopping, more or less explicitly, on a whole other level, on the level of institutional reality." Emergence is the key here, though T doesn't use the word. Also key: "understand": what is locus? Corporeal / affective / habitus / know how? What does "explicitly" mean here?

I don't think T can get to habitus level since he puts discussion at too high an abstract level. "First [this is the key: what kind of priority are we talking about here?], entering the store subjects me to a whole set of rights and obligations" [private property]. Then discusses government regulation, and money institutions. Then, "Fourth, I stand in line in deference to widely held norms …" [maybe I'm too body-focused, but I would put this corporeality first.]

T puts "shared intentionality" as what is common to all of these "institutional phenomena." This can be seen in simpler social interactions: walking to the store together, which is norm-governed, with expectations, as well.

Cites Searle as having shown how "the sense of acting together can scale up to the kinds of collective intentionality involved in" complex situations (e.g., supermarket shopping), "which

exists on the basis of rights, obligations, money and government, which in turn exist because "we" all believe and act as if they do."

I don't know about this scale up business: it seems pretty naively social contract, like there's some basic agreement. We have to beware an unconscious slide here from we all believe in the reality of social institutions to we all agree. Or in other words, we have to think diachronically rather than synchronically. What we have is socialization into pre-existing institutions, but there doesn't have to be any "agreement" here: there just has to be functional integration of social roles, which can go along with unfair distribution of costs / benefits that no one would agree to (Rawls would have to enter the picture here).

Here is where T's abstraction hits home: "The upshot is that human beings live not only in the physical and social worlds of other apes, but also in an institutional or cultural world of their own making, a world that is populated with all kinds of deontically empowered entities" (59). No, no, a thousand times no! Someone once said: "men make history, but not in circumstances of their own making." He knew what he was talking about. It's just not enough for T to say "the specifics of this world vary greatly among different groups of people, but all groups of people live in some such world" (59).

Or at least to be fair to T, it's not enough to pose the problem of politics: why do people acquiesce to injustice so much? Why don't all the poor steal? Or another way to put it: how did evolved capacities for egalitarian collaboration get put to work in injust hierarchical structures? It can't just be brute force / fear (though that's part of it). And it can't just be false consciousness (I don't know if that's any of it). How do people come to desire their oppression? That's the radical Spinoza / Reich / Deleuze-Guattari question.

Back to T's report. He will concentrate on evolution via example of foraging for food.

COORDINATION AND COMMUNICATION (60-76)

T distinguishes aggregates of individual agents (chimp hunt) from "we mode" of human collaboration, "forming a joint goal with their partner" (63-4). In comparative studies, chimps show no interest in social games. They do synchronize behavior with humans in problem-solving, but if human stops, they don't communicate, indicating they hadn't formed shared goal. Human children on the other hand sometimes prefer social games to instrumental activities: it's the collaboration as such they want more than the external reward. When adult stops, child communicates to get them to resume collaboration, suggesting they had formed shared goal.

I should pause here for a minute. I think this demonstration of intrinsically rewarding collaboration—sociality for its own sake—is an extremely important result and gets to the heart

of the falsity of the rational egoist picture of human agency. (The trick of course is to remember that behavior that can be modeled by aggregate of rational egoist agents can be produced by constructing external reward situation, based on assumption of adequacy of rational egoist models!) The only thing I object to in T's book is that he doesn't explore how collaborative, collective, fair-process-oriented beings like humans get into and don't always rebel against unfair social structures. You have to think corporeal affective subjectification processes in diachrony (socialization into pre-existing structures) and can't rely on abstract "scale up" notions of basic agreement or shared intentionality or what have you, because that's a hidden social contract. But I need to study Searle more carefully to make this case properly.

Interesting passage at 70 on joint attention and individual perspective. T writes "this dual-level intentional structure—shared focus of attention at a higher level, differentiated into perspectives at a lower level—is directly parallel to the dual-level intentional structure of the collaborative activity itself (shared goal with individual roles) and ultimately derives from it."

Here is a key passage where I would have like to see some attention to Trevarthen and the corporeal rhythm people (e.g., Ian Cross and John Bispham of Cambridge on evolution of music): "If, as we hypothesize, the first step on the way to what has been called mutual knowledge, common knowledge, joint attention, mutual cognitive environment, intersubjectivity, and so forth, was taken in collaborative activities with joint goals, the reason that great apes do not establish joint attention with others is that they do not participate in activities with joint goals in the first place" (72). But I wonder about the instrumentalism here: why isn't "the first step" (more on this issue shortly) rhythmic entrainment, that is, corporeal and affective, rather than pragmatic and instrumental? Rhythmic entrainment of mother and child in turn-taking of gesture, suckling, cooing, etc. is going to be deeper / earlier in ontogenesis than all cooperative activity with an external goal. It was Tomasello who points out (64; 105) that infants will convert instrumental activities into pure social activities – sociality as the goal purely immanent to the activity. But in any case the notion of a "first step" needs to be rethought in terms of co-evolution. According to the Cambridge guys, our rhythmic turn-taking is unique among animals. We have to fit that into the story of co-evolving sociality and cognitive capacities. We also have to think Liz Grosz here: art and excess are as much part of evolution (sexual selection) as pragmatic instrumentalism aimed at getting enough food.

Again, same point about deeper rhythm / entrainment / corporeal affective level needing to be explored. T writes: "Human cooperative communication thus evolved first within the bounds of collaborative activities because these activities provided the needed common ground for establishing joint topics, and because they generated the cooperative motives that Grice established if the inferential machinery is to work appropriately" (73). No, it didn't evolve "first" in collaborative activities (e.g., stag hunt: p. 74): 1) "first" has to be replaced with multi-factorial

co-evolution model; and 2) that model has to include corporeal rhythms as ontogenetically prior factor.

Same sort of "pragmatic reductionism" at work here: "My hypothesis is that concrete collaborative activities of the type we see today in young children are mostly representative of the earliest collaborative activities in human evolution." (I'm okay with that, but want to say this kind of collaboration with external goal is grounded in pure sociality / rhythmic entrainment / corporeal affect, that is, pure sociality with immanent goal of being-together.) T continues: "the ecological context within which these skills and motivations developed was a sort of cooperative foraging. Humans were put under some kind of selective pressure to collaborate in their gathering of food—they became obligate collaborators—in a way their closest primate relatives were not" (75). Again, I want rhythmic corporeal turn-taking factored in here in a multi-factorial co-evolution story.

T continues with physiologically unique human feature: big eye whites allow us to track eye focus of others.

TOLERANCE AND TRUST (77-86)

I have to admit that T does acknowledge that collaborative activities are too advanced to work as a starting point to distinguish humans from other primates. He writes: "in an evolutionary story, collaborative activities actually constitute a kind of middle step; there is an earlier development that paved the way for the evolution of complex collaborative activities…. There had to be some initial emergence of tolerance and trust—in our current story, around food—to put a population of our ancestors in a position where selection for sophisticated collaborative skills was viable" (77).

Typically, T writes, sociality comes from pressure to defend against predation (77). With dispersed food there's no hierarchy problems, but there is with "clumped food" e.g., animal carcasses. Here we see "tolerated theft model of food-sharing" (78). Chimps tend to forage for dispersed fruits, but they do do group hunting. This looks collaborative, but is probably not, according to recent research (79). Instead there's competition; when there's a lot to go around there's no problem, but if it's not obvious how to divide the spoils, then cooperation falls apart (81). It's different with children, who work out ways to divide the food and who are sometimes concerned with fairness (81). We have here a "collective action problem," where cooperation degenerates among chimps with uneven distribution; but human children will value the cooperation to the extent that they will re-distribute to maintain sociality (82).

To evolve collaboration, there had to be a step away from great ape competition. There are a number of scenarios here:

1. Foraging makes collaboration obligatory.
2. Hunter-gatherer societies are egalitarian and kill or ostracize bullies
3. Cooperative child care. Non-mother helpers do a lot of pro-social acts.

I'm okay with all of these in a complex co-evolution model, but again, at the risk of banging a one-note drum (ha!), I want to see corporeal rhythmic turn-taking here in the model too.

Anyway, T repeats his thesis: collaborative activities provide protected space for evolving altruism. Then we can have reciprocity and reputation, followed by punishment and social norms (86).

NORMS AND INSTITUTIONS (86-98)

I'm just going to skip ahead to a key passage at 94: "imitation and conformity can create high degrees of intra-group homogeneity and inter-group heterogeneity… a new process of cultural group selection becomes possible…. Those [groups] with the most effective social practices thrived relative to others" (94). Yes, but intra-group homogeneity can still work in stratified societies: you just need homogeneity at each level. As long as the different roles are functionally integrated, you can have differential cost / benefits.

T is correct to locate in-group vs out-group identification as a big issue, though he revealingly uses the term "mentality" here, when it's more about corporeal affect: you're disgusted by the out-group, you admire / love the in-group, etc.

Guilt and shame as social emotions as "co-evolutionary processes between biology and culture" (95). Yes. But then he goes off on his intellectualist bent: "without punishment and norms, an individual actor is thinking mostly of how he can get some food (and perhaps even how others can get some food as well). But with punishment and norms, he must also think about how potential punishers and gossips expect and desire him to share any food he might procure, so he must, in effect, coordinate with their expectations and desires if he wants to avoid punishment" (95). Too much "thinking" going on here! Where's the fear? Fear isn't belief in future punishment!

Again with the "scale up" / implicit social contract bit: "Joint agreement among children that a wooden block is a bar of soap thus constitutes a step on the way to the human institutional reality in which objects and behaviors are given special deontic status by some form of collective agreement and practice" (98). Again, he misses the synchronic agreement of kids in playing a game with the diachronic situation of being socialized into already-existing institutions. It's only a bankrupt social contract thinking that has people engaging in "collective agreement and practice" in living their lives today.

CONCLUSION (98-100)

Nothing here new I haven't said above already.

CHAPTER 3: WHERE BIOLOGY AND CULTURE MEET

I'm happy here with the general framework of humans as bio-cultural, and that post-agriculture we haven't had time for genetic change. That's because for me, following DST, the bio-cultural evolution action is with distributed networks regulating gene expression and those networks include reliably replicated social practices. So we can have inherited basic emotions with culturally different patterns and triggers (rage, fear, disgust, joy). More complex emotions, such as guilt and shame and social emotions have to be carefully thought here, phylogenetically and ontogenetically. We have to beware the notorious jealousy bit of Ev Psych.

In any case, I like when he says that our complex hierarchical societies work on the basis of "cooperative skills and motivations biologically evolved for small-group interactions" (104). The trick is how to think how these egalitarian skills and motivations are put to use in stratified assemblages.

I have to re-read Richerson and Boyd, *Not by Genes Alone* (Chicago, 2005) about this. They write: "you can think of the evolution of complex societies in the Holocene as a giant field experiment in which the social instincts adapted to smaller-scale societies are subjected to a wide range of new environmental conditions" (229). Continuing, "the institutions that foster hierarchy, strong leadership, inegalitarian social relations, and an extensive division of labor in modern societies are built on top of a social 'grammar' originally adapted to life in tribal societies" (230). There has to be conflict btw egalitarian evolved emotions / empathy / fairness and complex hierarchies. "Consequently, social innovations that make larger-scale society possible, but at the same time effectively simulate life in a tribal-scale society, will tend to spread" (230). IOW, "institutions buttressed by the ancient and tribal social instincts will be used as building blocks in the evolution of complex societies" (231).

So what are some of the "work-arounds" that make this work, according to Richerson and Boyd?

1. Command backed by force necessary but not sufficient
    a. Elite class must itself be cohesive / cooperative or it degenerates into warlordism
    b. Raw coercion is very costly; better to legalize the ruling class
2. Segmented hierarchy can preserve near egalitarian relations for face-to-face contacts
    a. Each level of hierarchy is a band of brothers

    b. Fine gradations of hierarchy ensure familiarity and near-equality even in command situations
    c. Charismatic leaders have “man of the people” skills; bureaucracies try to tap this by routinizing charisma
    d. Obviously this all gets very tricky very quickly in huge mulit-level hierarchies
3. In-group symbols create solidarity
    a. Badges, flags
    b. I think they underplay rhythmic entrainment here. That’s why McNeill, Keeping Together in Time is such a great book.
4. Sometimes you do get legitimate institutions
    a. Here’s where Ostrom is so important: can you build systems that are multi-focal and allow intrinsic fairness concerns and local self-determination? Plenty of evidence that “tragedy of the commons” has been avoided that way.
    b. But it can all go to hell if you assume people are rational egoists and build in external rewards and transcendent authority: then you get toxic blend of neoliberalism and neoconservatism.

So to conclude, part of the story has to be the destruction of innate desire for intrinsic sociality by subbing in external goals, which in Ostrom’s phrase, “foreclose” prosociality. Because kids prefer immanent sociality to external rewards, as T repeats at 105; cf 64.

FORUM

JOAN SILK

Silk proposes inverting T’s schema: rather than mutualism making altruism (costly help) possible, she claims it may be that altruism (positive value placed on benefits to others) makes collaborative activities possible. Mutualism as in stag hunt (perfectly aligned interests) is rare; mostly there are coordination problems of imperfectly aligned interests / free rider problems. (NB, w/r/t Ostrom: the examples Silk uses of free-rider problems come from externally imposed tasks [homework / committee work].) You need honesty and trust for mutualism, but these can erode, although with repeated situations you can get stable strategies, but those only in small groups. So she says we need altruism in order to have collaboration in large groups. She proposes a few factors for evolution of altruism: cooperative breeding, cultural group selection, indirect reciprocity. “Once these altruistic social preferences have evolved, they set the stage for the derived features of human cognition and sociality that Tomasello and his colleagues have so carefully documented: shared attention, trust and tolerance, and participation in activities with group-beneficial outcomes” (122).

CAROL DWECK

Dweck reviews T's proposal that early onset (1 year) of helping behavior in infants implies no cultural learning; she wants to investigate experiences in that first year as learning about altruism. "Although the infant may come prepared for altruism, the flourishing of altruism may be experience-dependent" (128). She reviews evidence on infant expectation of aid / no aid in distress. Children get different inputs of help and this is reflected in their expectations. Children who have been helped respond empathically to distressed peers; abused children respond with threats, anger, assault. So it could be the abuse overrides a natural empathy or that children learn empathy from good treatment (132).

BRIAN SKYRMS

Begins by reviewing "recursive mind-reading": Lewis on common knowledge and Grice on conversation. Both assume cooperation. Skyrms is skeptical that you can build communication model on basis of common knowledge.

1. It's too mentalistic for bacteria, but bacteria communicate using chemical signals (e.g., slime mold aggregation).
2. Humans aren't very good at recursion.

So common knowledge is too much; we should settle for common ground or "mutual belief." (This is still too mentalistic for me.) With mixed interests we have partial info transfer and perhaps deception (gives examples of persistent deceptive signals across animal species).

Skyrms wants to move from "high rationality approach of classical game theory to a low rationality approach through adaptive dynamics" (144). Both his examples are trial and error learning on different time scales.

1. Evolution and replicator dynamics with fitness payoff
2. Basic reinforcement learning

In both cases we get information transfer even for mixed interests.

Let's look at low-rationality cases of what T examines. E.g., teamwork w/o team reasoning. Basic point is that you can get cooperation via feedback mechanisms in many cases w/o shared intentionality, recursive mind-reading, etc.

I like this approach as the "low rationality of adaptive dynamics" bit allows articulation with Trevarthen and the rhythmic interaction / corporeal affect people fit in.

ELIZABETH SPELKE

Spelke provides a very nice review of T's research, before getting to her main point. She thinks that language, rather than social relations, might be "source of our unique cognitive achievements" (156). She then reviews 5 cognitive systems in young infants as "systems of core knowledge."

1. Inanimate objects
2. Intentional agents
3. Geometry of personal space
4. Simple arithmetic
5. Social partners / reciprocal interactions

These are universals, but are modular. They can only be integrated by learning cognitive skills related to acquisition of a natural language (157). Tool use, for instance, needs integration of core knowledge modules 1 and 2, and this depends on learning words as names for objects (162). Same thing for natural numbers (as opposed to simple numerosity) (163) and for using maps (as opposed to personal space) (164).

S poses the key question: how does natural language and its combinatorial power relate to shared intentionality that T talks about? (164) T wants language to be product of cooperative communication in joint action (165). But S wants to ask if inverse isn't better: shared intentionality depends on language and its ability to combine core representations productively. Thus language is our only core foundation (165).

S asks us to look at early human sociality, as in Meltzoff and Moore's facial imitation / eye gaze tracking, etc. Non-human primates have these capacities, so "core sociality" is not unique to our species. Also, core systems for intentional agents and for social partners are modular / separate. But mapping those two is what is needed for shared intentionality. So when it appears at 2 years of age, is it not plausible to think this integration of modules only possible via language? (168) S cites research on piecemeal emergence of separate capacities only integrated later by language: agents, social partners, objects (169-170).