



Interview with Mark Moffett for theory and society

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Mark Moffett is an award-winning tropical biologist and explorer who completed his PhD at Harvard under E.O. Wilson. He studies the ecology of tropical forest canopies and the social behavior of animals and humans. Mark is known for his discoveries of new species and behaviors during his explorations of remote places in over a hundred countries. He also enjoys finding links between different fields of study, whether he's comparing the structures of bacterial communities to those of forest canopies or examining the life and death of societies across the animal kingdom—human societies included. He is currently a research associate at the Smithsonian's National Museum of Natural History and recently published a forum article in Behavioral and Brain Sciences that he hopes will inspire an interdisciplinary perspective on societies.

KM: Mark, you're a real jack of all trades. Your book *The Human Swarm* is one of the most interdisciplinary works ever written in the social sciences. You're traveling the world like some Indiana Jones figure, searching out new forms of animal behavior, but you're also thinking across academic disciplines. Now, you're trying to focus our attention on the concept of a "society" and how to define that word in a way that applies to human societies, ant societies, wolf societies, any animal society. Let's start there.

MM: Very kind! Though, before I begin, I should be clear that I have no wish to turn sociologists into biologists. Still, I believe our disciplines have much to learn from each other.

I must also point out that the perspective I'm putting forward is beneficial when reckoning purely with human societies. It is clear, for instance, that people have always lived in the kind of groups I describe, in various forms: we've always had

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our “imagined communities,” to employ the phrase Benedict Anderson famously applied narrowly to the nations of today.

But I also believe that to better understand humans, it can be instructive—even for sociologists—to think occasionally about other animals. Other society-dwelling species turn out to face many of the same kinds of difficulties we do in our own societies, and finding out how they circumvent these problems could yield insights as to our own situation. To give an example: ants must keep huge societies of millions fed and fit by moving resources, and removing wastes, to appropriate places in a timely fashion. And so, minute brained as they might be, ants can only survive if they distribute their labor forces as required to get these jobs done by, among other things, following efficient traffic rules on strategically laid out road systems. The solutions that ants evolved need to be effective, and of course, ants have had vastly more time to get things right than we have, since societies operating at a mass scale emerged for them millions of years ago. It turns out some ants, with their specialized sanitation squads and secure dump sites where diseased materials are cordoned off in underground bunkers, invest much more of their efforts in public health issues than we do. For people, this is an escalating problem that we are still learning to grapple with. King Solomon said, “Go to the ant, thou sluggard; consider her ways, and be wise.”

KM: Tell us, what is a society for you? How do you define a society?

MM: Well, of course any dictionary will reveal that the word has many meanings. What I’m trying to do is direct our attention to a specific application of the term that describes a sort of collective entity that’s consequential not just for humans across history, and prehistory, but for certain other species. This is the enduring unit of shared identification we experience today as citizens of a state society—a nation. Unfortunately, no separate word exists in English for a “society” in this profoundly important, broadly encompassing sense.

To be broadly useful, a definition needs to be expressed simply. In my recent article for *Behavioral and Brain Sciences*, I picked out three criteria that I hope serve to spell out what societies are well enough to intrigue social scientists and jumpstart an interdisciplinary dialogue. First off, a sense of membership: individuals know who belongs. Second, durability: these groups are capable of lasting a long time—through the generations, in fact. And third, territory: each such group has primary control over a physical area.

I considered dozens of possible criteria before deciding these three suffice, recognizing, of course, that academics will explore the concept’s strengths and weaknesses no matter how intricately I express them.

KM: So, the idea is that this definition can be a tool for academics across the board to go out and identify this thing out in the world that we might call a “society.” As a sociologist, I always found it rather odd how seldom we bother to precisely define our most important terms: society, norms, culture, group, identity. We just kind of wing it and assume everyone knows what we mean. But, absolutely,

we should be trying to seek a consensus, so that we all know what we're talking about. This will be even more important as academia becomes ever more global and cross-connected.

Okay, so, three criteria: shared identity, persistence over time, and occupying some kind of physical territory. If this is what societies are, where might we find these things? What other groups of creatures besides humans might fit this definition of society?

MM: Obviously that's an intriguing question for us biologists. When I started looking into the literature, though, I realized that a utilitarian conception of society seems to be missing from my field. My mentor, Ed Wilson, wrote the book *Sociobiology* and yet never defined "society" in a way that allows us to cleanly pick out such groups. He saw a society as a collection of individuals whose members organize cooperatively—a description that rarely works in practice. Indeed, those biologists and anthropologists who are myopically concerned with cooperation far too commonly fail to adequately address what many sociologists have emphasized; namely, the immense tapestry of both positive *and* negative social interactions that play out within a society. I like the way Georg Simmel put it: he interpreted cooperation and conflict as inseparable "forms of sociation." So, while cooperation is of course common in societies, its presence can't be used to adequately define a society, because conflict and disagreement are also significant and play out in varied ways.

Cooperation does fit the bill for neatly describing the societies of some nonhuman species. These include the subjects of Wilson's personal research, ants. An ant cooperates just with nestmates and never with outsiders; the default for ants is to attack any ant from another society—that is, from any other colony of their own species. But relationships in vertebrate societies are more complicated: wolves, lions, baboons, and so on have complex social networks, with individuals cooperating readily with those they favor while ignoring or actively disliking others in their society. Positive relationships even extend between societies in certain species, as they can for humans.

To get to your question, societies, as we are considering them, are scattered throughout nature, though it takes some sleuthing to pick out the species that have them. I've tracked down examples among fish and birds and, yes, a lizard or two. Then there are the colonies of social insects.

KM: Now I'm going to push back on your definition. I'll give you some lay notions of society that sociologists might want to use, and you tell me what's wrong with them, or what's inadequate about them. Why can't we just define a society as small groups embedded in a big group?

MM: In this view, it seems every "group" is treated as a society. Groups exist all over the place, taking an infinite number of forms; using "society" as a mere synonym of "group" doesn't provide us with anything that's conceptually valuable.

KM: Okay. What about a definition that says a society is a place where people are socialized to follow norms? What's wrong with defining society just in terms of socialization?

MM: Sure, this usage can take its place among the varied dictionary definitions of "society." But I'm interested in narrowing our attention to a particular kind of group with a distinct membership that typically comes to people's minds when we speak of "a society." Certain American norms may of course be different from those elsewhere. However, norms exist every which way within and across societies; you have Catholic norms, sports norms, political norms and so forth. A norm can apply worldwide or just to a local school club. I don't see socialization generally, or norms more particularly, as presenting a firm grounding for delineating one society from the next, or societies from other kinds of groups.

Earlier, I spoke of societies in nature, which characterize a tiny minority of animal species. Yet dig deeper, and you'll find that societies exist all over the place. The cells that compose your tissues fit my definition. Your cells absolutely belong together—they are members of *Kevin*. If we shake hands, and a bit of my skin flakes off onto you, any live cells in it will never become part of you; our cells are committed to our particular body, with our immune systems assuring their adherence. That doesn't necessarily mean our cells always get along. Our bodies can develop cancers, a circumstance in which the identities of our cells have gone awry.

KM: Interesting. One way to look at the development of cancer is that it is an error that leads some cells to de-identify with the larger biological system of the body. So yes, cells have identities. These identities are not cognitive, in the way they are for humans and other animals. But that's kind of the point, isn't it? We might be missing expressions of identity in nature as well as expressions of society.

MM: expressions of identity can be easily missed—among people, too. Research on people tends to focus on obvious, often symbolic, distinctions that we culturally learn, like memorizing a national anthem. Still, we also register differences below our conscious awareness. Abigail Marsh, at Georgetown University, has shown that—to the shock of most participants in her studies—people have a high rate of success at picking out who is American by how a person waves a hand, walks, or smiles. The smile may be a universal human expression, yet it seems different groups smile in subtly distinct ways. That's why I prefer the broad phrase "markers of identity" over the loaded term "symbol" in describing the traits that distinguish us.

KM: Something that is intriguing about your approach is that, in sociology—at least in classical sociology—the fundamental social unit is the family. This goes back to August Comte. Comte argued that society is only possible to the degree that people can extend their moral impulses beyond the family—to the community, to the nation, and so on. You're kind of coming from the other direction. You're saying, well, no, the fundamental unit of social life is the society.

MM: Well, the fundamental unit of social life is indeed arguably the family. I mean, people will die for their immediate families more readily than they will for the nation. Nevertheless, they are often willing to die for their nation, too, and we honor those who do it.

The belief that societies are a sort of expanded family—I don't think that works. We talk that way metaphorically. The nation as one big family. But with respect to societies, our bonds can be absolute, in-group/out-group distinctions. Families, by comparison, lack strict borders, since our kin relationships, and likely our familial feelings, peter off with generational distances. Taking this ever-expanding circle to the extreme, you might allow that the whole human race is a family. Okay, but while we might cultivate some affinity to all of humanity, we will never embrace the entirety of the human species as members of one grand society. Societies exist in part as points of contrast with out-groups—other societies. Cosmopolitanism will be at best a weak psychological force.

Look at hunter gatherers: they seldom prioritized keeping track of kin beyond immediate families. Historically, the San didn't even have a name for "family" in the sense we use the word. They spoke of sisters and brothers and so on, yet those terms could be used to express a social tie to anyone, blood relative or not. Of course, the San knew who their actual parents and siblings were, but the perception of biological kinship, as important beyond the immediate family, only became socially entrenched when the former hunter-gatherer nomads began settling down. For the first time, goods could be accumulated and inherited. This gave people a good reason to keep track of blood kin.

In contrast, the notion of "society" has always been with us. We might take our society for granted 'til a problem arises that affects us collectively, But then, voilà: our society comes to the fore. Hence it was that right after 9 /11, American flags were suddenly everywhere.

KM: It seems to me that the two most contentious aspects of your definition of "society" are the shared identity component and the territoriality component. I think we can all agree that a healthy human society tends to persist across generations; that is, they are not fleeting. But, do people in a society really all share an identity? And must a group really actively defend a territory in order for it to constitute a society?

Let's start with the shared identity component. What would you say to someone who says, well, when I look at America, I don't see much shared identity at all! I see Republicans and Democrats bickering. I see Christians and atheists annoyed with each other. I see people who are proud Americans and I see people who are ashamed to be Americans because of inequality, the history of slavery, whatever it might be. What would you say to them?

MM: If nothing at all is shared in terms of identification with a group then, yes, I don't think you have a society, or I think what once was a society will disintegrate unless it's kept intact by force—say, by the brute force of an autocratic leader.

Modern nations can stretch the limits of the identities that people share as a group. Hunter gatherers, with their nomadic lifestyle, had small and very uniform societies; everyone in them basically looked and acted the same. But after societies settled down and, often, grew in size, large-scale conquest became possible. A society could expand onto adjacent lands and swallow up their residents and, in some cases, come in time to treat them as fellow society members. That's when distinct ethnic populations first began to emerge *within* societies. The possibility of immigration, where outsiders enter a society of their own free will with the expectation that they could stay, and become citizens, is relatively new. As a result of the mass incorporation of populations, either by force or willingly, the identities of people in modern societies have come to be much more diversified than they once were.

For all that, the members of our societies have a need for some commonalities as a glue to hold them together. And that's one of the issues we face in politics all the time: what those commonalities are, and how much diversity we should allow outside of those commonalities. People still manage to cling tenaciously to their societies, inspired by characteristics they treasure, even when they find some of the things going on in their society abhorrent, such as its early history of slavery. To me, what's interesting is that modern societies challenge the limits of what a society can be. When one works well, of course, it's extraordinary.

KM: I agree that it is going to be hard to maintain a society if we see ourselves as completely alien to one another. But that doesn't mean that we can't feel comfortable when there are a lot of distinctions between us, right?

MM: Yes. In fact, that's a critical point. Large-scale societies have always had to allow for diversity—up to an acceptable degree. Societies like the U.S. make diversity itself a cultural expectation. Of course, there is always room for personal quirks: each person identifies with certain sports teams, clubs, and so forth. Depending on the society, we also allow for varied perspectives on politics and religion, despite the differences pushing us near the breaking point at times.

Behave radically, though, and you become what psychologists call a “black sheep.” Should an outlier society member gain followers, or people's behavior drift sufficiently in divergent directions over time, the result may be a social schism that eventually causes the society to break apart.

KM: I think what's interesting about your focus on identity is that it encourages social scientists and zoologists—I like to think of sociologists as zoologists who choose to focus on one species, humans—to figure out how much identity variation a society can accommodate. We don't currently have a good answer to this question.

Also, it's not just identity variation between me and another person in my society; between-individual variation. It's also within-individual variation that we must think about. People's own identities change over time. But how much can they change before the individual has a crisis? Perhaps between-individual variation in identity

can cause the collapse of a society and within-individual variation in identity can cause the collapse of an individual.

MM: Yes. Our sense of identity changes fluidly, minute by minute, as we shift from thinking of ourselves as a fan of a sports team to, perhaps, being an American; but as you say, over the long term our identities can also shift in more permanent ways. I imagine a radical shift might cause mental anguish, and possibly even personal and social turmoil, should our identities come to conflict with those of the people around us—though in general people strive to retain a sense of identity that conforms with that of their family and friends.

What fascinates with respect to the kind of identity shifts you're talking about is to consider how alien George Washington would find America today. As the social anthropologist Fredrik Barth famously pointed out, our group identities can shift mercurially without altering the boundaries between groups. And so we reinterpret documents like the Constitution, written by people who had a different sense of identity than we do, to make them continue to work for us. Where these revised interpretations cause heated debate is when, as you say, identity differences emerge between individual society members—there's between-individual variation in identity, as you put it.

As for these differences in identity potentially causing breakdowns of whole societies, absolutely—that's where I've been focused. Jared Diamond saw conflicts with outsiders and ecological disasters as primary causes of societal collapses, but a society can stay intact through tough times if its membership is grounded in a robust shared identity—jointly facing hardships further binds us together. This our land, and our flag. Damn it, don't tread on us! Yet when pushed to the point where it does crash, a society seldom if ever *collapses*—that's not the correct word; it's not as if each person or family scurries off on their own. Rather, the society fragments, with each of the two or more parts taking control of a portion of the original territory.

I'd argue that societies are basically like bodies: Even under the best conditions, they have a lifespan. We can't expect them to last forever. The U.S. is closing in on 250 years old—that's middle aged. Americans think of themselves as a young society, but state societies throughout history have tended to last only a few centuries.

KM: What would be a sign that things are going in the wrong direction in a way that would concern you that we're, maybe, not a society anymore—that we're in decline?

MM: Well, political and cultural differences in the U.S. are at an extreme. The assessment of Peter Turchin, a historian studying global patterns in human behavior, is that right now we happen to be at the nadir of a long-running cycle of human sociality—which means things should eventually bounce back. May we live long enough to see those good times. Actually, I saw him at a conference in Turkey last month and he predicted ten years.

Our contemporary political polarization largely falls more along the lines of residency, between rural and urban. But country, suburb, city...these places exist in a patchwork across the country. There's no clear geographical fault line of group

identities along which America can readily fracture, as there was in Yugoslavia and the U.S.S.R., which fragmented largely along the lines that separated what had once been independent societies. The primary reason the Civil War failed to split the U.S. is that the Southerners still thought of themselves as American, as for example the historian Paul Escott laid out in his book *The Confederacy: The Slaveholders' Failed Venture*. I suspect that Americans of different persuasions are stuck with each other, through thick and thin.

And perhaps that's for the good. I said that it's simplistic to view societies as units of cooperation. In fact, I wonder if a good amount of internal tension is how societies work best. Our societies from time immemorial have encompassed those with different goals and attitudes, varied personality traits, and clashing approaches to problems. So maybe, just maybe, a society succeeds not purely through easygoing collaboration but by means of heated arguments between those who rarely see eye to eye. Even ant colonies function most smoothly when they contain a mixture of workers, some of which expend their efforts on defense (a primary concern of nationalists in our species) and others on nurturing the young (the closest an ant can come to being a patriot). Remove the hawkish members, and the nest is taken over by parasites; take away the nurturers, and the helpless young starve. In human democracies, those with one viewpoint or the other may seize control for a while, sometimes it seems with minimal interest in cooperation.

The trouble being that in the modern, hyperconnected world, the internal conflicts of our nations have grown increasingly, and at times dangerously, nonfunctional. What once may have had value appears to be going haywire.

KM: Yes, yes, I think you're exactly right. Healthy and stable societies are, perhaps paradoxically, often adversarial collaborations. And that's not a bad thing, up to a point.

The other thing you mentioned was civil war. What you're inviting us to do by insisting on a cross-species notion of "society" is to think about civil wars as a phenomenon that might happen in a wolf pack or chimpanzee community. Perhaps civil wars are a natural phenomenon that occur under specifiable conditions. By looking at this phenomenon more broadly across the natural world, could we glean insights that might also apply to our own human societies?

MM: It's likely all societies break apart at some point. In species such as the honeybee, this transpires harmoniously, but often there is the equivalent of a civil war. Take the chimpanzee. That species wasn't well understood for a long time: All Jane Goodall could be certain of at first was that the apes at Gombe National Park moved around a wide area in small, ever-changing clusters. Then the population split in two in what amounted to a civil war. The apes in the stronger group started to kill those who fell on the other side of the divide—even slaughtering individuals who had once been their friends. Only then did Goodall realize that chimpanzees form societies, with companionship impossible in this species across community borders. She

aply described the category shift that must take place in the minds of those animals, when former group members became outsiders, as “dechimpization.”

The truth is, human minds are built to categorize, to distinguish in-group from out-groups. We can't stop this mental calculus. Fortunately, unlike the chimpanzee, but more like the closely related ape called the bonobo, which can have friends in foreign communities, people don't necessarily see out-groups as enemies. Social psychologist Marilynn Brewer emphasizes this point: in-group love does not require out-group hate.

What we urgently need to understand is this: how to manage the transformations in identity within our societies that come to create factions out of what had once been a single “us,” such that those others aren't dehumanized but remain people for whom we continue to feel respect. And, when the resulting differences reach the point where a society will inevitably sunder, how can we carry out the separation peacefully, without a civil war?

KM: Okay, so a shared identity is a fundamental component of society, with the degree of cooperation or conflict varying both within and between societies. But the other components of your definition are just as important. So, in your view, if a group has a shared identity, but does not persist across generations and defend a territory, it isn't a society.

Is this why you wouldn't consider a sports team or a church community or an academic organization to be a society? They are groups of people who share an identity, but they might not persist across generations, and they typically don't defend a territory with the threat of violence.

MM: Let's talk a bit about territories. Your mention of “the threat of violence” suggests how biologists think of territoriality: the exclusion of outsiders from a physical area by means of active defense. Social scientists know this is wrong—at least, that it need not be so. Our societies commonly form alliances and allow friendly foreigners to visit their domains. The latter is true, as well, for a few animals. That's why I describe territoriality not in terms of the use of force but as having *ultimate control* over much of, or all of, the area a group occupies. Depending on the situation, even a society normally open to amicable foreign relations can close its borders and defend its lands...or make an about-face and invade a neighbor.

My criterion that a society occupies a territory is the one most open to dispute. Nonetheless, I believe it essential to set societies apart from such collectivities as ethnicities and those religious and other groups you mentioned that meet just the first two criteria. After all, we don't normally think of these groups as societies unto themselves but as populations *within* a society. Ethnic groups intersperse within modern nations; even when their peoples concentrate in certain regions or neighborhoods, when push comes to shove, they can maintain control over those spaces. Should such a population gain its independence, however—perhaps after a civil war—in my parlance, what had previously been described as an ethnic group should now be called a society instead.

KM: So let's be explicit here: Is your definition of society consistent with the definition of a nation-state—a centralized authority enforcing territorial boundaries?

MM: Yes, it allows for state societies. Nomadic hunter gatherers had no bureaucratic apparatus; human societies have grown, over the last millennia, in part because of improvements in communication beyond anything our foraging predecessors could muster. Rules imposed by leaders regarding permissible behaviors; the construction of roads along which those rules could be conveyed, often over long distances, and swiftly, say on horseback—features like these contributed to the emergence and growth of states by stabilizing their members' identities across ever wider domains. The reduced isolation across distance meant that people would be exposed earlier to, and come to accommodate, whatever variations in the identities of their fellow members arose elsewhere before these ignited a schism—provided the differences stayed within permissible limits, as I've said.

KM: What would you say to someone who says, look, humans are traversing the globe with less and less friction. I was looking at these data the other day: in recent months, something like 150,000 to 200,000 immigrants had been crossing into the U.S. along the southern border. In your view, is there a limit to how flexible and open territories can be in order for a society to exist?

MM: That's a good question. I said that territoriality doesn't need to entail keeping foreigners out. Still, maintaining control over a territory does require oversight as to who can enter and for what purpose. In theory, a society could tolerate contact with any number of non-members provided there's no confusion about who belongs. But humans are sensitive to both group boundaries and to who *we* are as a people within those boundaries—we rebel if we feel our group identities may be adversely affected. What psychologists have demonstrated so far from Intergroup Contact Theory would suggest that temporary visitors, tourists and the like, probably won't be registered by a country's citizens as a serious threat to their shared identity or welfare. Foreigners who flock to a society and then go home can be recognized as a boon, even if at times they become a source of aggravation by overwhelming the capacity of local communities. In contrast, outsiders arriving in numbers expecting to stay and eventually become citizens are far more likely to be seen as having the potential to alter a people's identity—to blur the expectations of who fits in and render the country into an "uncoherent mass," as Thomas Jefferson put it, fears that especially come to the fore when times are tough. And what if any harm particular immigrant groups will cause can be the subject of tumultuous disagreements, as an outcome of the varied sensitivities of individuals to their unorthodox ways. So territories can be opened or closed to varying degrees depending on the perceived threats of the moment.

There is so much more to discover with regard to how this all works—in humans, yes, but for other social species as well.

KM: Well said, and I wholeheartedly agree. I've always recognized that sociology, from the point of view of biologists, is a branch of zoology. We are studying humans, yes, all of whom are just one species of primate. But we are not the only social animal on Earth! And what hubris to think that societies elsewhere in nature have nothing to teach us about our own!

MM: Sociologists should feel free to seek out people like me who've spent time studying social behavior in other animals. There is a lot that I can learn from you, and a lot that sociologists can glean from studying wildlife. Synergy is a powerful thing. Be open to thinking across disciplines whose boundaries have, after all, been set up artificially. Wade into new intellectual territory. See what happens! That's been my goal.

KM: Mark, as a parting thought, I have to say that I am absolutely struck by the open question of how much identity variation a society can accommodate before it splits or breaks down. I can't get this question out of my head. Social science has no clear or definitive answer to this question, nothing. And there is probably no more important question.

MM: You've hit the nail on the head. How much identity variation, and of what kind, and where within a society it builds up. We desperately need information on these critical topics, which are a potential gold mine for sociologists.

For further discussion of the issues raised here, including extensive citations, see: Moffett (in press). What is a Society? Building an interdisciplinary perspective and why that's important. Behavioral & Brain Sciences.

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