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ARTICLE

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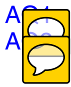
# Naturalizing Tomasello's history of morality

Philip Pettit[a,b]



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**ABSTRACT**
Building on different sources of theory, from paleontology to psychology, Michael Tomasello offers a plausible, even compelling, story about how our ancestors developed distinctive forms of collaboration, evolving mechanisms to support them, in the period from roughly 400,000 to 150,000 years ago. But he claims that this narrative explains why they would have begun to think in characteristically moral ways, developing notions like those of respect, desert, and commitment. Do the arguments rehearsed support that extra claim? It is not absolutely clear that they do.

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## 1. Introduction

Drawing on many areas of expertise – human and animal psychology, evolutionary theory, and moral philosophy – Michael Tomasello's (2016) *A Natural History of Human Morality* gives us a highly engaging, purportedly naturalistic account of how we human beings came to be a moral species. He tells a plausible, evolutionary story of how our ancestors are likely to have developed habits of mutual collaboration and of how natural selection wired these into their nature, as evidenced in psychological studies of very young children today. And then he argues that, in the course of that development, those forbears of ours would naturally have found a use for terms that count by contemporary standards as moral in character and would have employed these in regulating one another's behavior, and of course their own.

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The story is a plausible, even persuasive, account of how our ancestors developed forms of collaboration apparently unknown in other species. But does it really show that they would have been pushed into invoking and applying properly moral vocabulary? This article suggests that it may not. The centerpiece of the article consists in a detailed analysis of the stages of Tomasello's narrative, seeking to show that at no point does its development essentially depend on the ascription to the protagonists of

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moral concepts. The story can make good sense of how we human beings evolved a collaborative nature without supposing that moral concepts played any role in that process or were even incidental precipitates.

This article is organized into three sections. In the first section, I provide an overview of Tomasello's project and an explanation of the standpoint from which I interrogate it. In the second, I set out as carefully as possible the different stages in the story he tells of our natural, collaborative history. And in the third section, I argue that the ascriptions of moral concepts that the story postulates can be stripped out without serious loss to its plausibility. The story can make sense of why we are a collaborative species without explaining why we are a species of a moral character.

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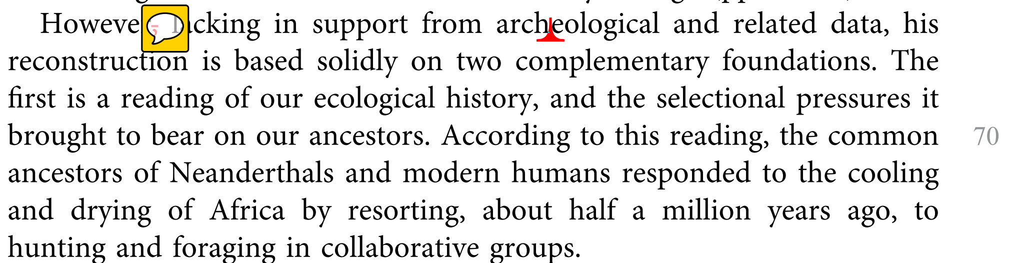
## 2. Background

### 2.1. *Tomasello's project*

That we are a moral species, in the sense at issue in Tomasello's book, does not mean that we perform particularly well in dealing with one another, with our fellow inhabitants of earth, or indeed with the planet itself. In his words, it means only that, however often and far we fail, we are creatures "who are genuinely concerned about the well-being of others and who genuinely feel that the interests of others are in some sense equal to their own" (p. 154). We are moved, if only weakly and erratically, by a "socially normative sense of fairness or justice," bearing on how we "ought" to treat others or how others "'ought' to treat" us (p. 36).

Tomasello's story about the emergence of morality is offered, in his own words, as "an imaginative reconstruction of historical events many thousands of millennia in the past – with little in the way of artifacts or other paleoanthropological data to help" (p. 154). The period covered includes that of "early humans," from about 400,000 to 150,000 years ago and "modern humans," from about 150,000 to 10,000 years ago. He has little to say about "contemporary humans," whom he takes to have appeared with the agricultural revolution about 10,000 years ago (pp. 86–87).


However, lacking in support from archeological and related data, his reconstruction is based solidly on two complementary foundations. The first is a reading of our ecological history, and the selectional pressures it brought to bear on our ancestors. According to this reading, the common ancestors of Neanderthals and modern humans responded to the cooling and drying of Africa by resorting, about half a million years ago, to hunting and foraging in collaborative groups.

> Whereas other apes obtained (and still obtain) the vast majority of their nutrition mainly through solitary efforts, these early humans obtained the vast majority of their food mainly

> through collaborative efforts. And, importantly, they had no or few satisfactory fallback options if the collaboration failed. The collaboration was obligate. (p. 44)

The other pillar on which Tomasello's reconstruction rests is the enormous range of research he and his colleagues have pursued and inspired over the past few decades on the psychology of young children, and on the contrasts between their mentality and the psychology of other apes. He argues that under the pressure of a need to collaborate, our ancestors would have developed various psychological mechanisms or dispositions of a broadly sympathetic type. And the research on children bears out that claim, since it reveals a kind and degree of sympathy with others that is distinctive of our species.

His book traces two stages in which our ancestors would have developed morality, one natural, the other cultural (p. 126). The first, relevant in particular with early humans, would allegedly have given us a natural morality of the kind that shows up, he thinks, in the development of children between ages 1 and 3. The second, which is likely to have appeared only with modern humans, would have given us a cultural morality, associated with different cultural norms in different social groups, and shows up in the development of children between ages 3 and 5. This is an age at which "specific types of social and cultural interactions and instruction from adults in the culture become critical" (p. 156). In this commentary, I concentrate entirely on the emergence of the natural morality that he describes, ignoring his treatment of cultural morality.

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### 2.2. *My perspective*

In order to explain the rationale for that challenge, I should say something about the angle from which I am approaching his natural history. Many contemporary moral philosophers assume that moral terms or concepts, and normative terms more generally, cannot be reduced to the descriptive, naturalistic terms of science. They take this view on the grounds that it is apparently impossible to translate such concepts into nonnormative terms. Most of these thinkers treat one particular normative concept as more basic than others, especially in the realm of morality, but then insist that that concept itself defies further analysis, in particular analysis in nonnormative terms. Thus, Scanlon (1998) treats the notion of a normative reason as basic in that sense but insists that all we can do in explaining what makes a consideration into a reason for one or another sort of response is to stay within the normative circle and say that it "counts in favor" of the response.

Moral or ethical terms come in many varieties, ranging from the notion of a reason that Scanlon privileges to the notion of what you ought to do or may do, to the idea of what is desirable or good or obligatory, to the assumption that some things are a matter of right or desert. In every case,

such terms are used to prescribe a response with one or another degree of strength. They do this on the basis that there is a reason to display the response, that you ought to display it or may not fail to do so, that it is desirable or good or obligatory to display it, or that someone else has a claim to the response as a matter of right or desert. 120

Moral terms are only one species of normative term. Other species include epistemic terms that focus on the requirements of knowledge rather than action. And other action-centered or practical species focus on more specific and less authoritative requirements, such as those of law or etiquette, prudence or patriotism. But in this essay, normative terms will 125 be taken to belong exclusively in the moral category.[1]

The prescriptive use of normative terms marks them off from terms that serve to describe rather than prescribe. Descriptive terms are used to provide a map of the environment or world you inhabit, and perhaps of the psychology you bring to it, rather than seeking to give you directions as 130 to how you should act in light of that psychology and that environment. I could rely on wholly nonnormative terms, for example, to identify the beliefs and desires you hold about the world, the facts that make those beliefs true or false, and the opportunities and obstacles that you face in seeking to satisfy your desires according to those beliefs. 135

Moral terms need not be purely prescriptive, however, as in the examples given above. There are many terms such that, while their use generally communicates descriptive information, their purpose is nevertheless prescriptive. These are terms like "peaceful," "respectful" and "kind," or indeed "cruel" and "oppressive," that rule for or against the performance 140 of certain sorts of options, or indeed for or against the emulation of certain sorts of agents.

The difference of function between normative and nonnormative, prescriptive and descriptive, terms raises a question for any naturalists who hold that whatever is true of our kind and our world, it is true in virtue of 145 truths accessible to natural science. For naturalists are committed to holding that there must be a naturalistic explanation available of how our species should have come to develop prescriptive concepts and to use them in regulating themselves and one another. On a naturalistic view of things, our species is the product of a natural evolution that puts us more 150 or less on a par with other species, especially other apes. And yet no other animals, not even other apes, display a grasp of normative concepts. Thus, there have to be features of our particular evolution, our particular natural history, that explain how we alone came into possession of such concepts.

The task of finding such an explanation is particularly challenging for 155 those like Tomasello, who appears to think, as indeed I do, that prescriptive judgments cannot be dismissed as utterances that serve just to vent feelings or project plans; they are judgments that are true or false

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and can serve to map discernible features of our shared world. I have argued elsewhere that there are conjectural, naturalistically intelligible circumstances under which it would have been more or less inevitable that we human beings would be led in naturalistically intelligible steps to develop and apply ethical concepts (Pettit, 2017). The question that interests me here is whether Tomasello gives a convincing account of how our forebears would have been naturalistically prompted in the actual circumstances envisaged in evolutionary history to move in the same ethical direction.

## 3. Tomasello summarized

Does Tomasello give an account of how our ancestors came to morality, then, that explains their introduction of moral, prescriptive concepts in purely descriptive, naturalistic terms? In this part of the article, I detail his story of the emergence of natural as distinct from cultural morality and in the next I examine that narrative to see whether it advances in purely naturalistic steps.

There are 32 stages that I identify in his narrative – no doubt the ordering could be varied – and I now set them out in short numbered paragraphs. One of these paragraphs, number 26, is marked with a hash (#), which indicates that while it is not explicitly presented by Tomasello, it is more or less clearly assumed in his story. Quite a number of the other paragraphs are marked with an asterisk (*), and put in italics, but the significance of this marking will only appear in Section 3.

In constructing this summary of his argument about natural morality, I stick fairly closely to Tomasello's own presentation and even his own words. But occasionally I exercise charity, as I think of it, in the interpretation. One form of charity concerns the role of proximate psychological mechanisms or dispositions. While he emphasizes their importance in introducing his narrative and in commenting on it at various stages, he lets them drop out of sight at some points in its telling. At those points, he highlights the strategic character of the adjustments prompted by the mechanisms, where this might suggest that our ancestors made the adjustments strategically rather that producing them spontaneously under the influence of the strategically selected mechanisms. In my summary, however, I underline the role of the mechanisms at every point.

I do this for two reasons. First, the underlining reflects his general emphasis on the importance of such mechanisms. And second, it is needed to explain why research on contemporary children is relevant to the narrative. After all, it is only if early humans were selected for the presence of certain psychological mechanisms or dispositions that the presence of such dispositions in children tells us anything about those ancestors.

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Those preliminaries aside, we can now turn to the stages in Tomasello's narrative of natural morality that I take to be crucial to his enterprise.

1. Mother nature did not select our ancestors – perhaps unlike the ancestors of the great apes (p. 22) – for a capacity to cooperate only on a "calculated" or "strategic" basis: that is on a basis that would prompt them to reciprocate, for example, only if this manifestly promised to be in their interest (pp. 23–26).[2]
2. On the contrary, nature selected our ancestors for the presence also of "proximate psychological mechanisms" (p. 3) that disposed them to prove more or less spontaneously cooperative, at least in the absence of certain opposing, selfish incentives (p. 49).
3. This is explicable on the stakeholder model of natural selection (pp. 14–18). Our ancestors were required to forage collaboratively; this interdependence gave them a stake in the well-being of specific others; and so, as in the logic of kin selection, they were selected for being disposed to care inherently about those others, helping them out without always enjoying personal payback.
4. Ultimately for evolutionary reasons, then – and at the evolutionary level there was, of course, a relevant form of payback (pp. 31, 149) – our ancestors would have come to display "the proximate motivation … to help anyone with certain characteristics or within a certain context" (p. 47). In that sense, their concerns would have had an other-regarding dimension.
5. Support for this claim is forthcoming from a study of the psychology of children between the ages of 1 and 3. Such children, so the study reveals, are "highly motivated," indeed "internally motivated," "to help others, with no need for external incentives." And this motivation is "mediated by a sympathetic concern for the plight of others" (p. 47).
6. Under the pressure of obligate collaboration, our ancestors would also have developed the capacity to recognize joint goals; the disposition to rely on one another in the pursuit of those goals: this, perhaps because of assuming mutual helpfulness; and a common ground or manifest awareness of that capacity and disposition: each would have been aware of them, aware that others were aware of them, and so on (pp. 50–53).
7. This being so, our ancestors would naturally have acted on joint intentions, each spontaneously playing their part in the pursuit of manifestly joint interests on the basis of the manifest reliability of others (p. 64). This would have required communication, but only of the basic sort – perhaps involving just pointing or pantomime – that would have drawn the joint attention of the parties to the attraction of the activity and to its prerequisites (p. 53).

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8. While not yet involving a normative or moral aspect, acting on joint intentions would have made it clear as a matter of common ~~ground or~~ manifest awareness that joint success required the individual satisfaction of various “instrumental and local” role ideals (p. 54): if the group was to be successful, each member needed to make a suitable contribution to the shared endeavor.
9. Acting on joint intentions would also have revealed to each that the role ideals relevant to them were relevant also to others: namely, that they and others were equivalent as contributors, being interchangeable with one another in their roles. Indeed, it would have revealed this manifestly – that is, as a matter of common ground – with each being aware of the fact, aware that others are aware the fact, and so on (pp. 55–57).
10. Just as the role ideals mentioned in 8 are not “the kind of normative standards” recognized in philosophy (p. 54), so this “self-other equivalence is not by itself a moral notion or motivation”; it is just “an inescapable fact that characterizes the human condition” (p. 56). Thus, the steps taken so far would not yet have put our ancestors in ethical space.
11. Being able to choose their partners in joint activities, our ancestors would have assessed others as partners and been assessed in turn by them: and this, as a manifest matter (pp. 58–59). In an “information-poor, egalitarian marketplace,” this would have led them to establish a community of agents who, manifestly, “were moderately plentiful” and enjoyed “more or less equal bargaining power” (p. 60).
12. While it would have made strategic, self-serving sense to recognize the equality of others, “it also would have had a nonstrategic component” (p. 60): the equality would have been independently compelling. Each party would have naturally been led to recognize the equivalent contribution of any partner and the equal contributory value of all likely candidates for partnership; and this, as a matter of common-ground awareness.

*13. *“And so were born second-personal, cooperative agents who respected one another’s equal status based on participation both in the collaborative activity itself … and in the wider marketplace of partner choice (in which each had equal bargaining power” (p. 60). In words quoted from Steven Darwall, there would have been “mutual respect between mutually accountable persons.”*

14. Free-riding would have been a problem for collaborative foragers and “at some point humans must also have evolved the tendency to deter, and so to try to control, free riders” (p. 61). Thus “exclusion from the spoils” would have been a reliable feature of their interactions, both because of that tendency or disposition and because the exercise of the disposition would have served the interests of members of the foraging party in a strategic way (p. 149).

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*15. *The recognition of self-other equivalence among the parties would have led to "something like an emerging sense of the relative deservingness of individuals in sharing the spoils based on participation, or lack thereof, in the foraging event" (p. 62). It would have ushered in a distinctively moral concept of what is due to some and not due to others.* 285

16. Each would have recognized that if they acted as a free-rider, they too would be excluded from any spoils on offer. Being able naturally to "reverse roles," however, they would recognize that danger (p. 63). And so they would each have had a strategic incentive – and no doubt an independent, proximate disposition – to communicate to other presumptively cooperative types that they themselves had a "cooperative identity" or character. 290 295

*17. *Thus among our ancestors "one opened the channel of cooperative communication by addressing the recipient with respect and recognition, and this address simultaneously asked for the same respect and recognition in return" (p. 63). If the recipient rebuffed this "second-personal address," that would be "a serious breach of their mutual assumptions of cooperation, respect, and trust."* 300

18. The steps described so far would have left our ancestors in a position where they could not be ideally confident about one another's reliability.[3] Thus, in order to give themselves greater confidence in one another as collaborative parties, it would have been useful in any group for members to be able to think "that we truly *ought* to follow through on our collaboration, that we truly *owe* it to one another" (p. 64). 305

19. The solution to this confidence problem would have been for any would-be collaborator to make an "explicit communicative offer to another that 'we' do X, and for the other to accept 'either explicitly via her own cooperative communicative act or implicitly by just beginning to play her role (based on comprehension of the communicated offer)'" (p, 66). 310 315

*20. *This move would have introduced joint commitments "in which we explicitly and openly express our commitment to one another as mutually respectful second-personal agents and so form a bond of 'normative trust'" (p. 64). Set up by joint agreement, these "can be terminated only by joint agreement as well" (p. 66).*[4] 320

21. That our ancestors would have had recourse to communicative offers – presumably by developing suitable proximate dispositions – is supported by a study of 14- to 18-month infants. Thus, to cite just one finding of the study, when the researchers "abruptly stopped interacting, the infants attempted to reengage the partner through communicative attempts, most often some kind of pointing or beckoning" (p. 66). 325

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22. In such exchanges, any party would have responded negatively to defection, imposing a form of "partner control"; and this, presumably, as a matter of proximate disposition. This protesting response would have been "backed up" appropriately "by the threat of exclusion via partner choice: if you do not shape up, I will ship out" (p. 69); this threat would have put the defector "at risk of losing her cooperative identity."

23. Evidence for the likelihood of this reaction – and of its having been supported by an inheritable, proximate mechanism – is provided by research on 3-year old children dividing up sweets: "if a greedy child attempted to take all of the sweets she was met with a protest"; others reacted, "for example, by squawking loudly at the greedy child or saying 'Hey!' or 'Katie!'" (p. 68).

*24. *In any joint commitment, each partner "gives to the other the authority to initiate sanctioning when, by their common-ground standards made explicit via the joint commitment, it is deserved" (p. 68). Thus, feeling resentment at another's defection, the aim in anyone's sanctioning is not "to punish the partner" but "to inform her of the resentment, assuming her to be someone who knows better than to do this (i.e., to treat others as less than equals)" (p. 69).*

*25. *The authority to initiate sanctioning is a "representative authority" (p. 68) derived from the collective subject constituted in joint commitment: "it is of the essence of joint commitment that 'we' agree to sanction together whichever of us does not fulfill her role-specific ideal. This gives the sanctioning a legitimate, socially normative force" (p. 67).*

#26. The prospect of a system of partner control that rewarded contributors but not free-riders would have been compromised amongst our ancestors unless all partners shared equally in the spoils – or shared at least in proportion to their contributions (p. 61) – and so we may expect that they would have developed a proximate disposition to divide up spoils suitably.

27. Evidence for this is provided, once again, by research on children: "even very young toddlers freely share resources when they have collaborated to produce them, and this sharing almost always results in equality between partners" (pp. 70–71). Three-year-olds also proved to share equally in the wake of collaborative activity but not otherwise: not, say, when they came upon the spoils by luck (p. 71).

*28. *"The obvious interpretation is that, in the context of a joint intentional activity, young children feel that they and their partner both deserve an equal share of the spoils" (p. 71). "It was this sense of equal deservingness, we would argue, that motivated three-year-olds to willingly hand over a resource already in their possession, which they would not otherwise do" (p. 72).*

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29. As our ancestors would have been disposed to protest against defectors and to try to regulate them, say by exclusion, so they would have recognized their own liability to protest and regulation in the event of defecting. This would have given them occasion, if they defected, for internalizing the protest and regulation. It would have made them feel a sense of guilt or, to introduce a less loaded word ~~than that used in the narrative,~~ a sense of shame (p. 73).

*30. *Feeling such guilt "is not just punishing oneself, although it has an element of that; it is judging 'I ought not to have done that'". In particular, it is making that judgment from the perspective of "something larger with which I identify – specifically, our 'we' – and so I trust its legitimacy" (p. 73). "Feeling guilty means that my current self, as representative of the 'we' . . . believes that my noncooperation deserves to be condemned" (pp. 73–74).*

*31. *There is evidence of a disposition, inherited from our ancestors, to feel guilt in this sense. "The normative (and not just strategic) force of guilt is apparent overtly in the way it leads individuals to attempt to repair the damage they have done" (p. 74). This appears in the finding that 3-year old children reliably help another child to fix a broken toy just in the case when they themselves broke it.*

*32. *This "emerging moral psychology of early humans from around 400,000 years ago" was not just "a modest first step on the way to a fully modern human morality but, rather, . . . the decisive moral step that bequeathed to modern human morality all of its most essential and distinctive elements" (p. 78).*

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## 4. Tomasello challenged

With this summary in place, I can state my challenge for Tomasello rather briefly. The paragraphs in the summary that I mark with an asterisk (*) have two characteristics. First, they use normative concepts in characterizing early humans as distinct from doing what the other paragraphs attempt, which is to map in nonnormative terms a likely pattern of mutual coordination amongst them. And second, they can be dropped from the narrative without destroying its continuity; in their absence, the narrative still offers an intelligible story of development, backed up by psychological research on children, that early humans are likely to have undergone.

In the absence of the asterisked paragraphs, the narrative tells a persuasive story of how our ancestors, under the pressures of collaborative foraging, would have developed practices of jointly intentional action, evolving proximate psychological dispositions that would have facilitated such interaction and reduced the need for strategic calculation. The dispositions selected would

have prompted a general pattern of helpfulness among our forebears. And they would have prompted people to take the more specific initiatives, and the more specific responses, detailed by Tomasello.

The more specific initiatives and responses supported by proximate mechanisms would have included inviting collaboration and responding to invitations from others, sticking to the finish with collaborative enterprises, assessing potential partners and choosing partners on that basis, expecting to be assessed yourself and seeking to advertise your attractions, protesting at defections by partners, ostracizing defectors in the absence of mollifying responses, rewarding collaborators with a more or less equal division of spoils, expecting and seeking such rewards in turn, and excluding free-riders from sharing in any spoils.

This story is well supported by the twin foundations of Tomasello's enterprise, one evolutionary, the other psychological. It is entirely intelligible why our ancestors might have adapted after the pattern described in circumstances of obligate collaborative foraging. And the fact that young children spontaneously display the dispositions invoked in the story provides powerful evidence that mother nature selected early humans, as Tomasello maintains, for their presence. The story establishes that there is a deep disjuncture in sociality between our species and even those closest to us in evolutionary terms.

But why do I balk at introducing the richer, asterisked paragraphs into the story? The reason, in brief, is that I do not see that these normative comments are fully justified by the facts recorded at the points where they are introduced.

It is certainly true that the rich interactions that Tomasello describes amongst early humans, and for which he finds parallels in the relations of children, invite the use of normative terminology. Thus, it is hard to resist his characterization of the protagonists in his story as respecting one another as equals in collaboration and in the potential for collaboration, as treating collaborators as deserving a share in the spoils, indeed an equal share, and free-riders as undeserving of a share, as committing to collaboration in the manner of a contract, as authorizing one another in the group's name to sanction defection, as expressing resentment for a defector when they impose such a sanction, and as feeling guilt in virtue of the fact that, having defected, they manifestly deserve the resentment of others.

But while it is hard to resist these characterizations, I think there is good reason why we should do so, at least in the absence of more evidence than the story told provides. This is because there is a worry that as we may be anthropomorphic in our interpretation of other animals, so we may be anachronistic in our interpretation of our forebears. Tomasello displays sensitivity to the concern about anthropomorphism in his own work; in this book, for example, a worry about that danger leads him to reject Franz de Waal's account of great-ape reciprocity (p. 36). I hope that he may sympathize, then, with my parallel concern about anachronism.

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Anachronism is a particularly insidious temptation in the normative realm, for there are two ways of interpreting the sorts of normative characterizations illustrated above: namely, those that speak of our forbears as respecting one another, treating some as deserving, others as undeserving, committing to one another in a contractual manner, authorizing the sanction of others, expressing resentment, and even feeling guilt.

With any such usage, we may take the remark to ascribe a bare pattern of behavior, identifying it as behavior of the kind that would go with respect, or the recognition of desert, or the enactment of a contract, or whatever. Call this the behavioral interpretation of the vocabulary. But equally we may take the usage illustrated to presuppose the ascription of an understanding of what respect or desert or contract require – or what is required for authorization, resentment, or guilt – and a motivation that goes with that understanding. This we may describe as the cognitive interpretation of the vocabulary.

I think that the asterisked paragraphs are a fairly natural, unobjectionable part of the narrative if they are understood in the purely behavioral fashion. Under that construal, they are no more questionable than many of the anthropomorphic remarks we make about other animals, as when we say that our dog shows respect for the door neighbor's cat, or is resentful of the new puppy in the house, or is guilty about having eaten the children's chocolate. But clearly Tomasello means us to interpret them in the richer, cognitive manner: that is, in such a way that we must ascribe to the subjects of the narrative a mastery of normative concepts like respect and desert and commitment, authorization, resentment and guilt, and of the other concepts that they presuppose.

Why should we go along with the asterisked claims, understood in that sense? Why should we ascribe to early humans the conceptual resources that they presuppose? The challenge for Tomasello, as I see it, is to direct us to evidence in his narrative, or in an extension of his narrative, that would make such an ascription plausible. I do not present this challenge in a purely rhetorical spirit. There is no reason in principle why the challenge should not be capable of being addressed. And there is one line of thinking in his commentary that I would like to see him develop in the cause of addressing it, since I find his existing presentation too brief to be persuasive.

This is an idea registered in paragraph 25 of my summary. It suggests, as I read it, that as our forbears indulged in collaborative exchanges, they would have built up a sense of the role ideals that any one of them needed to satisfy joint success in collaboration; that as they did this over exchange after exchange, they would have developed a sense of a party larger than any one of them – "a supraindividual social structure, 'we'" (p. 81) – that prescribes the satisfaction of the ideals; and that this party would have enjoyed a position, assigned on a basis implicit in the collaboration itself,

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such that its imputed prescriptions represent unquestioned, unquestionable law: “the ultimate source of the human sense of ‘ought’” (p. 82).

I would like to see Tomasello elaborate on this line of thought in order to give us a detailed, nonnormative explanation of how an appropriate sense of “ought” would have emerged: “a sense of ‘ought’,” as he himself puts it, “that was not just a preference or an emotion” (p. 82). If I may end with the suggestion in this area, he might hope to do this by connecting the argument with the observation, emphasized in particular by Kim Sterelny (2012), that our early humans would have relied on each generation teaching the next generation its skills and its ways.

If the seniors in each period had to teach the juniors what was required of them, now in this area, now in that, they would plausibly have wanted their instructions to carry maximum weight. And they might well have given their instructions that weight by appeal to the sort of impersonal voice that Tomasello invokes. They might have presented their instructions to the young as directives on how they “‘ought’ to treat others,” and on how “others ‘ought’ to treat them” (p. 36). And by doing this they might have given those instructions something approaching the impersonal, normative force associated with the moral ought.[5]

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## Notes

1. On the distinction between moral terms and other practical terms, see chapter 5 of Pettit (2017).
2. I shall take Tomasello to use “strategic” in this common sense, where the psychological motivation is clearly self-interested, or at least partly self-interested (see p. 149). In this sense, acting out of sympathy is not strategic. But neither is acting out of sympathy equivalent to acting morally. This appears, for example, in his remark that evolved human beings care for many others “not only because they sympathize with them but also because they feel they ought to” (p. 38). This leaves us with the three pure possibilities – there are also mixed ones (p. 161) – of acting out of strategy, out of sympathy, and out of a moral sense of ought.
3. Tomasello suggests that this is so because the steps described “were based only on strategic trust” (p. 64). This must be a slip, since proximate psychological mechanisms are also supposed to have played a role: for example, in people’s having “evolved the tendency to deter, and so to try to control, free riders” (p. 61); see 16 above.
4. Tomasello takes the notion of joint commitments from Margaret Gilbert. As he sees it (p. 64), prior to stage 20, early humans would have performed jointly intentional actions on the nonnormative basis described by Michael Bratman. For recent statements of these contrasted views, see Bratman (2014) and Gilbert (2015).
5. In preparing the final version of this article, I was greatly assisted by comments received after the presentation at a conference in Schloss Marbach in May 2016. I am particularly grateful for his comments to Michael Tomasello. I was also helped to improve the article by comments from an anonymous referee.

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