

## Big Questions 2022-2023 Topic Analysis

### Resolved: Humans are primarily driven by self-interest.

The Big Questions debate series gives students the opportunity to explore and investigate the questions that shape our human existence and experience. Students do this by researching deeply, thinking critically about, and revising constantly arguments about human nature, science, and philosophy. The 2022-2023 Big Questions topic is, *Resolved: Humans are primarily driven by self-interest.*

This topic analysis is meant to introduce to you many of the aspects of the scholarly debate on this topic. This brief will explore the questions that you will be asked to answer by your opponents and your coaches as you prepare to consider the topic at hand. This topic analysis is not comprehensive and cannot substitute for informed research. Rather, view it as an introduction to the rough contours of the debate you are likely to see throughout the season – and as a jumping off point for smoothing out those contours with your own research and critical thinking.

### Definitions

The first task it to define the terms of the debate – to determine what the resolution actually asks. These definitions themselves are likely to be subjects of debate. Defining some terms narrowly may advantage one side of the debate, while another term broadly construed tilts the balance to the other side. As such, controlling the intellectual terrain that is relevant is an important aspect of building your case.

“Humans”

Though not as fundamental a question as in the previous topic, the question of what we mean by “humans” could still be important for debates on this topic. The main questions will come not from *defining* a human, per se, but from *specifying* the extent of the burden placed on the affirmative. If by “humans” we mean every human being, living or dead, a single counterexample would suffice to prove that humans are not primarily driven by self-interest. On the other hand, if by “humans” we mean that the average person is driven primarily by self-interest, the job of the affirmative becomes much easier.

A second level of this definition is whether debaters should consider “human” in the most biological sense, disregarding societal pressures that affect how humans act. This definition may be well used by the affirmative to argue that human’s primary drives are not that different from other primates, which do not, generally, display altruistic behavior. If “human” is instead considered more holistically, including the intellect and reasoning capabilities of the human person, perhaps because humans sometimes make what appear to be altruistic decisions after consideration that includes more than instinct could benefit the negative. Deciding how broad to make the definition of “humans” can help either side to make their arguments stronger.

“Primarily”

The adjective in the resolution is sure to be the subject of many debates. “Primarily” can mean ‘first,’ as in our first instinct (Merriam-Webster). On this basis, the affirmative could argue that even if human beings sometimes act altruistically, their first instinct is to survive – a self-interested motive. Primarily can also mean ‘for the most part’ (Merriam-Webster). Here, the negative could argue that in order for the self-interest drive to be “primary” it must be stronger than all other drives, either individually or collectively. “Primary” can mean “principal,” leading the affirmative to claim that they must only prove that it is the most important drive, not that it is necessarily stronger than all the others (Black Law Dictionary). Each of these definitions changes what each side is trying to prove, making controlling the definition of this word of – primary – importance.

“Driven”

Since the word “primarily” is modifying the word “driven,” the two work together to determine the balance of ground in the debate. “Driven” can mean “having a compulsive quality” (Merriam Webster). This definition lends itself to a debate about instincts and genetics, rather than reason and morals. If, however, driven means “propelled or motivated by something,” the debate can focus more on the goals and aspirations of humans, rather than their natures (Merriam Webster). If the latter definition wins out, it could be easier for the negative to claim that

people *intend* to be selfless, so even if they are being driven by evolution or biology to be selfish it doesn’t matter. Alternatively, the affirmative could argue that our aspirations to be seen as good or kind are actually the driving force.

Determining what are and are not “drives” of human action is a complicated question given that “drives” cannot be directly observed. Thus debates about this definition are sure to – drive – a good deal of the discussion.

“Self-Interest”

This definition will be an important crux of nearly every debate. Indeed, the majority of debates will probably be about whether actions can be proven to be self-interested or altruistic. Determining how broad to consider things self-interest changes the method of inquiry of the debate substantially. While “a perspective on self-interest that would be useful for purposes of large-scale empirical study cannot be one that views the advancing of self-interest as anything that helps a given individual get what they want at a given moment,” this perspective may be useful to evaluating the question from a more philosophical view (Weeden and Kurzban 17). These are just a few of the questions that the definition of “self-interest” raises. As such, many levels of the definition are likely to come into play:

* Most Basic Level: Self-interest is, at its most basic, “a concern for one’s own advantage and well-being” (Merriam- Webster). Operating from even this most basic definition, however, still opens up a great deal of interpretation. Does this definition mean that altruism requires NO concern for one’s own well-being? Are only uncalculated, reckless acts of helping and charity truly selfless? Alternatively, does “one’s” own advantage mean NO concern for other’s advantage or well-being? Indeed, similar definitions make total disregard for others a part of the definition: “regard for one’s own interest or advantage, especially with disregard for others” (Dictionary.com)
* Evolutionary Definitions: The common understanding of evolution as “survival of the fittest” would seem to suggest that “self-interest” would be whatever causes oneself to be most likely to pass on genes. But theories of ‘inclusive fitness’ argue that evolution drives people to prefer the passing on of genes similar to theirs – making them willing to sacrifice for close kinsfolk (Scott-Phillips, Dickins, and West 11). Does this still qualify as “self” interest, since it ultimately achieves a personal goal? What if “inclusive fitness” is expanded to include a tribe, a race, a nation?
* Social Definitions: Economics and political science have their own view of self-interest. They often view people as “utility maximizers,” making the most of what they have to achieve their goals. However, those goals are not necessarily well-defined. If a stable family life is a goal, and a person maximizes their utility to achieve it, is that utility maximization self-interested? If a person maximizes their utility and realizes that they have spare resources after reaching their peak, is donating those resources to another self-less?

These are just a few of the dozens of views of self-interest that can and will be discussed throughout the year. Choosing a view that supports your arguments will be greatly in your – interest.

### Affirmative Arguments

The affirmative has many avenues to approach the topic of self-interest. A great deal of both social and physical science is based on the assumption that human beings are essentially self-interested, so the topic has been studied, discussed, debated, and researched for years.

The affirmative can frame the debate in several ways to its advantage. First, it can attempt to place the burden of proof on the negative by arguing that the resolution does not require them to prove that self-interest is the ONLY motivation for action, but that it is the PRIMARY motivation. Second, the affirmative can argue that, since motivation cannot be measured, the judge should accept the simplest explanation – and then argue that survival instincts and self-interest are simple ways to explain a great deal of human action.

Perhaps the most obvious argument comes from evolutionary biology. The basic idea of evolution is the survival of the fittest, not the survival of the kindest. If a “self-sacrificing” gene did exist, then it would not be around long enough to be passed on to the next generation. Those with “self-interest” genes would surely have taken advantage of the altruists and survived while the altruists died out. The basic human (and animal) drive for survival may be evidence enough of this theory. After all, humans experience “fight or flight” instincts, not “fight, flight, or forfeit your advantages” instincts. Evidence from neurobiology will also serve the affirmative well here.

Beyond biology, social sciences provide evidence that humans are self-interested. Economic models that use self- interest as an assumption are far from perfect – but the fact that the operate fairly well is evidence that, in the aggregate, the assumption holds. Similar models in political science and sociology also perform tolerably well and thus lend credence to the idea that humans must act the way these models assume they do – self-interestedly.

Psychology especially contains a great deal of evidence in favor of the self-interest (psychological egoism) model. When put in laboratory situations, humans often act exactly as one would predict self interested actors to behave. When abstracted from the pressing realities of real live, humans will often make decision as if they are the only one that matters.

Of course, the affirmative will have to defend itself from a wide variety of attacks from the negative. One of these attacks will certainly be to provide examples of seemingly selfless acts and demand that the affirmative explain how these acts can coexist with a self-interested humanity. The affirmative will have to be quick-thinking to describe how the individual examples are either ultimately self-interested or are insufficient to overcome the primacy of self-interest as a motivation.

### Negative Arguments

The negative can draw on a vast store of literature that has attempted to portray humanity not as self-interested by as cooperative, altruistic, and kind. This literature often directly responds to the assumptions and arguments of those who argue that humans are essentially selfish, making it especially useful in a debate setting.

Just as the affirmative has many avenues to make framing arguments, so does the negative. Perhaps the most powerful framing argument for the negative, however, is that the burden of proof placed on the affirmative should be large. The negative should argue that the affirmative must prove that humans are, in all situations, acting for themselves. Expanding the definitions of each word in the resolution will generally play to the negative’s advantage, making the statement broader and thus harder to defend.

In terms of major areas of argument, the negative has access to the same basic areas as the affirmative. In terms of evolution, arguments about inclusive fitness (described above in the “Evolutionary Definitions” section) will likely be popular means of attack. The negative may also wish to introduce “Cultural Evolution,” the idea that those who are fittest to live in community are more likely to survive than those who make themselves disliked by other members of the community. Coupled with arguments about how young children appear to be conditioned to help other altruistically (suggesting that altruism is a biological, not simply social drive).

Social sciences also provide arguments to the negative. Determining on one’s tolerance for model error, models built on assumptions of rationality and self-interest may not perform as well as the affirmative claims. No model is perfect, and perhaps a misunderstanding of human drives can explain these errors. Additionally, many experiments designed to show human self-interest often fail outright. Though proponents of self-interest often have methodological explanations for these failures, the negative should attempt to frame these failures as proving the very thesis can’t possibly be true.

Psychology also has much to say in favor of the negative. Many experiments establish that humans are very interested in fairness and may sacrifice their own self-interest to maintain a fair outcome. Humans also appear to get satisfaction from helping others. These psychological drives may work against the affirmative’s case.

Finally, the negative will almost certainly have to defend itself from arguments that seemingly selfless actions can always be assumed to benefit the individual on some level. By attempting to frame the debate in terms of proximate intentions (what the individual THINKS they intend) rather than the ultimate (what the individual may be ACTUALLY driven by) the negative can make this method of attack much weaker.

### Conclusion

The debate you are about to enter has many aspects and has been debated by scholars for centuries. There is a great deal to digest and critical review. This review has given an overview of some of the most robust areas of the debate. Use it as a map to guide the beginning your research, then follow the research where it carries you. Happy debating!

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# 2022-2023 Big Questions Sample Affirmative Case

**I stand in firm affirmation of the resolution, Resolved: Humans are primarily driven by self-interest. I begin by offering two clarifications of terms to structure the debate.**

**First, according to Black’s Law Dictionary, the word “primary” means** First; **principal; chief**; leading.

**Second, the word “self-interest” should be broadly construed to mean the pursuit of widely shared goals. This presents the best possible definition for debate and investigation, as Jason Weeden of the Pennsylvania Laboratory for Experimental Evolutionary Psychology and Robert Kurzban of the University of Pennsylvania explain in 2017**

<Jason Weeden, Pennsylvania Laboratory for Experimental Evolutionary Psychology, Robert Kurzban, University of Pennsylvania, “Self-interest Is Often a Major Determinant of Issue Attitudes,” Advances in Political Psychology, Vol. 38, Suppl. 1, 2017, https://onlinelibrary.wiley.com/doi/abs/10.1111/pops.12392>#SPS

A Wider View of Self-interest Having addressed the usual objections to self-interest effects, we now step back and take a wider view. What justifies equating self-interest with short-term material self-interest? Is there a plausible theory of human nature that would recommend that equation? In this section, we discuss our own view of self-interest, grounded in modern perspectives on humans. These days, not even economists typically believe that human motives are reducible to short-term material considerations. Standard economic perspectives posit individuals that **maximize their preferences.** These preferences might include getting more money in the short term, to be sure, but that by no means exhausts the list. People might also seek to gain prestige, have sex, assist their children in fulfilling their own preferences, or various other goals (Becker, 1996). But a perspective on self-interest that would be useful for purposes of large-scale empirical study cannot be one that views the advancing of self-interest as anything that helps a given individual get what they want at a given moment. While the equation of self-interest with short-term material self-interest is too restrictive, an overly individualized view of self-interest would be too loose. In the middle ground, we have proposed a view of self-interest that has some fealty to key aspects of the narrower views of self-interest, but one that acknowledges that typical human motives extend beyond short-term monetary ones (Weeden & Kurzban, 2014, chap. 2). We agree, for example, that

it’s preferable to ground notions of self-interest in widely shared goals rather than overly individual ones, that it’s preferable to focus on goals with tangible implications, and that an explanation of competing political views will likely be driven by goals that have competitive social implications. We also agree that short-term economic goals fit the bill—the desire for more money in the short- term is a widely shared human goal, it has tangible implications, and it’s an area where people compete over opposing outcomes. Where we part company is that we do not view short-term economic advancement as the only (or even the most important) widely shared, tangible, competitive human goal. Our own view of interests derives from our evolutionary approach, which views humans as social animals with minds designed to advance tangible, fitness related goals (Kurzban, 2010; Petersen, 2016). **These goals are genetically selfish** (Dawkins, 1989)—that is, aimed at advancing the outcomes of one’s self and one’s relatives—and involve competitive aspects of social life that have been biologically relevant throughout human existence, including satisfying immediate physiological needs (e.g., eating and finding shelter), defending one’s self and valued others, establishing social ties, gaining and maintaining social status and esteem, attracting and retaining mates, and parenting (Kenrick, Griskevicius, Neuberg, & Schaller, 2010). Further, the social aspects of human life include nonrelatives sharing (to various degrees) a range of costs and benefits within coalitions and social networks. This is particularly true among close friends, who often share to a degree the benefits of each other’s positive outcomes and the burdens of each other’s negative outcomes (DeScioli & Kurzban, 2009; DeScioli, Kurzban, Koch, & LibG Nowell, 2011) but also involves other kinds of networks (work colleagues, friends of friends, fellow church members, and so on). In short, we think that humans generally are motivated to advance outcomes across various evolutionarily relevant domains (including resources, social status, and mating lives) particularly among themselves, their relatives (in accordance with the degree of their relatedness), and members of their own social networks (in accordance with the closeness of the benefit and burden sharing connection). While the narrow self-interest definition has focused on short-term

economic matters—tracking political issues such immediate tax hikes or unemployment benefits for the currently unemployed—our evolutionary view expands the political terrain on which a tangible self-interest perspective can operate. As we explain below in the fifth section, we find interest based demographic patterns involving not only issues of economic redistribution and provision of resources to the poor, but also issues of discrimination, meritocracy, and social status as well as issues affecting sexual and reproductive lifestyles. So is our view about “self- interest”? In a sense, no. Just as Dawkins (1989) discussed how (ultimately) selfish genes can produce individuals who behave at times non-selfishly, our view is one of social agents designed to behave genetically selfishly but not necessarily individually selfishly. On the other hand, as we mentioned, typical definitions of “self-interest” in political science explicitly include the interests of both one’s self and one’s family (e.g., Kinder, 1998; Sears & Funk, 1990). So a common political science usage of “self-interest” already contains a genetic expansion of self. Does our inclusion of social network members mean it’s not “self-interest”? Not really, given that we view these considerations as a kind of indirect self-interest through shared benefits and burdens among individuals. Or perhaps it’s only “self-interest” when we’re talking about economic outcomes, but something else when we’re talking about areas like social status or sexual lifestyles. But we view status and sex as tangible areas. Discrimination tangibly impacts everyday life. Restrictions on abortion and birth control tangibly impact everyday life. Thus, we have described our viewpoint as one that sees a major role for “self-interest” in political issue positions and political coalitions. We have also introduced the phrase “inclusive interests” (borrowing from the evolutionary term “inclusive fitness”) as a reminder that we’re talking about self and family interests across a range of evolutionarily salient social outcomes (Weeden & Kurzban, 2014, chap. 2).

**Thus, it is the burden of the affirmative to prove that human beings are, more than any other single drive, motivated to advance their own goals and the goals of their close social networks. It is NOT the burden of the affirmative to prove that human beings are driven ONLY by self-interest, or only for their own personal survival. Rather, to win the debate, the negative must provide evidence that some other goal is more powerful in most instances than self-interest.**

**I present two contentions to prove the affirmative case. Both contentions do not dispute the idea that human beings consciously desire to help others. Rather, two important factors prove that human beings *subconsciously* usually act on their own behalf. The first is Self Other Merging, or OneNess.**

**Human beings have a remarkable ability to identify with one another. Our ability to live with and cooperate with one another are proof of this. And it is this identification that makes even our most altruistic actions self& interested. When we act seemingly altruistically, it is actually caused by us seeing ourselves in the other person and then acting for the interest of ourself in them. Research by Robert B. Cialdini and colleagues at the University of Arizona prove this phenomena:**

<Robert B. Cialdini, Stephanie L. Brown, Brian P. Lewis, Carol Luce, and Steven L. Neuberg, all of the Department of Psychology, Arizona State University, “Reinterpreting the Empathy Altruism Relationship: When One Into One Equals Oneness,” Journal of Personality and Social Psychology, 1997, Vol. 73, No. 3. 481G494, [http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.473.5871&rep=rep1&type=pdf>](http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.473.5871&rep=rep1&type=pdf)#SPS

The data patterns of the three studies of this investigation are compelling in their consistency. In each, as relationship closeness increased, so did empathic concern for a needy other. In each, empathic concern significantly predicted willingness to help. And in each, it did so even after the influence of the egoistic factors of personal distress and sadness had been removed. More telling for the purposes of this research, however, was a fourth type of consistent internal replication: Invariably, when a non-altruistic factor that covaries with empathic concern was introduced to the analyses, it reduced the impact of empathic concern to non-significance. That non-altruistic factor, oneness, reflects a sense of interpersonal unity, wherein the

conceptions of self and other are not distinct but are merged to some degree. The implications of these results for the empathy=- altruism model are considerable. If the circumstances specified in the model as leading to truly altruistic acts (interpersonal closeness and perspective taking instructions) are the same circumstances that enhance the merging of self and other, as has been shown in the present studies as well as earlier studies (Aron et al., 1991; Aron et al., 1992; Davis et al., 1996), **then one can doubt whether those helpful acts reflect the selflessness required of true altruism.** As even the proponents of the model admit, **if self and other are not sharply distinct in a helper's mind, it is not possible to separate egoism from** altruism in **a helper's motive** (Batson, 1987; Batson, in press; Batson & Shaw, 1991). After all, as the self and other increasingly merge, helping the other increasingly helps the self. Moreover, one can doubt the empathy-altruism hypothesis even further when, as we have demonstrated, oneness both covaries with empathic concern and is the functional mediator of helping when the two factors are considered simultaneously. That is, although relationship closeness elevated the levels of both factors, only one (perceived oneness) predicted helping when the influence of the other factor was controlled. Overall, then, our findings suggest that empathic concern may have only appeared to mediate aid in much prior research because it is a concomitant of **perceived oneness**, a construct that offers a **non-altruistic path to such aid**.

**This merging of the self and other prevents even our best intentions of altruism from being realized. This is especially true of people in our personal “networks” as described by Weeden and Kurzban. Stefan Sturmer and colleagues from Christian Albrechts University in Kiev support this interpretation.**

#### <Stefan, Alexandra Kropp, Birte Siem, Christian Albrechts Universität zu Kiel, and Mark Snyder, University of Minnesota, “Empathy-Motivated Helping: The Moderating Role of Group Membership,” PSPB, Vol. 32 No. 7, July 2006 943G956, DOI: 10.1177/0146167206287363>#SPS

The main objective of the two laboratory experiments presented here was to test a group level perspective on empathy-motivated helping. Informed by an evolutionary perspective on human altruism (e.g., Burnstein et al., 1994; Cunningham, 1986; also Park & Schaller, 2005) and building on the idea of psychological essentialism (e.g., Medin & Ortony, 1989; Rothbart & Taylor, 1992), our group-level perspective suggests that similar group membership between the helper and the target strengthens the role of empathy in helping, whereas dissimilar group membership renders empathy motivated helping less likely. In line with this perspective and confirming our specific Empathy × Group Membership Moderation hypothesis, each experiment demonstrated that empathy had a stronger effect on helping when the helpee was an ingroup member than when the helpee was an outgroup member. Including Stürmer et al.’s (2005) studies, the Empathy × Group Membership Moderation hypothesis has thus been confirmed in four different studies employing different research methodologies (field research vs. controlled experimentation) and focusing on different intergroup contexts (natural vs. artificial groups) and different helping criteria (helping intentions vs. actual help). In addition, other researchers have observed similar ingroup/outgroup differences in empathy-motivated helping (e.g., Penner & Finkelstein, 1998). The convergence of empirical evidence thus speaks strongly and persuasively for the validity and generalizability of a group-level perspective on empathy. Some researchers have hypothesized that empathy may affect helping across ingroup/outgroup boundaries (e.g., Batson et al., 1997). Given the research reported earlier (including the present experiments), it seems more likely, however, that as ingroup/outgroup distinctions are salient, empathy-motivated helping is typically restricted to “us,” whereas empathy-motivated helping across group boundaries to “them” is less likely. From our group-level perspective, one could argue, however, that the likelihood of empathy-motivated outgroup helping increases as the outgroup is perceived as relatively similar to the ingroup. This should be so because perceptions of intergroup similarities should facilitate the attribution of a common essence shared by members of both the ingroup and the outgroup. In fact, a recent experimental study in the context of intercultural helping provides encouraging evidence for this reasoning (Siem & Stürmer, 2005). Some may wonder why our experiments—which demonstrated significant ingroup/outgroup differences in the role of empathy—did not also show significant ingroup/outgroup differences in the amount of help provided or in the strength of the intentions to do so. With regard to this issue, it

should be taken into account that our experiments tested the effects of ingroup/outgroup categorizations in a very benign contact situation (in which students conversed with a fellow student in a research laboratory). As documented by previous research, overt outgroup discrimination in helping in such situations is rare (see Saucier et al., 2005). For the present experiments it seems quite possible for instance that the benign nature of contact in our experiments facilitated motivational processes that led participants to help outgroup members despite a lack of empathic motivation to do so (e.g., normative considerations and/or the desire to appear unprejudiced, Gaertner and Dovidio, 1977; Pryor et al., 2004). In intergroup contexts that are marked by conflict and animosity, such “compensatory” processes may be less likely to produce intergroup helping. Accordingly, in such contexts the consequences of the lack of empathic motivation should be far more severe, with outgroupers being unlikely to be helped or even actively discriminated against in helping. The design of our experiments on empathy does not allow us to precisely delineate the processes that led our participants to help an outgroup target, and we acknowledge this as a major limitation of the present work. It is telling, however, that in both experiments none of the “need related” emotions (empathy, sadness, distress) that were in the focus of our research proved as a significant predictor of outgroup helping. At a more general level, this observation falls in line with previous research suggesting that when people contemplate offering help to an outgroup member they may be generally more hesitant to let themselves be guided by spontaneous experiences and base their decision on systematic and controlled information processing instead (e.g., Pryor et al., 2004). Before closing, we also wish to comment on important implications of our experiments for research on the relationships among empathy, interpersonal oneness, and helping. Cialdini and colleagues suggested that empathy serves merely as an emotional signal for interpersonal oneness, and that it is the perception of oneness and not empathy that ultimately promotes helping (Cialdini et al., 1997; Maner et al., 2002). In fact, in both Experiments 1 and 2, in the ingroup conditions, our measures of empathy and interpersonal oneness were positively correlated, rs ≥ .33, ps ≤ .064. Moreover, in both experiments, in the ingroup conditions, interpersonal oneness emerged as a unique predictor of helping intentions (or helping) even when empathy, sadness, and distress were considered as additional predictors. However, in contrast to Cialdini et al.’s (1997) perspective but in line with our reasoning, in these analyses empathy was also a significant and unique predictor of helping intentions (or helping). Based on the present findings (and other research demonstrating a unique role of empathy in helping, e.g., Batson et al., 1997; Stürmer et al., 2005, Study 2), instead of assuming that empathy serves merely as a signal for oneness, it could be argued that empathy and interpersonal oneness may in fact represent two related but distinct sources of people’s motivation to help. Cialdini and colleagues investigated the role of oneness in the context of cues indicating relationship closeness (Cialdini et al., 1997; Maner et al., 2002), whereas our own research focused on helping a stranger who happened to be an ingroup or an outgroup member. One might speculate then that the relevance of interpersonal oneness on one hand and feelings of empathy on the other hand in helping is contingent on the salience of different kinds of relationship cues, with oneness-based helping being more closely tied to cues indicating familiarity and close interpersonal relationships and empathy-based helping being more closely tied to perceptions of self-other similarity. CONCLUSION A starting point of the present research was the proposition that the motivations for helping “us” versus helping “them” are often of a fundamentally different nature (see Dovidio et al., 1997; Omoto & Snyder, 2002; Simon et al., 2000; Stürmer et al., 2005). Our two experiments clearly substantiate this proposition in that they show that even in benign intergroup encounters, **empathy is “deactivated” as a significant motivator of helping outgroup members.** Our group-level perspective suggests that the role of empathy in helping is contingent on perceived group-level (dis)similarities. Accordingly, intervention programs designed to emphasize commonalities rather than differences between groups could provide promising opportunities to increase empathy-motivated outgroup helping.

**Our second contention is Motivated Reasoning. The human brain has the remarkable ability to mislead us. We often see what we want to see and feel what we want to feel, despite the evidence of reality. This is true when it comes to altruistic behavior. The primary decision is made by our brains to advance our self-interest, but our brain than deludes us to think that we have done it altruistically. Weeden and Kurzban explain the phenomena in 2016:**

Our take is neither partisan nor polite, and might make many uncomfortable. Our explanation for political disagreements begins with something obvious but often overlooked: The policies people fight over have real-life consequences that help some people and harm others. In our view, all sides typically seek to advance their interests and are hypocritical in the way they present their views. No side is particularly motivated by being fair or reasonable or public-spirited. Indeed, when it comes to policy disputes, we think that one’s perceptions of what’s “fair” or “reasonable” are themselves typically driven by one’s interests. People are generally neither boobs nor saboteurs, but social animals competing over advantages for themselves,

their families, and their social networks. It doesn’t take one very far to divide the country (much less the whole of humanity) into two or three ideological boxes. If one wants to understand the variety of public opinion, one needs to think about specifics. The key, we have argued, is to look at people’s lives and interests, focusing on demographic features that provide clues to the particular outcomes that will help or harm them. On sexual and reproductive issues, differences in Freewheeler and Ring Bearer lifestyles help determine whether people gain or lose when higher costs are placed on Freewheeler lifestyles—when casual sex carries moral costs, when partying carries legal costs, and when family planning is restricted. These lifestyles influence people’s decisions to affiliate with or avoid religious groups. People’s religious and lifestyle patterns strongly predict their views on issues related to premarital sex, pornography, abortion, birth control, and marijuana legalization. About group based issues, we proposed that the two key factors in determining people’s competing interests are, first, group identities (race, religion, etc.) and, second, accumulated human capital (education and related cognitive abilities). Analogous to talented African American baseball players in our allegory, people with lots of human capital who are also members of traditionally subordinate groups do better when the rules abolish group based barriers and give advantages to those with lots of human capital. Analogous to less talented white baseball players in our allegory, people with less human capital do better when advantages are given to their own groups and other groups are held back. People’s views on issues involving sexual orientation, religion, immigration, and race are well predicted by their group identities and levels of human capital. Finally, on economic issues, people differ not only in how much they stand to benefit (or lose) when wealth is redistributed, but also in, first, how much they might need hard times programs in the future and, second, how much they might rely on their own social groups and private charities when hard times hit. So, while income predicts people’s economic views to a degree, race, age, gender, religion, sexual orientation, and human capital are also important for understanding and predicting preferences for public hard times programs. **Because people generally adopt issue opinions that advance their multifaceted inclusive interests, they wind up frequently adopting, buffet like, sets of particular views that fall outside of a simple left-right framework.** When someone’s interests point to “liberal” policy preferences on one set of issues and to “conservative” policy preferences on a different set of issues, that’s usually how things turn out. Focusing on interests points the way to finding people who are typically liberal, typically conservative, typically libertarian, and typically whatever Gwe should call the opposite Go libertarian, along with other nameless position profiles that are completely absent from the usual discussions of the political map. We view it as a good sign that our efforts line up with certain aspects of political targeting by campaign professionals, the people who get paid to get such things right. We have tried to add to these perspectives by providing a psychological framework that can reveal interests in play in a wide range of issues (beyond the usual suspects involving economic redistribution). In particular, instead of viewing “social” or “cultural” or “religious” issues as symbolic and disconnected from the concrete concerns of real life, we’ve made the case that battles over sexual lifestyles and social status regimes have real-life effects as concrete as the results of fights over money. Without necessarily knowing the real reasons, across a range of policy areas, people are motivated to seek outcomes that advance the everyday goals of themselves, their families, their friends, and their wider circles of social allies. On that point, we’ve also argued that human minds are designed for spin, to hide their strategic foundations behind socially attractive veneers. The Public Relations Departments of people’s minds craft stories about the benevolent wisdom of their own views and the malevolent idiocy of their opponents’ views, with Spokespersons almost wholly ignorant of the nature of the game. Public political discourse is frequently a battle between prickly Spokespersons fighting over made-up stories that have little to do with the underlying motives of people’s mental Boards of Directors. Admitting that one’s political opponents would often be worse off under one’s own policy preferences interferes with the goal of advancing one’s own agenda. People’s desires to advance favorable policy outcomes typically trump any desire to express coherent views of themselves and others. Observers can predict, with error, to be sure, other people’s political positions and priorities by taking into account the other person’s inclusive interests, considering their religion, lifestyle, sexual orientation, race, immigration status, education, intelligence, income, and so forth, despite the fact that most people are themselves unaware that these interest relevant features are important in shaping their own views. In fact, most people, most of the time, will strongly deny, for example, that their opposition to abortion has anything to do with

suppressing others’ sexual promiscuity. Virtually no one says they favor meritocracy because it helps smart people like themselves beat less smart people in social competitions. People’s Public Relations Departments don’t let their Spokespersons know such things, let alone say them out loud; they are the kinds of accounts, indeed, that people find insulting, regardless of how well the accounts explain the facts. We think we’ve provided the basics to understand these kinds of political opinions, but we acknowledge the limits of the approach. We don’t want to give the impression that we think our view explains the totality of the expanse of American political opinion. People are, in a word, complicated. We think we’ve given a foundation that is really useful, but it’s obvious there’s more to the story.

**Here, the proof is in the attitudes. People generally take positions on issues that will benefit them – all while insisting that they are entirely disinterested in benefits for themselves. Again, Weeden and Kurzban lay out the evidence –**

<Jason Weeden, Pennsylvania Laboratory for Experimental Evolutionary Psychology, Robert Kurzban, University of Pennsylvania, “Self-interest Is Often a Major Determinant of Issue Attitudes,” Advances in Political Psychology, Vol. 38, Suppl. 1, 2017, https://onlinelibrary.wiley.com/doi/abs/10.1111/pops.12392>#SPS

We used General Social Survey (GSS) data to run basic tests of many of these straightforward statements (Weeden & Kurzban, 2014, chap. 2). In most cases, our interpretation of the results contrasts sharply with Kinder’s summary. We found, for example, that 74% of the unemployed thought that it should be the government’s responsibility to provide a decent standard of living for the unemployed, and 57% thought that government spending on unemployment benefits should be increased; these opinions were in marked contrast to people working full time, among whom only 46% and 27% agreed,

respectively. These results echo longitudinal studies finding substantial effects of unemployment on economic policy views (Margalit, 2013; Owens &

Pedulla, 2014). We therefore resist the conclusion that the “unemployed do not line up behind policies designed to alleviate economic distress.” Similarly, we found large racial differences in views on race based workplace affirmative action. Some might say that this is a case of group interest and not self-interest, but we went further into individual circumstances. In particular, African Americans who feared losing jobs to Whites supported affirmative action more than African Americans who did not fear such losses; at the same time, Whites who feared losing jobs to African Americans opposed affirmative action more than Whites who did not fear such losses. One might call this a Self-interest laden case of group interest, or, if one prefers, a group interest laden case of self-interest. These analyses suggest that affirmative action views are related to “personal harms and benefits.” On the claim about the “medically indigent,” similar to other studies (e.g., Henderson & Hillygus, 2011), we found that poorer people and those lacking medical coverage supported government help with healthcare more than richer people and those who had health coverage. Also in line with other studies (e.g., Wolpert & Gimpel, 1998), we found gun owners to be substantially more opposed to gun ownership restrictions than nonowners. In a final example, while Kinder claimed that differences in income generally do not give rise to differences in opinion, we found that when we looked at opinions relating squarely to whether the government should reduce income differences and provide for the poor, there were in fact substantial correlations with income. These findings align with a large number of studies noting important differences in policy preferences between the rich and the poor (e.g., Gilens, 2012; Hacker & Pierson, 2010). In sum, **while it is often said that self-interest is of minimal importance to issue attitudes, the case is weak.** Such claims rely on a narrow definition of self-interest and on viewing what are surely closely related phenomena (like demographic effects and group interest) as irrelevant or even as evidence against self-interest. In addition, the list of exceptions is substantial, growing, and seems to cut to the heart of the narrowed definition of self-interest. And, further, when we look at self-interest minimizing examples on their face, accepting for purposes of the exercise the narrow definition of self-interest, many of the specific supporting claims are arguably misleading. We therefore conclude that the change that occurred from the original version of The American Voter to its revisited version was not due to basic changes in how Americans choose their positions. Despite efforts to make it disappear, self-interest was visible then and remains visible today. To be clear, we’re not saying that self-interest is the only determinant that matters, or that it always matters, or related extreme positions. But when it comes to issues impacting short-term material positions, short-term material self-interest is often one of the major determinants of individuals’ opinions.

# 2022-2023 Big Questions Sample Negative Case

**I stand in firm negation of the resolution, Resolved: Humans are primarily driven by self-interest. I offer two definitions to clarify the debate.**

**First, “primarily” means “for the most part” according to Merriam-Webster Dictionary.**

**Secondly, “self-interest,” according to Dictionary.Com, means ““regard for one's own interest or advantage, especially with disregard for others”**

**Thus, in order to win today’s debate, the affirmative must conclusively prove that, more than all other motivations put together, human beings are driven by a regard for their own advantage, without regard for how their actions affect others. The affirmative will be unable to prove this. To negate, I offer three contentions, each drawing on a different branch of evolutionary biology. You should prefer these evidence& based approaches to the question as they are more empirically verifiable than philosophical pronouncements of human good or evil.**

**My first contention is Ontogenetics, or the study of development.**

**It can be difficult to decipher the motives of human beings. Humans are often evasive, dishonest, or themselves confused about why they do the things they do. Thus, researchers such as Felix Warnaken and Michael Tomasello of the Max Planck Institute for Evolutionary Anthropology, have begun to study human beings when their intentions are the most pure – infancy. They explain their results thusly, in 2007:**

#### <Felix and Michael, Max Planck Institute for Evolutionary Anthropology Leipzig, Germany, “Helping and Cooperation at 14 Months of Age,” INFANCY, 11(3), 271O294>#SPS

Our claim is thus that **the altruistic tendencies seen in early human ontogeny reflect a natural predisposition.** Socialization can build upon this predisposition, but it is not its primary source. Human cultures cultivate rather than implant altruism in the human psyche. And even if we are wrong about this ontogenetic proposal, and human adults do in fact train altruism in developing young, it is worth asking where this tendency of adults came from? We do not see the adults of other species attempting to implant altruistic tendencies in their offspring. If the data we have presented here are valid, infants are genuinely altruistic early in ontogeny. The starting state of altruism in ontogeny is characterized by children’s tendency to help others spontaneously (i.e. in novel situations, without being encouraged to help, and without the expectation of rewards). It even appears that infants help rather indiscriminately, without taking into account if the beneficiary is a relative or a stranger, whether the other will reciprocate, or how their behavior will affect their reputation. However, it is implausible from an evolutionary perspective that such a naive altruism in which people help without regard of any of these factors could persist. As Dennis Krebs points out: ‘Evolutionary theory leads to the expectation that dispositions to engage in indiscriminate altruism should not evolve.’ (Krebs, 2006, p. 48). For altruism to be sustained as an evolutionarily stable strategy, it must be complemented by safety measures to avoid being exploited by others and bias altruism towards certain individuals under certain circumstances. Thus, mechanisms that make altruism function selectively must be operative as well. However, this does not necessarily imply that all these mechanisms are co-present with the altruistic tendencies in early ontogeny. For instance, the ability to detect cheaters who profit from altruistic acts but do not repay the

costs in the future is potentially of less relevance early in ontogeny when children are mainly surrounded by family members, who – even if not always trustworthy – at least share genes with the altruist so that inclusive fitness benefits are likely. The ability to tell apart other altruists from cheaters probably becomes important only later in life as the interaction with strangers increases. Our proposal is thus that children start out as rather indiscriminate altruists who become more selective as they grow older. Children’s emerging social cognitive understanding and new experiences will enable them to act altruistically more frequently and across a variety of situations, but this should not just blindly lead to more helping, but more selective helping. This general notion of a differentiation process of prosocial behaviors across development has first been introduced by Dale Hay (1994), who quotes Machiavelli’s motto that ‘A prince must learn how not to be good.’ and hypothesizes that factors such as individual differences, gender roles and other norms should lead to a differentiation later in childhood. Our model corresponds to that by Hay in the general statement that a rather undifferentiated prosocial predisposition is differentiated out during later childhood (see also Caplan, 1993; Peterson, 1982), but in our model we focus on other factors as the cause of this differentiation. Namely, we derive our model from evolutionary theory, leading to the proposal to investigate how the proximate mechanism entailed in different evolutionary models begin to play a role during children’s development. Namely, these are kin selection, direct reciprocity, indirect reciprocity, and the transmission of norms.

**Our earliest instinct is not for self-interest, but rather to help others whenever we can. Thus, human nature is one of selflessness, not self-interest.**

**Our second contention is Cultural Evolution**

**Evolution is the theory of survival of the fittest. Often omitted from discussions of evolution, however, are how survival of the fittest COMMUNITIES is also important. Since humans evolved in small tribes and groups, individual evolution does not explain all of our nature. Rather, those who could more easily live in groups had an advantage over those who could not – and those who could act selflessly could more easily live in groups.**

**Ernst Fehr and Urs Fischbacher of the University of Zurich explain in 2003:**

<Ernst and Urs, University of Zürich, Institute for Empirical Research in Economics; “The nature of human altruism,” Nature volume 425, pages 785–791 (23 October 2003), [http://www.nature.com.proxyO](http://www.nature.com.proxyO/) um.researchport.umd.edu/articles/nature02043>#SPS

Gene–culture coevolution The birth of modern sociobiology is associated with skepticism against genetic group selection67; although it is possible in theory, and in spite of a few plausible cases25, genetic group selection has generally been deemed unlikely to occur empirically. The main argument has been that it can at best be relevant in small, isolated groups because migration in combination with within-group selection against altruists is a much stronger force than selection between groups. The migration of defectors to groups with a comparatively large number of altruists plus the within-group fitness advantage of defectors quickly removes the genetic differences between groups so that group selection has little effect on the overall selection of altruistic traits68.

Consistent with this argument, genetic differences between groups in populations of mobile vertebrates such as humans are roughly what one would expect if groups were randomly mixed69. Thus, purely genetic group selection is, like the gene-based approaches of reciprocal altruism and indirect reciprocity, unlikely to provide a satisfactory explanation for strong reciprocity and large- scale cooperation among humans. However, the arguments against genetic group selection are far less persuasive when applied to the selection of culturally transmitted traits. Cultural transmission occurs through imitation and teaching, that is, through social learning. There are apparent large differences in cultural practices of different groups around the world and ethnographic evidence indicates that even neighboring groups are often characterized by very different cultures and institutions70. In addition, a culture-based approach makes use of the human capacity to establish and transmit behavioral norms through social learning—a capacity that is quantitatively, and probably even qualitatively, distinctly human 1,71. Recent theoretical models of cultural group selection72,73 or of gene–culture coevolution71,74 could provide a solution to the puzzle of strong reciprocity and large-scale human cooperation. They are based on the idea that norms and institutions—such as food sharing norms or monogamy— are sustained by punishment and decisively weaken the within- group selection against the altruistic trait. If altruistic

punishment is ruled out, cultural group selection is not capable of generating cooperation in large groups (Fig. 4). Yet, when punishment of non- cooperators and non-punishers is possible, punishment evolves and cooperation in much larger groups can be maintained 73. This is due to the fact that the altruistic punishment of non-cooperators in combination with the imitation of economically successful behaviors prevents the erosion of group differences with regard to the relative frequency of cooperating members. If there are a sufficient number of altruistic punishers, the cooperators do better than the defectors because the latter are punished.

Therefore, cooperative behavior is more likely to be imitated. Moreover, when cooperation in a group is widespread, altruistic punishers have only a small or no within group disadvantage relative to pure cooperators who do not punish. At the limit, when everybody cooperates, punishers incur no punishment costs at all and thus have no disadvantage. Thus, small cultural group selection effects suffice to overcome the small cost disadvantage of altruistic punishers that arises from the necessity of punishing mutant defectors. To what extent is there evidence for the role of culture and group selection in human altruism? There is strong evidence from intergenerational ultimatum and trust games that advice from players who previously participated in the experiment increases altruistic punishment and altruistic rewarding 75. Recent intergenerational public good games where advice is given indicate that later generations achieve significantly higher cooperation levels even in the absence of punishment opportunities76. Ultimatum and dictator games with children of different ages show that older children are more generous and more willing to punish altruistically 77. Although these changes in children's behavior could be a result of genetic developmental processes, it seems at least as plausible to assume that they are also a product of socialization by parents and peers. Why, after all, do parents invest so much time and energy into the proper socialization of their children if this effort is futile? Perhaps the strongest evidence for the role of cultural norms comes from a series of experiments in 15 small-scale societies23, showing decisive differences across societies in the behavior of proposers and responders in the ultimatum game. Some tribes like the Hazda from Tanzania exhibit a considerable amount of altruistic punishment whereas the Machiguenga from Peru show little concern about fair sharing. Thus, taken together, there is fairly convincing evidence that cultural forces exert a significant impact on human altruism.

**Cultural norms clearly played a part in the creation of the human person, and thus humans are likely to have evolved to act, if not entirely selflessly, certainly not selfishly.**

**Our third contention is Strong Reciprocity. Ernst Fehr and Bettina Rockenbach define the term:**

#### <Ernst, Institute for Empirical Research in Economics, University of Zurich, and Bettina, Chair in Microeconomics, University of Erfurt, Nordhaeuser, “Human altruism: economic, neural, and evolutionary perspectives,” Current Opinion in Neurobiology, Volume 14, Issue 6, December 2004, Pages 784O790, https://wwwOsciencedirectO com.proxyO um.researchport.umd.edu/science/article/pii/S0959438804001606?\_rdoc=1&\_fmt=high&\_origin=gateway&\_doc anchor=&md5=b8429449ccfc9c30159a5f9aeaa92ffb&ccp=y#!>#SPS

Why is cooperation observed at all and what are the mechanisms that enable and sustain human cooperation in social dilemma situations, even in an environment with (a considerable number of) selfish subjects? Recent research indicates that **strong reciprocity** is crucial for the establishment of cooperation in groups with a share of selfish individuals. A person who is willing to reward fair behavior and to punish unfair behavior, **even though this is often quite costly and provides no material benefit for the person, is called a ‘strong reciprocator’** 13., 14., 15.•. Because strong reciprocity is costly for the individual reciprocator, the question arises as to how such behavior could evolve evolutionarily. It has been shown, however, that a positive share of strong reciprocators in the population can be part of an evolutionarily stable situation 16.••, 17., 18.. Strong

reciprocity has been observed in sequential social dilemma experiments, even in interactions with completely anonymous strangers 14., 19., 20., across many different cultures [21], and under stake sizes of up to three months income [22]. Strong reciprocity contributes to moderate levels of cooperation in sequential dilemma settings. If, however, effective punishment opportunities are available, high levels of cooperation are achieved because the cooperative group members can discipline selfish subjects 23., 24.. In these experiments, subjects are given the possibility of reducing the other subjects’ income at their own cost after having seen the others’ contribution to the public good. **These punishment possibilities are heavily used**, and the lower an individual's contribution relative to the group average, the more the individual is punished. As a result, a large increase in cooperation is observed (see Figure 1). Punishment in this experiment could, in principle, be attributed to selfish incentives because of repeated interactions between the subjects. The absence of any material gain from punishment is ensured in the study by Fehr and Gächter [25], because the punished and the punishing subjects never interact again. Nevertheless, punishment is frequently observed, and punished subjects typically increase their cooperation in future interactions with other subjects, so the future interaction partners of the punished subjects benefit from the punishment. Recent evolutionary models show that altruistic punishment even survives evolutionary pressures in relatively large groups 16.••, 18..What are the proximate mechanisms behind strong reciprocity? Recent neuroeconomic studies that scan subjects’ brains while they are making decisions in interactive economic experiments provide interesting results on the neural foundations of strong

reciprocity 33., 34., 35., 36.••, 37.••. They support the hypothesis that neural representations of emotional states guide human decision-making

and they suggest that **subjects derive specific rewards from mutual cooperation and the punishment of norm violators.**

**As Fehr and Rockenbach hint to, strong reciprocity explains a great deal of human interaction. In particular, modern understandings of neurobiology prove that this method of altruism is deeply engrained in human beings. Fehr and Rockebach continue:**

#### <Ernst, Institute for Empirical Research in Economics, University of Zurich, and Bettina, Chair in Microeconomics, University of Erfurt, Nordhaeuser, “Human altruism: economic, neural, and evolutionary perspectives,” Current Opinion in Neurobiology, Volume 14, Issue 6, December 2004, Pages 784O790, https://wwwOsciencedirectO com.proxyO um.researchport.umd.edu/science/article/pii/S0959438804001606?\_rdoc=1&\_fmt=high&\_origin=gateway&\_doc anchor=&md5=b8429449ccfc9c30159a5f9aeaa92ffb&ccp=y#!>#SPS

A recent study [36••] demonstrated the importance of the interplay of emotions and cognition in economic decision-making. Nineteen participants who responded to fair and unfair offers in a bargaining game were scanned using functional magnetic resonance imaging (fMRI). Less fair offers activated the bilateral insula, which has been implicated in negative emotional states such as disgust, pain, hunger, and thirst. Subjects with stronger insula activation to unfair offers were also more likely to reject these offers. Unfair offers from a human partner also caused stronger insula activation than unfair offers from a computer partner, which suggests the importance of the social context for the insula activation. Unfair offers also activated the dorsolateral prefrontal cortex (DLPFC) and the anterior cingulate cortex (ACC). These activations are interesting because the DLPFC is a region that is often associated with goal maintenance and executive control and the ACC has been implicated in detection of cognitive conflict. In fact, if the insula activation to unfair offers was stronger than the DLPFC activation subjects tended to reject the offer, whereas subjects tended to accept an unfair offer if the DLPFC activation was stronger. **fMRI analysis of subjects playing a PD indicates that mutual cooperation with a human partner yields stronger activation of the brain's reward circuit** (components of the mesolimbic dopamine system including the striatum and the orbitofrontal cortex) than mutual cooperation with a computer partner that yields the same monetary payoff does [34]. Moreover, there is also evidence implying a negative response of the dopamine system if a subject cooperates but the opponent defects. **These findings indicate that there is a neural basis for strong reciprocity.** This interpretation receives further support from an imaging study that scanned subjects while they were making gender judgments of faces that were previously attached to opponent players in a sequentially

played PD [38••]. Some faces were associated with cooperative decisions, some with defections, and some were neutral. The study shows that the presentation of faces of intentional cooperators caused increased activity in left amygdala, bilateral insula, fusiform gyrus, superior temporal sulcus, and **reward related areas.** Moreover, a particularly noteworthy result is that **merely seeing cooperators’ faces** during the gender judgment task activated reward related areas. One of the major puzzles posed by the existence of strong reciprocity is the fact that many cooperative subjects punish defectors in one-shot PD games although punishing is also costly for punisher. A new study that combines a sequential PD experiment with positron emission tomography (PET) provides a solution to this puzzle. A punishment opportunity augmented the PD in this study because the cooperating player could punish a defecting player. In the effective punishment condition the cooperator could reduce the defector's economic payoff by punishing him, whereas the cooperator could only punish the defector symbolically in a control condition, that is, the assignment of punishment points to the defector did not reduce the defector's payoff in this condition. The contrast between the effective and the symbolic punishment condition activated the dorsal striatum, which is well known for its reward processing properties. The study also shows that those subjects with a higher activation in the dorsal striatum impose a greater punishment on defectors. Moreover, additional analyses suggest that the activation in the dorsal striatum reflects the anticipated satisfaction associated with the punishment. The previous results indicate a neural basis for certain forms of strong reciprocity. However, we do not know at present the neural basis of third-party punishment [32•], which plausibly requires empathizing with the victims of norm violations. A study in which the brain activity of humans experiencing pain was compared to the brain activity of humans observing a loved one experiencing a similar pain stimulus [39]reveals that empathy with the pain of others does not activate the whole pain matrix, but is based on the activation of areas that represent solely the affective dimension of pain. This observation yields the neural basis of empathy (between loved ones). Hence, an interesting question is whether the same brain areas are activated in third party punishment, that is, when people empathize with strangers who became the victim of a norm violation. **Economic experiments show that strong reciprocity is a key force in human cooperation,** and evolutionary models indicate that it can be a stable and adaptive trait. In addition, neuroeconomic studies examined the neural basis of strong reciprocity. The anterior insula seems to play a crucial part in the willingness to reject unfair outcomes, and reward related circuits involving the ventral and dorsal striatum seem to be important for human cooperation and the punishment of norm violations. These exciting results suggest that the combination of interactive economic experiments with brain imaging techniques constitutes a fertile area for future research that promises a better understanding of complex social behaviors that form the basis of human societies.