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Meaning in the lives of humans and other animals

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Abstract This paper argues that contemporary philosophical literature on meaning in life has important implications for the debate about our obligations to non-human animals. If animal lives can be meaningful, then practices including factory farming and animal research might be morally worse than ethicists have thought. We argue for two theses about meaning in life: (1) that the best account of meaningful lives must take intentional action to be necessary for meaning—an individual's life has meaning if and only if the individual acts intentionally in ways that contribute to finally valuable states of affairs; and (2) that this first thesis does not entail that only human lives are meaningful. Because non-human animals can be intentional agents of a certain sort, our account yields the verdict that many animals' lives can be meaningful. We conclude by considering the moral implications of these theses for common practices involving animals.

Keywords Meaning in life · Value · Well-being · Non-human animals · Susan Wolf

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1 Introduction

Can animals[1] have meaningful lives? This question has been largely omitted from discussions of meaning in contemporary analytic philosophy.[2] It has also been largely ignored by the animal ethics literature. Perhaps the omission is a result of philosophers thinking that the question is misplaced or that it involves a category mistake. Yet, we will argue, the omission is important, because assessing the possibility of meaning in animal life is vital for understanding the full scope and content of our ethical obligations to animals. If meaning is a constituent of a good life, and some of our practices deprive animals' lives of meaning, then this may be an overlooked way in which our practices harm them.

In this paper we argue for two theses about the meaningfulness of animal life: (1) that the best account of meaningful lives requires acting intentionally in ways that contribute to final value; and (2) that this does not entail that the lives of animals are necessarily meaningless. A life can count as 'meaningless' either because it possesses *zero* meaning or because attributing meaning to a life of that sort would be a category mistake. To illustrate the difference, the number 2 is heatless, not because it is *cold*, but because it is not the sort of thing to which the concept HEAT applies. Analogously, a virus's life is meaningless, not because it possesses zero meaning, but because the concept MEANING simply doesn't apply. Our second thesis can be understood as a rejection of the claim that the lives of animals are meaningless in either of these senses. To the contrary, to the extent that animals can be intentional agents, our account of meaning yields nuanced verdicts concerning which animal lives are meaningful. It also accounts for the intuitively right range of cases involving humans. Section 2 discusses some prominent theories of meaning in the recent philosophical literature and their associated problems. In Sect. 2 we also propose and defend our intentional theory of meaning. In Sect. 3 we consider the implications of this theory for the possibility of meaning in the lives of animals. In Sect. 4 we discuss the ethical importance of the possibility of meaning in animal life.

To begin a discussion of meaning in life it helps to compare paradigm cases of meaningful and meaningless lives. First, consider Susan Wolf's (2007) "Blob". The Blob watches TV, eats junk food, and generally wallows around his home. Aside from these activities, he does not do much of anything at all. Now consider Martin Luther King. King was a prominent defender of human rights, and led an ultimately successful campaign for extending civil liberties to African Americans in the U.S. The Blob's is a paradigm case of a meaningless life, and King's is a paradigm case of a meaningful one. Why is that? It is difficult to answer this question—to characterize the concept of meaning—without begging the question in favor of a

[1] We use 'animals' to refer to *nonhuman* animals for the sake of brevity.

[2] Discussions of the issue are relegated to a few short paragraphs of Smuts (2013: 551, 558) and to a handful of views formulated so as to explicitly rule out the possibility of animal meaning. To his credit, Smuts sees "no reason to be speciesist about meaning" (558). Gruen (2014: 137) suggests that our practices involving animals often deprive their lives of meaning, which is to assume the view that we defend here.

particular analysis. It will help to do some conceptual ground clearing by contrasting the notion of meaning with the notion of well-being.

It is conceivable that a life that is high in meaning might be low in well-being and vice versa. To see this, consider two possible individuals, Martin Luther King and Martin Luther King*. King and King* accomplish all of the same things, have the same relationships, and enjoy the same reputation as catalysts for social change. They differ only with respect to their mental lives. King lives his life in a state of mental anguish. He is insecure, suffers from anxiety, and harbors petty grudges. King* enjoys an internal peace, enjoys the company of others, and takes great pleasure in his achievements. He is, in a word, content. King's inner turmoil does not clearly undermine the meaning of his life, but it does undermine his well-being. King's life seems to be lower in well-being than King*. Depending on the importance of positive mental states for well-being, it may be that King's life contains virtually no well-being. And yet his life is meaningful. This indicates that meaning and well-being are conceptually distinct.[3]

The difficult work in discussions of meaning in life is to identify *what* exactly is missing from lives like the Blob's that makes them meaningless. There are several possibilities: we might think that the Blob could not possibly value the projects that his own life involves; or we might think that, whether he values his projects or not, they are objectively trivial or pointless and hence not worth valuing; or we might think that the Blob's life contributes no value to the lives of others. Each of these possibilities roughly corresponds to a particular theory of meaning in life, which we canvas in Sect. 3.

A meaningful life is something that people typically find *desirable*.[4] If someone were to sacrifice her happiness in pursuit of a meaningful life, most of us would recognize this as a potentially worthwhile thing to do. In an introspective moment, even the Blob might find that there is something desirable missing from his life. Since a meaningful life is something that we typically find desirable, a plausible analysis of meaning will make meaning the sort of thing that a typical individual might find desirable or be tempted to pursue.

2 In defense of an intentional account of meaning in life

Three kinds of theories of meaning are commonly discussed in the literature: subjective theories, hybrid theories, and objective theories. Our present discussion focuses mainly on objective theories and their attendant problems for two reasons: first, objective theories have recently received powerful defenses, and so addressing their merits and problems is of renewed philosophical interest; second, illustrating the inadequacy of objective theories is the departure point for our motivation and

[3] Wolf (1997) rejects a clean distinction between meaning and well-being, because she argues that having a meaningful life is in one's self-interest, as part of a pluralist conception of well-being. However, she clearly distinguishes meaning from happiness. We return to these questions in Sect. 5.

[4] Positive psychology provides some empirical evidence. See UC Berkeley's Greater Good Science Center: http://greatergood.berkeley.edu/.

defense of a novel account of meaning that takes an agent's intentional actions to be a necessary condition for meaning in life. We return to subjective and hybrid theories when considering objections to our account of meaning.

2.1 Objective theories

One widely shared intuition is that meaning comes from contributing to a cause greater than one's self.[5] King inspired social progress for the benefit of generations to come. This legacy seems to have been a significant source of meaning in his life. This intuition is perhaps best captured by objective accounts of meaning.

Objective theories of meaning hold that our lives are meaningful if, and only if, there is some good for which we (or our existence) was or will be responsible. Smuts (2013) and Bramble (2015) have recently offered independent defenses of similar objective theories.[6] According to Smuts' Good Cause Account (GCA), a life is meaningful as long as the person whose life we are considering is causally responsible for goodness (2013: 550). According to Bramble's Consequentialism about Meaning in Life (CML),

1. one's life is meaningful at time *t* just in case one's surviving at *t* would be good in some way (either subjectively or objectively), and
2. one's life was meaningful *considered as a whole* just in case the world was (or will be) made better in some way for one's having existed (2015: 447).

Smuts' GCA is explicit that meaning in life depends on a person's causal contribution to goodness. Bramble's formulation is less clear regarding the relation that a person must stand into the good in order for her life to be meaningful. A person's surviving might be good in a number of ways, only some of which are causal. For instance, a person's continued existence might have intrinsic value if, say, survival is intrinsically valuable. A person's survival might also have 'signatory' value because of what it signifies.[7] A negative x-ray test might be good because it signifies that a person does not have a broken bone, but the x-ray does not *cause* a person not to have a broken bone. A person's survival might be good because it signifies that an asteroid has not struck the Earth, killing all life, but the person's survival does not *cause* the asteroid not to strike the Earth. A person's survival might also have 'contributory' value in virtue of being a part of a whole that has intrinsic value.[8] For example, if a person's survival is partly constitutive of the well-being of someone else—say, because valued relationships are part of a person's well-being—then a person's existence would have contributory value. We assume that Bramble, as a welfarist (2015: 14), would not accept that the signatory or intrinsic value of a person's survival contributes to the meaningfulness of their

[5] See e.g. Nozick (1981), Singer (1997), and Wolf (2010).

[6] Also see Singer (1997): Henry Spira's life was meaningful in virtue of its contribution to the reduction of animal and human suffering.

[7] See Feldman (1986: 26) and Bradley (1998: 110, 118).

[8] See Lewis (1955) and Bradley (1998: 110).

life. Thus we will assume that Bramble has a causal or contributory relation to goodness in mind in his formulation of CML.

GCA and CML do not require that a person enjoy any sort of subjective fulfillment or engagement in order for her life to be meaningful. Bramble argues that this is a virtue of objective theories.

> Recall the paradigms of meaningful lives: Gandhi's, Mother Teresa's, Einstein's, etc. What is distinctive about these? It seems to be nothing other than the enormity of their contributions to society. To see that this is so, consider that most of us have no idea whether these individuals were fulfilled in their lives, whether they had any passion for their activities. Most of us know only of their great contributions (Bramble 2015: 8).

Or consider Smuts's example of George, the suicidal protagonist of the film *It's a Wonderful Life*.

"Frank Capra's It's a Wonderful Life (1946) gives us an excellent reason to reject the subjective theory. The movie tells what is now a familiar story of a suicidal man, George Bailey (James Stewart), who is finally able see the meaning of his life with a little help from a friend—an alcoholic angel who wants to make good. The angel takes George on a trip to Pottersville—the alternate world where George had never been born. A few hours in Pottersville is enough for George to see how meaningful his existence has been. The problem for the subjectivist theory is this: the theory implies that no one can be wrong about how meaningful or meaningless they find their life. If one finds it fulfilling, it is meaningful. But George Bailey's despair gives us excellent reason to reject such a view. On his dark night of the soul, George mistakenly thought that his life was meaningless because the family business was likely to fail under his stewardship. The bank's collapse would indeed be a tremendous failure, but George was wrong to think that his life would be meaningless as a result. His merely thinking it so does not make his life meaningless. (Smuts 2013: 544)."

Objective theories make sense of the paradigm cases. They also provide a partial explanation of why life is meaningless in Nozick's (1974: 42–45) Experience Machine, and they can explain why King's life is more meaningful than the Blob's regardless of their respective levels of fulfillment: neither the (continued) existence of the person in the machine nor the (continued) existence of the Blob contributes to good outcomes.[9] Finally, objective theories imply that animals can have meaningful lives to the extent that they promote the good, regardless of their subjective states.[10] It's not hard to imagine possible or actual cases where animals contribute value to the world—for example, dogs or dolphins have rescued humans or conspecifics, companion animals provide comfort to those in emotional distress, and animals of all varieties prevent harm to their young as they rear them until adulthood.

Objective theories thus have several virtues, but they ignore the role of agency in a meaningful life. Both GCA and CML entail that contributions to the good that do

[9] One might suggest they are somewhat meaningful since they causally contribute to pleasure. Bramble is committed to this implication, because his view is explicitly welfarist (2015: 14).

[10] Smuts (2013: 551, 558).

not involve any action, intention, or even awareness on the part of the agent can confer meaning on a life.[11] What matters for meaning is merely that an individual's survival or existence is necessary for good outcomes. One need not *do* anything at all. We argue below that this is mistaken. These theories confuse a life's meaning for its instrumental or constitutive value. Because they entail that a meaningful life might be one whose subject is used merely as a means to the accumulation of value, they also make meaning something that no typical person would find desirable.

2.2 Some problems for objective theories

Metz (2013) has raised an objection to objective theories by appealing to Nozick's (1974) Result Machine, a machine that can bring about any outcome whatsoever. If CML or GCA were true, Metz says, "then a maximally meaningful life would be one that programmed the machine, or pushed the relevant buttons, so as to bring about as much objective value as it could." (2013: 194) They would also imply that writing a sufficiently large check to Oxfam, drawing on one's inherited fortune, would be more meaningful than working tirelessly as an activist in the community that Oxfam aims to benefit, assuming that writing the check would secure greater benefits for individuals in need (p. 195).

In reply to Metz's counterexamples Bramble suggests that we might be confused by Nozick's thought experiment. We might think that, because the button is easy to press, if I were not around to press it someone else could easily do so. But, on Bramble's view, "my ability to press Nozick's button confers meaning on my life now only if, were I not to press it, it would not get pressed (or if, were somebody else to press it, there would be some cost associated with that)." (2015: 450) Bramble's suggestion is that contributions to the good must be *unique* in order to confer meaning.[12] Bramble suggests that this is also crucial to explaining the special source of meaning our personal relationships have for us: "The contribution we make to the lives of those who love us—in certain cases simply by our continuing to exist (for example, in the case of a severely handicapped person or a bedridden grandmother)—is one that cannot be made by anyone else." (2015: 7)

However, it is questionable whether uniqueness is a necessary condition for the meaningfulness of loving relationships. One's existence is highly precarious: had your parents not conceived a child within seconds of the time of your actual conception, you would not have come into existence. Some other individual would have come into existence instead.[13] But a child conceived shortly before or after you were actually conceived might, it is reasonable to suppose, have made equally valuable contributions to the lives of your parents. Therefore, your contribution

[11] Smuts is explicit about this: "the best, most precise, notion of the GCA includes accidental outcomes in the calculation of the meaning of life" (2013: 551).

[12] Also see Nozick (1981: 582) and Kauppinen (2012: 346).

[13] See Parfit (1976: 100–102), Schwartz (1978: 3–13), and Adams (1979) for the earliest discussions of the well-known 'non-identity problem'. Ironically, each seems to have 'discovered' the problem independently around the same time.

might not be unique.[14] Surely this does not render your actual contribution to your parents' lives meaningless!

In general, it does not seem that what others would do if you did not act affects the contribution *your* actions make to the meaningfulness of your life. Consider the historical example of Charles Darwin's and Alfred Wallace's work on natural selection. Darwin's life seems more meaningful than that of his colleague Wallace. This is because *his* contribution revolutionized our scientific understanding, even though the impact of his contribution was overdetermined; Wallace's work arguably would have had a comparable effect had Darwin's work never been published.[15]

Nor is uniqueness *sufficient* for meaning. Viktor Frankl has us imagine an ape that is punctured repeatedly in order to manufacture a life saving serum (1959: 134).[16] Suppose the ape has an extremely rare genetic condition, making his contribution virtually irreplaceable. On objective views, his life can be highly meaningful as long as it is used as a mere means in the production of the good. But this is implausible: it is not meaningful *for the ape*. In general, objective theories imply that the most meaningful life could be one in which we are unconscious the entire time, as long as our bodies (or possessions) were being used for something of great value. Consider,

> *Sleeping philanthropist* – The heir to a great fortune has spent his entire life in a persistent vegetative state. Because he is unable to make decisions about his fortune, the lawyers of his estate have invested a great deal of money in charitable ventures and have saved many millions of lives. However, if he were to die, the flow of money to charity would immediately cease, as the fortune would be passed to the heir's miserly (and, unfortunately, quite conscious) brother.

If we assume giving large sums of money to this charity does a great deal of good, objective theories entail that the heir has a profoundly meaningful life: at any given time his surviving would be good in some way and, considered as a whole, the world was (or will be) made significantly better in some way for his having existed. While it is plausible that the heir's life is instrumentally valuable, it is not meaningful.

What is missing from the Result Machine, we suggest, is not that pressing the button would fail to yield a unique contribution to the good. Frankl's ape and the Sleeping Philanthropist make unique contributions to the good, yet their lives are devoid of meaning. Those of us who want meaningful lives do *not* seek lives like the Sleeping Philanthropist's or the ape's. And this is not merely a product of our concern that such a life would be low in subjective well-being. Despite their instrumental value, these lives have little or no *meaning*, at least not of the sort a typical person finds desirable. The problem with the Result Machine is that merely pressing the button *minimally engages* an individual's agency (it does so only

[14] Our point is cast in terms of the *amount* of value, but it could be made just as well in terms of *quality*.

[15] Although the significance of either contribution might have been *amplified* by its uniqueness.

[16] The example is discussed by Smuts (2013).

briefly and even at the moment is a minimal engagement), and for that reason confers little meaning. The agency of the Sleeping Philanthropist and Frankl's ape is completely circumvented.

The lesson to draw from these examples is that contributions to the good for which a person is causally responsible, but which do not involve any intentional action on the part of an agent, do not confer meaning on a life. Moreover, non-unique contributions to the good *can* confer meaning as long as they are the product of intentional action (e.g., Darwin). What an objective conception of meaning accounts for is what makes a person's existence (and life) instrumentally or contributorily valuable. One may call this 'meaning,' but it is not the sort of meaning that most will find desirable. Those who desire meaningful lives want to be able to say, not just that their existence was necessary to bring about value in the world, but that the *way they lived* their lives made the world better. Meaning is desirable insofar as it stems from our own agency. While it may be true that the good-making features of a person's existence can be unrelated to their agency, this is not true of the meaning-making features. When we envision meaningful lives, we do not envision lives whose subjects are used merely as instruments to the promotion of the good. On objective theories, there is nothing special about lives, or the way we choose to live them: a shovel or rock can stand in the same relation to valuable outcomes that our lives must stand in. If we are in search of an account of meaning that explains *why* lives, but not rocks, are the proper loci of meaning then we cannot accept an objective theory.

2.3 In defense of an intentional theory of meaning

We propose an *intentional theory of meaning*. According to our intentional theory of meaning,

> A subject S's life L is meaningful in some way if and only if (1) L involves S's contributing to a finally valuable state of affairs O either causally or constitutively; and (2) one of S's intentional actions A is either a cause of O or constitutive of O.[17]

We take finally valuable states of affairs to be those that are worth pursuing as ends. We will not offer a view about which states of affairs are finally valuable, but someone enjoying deserved happiness is one plausible example. The intentional account of meaning takes meaning to be a function both of one's contributions to finally valuable states of affairs and of the extent to which one's intentional actions are causally or constitutively related to those states of affairs. The notion of causing something good to happen by acting in a certain way is easy enough to understand, but some explanation of *constitutive contribution* is in order. Some actions are valuable because they cause something of final value to obtain. Donating money to charity is one example. But some actions or activities might be valuable regardless

[17] We do not want to rule out the possibility of "anti-meaningful" lives, lives that have a deficit of meaning (see Campbell and Nyholm 2015). We suspect one could offer plausible conditions under which a life would be anti-meaningful by replacing "valuable" in our analysis with "disvaluable".

of their effects. The very activity of writing the great American novel or composing a beautiful symphony might be valuable, regardless of whether the novel will ever be published and whether the symphony will ever be performed. Leading a fight for justice in an unjust world could be valuable even if the effort ultimately fails.[18] Jamieson (2014) argues that engaging in constitutively valuable activities can make our lives meaningful even when we cannot be confident those activities will ever make a (causal) difference. His example is the effort to minimize the harm of climate change. Jamieson agrees that "to some extent life's meaning depends on making a difference in the world and on the goodness of our goals" (2014: 183), but success matters less than the activity itself. Jamieson writes,

> What [meaning] comes to in the conduct of daily life is the priority of … the doing over what is done. … [T]he meaning of life fundamentally turns on engaging in [goal-directed] activities, not on reaching our ends. What I am responsible for is trying to make the world better. Whether or not I succeed is not entirely up to me. (184)

The intentional theory leaves open the possibility that some actions are valuable in this way—that is, constitutively valuable—even when they fail to achieve their aims.[19]

The intentional account gets the paradigm cases right: Martin Luther King's, Gandhi's, Mother Teresa's, Einstein's[20] lives are meaningful, not merely because they contribute to valuable outcomes, but because they make those contributions *in the right way*: through their intentional actions. George Bailey, from *It's a Wonderful Life,* also has a meaningful life for this reason. It is not his mere existence that is responsible for the good to which he contributes. He contributes to those states of affairs through his intentional action by *doing* certain things. It is because George *prevented* the local pharmacist from accidentally poisoning a child that the pharmacist is not in prison. It is because George *saved* his younger brother from drowning that he went on to become a war hero.

On the other hand, though the sleeping philanthropist contributes to a great deal of good, his life is meaningless because he does not act in ways that are causes of or constitutive of the good for which his existence is responsible. We can explain the meaninglessness of the tortured ape's life in the same way. Though the ape's existence is highly valuable for others, this value is not caused or constituted by his actions. The intentional account of meaning in life can explain why pushing the button of Nozick's Result Machine does not yield maximal meaning in life: though pushing the button produces a great deal of value, producing value in this way means *doing* very little. The intentional account can explain why the community

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[18] Wielenberg (2005) suggests that 'intrinsically valuable activities' might be relevant to meaning in life.

[19] From here on, the terms 'contributing' and 'contribution' refer to both causal and constitutive contributions, and 'valuable states of affairs' (or 'outcomes') to states of affairs (or outcomes) that have final value.

[20] For those unswayed by these commonplace examples, there is no shortage of competition. Take Marie Curie, Audrey Hepburn, Rosa Parks, Henry Spira, or feel free to substitute your own paradigms of meaningful lives.

organizer's life is not clearly less meaningful than the lucky philanthropist's life, even if the lucky philanthropist achieves more good than the community organizer: the lucky philanthropist *does* very little in contributing to a great deal of good, whereas the community organizer *does* a great deal while achieving less good.[21]

2.4 Subjective fulfillment

One might object that the intentional theory overlooks the importance of subjective fulfillment for meaning in life. Richard Taylor and Susan Wolf have defended well-known theories that take subjective fulfillment to be central to meaning. According to these theories, a life is meaningful only if the person whose life it is enjoys or finds fulfillment in the activities in which they are engaged.[22] Subjective fulfillment is necessary and sufficient for meaning on Taylor's view. On Wolf's view it is necessary but not sufficient. Wolf claims that meaning requires being genuinely attracted to, actively engaged in, gripped or excited by projects of objective worth (2010: 14), such as the pursuit of knowledge, artistic creation, helping others, or establishing mutually rewarding relationships.[23]

It is unclear what exactly subjective fulfillment requires. If fulfillment requires a propositional attitude like *being pleased that one is engaged in certain activities*, then subjective fulfillment requires a high degree of cognitive sophistication.[24] On the other hand, if subjective fulfillment is identified with a simple hedonic state, or with some non-propositional attitude, then all sentient animals can probably experience fulfillment to the extent that they can possess these mental states. Wolf takes fitting fulfillment to involve "a cognitive component that requires seeing the source or object of fulfillment as being, in some independent way, good or worthwhile" (2010: 24). Wolf's view implies that the prospects of meaning in animal life, or in any life that does not involve a great deal of reflection on the value of one's activities, are dim at best. Whatever fulfillment ultimately consists in, the subjective fulfillment condition faces the decisive problem from earlier: normally we do not need to inquire about how people *felt* about their lives to know that their lives were meaningful. We can imagine that Gandhi, King, and Mother Theresa were deeply unsatisfied with their lives because they were unaware of the impact of their projects on the lives of others. A lack of awareness of one's impacts on others has no bearing on whether one's life is meaningful.[25] Those who are inclined to accept that George, or King, Gandhi, and Mother Theresa had meaningful lives, without knowing how they

[21] Wolf allows that meaning can arise from commitment to projects "of a good kind" that nevertheless fail (2010: 107).

[22] Taylor (2008), Wolf (1997).

[23] Her hybrid theory is most succinctly captured by the slogan, "Meaning arises when subjective attraction meets objective attractiveness" (1997: 211).

[24] However, many philosophers and psychologists agree that not all aspects of thought – including complex representations—require propositional attitudes (see e.g. Bermúdez 2003; Proust 2013).

[25] Smuts (2013: 544–547) makes a similar point about George in *It's a Wonderful Life*.

felt about them, should be inclined to reject subjective fulfillment as a necessary condition for meaning.[26]

3 Can animals have meaningful lives?

In this section we argue that many animals can act intentionally in the sense required to meet the intentional theory's conditions for a meaningful life. A full review of the literature on agency is beyond the scope of this paper, but the thesis that animals are intentional agents is well supported by cognitive ethology.

3.1 Intentional agency

Many animals have been shown to lead rich mental lives. But what is it for an agent to intentionally act? One path to the thesis that animals are intentional agents is to assume, following Dretske (2006), that for a *behavior* to count as an *action* simply requires that we can explain it in terms of the content of the representational states causing it. Acting *intentionally* means acting in a goal-directed manner as a result of one's perceptions, beliefs, desires, memories and other states and dispositions. Intentional agents combine and articulate means and ends, often acting deliberately and flexibly, and by trial and error, upon a changing environment. DeGrazia reviews many examples of "sophisticated behaviors … involving planning, complex problem-solving, and/or tool use planning" that provide strong evidence of intentional action by animals (2009: 205–206). Chimpanzees use natural objects in pursuing certain goals (e.g., moss as a sponge, rocks as nutcrackers, and stems to probe for insects). Dolphins engage in highly deliberate problem-solving. Some wear cone-shaped sponges over their beaks, probably to protect themselves when searching for food along the ocean bottom. They also engage in cooperative hunting. Birds, such as New Caledonian crows, can solve complex problems and make tools. They have been observed fashioning tools out of twigs and wires to obtain food. These are just a few of many examples documented across a wide range of species of mammals, birds, fish and probably even some invertebrates. Of course, as DeGrazia (2009: 204) notes, "there are other ways of interpreting … familiar behaviors [e.g. a dog heading to the kitchen for a meal] without attributing either desires or beliefs, much less intentional action. But these alternative interpretations seem strained in view of the evidence,"[27] particularly for more advanced behaviors. Since denying that such behaviors imply intentional agency leaves us badly in need of better explanations, the preponderance of evidence establishes a presumption in favor of the view that many animals can be intentional agents.

[26] One may imagine variants of the hybrid theory, with different subjective conditions, such as a purely epistemic attitude (e.g. belief) about the objective worth of an activity. It is unclear, however, whether any subjective condition other than fulfillment would capture the basic appeal of hybrid theories.

[27] See Hurley and Nudds (2006) for more discussions from psychologists and philosophers.

3.2 Contributing to value

Because animals can act intentionally, it is a short step to the claim that they are capable of acting intentionally in ways that contribute to valuable states of affairs. Consider the following anecdotes: a dog risking his own life to remove from the road a canine companion hit by a car on a busy Chilean highway; a female elephant distressed and trying to help the dying matriarch of another family; and a gorilla rescuing a small boy, who has fallen into her enclosure, handing him over to zookeepers.[28] Or consider the case of chimpanzees, in the Bossou region, Guinea, where human encroachment upon their territory forces them to cross busy roads. Hockings et al. (2006) have studied how they manage dangerous crossings, adult males flanking a line of chimps, protecting adult females and young in the middle, the position of dominant and bolder individuals depending on how risky the crossing is and the number of males in the group. The authors interpret this behavior as cooperative action aimed at maximizing group protection—risk taking for the sake of others. Animals engage in more mundane meaningful activity as well. For example, the rearing of offspring counts as an intentional contribution to well-being, and it is an activity in which countless animal species engage. Moreover, it features the right sort of connection between agency and value, since many animal parents intentionally engage in such care for their offspring's sake, sometimes at great risk or cost to themselves, a key ability in complex, variable environments. Because many animals possess the capacity for intentional action, and because their intentional actions can contribute to valuable states of affairs, animals' lives can be meaningful.

In the remainder of this section we consider three challenges to our view. Each challenge identifies some further capacity, purportedly possessed by humans but not animals, that is necessary for meaning in life. These capacities are *narrativity*, *propositional agency*, and *rationality*. These challenges are unified in the sense that they all contend that an exercise of agency must be more sophisticated than we have argued in order to generate meaning. We will argue that narrativity, propositional agency, and rationality are not necessary for meaning.

3.3 Narrativity

It is possible that the meaning of a life is not solely a function of aggregating the meaningfulness of the activities that one is engaged in at each moment in a life. Some authors have proposed that the meaning of a life depends, in part, on how each activity or event is related over time. Rosati (2013) argues that animals, because they cannot reflect on their lives as wholes, cannot have *meaningfully good lives* the way persons (capable of "autonomous agency") can.[29] Animal lives lack the required "narrative unity". Nor can animals comprehend their life as a story. Antti Kauppinen has claimed that an "ideally" meaningful life will have a coherent

[28] See Rowlands (2012, forthcoming).

[29] Rosati draws from Velleman (1991).

narrative, made up of "a plurality of chapters that are centered on different valuable goals requiring the use of diverse capacities, but [which] are nevertheless connected to each other so that efforts and achievements have lasting value for the agent" (2012: 365). Because most animals' lives are probably not coherent in this way[30] it is unlikely that animals can have 'ideally' meaningful lives in the sense Kauppinen has in mind. We are inclined to question the view that ideally meaningful lives require coherent narratives. Impulsive individuals, and people who change their minds often and radically, may still lead meaningful lives. Moreover, important events in our lives might be transformative experiences that disrupt the coherence of our life's narrative.[31] Having children, getting married or divorced, changing jobs, meeting strangers, can be highly disruptive of narrative unity. We can impose an overarching narrative retrospectively, but this merely offers an illusion of coherence. In any case, our intentional theory can be understood as a theory of the meaningfulness of chapters, or parts, of a life. Animals might have meaningful life chapters, even if these chapters do not compose a coherent narrative, so long as narrative structure is not all there is to meaning. So, even if animals cannot have *ideally* meaningful lives, because their lives lack narrative coherence, this does not entail that their lives cannot have meaning.

3.4 Propositional agency versus perceptual agency

The agency involved in cases like those cited by Rowlands lack a crucial feature: it does not exhibit conscious and rational autonomy, or "self-government" of a sort that arguably only (some) humans possess—the ability to sidestep *reflectively* from one's motives to ask normative questions about what one has reasons to do.[32] The animals in these cases are not acting on judgments about what they have reason to do and so may not be exhibiting what Sebo calls, echoing Frankfurt, "full-blooded intentional action and agency".[33] We call the capacity to act based on judgments about one's reasons *deliberative agency* (Levy and Bayne 2004) or *propositional agency* (Sebo 2015). The term *propositional agency* is particularly apt, because it is generally thought that to be an agent of this sort, one must be able to think propositionally. If thinking propositionally requires propositional language, as, for instance, Bermúdez (2003) argues that it does, then it is unclear which non-human animals can do it. There is some dispute about whether propositional thought requires propositional language, but we will grant that it does.[34]

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[30] See e.g. evidence discussed by Varner (2012).

[31] Paul (2015) offers a detailed discussion of transformative experience.

[32] See e.g. Korsgaard (2006).

[33] Rowlands (2012) argues that animals, because they can act *on* moral emotions that respond to (external) reasons, can be moral *subjects*. But he denies they can be moral *agents*. We need not assume that animals must be moral subjects to have meaningful lives, but *if* they are, then the above examples are even more compelling.

[34] Cheney and Seyfarth (2007) deny that propositional thought requires propositional *language*, but they argue that baboons have a Fodorian "language of thought".

If the exercise of propositional agency is necessary for meaning, this almost certainly rules out the possibility of animals having meaningful lives. But we doubt that the exercise of propositional agency is necessary for meaning. Meaning conferring actions can be performed without first reflecting on the reasons one has to act. Consider an example of automatic behavior.

> Janice is walking down a dark alley late at night when she hears a cry for help. She responds automatically, running in the direction from which the voice seemed to come. She finds a small child struggling to stay afloat in a pond. She pulls the child out, again automatically. If she had reflected she would have chosen a less risky course of action (adapted from Levy and Bayne 2004, p. 210).

Saving the life of a person in distress is a paradigmatic example of an action that confers meaning on one's life. The fact that Janice acts this way without reflecting on her reasons does not undermine the act's meaningfulness. Heroic acts in battle, for which soldiers are awarded Medals of Honor or Purple Hearts, are very likely to be automatic in the sense that they involve no reflection on the reasons one has to act. Still, these acts are intentional in the sense that matters for meaning: one is in conscious control of one's actions and responsive to relevant features (or affordances) of one's environment. We suggest that the existence of automatic meaning-conferring actions suggests that the exercise of "perceptual agency" is all that is needed for meaning.[35] What is perceptual agency? Roughly, it involves acting on *normative perceptual experiences*. Sebo (2015) gives a lucid description of normative perceptual experience.

> Our memories, anticipations, beliefs, desires, and other psychological dispositions shape our perceptual experiences, with the result that we perceive at least some of the objects in our perceptual field as "calling out" to be treated in certain ways, and we thereby feel motivated to treat those objects in those ways. (Sebo 2015: 6)

Examples of normative perceptual experience include perceiving an infant as to-be-nursed, perceiving a dissertation as to-be-written, or perceiving a drowning child or fellow soldier as to-be-saved. Perceptual agency is a better explanation than propositional agency of how it is that we engage in automatic behavior, because it allows us to act quickly and intuitively in cases where reflecting on our reasons for action would have disastrous consequences. So, whether or not propositional agency is the right account of "full-blooded intentional agency", propositional agency is not necessary for meaning. Exercising perceptual agency will do the job, and there is every reason to think that many animals exercise perceptual agency.[36]

[35] Sebo (2015: 6–8) argues that perceptual agency includes the capacity to deliberate (non-propositionally) about what to do, using e.g. trial-and-error experiments, cognitive maps, and proto-conditionals. We do not think meaning requires the ability to deliberate about it, but we agree that animal agency involves *some* capacity to deliberate (non-propositionally).

[36] Sebo cites "philosophers and scientists [who] have started to accept" the category of perceptual agency: e.g. Bermúdez (2003) ('level 1 rationality'), Camp (2009) (maps and charts), Cussins (1992)

Perhaps the concern about agency gets at a more general worry: there must be some limit to how contingently connected an action can be to a valuable outcome and still confer meaning on a life. Some examples illustrate this concern. Suppose that a theater patron stood up to use the privy during the performance at which Booth planned to kill Lincoln and unluckily intercepted the bullet intended for Lincoln. Surely we would not count the patron's life as being more meaningful in virtue of this event.[37] Or, to take an example from Wolf (2010: 21), consider a person who smokes pot all day, whose secondary marijuana smoke alleviates the pain of the AIDS victim next door. This does not seem to make for a meaningful life even though the pot smoking is intentional and promotes the well-being of her neighbor. It would be a mistake, however, to conclude from these examples that only actions that are explicitly motivated by their finally valuable consequences can contribute meaning to a person's life. Often, meaningful actions contribute to the good in ways that are entirely unexpected, and certainly not intended. Compare Wolf's pot smoker with Alexander Fleming, the man who discovered the antibacterial properties of Penicillium. Fleming returned from holiday to his lab in London to find it a mess. One of the contaminants in his petri dishes turned out to be *Penicillium notatum*, which appeared to significantly inhibit the growth of *Staphylococcus aureus*. After several weeks of growing Penicillium to confirm the result, Fleming came to believe he had discovered something remarkable. By his own admission, his discovery was largely the result of good fortune. He wrote, "When I woke up just after dawn on September 28, 1928, I certainly didn't plan to revolutionize all medicine by discovering the world's first antibiotic, or bacteria killer. But I guess that was exactly what I did." The discovery of Penicillium contributed great meaning to Fleming's life, in part *because* it yielded such great value for others. And yet, by his own admission, that consequence was entirely unintended: he was neither cognizant of, nor motivated by, the reason-generating value of those actions.

Lincoln's savior, Wolf's pot smoker, and Fleming accidentally contribute to a great deal of final value, and yet only Fleming's contribution seems to confer meaning on his life. What's the difference between these cases? Wolf's response to the pot smoker is to include a subjective fulfillment condition in her analysis, but we have already ruled out that condition on meaning. We suggest that Lincoln's savior and Wolf's pot smoker are not *connected* to the value they produce *in the right way*. But what does this connection consist in if not the fact that the value was a causal or constitutive consequence of their actions? We suggest that *effort* (of the right kind) is the missing ingredient. Fleming, but not Lincoln's savior, invested a great deal of effort in bringing about a great deal of value. A difference in effort may also explain the difference in meaning between the life of the lucky philanthropist and the

Footnote 36 continued
('cognitive trails'), Gibson (1979) ('affordances'), Millikan (2006) ('pushmi-pullyu representations'), among others. They "are all describing the same basic kind of process, a process whereby we act on normative perceptual experiences rather than on normative propositional judgments." (p. 6).

[37] We thank Cheshire Calhoun for offering this example.

community organizer. The former exerts little effort in producing great value, whereas the latter works very hard.

By positing effort as the missing piece of the meaning puzzle, we can address the problematic cases of valuable actions that do not confer meaning without requiring that an agent engage in reflection on either the value of the state of affairs she brings about or the reasons she has to bring about the state of affairs. This preserves the possibility of meaning in animals' lives. The exercise of effortful perceptual agency that contributes to value is sufficient for meaning. Because animals can act intentionally, and can expend varying degrees of effort in contributing to valuable outcomes, they can have meaningful lives, without acting *as propositional agents*. Their efforts can connect to value in the right way, whether or not they can intend the consequences of their actions under the description that captures the final value of those consequences.

3.5 Rationality

A challenge that is closely related to the challenge from propositional agency comes from views arguing that rational capacities are necessary for a meaningful life. On one view, a certain kind of autonomy, understood as the rational capacity to determine one's own goals and principles, is a precondition for meaning, because autonomy is needed to shape one's life in accordance with an overall plan, which itself is necessary for meaning.[38]

We can assume that animals lack the higher-order cognitive capacities needed to shape their lives according to an overall plan. On autonomy-based views, then, animals cannot have meaningful lives. But these views face problems that are similar to those faced by narrative coherence views. First, someone could shape their life in accordance with an overall plan that was entirely meaningless. We might imagine that the Blob is not merely a slave to his first-order desires, but that he has consciously cultivated the lifestyle that he knows will provide him with the most pleasure. The mere fact that he has shaped his life in accordance with some overall plan has little to do with our assessment of the meaning of his life. Exercise of autonomy thus does not, on its own, make a life more meaningful. Nor is autonomy necessary for meaning. King might have simply fallen into the civil rights movement after a transformative experience with white racists. In fact, we could imagine that his experience compelled him spontaneously to abandon his previous life plan to take up this more important cause. We see no reason to think that King's life would be less meaningful (and certainly not meaning*less*) simply because his efforts were not an attempt to shape his life in accordance with an overall plan. More plausibly, autonomy is required to shape one's life to ensure that it is meaningful. But the inability to strive for meaning does not imply the inability to *have* a meaningful life, so lack of autonomy does not threaten the possibility of meaning in animal life.[39]

[38] See e.g. Frey (1987) and Nozick (1974: 50).

[39] The distinction between "internal" and "external" meaning helps to capture the sense in which a subject's (externally) meaningful life need not be meaningful *to* her (i.e. internally) (see Wielenberg 2005).

The ability to shape one's life according to a plan is not a necessary condition for meaning. If autonomy were important for meaning independently of its connection to the ability shape one's life according to an overall plan, we see no reason to assume that perceptual agency is not the right sort of autonomy. Understanding autonomy as the rational capacity to determine one's own goals and principles carries a number of presuppositions with it: that the agent be independent, free from constraints, rational and able to engage in reflection upon the reasons she has to hold her beliefs, desires, plans, and values. Notably, it presupposes propositional agency, whose relevance to meaning we have already called into question. But there are alternative views of autonomy and/or agency (e.g. 'relational autonomy') on which autonomous acts instead require that one's context (whether personal, social, or political) provides the conditions needed to express one's preferences, make choices and act in a self-directed way in light of the circumstances. These circumstances might include external constraints and forces over which even fully rational and capable human beings have relatively imperfect control.[40] If *this* sort of autonomy is all that is needed for meaning, autonomy poses no threat to meaning in animal life. For such autonomy does not require propositional attitudes, nor is it undermined by the fact that animals' behaviors and choices are constrained by their biological needs, environment or the preferences and behaviors of others.[41] Indeed, we suspect that the conditions needed for relational autonomy are sufficient to ground meaning-relevant agency across a spectrum of cases, including children, disabled and elderly people, "normally" competent adults, and animal agents.

Metz (2010, 2013) defends a "transcendence" theory of meaning that directly rules out the possibility of meaning in animal life, because the capacity for rationality is built into the theory's conditions for a meaningful life. He argues that our lives gain meaning when we transcend ourselves and become worthy of great esteem or admiration. Metz says, "The good, the true, and the beautiful confer great meaning on life insofar as we transcend our animal nature by positively orienting our rational nature in a substantial way toward conditions of human existence that are largely responsible for many of its other conditions" (2010: 13). Needless to say, it is highly doubtful that animals have the capacity to orient their rational nature to the conditions of human existence specified by Metz.

Setting aside its opacity, Metz's view is too stringent. It would force us to deny that the lives of children and of some cognitively disabled human beings can be meaningful because they fail to sufficiently exercise a rational nature, falling short of Metz' demanding conditions.[42] It also implies that a highly cognitively

[40] Also see Donaldson and Kymlicka's (2011: 104) model of "dependent agency", which is "exercised in and through relations with particular others in whom they trust, and who have the knowledge needed to recognize and assist the expression of agency.".

[41] See Gruen (2011: 149–150) for a compelling discussion.

[42] Some will find it contentious whether such humans can have meaningful lives. We assume it is a virtue of a theory of meaning if it leaves open the possibility. Calhoun (2015) says that a meaningful life is something one *leads* (not just has), and she appears to rule out that animals can lead their lives. It is unclear, however, given that her view purports to apply to cognitively disabled humans, why it could not apply to nonhuman agents of comparable cognitive sophistication.

sophisticated alien could not have a meaningful life unless it could orient its rational capacities toward the conditions of *human* life. But it is unclear why meaning should depend specifically on the conditions of human life.

But suppose that Metz is correct that meaning in *human* life involves transcending our animal nature by orienting our rational capacities in the right way. Animals might still have meaningful lives, because meaning might be species-relative. Metz's view could be read as a plausible theory for the sort of creatures that humans are while leaving open what counts as the relevant form of transcendence for other sorts of creatures. What might count as transcendence for non-human animals? Here is a tentative suggestion that is consistent with our intentional theory of meaning. Perhaps animals might achieve transcendence by intentionally contributing to others' flourishing. Above we discussed extraordinary acts of rescue, but meaningful actions might also include ordinary activities like caring for offspring, and creating and sustaining relationships with group members. The range of meaningful animal action is wider than even this. Consider General Robert E. Lee's famously brave horse Traveller, who accompanied Lee into battle on countless occasions, or 'explosive detection canines' that protect human lives by sniffing out bombs. Our account can explain why these animals have particularly meaningful lives, insofar as their intentional actions have shaped history and contributed to a great deal of human flourishing. It does not matter whether these animals get satisfaction from their work, nor whether they understand the importance of their labors. It is sufficient that they go about their work effortfully and intentionally.

4 Implications for the ethical treatment of animals

As we see it, there are two ways that the capacity of animals to have meaningful lives may have bearing on the ethical treatment of animals.[43] First, the capacity for meaning may entail higher *moral status* for the animals that have it, in which case some harms that animals suffer are morally worse than is commonly thought. Second, meaning may be relevant to the *interests* of animals in both direct and indirect ways. Meaning is *directly* relevant to the interests of animals if it is a constituent of their well-being—if a meaningful life is a better life in virtue of its meaningfulness, other things being equal, than a meaningless one. If meaning is a constituent of well-being, and animals confined to zoos, laboratories and factory farms are deprived of meaning, then human practices harm animals in a way that heretofore has gone unrecognized.[44] Meaning is *indirectly* relevant to the interests of animals if, were humans to regard animals as having the capacity for meaning,

[43] Moral status, on many views, happens to depend on the very capacities that make a meaningful life possible, such as higher cognition or narrative selves (Varner 2012). But, as Nozick (1974: 50) wonders: "Are certain forms of treatment incompatible with … having meaningful lives?" Should we "maximize the total 'meaningfulness' score of the persons of the world?".

[44] Gruen (2014), as mentioned early on, recognizes the ethical significance of meaningful lives for animals.

they would not cause them to suffer in the ways that they presently do. We discuss each of these possibilities in this section.

Let us first turn to the question of moral status. Perhaps meaning-capable beings have a kind of moral status that the "merely sentient" do not possess.[45] Perhaps such creatures have capacities relevant to meaning, and these capacities have *intrinsic* value, which grounds the greater moral worth of beings that possess them. On this possibility, whether or not animals have an *interest* in exercising the capacities relevant to meaning, and whether or not meaning contributes to their well-being, creatures that possess these capacities might have a distinctive moral status. In this case, practices like factory farming are more gravely wrong because they fail to respect animals' distinctive worth.[46]

We think the second possibility is more plausible, though: that meaning is either directly or indirectly relevant to animals' interests. Peter Singer writes,

> The need for purpose lies deep in our nature. We can observe it in other animals, especially those who, like us, are social mammals. … When you provide a sow with food and a warm dry place to lie down, you have not provided her with everything she needs. Such animals exhibit what ethologists call 'stereotypical behaviour' … They are trying to make up for the absence of purposive activity in their lives. (1997: 235–236)

Singer's remarks indicate that meaning and well-being might be related, including in animal lives. Exactly how they are related depends on one's theory of well-being. Hedonist and preference-satisfaction theories leave no room for meaning as a constituent of well-being. Some objective-list theories include meaning as a constituent of well-being. We will not defend an objective-list theory here, but it is not absurd to think that a meaningful life is better, other things being equal, than a meaningless one. Many of us want meaningful lives, and we do not think this desire is arbitrary—to the contrary, it seems that we have *reasons* to want meaningful lives.[47]

Suppose that meaning is a constituent of well-being. Chickens, pigs, cows and other farm animals possess the capacity for intentional action required to have meaningful lives, and yet the vast majority of those raised on farms today are deprived of meaning by their conditions of confinement. If meaning is among the constituents of animal well-being, then we should judge our current farming practices even more harshly. It turns out that they not only cause an egregious amount of physical and psychological harm, but they frustrate a further central

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[45] Varner (2012) uses the term "merely sentient.".

[46] One might understand this suggestion as being an alternative way of expressing Sebo's central thesis in his (2015).

[47] Wolf (1997, 2010). Wolf's objective-list theory, however, sets a fitting fulfillment condition on meaning which implies that animals cannot have good lives, since meaning and other items on her list require cognitive sophistication beyond their reach (as pointed out by McDaniel, unpublished). But surely the implication that animals cannot have good lives is much less plausible than the view that they can have meaningful ones. Also see Lin (2015) for an articulation of this objection to theories of well-being that require welfare subjects to have a high degree of cognitive sophistication.

interest of billions of animals: to have a meaningful life. This would mean that our harms to animals are more severe than even animal rights theorists typically contend. This would bolster the case against factory farming.

To illustrate one particular way in which our practices might wrong animals by depriving their lives of meaning, through confinement, control, deprivation, and debilitating interventions, recall Frankl's ape. A research subject used against his will to save human lives doesn't have a meaningful life. Instead, using the ape this way eliminates opportunities for meaning despite its instrumental value. If it is in the ape's interest to have a meaningful life, then research that forecloses such opportunities is a *pro tanto* setback to his interests. If meaning is a constituent of well-being, then we have *pro tanto* reasons not to deprive them of opportunities to have meaning, and we might also have reasons to promote them.

Let us set aside the question whether meaning in life is directly relevant to the interests of animals in virtue of being a constituent of well-being. Depriving animals of meaningful lives might *indirectly* bear on their interests, regardless of which theory of well-being is true. Seeing other animals as incapable of having meaningful lives drives an important moral wedge between humans and nonhumans, and it fosters the attitude that animal lives matter less. But, as we suggested in the introduction, many animals' lives are devoid of meaning, not because they lack the required capacities, but rather because we have placed so many of them in conditions that make a meaningful life unattainable. We have done this by restraining their agency, disrupting their social environment and thwarting their natural behaviors, especially in captive settings. Insofar as our thinking that animals' lives are meaningless encourages us to treat them in ways that lead to suffering, animals have an indirect interest in humans coming to see animal life as a possible locus of meaning.

Before concluding, let us suggest one way to change existing research practices to better promote meaning in the lives of animal subjects. In contrast with standard biomedical practice, we might envision "interspecies collaborative research" (ICR). Marino and Frohoff (2011) have outlined this kind of research program for working with cetaceans: "possibilities for studying free-ranging cetaceans who initiate close proximity and even sociable interactions with humans… providing unique scientific opportunities for an era of less-invasive cetacean research." (2011: 4) ICR holds the potential to yield valuable results for researchers (and cetaceans) while accommodating the complex psychological and social needs and preferences of animals. Gaining scientific value from marine mammals need not preclude them from leading meaningful lives.

5 Conclusion

We have offered a theory according to which meaning in life is a function of two factors: the contribution of one's actions to finally valuable states of affairs and the intentional action of the individual in contributing to the states of affairs. Our account avoids the problems and unwelcome implications faced by the main contending theories. We have shown that it also provides a straightforward account

of meaning in animals' lives, given a plausible picture of intentional agency. Many animals are intentional agents and therefore can have meaningful lives. Finally, we have considered the ethical implications of the possibility of meaning in animals' lives. If having a meaningful life is in an animal's interest, insofar as meaning directly or indirectly contributes to an animal's well-being, then much of the routine mistreatment of animals is even more deeply wrong than animal rights theorists have thought.

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Bibliography

Adams, R. (1979). Primitive thisness and primitive identity. *The Journal of Philosophy, 76,* 5–26.
Bermúdez, J. L. (2003). *Thinking without words*. Cambridge, MA: The MIT Press.
Bradley, B. (1998). Extrinsic value. *Philosophical Studies, 91*(2), 109–126.
Bramble, B. (2015). Consequentialism about meaning in life. *Utilitas, 27*(4), 445–459.
Calhoun, C. (2015). Geographies of meaningful living. *Journal of Applied Philosophy, 32*(1), 15–34.
Camp, E. (2009). A language of baboon thought? In R. Lurz (Ed.), *The philosophy of animal minds* (pp. 108–127). Cambridge: Cambridge University Press.
Campbell, S. M., & Nyholm, S. (2015). Anti-meaning and why it matters. *Journal of the American Philosophical Association, 1*(4), 694–711.
Cheney, D., & Seyfarth, R. (2007). *Baboon metaphysics*. Chicago: Chicago University Press.
Cussins, A. (1992). Content, embodiment, and objectivity: The theory of cognitive trails. *Mind, 101,* 651–688.
DeGrazia, D. (2009). Self-awareness in animals. In R. Lurz (Ed.), *The philosophy of animal minds* (pp. 201–219). Cambridge: Cambridge University Press.
Donaldson, S., & Kymlicka, W. (2011). *Zoopolis: A political theory of animal rights*. Oxford: Oxford University Press.
Dretske, F. (2006). Minimal rationality. In S. Hurley & M. Nudds (Eds.), *Rational animals* (pp. 107–115). Oxford: Oxford University Press.
Feldman, F. (1986). *Doing the best we can: An essay in informal deontic logic*. Dordrecht: D. Reidel Publishing.
Frankl, V. (1959). *Man's search for meaning*. Boston: Beacon Press.
Frey, R. G. (1987). Autonomy and the value of animal life. *The Monist, 70*(1), 50–63.
Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston: Houghton Mifflin.
Gruen, L. (2011). *Ethics and animals: An introduction*. Cambridge: Cambridge University Press.
Gruen, L. (2014). Facing death and practicing grief. In C. Adams & L. Gruen (Eds.), *Ecofeminism*. New York: Bloomsbury.
Hockings, K. J., Anderson, J. R., & Matsuzawa, T. (2006). Road crossing in chimpanzees: A risky business. *Current Biology, 16*(17), 668–670.
Hurley, S., & Nudds, M. (Eds.). (2006). *Rational animals*. Oxford: Oxford University Press.
Jamieson, D. (2014). *Reason in a dark time: Why the struggle against climate change failed—And what it means for our future*. New York: Oxford University Press.
Kauppinen, A. (2012). Meaningfulness and time. *Philosophy and Phenomenological Research, 84*(2), 345–377.
Korsgaard, C. M. (2006). Morality and the distinctiveness of human action. In F. de Waal (Ed.), *Primates and philosophers: How morality evolved*. Princeton: Princeton University Press.
Lewis, C. I. (1955). *The ground and nature of the right*. New York: Columbia University Press.
Levy, N., & Bayne, T. (2004). Doing without deliberation: Automatism, automaticity, and moral accountability. *International Review of Psychiatry, 16*(3), 209–215.
Lin, E. (2015). Against Welfare Subjectivism. Noûs 50 (4).

Marino, L., & Frohoff, T. (2011). Towards a new paradigm of non-captive research on cetacean cognition. *PLoS ONE, 6*(9), e24121.

McDaniel, K (unpublished). The metaphysics of axiology and the welfare of animals.

Metz, T. (2010). The good, the true, and the beautiful: Toward a unified account of great meaning in life. *Religious Studies, 47*(4), 389–409.

Metz, T. (2013). *Meaning in life: An analytic study*. Oxford: Oxford University Press.

Millikan, R. (2006). Styles of rationality. In S. Hurley & M. Nudds (Eds.), *Rational animals?* (pp. 117–126). Oxford: Oxford University Press.

Nozick, R. (1974). *Anarchy, state, and utopia*. New York: Basic Books.

Nozick, R. (1981). *Philosophical explanations*. Cambridge, MA: The Belknap Press.

Parfit, D. (1976). On doing the best for our children. In M. D. Bayles (Ed.), *Ethics and population* (pp. 100–115). Cambridge, MA: Schenkman Publishing.

Paul, L. (2015). *Transformative experience*. Oxford: Oxford University Press.

Proust, J. (2013). *The philosophy of metacognition*. Oxford: Oxford University Press.

Rosati, C. (2013). The story of a life. *Social Philosophy and Policy, 30*(1–2), 21–50.

Rowlands, M. (2012). *Can animals be moral?*. New York: Oxford University Press.

Rowlands, M (2017). Moral subjects. In K. Andrews & J. Beck (Eds.), *The Routledge handbook of philosophy of animal minds*. London: Routledge.

Schwartz, T. (1978). Obligations to posterity. In R. I. Sikora & B. Barry (Eds.), *Obligations to future generations* (pp. 3–13). Philadelphia: Temple University Press.

Sebo, J. (2015). Agency and moral status. *The Journal of Moral Philosophy, 2015,* 1–22. doi:10.1163/17455243-46810046.

Singer, P. (1997). *How are we to live?*. Milsons Point: Random House Australia.

Smuts, A. (2013). The good cause account of the meaning of life. *The Southern Journal of Philosophy, 51,* 536–562.

Taylor, R. (2008). The meaning of life. In E. D. Klemke & S. M. Cahn (Eds.), *The meaning of life: A reader*. Oxford: Oxford University Press.

Varner, G. E. (2012). *Personhood, ethics, and animal cognition*. Oxford: Oxford University Press.

Velleman, J. D. (1991). Well-being and time. *Pacific Philosophical Quarterly, 72*(1), 48–77.

Wielenberg, E. (2005). *Value and virtue in a godless universe*. Cambridge: Cambridge University Press.

Wolf, S. (1997). Happiness and meaning: Two aspects of the good life. *Social Philosophy and Policy, 14,* 207–225.

Wolf, S. (2007). The meanings of lives. In J. Perry, M. Bratman, & J. M. Fischer (Eds.), *Introduction to philosophy: Classical and contemporary readings* (pp. 62–73). New York: Oxford University Press.

Wolf, S. (2010). *Meaning in life and why it matters*. Princeton: Princeton University Press.