

# LIBERTY FOR CORVIDS

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**ABSTRACT:** In this paper, we argue that at least some corvids morally ought to be granted a right to bodily liberty in the U.S. legal system and, *mutatis mutandis*, relevantly similar legal systems. This would require that a significant expansion of legal protections, both in jurisdictional scope and stringency of treatment, be made for corvids. Specifically, corvids should be immune from frivolous captivity and extermination. This will require new legislation or the expansion of existing legislation including the elimination of various ‘pest’ clauses. This paper proceeds in three main parts. First, we survey accounts of the moral grounds of legal rights. Second, to establish an overlapping consensus that corvids ought to have legal right to bodily liberty, we survey the empirical literature on corvid cognition. Third, we illustrate what a corvid right to bodily liberty might look like by looking to recent developments in animal law, as well as previous advocacy on behalf of primates and cetaceans.

In the United States, birds receive no protection from the Animal Welfare Act. Though they are protected by various cruelty laws and the Migratory Bird Act, these legal protections all fail either in their specificity or their scope. As has long been recognized, the otherwise identical treatment of different individuals can be cruel in one case and not in another due to the varying cognitive and physiological capacities of the individual. Welfare and cruelty laws struggle to accommodate this. For example, many laws do not protect nonhuman animals (henceforth:

animals) from captivity, which harms creatures with an interest in freedom. Moreover, animal cruelty laws are at best small scale, extending over single states, local communities, or particular institutions. The Migratory Bird Act, which does apply broadly, does not protect many birds whose species isn't native to the U.S. Accordingly, the fate and fortunes of the various birds of the family *Corvidae* (henceforth: corvids), which includes ravens, crows, magpies, jays, and jackdaws, are hostage to the whims of individuals in our current political systems. In such systems, they are regarded as 'things' rather than 'persons'.<sup>1</sup> As such, it is only incidental, and tenuous, that more corvids are not exterminated as pests or held captive for experimental or entertainment purposes.

In this paper, we argue that corvids morally ought to be granted legal rights within the U.S. legal system and, *mutatis mutandis*, relevantly similar legal systems.<sup>2</sup> Specifically, we think morality requires us to grant corvids a legal right to bodily liberty. This would require that a significant expansion of legal protections, both in jurisdictional scope and stringency of treatment, be made for corvids. Specifically, corvids should be protected from frivolous captivity and extermination. Accommodating this imperative will require both the expansion of existing

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<sup>1</sup> Varner calls attention to some species of corvids as "surprising" candidates for legal personhood on the grounds that they possess autoeosis (2012). We make no claims about corvid personhood, whether legal or moral, and focus on rights. Like others, we are skeptical of personhood as a distinct ontological status (Donaldson and Kymlicka 2011).

<sup>2</sup> Given the incompleteness of the empirical research our thesis is necessarily vague on which particular species it applies. The relevant experiments have not been performed for every one of the over 120 species of *Corvidae* and it's doubtful that they are all equally sophisticated. At the very least, it applies fully to those like Eurasian magpies, New Caledonian crows, and scrub jays whose remarkable traits have been demonstrated in the lab. It likely also applies to ravens and other crows. Moreover, though not corvids, some parrots have demonstrated sophisticated cognitive capabilities and some of our remarks may apply to them as well (Pepperberg 1999). More precision than this, however, requires further research.

legislation as well as the elimination of various ‘pest’ clauses in that legislation or, perhaps more simply, new legislation to replace what currently exists.

This paper proceeds in three main parts. First, we survey accounts of the moral grounds of legal rights. Second, to establish an overlapping consensus that corvids ought to have a legal right to bodily liberty, we survey the empirical literature on corvid cognition. Third, we illustrate what a corvid right to bodily liberty might look like by looking to recent developments in animal law, as well as previous advocacy on behalf of primates and cetaceans, and integrate increased protections for corvids into our legal systems. Before proceeding, we clarify the aim of this paper.

### **Morally Required Legal Rights**

As moral agents, the choices made by those who decide legal policy are subject to moral constraints. For example, legislators can do wrong in failing to pass a law granting some group legal protections. Similarly, law enforcement agents can do wrong by failing to stop someone from interfering with another. We can therefore say what our legal policies morally ought to be by looking at the moral obligations we have. If you morally ought to have a legal right to freedom from harm, manipulation, and interference against all members of the political system, then law enforcement does not violate their moral obligations to me when they legally sanction me for harming, manipulating, or interfering with you. As we proceed, when we talk about a

legal right as ‘justified’, ‘obligatory’, or about its ‘grounds’, we are using those terms in their moral sense – i.e. about what legal practices morally ought to be.

Is there a moral obligation to give any nonhumans legal rights? Philosophers and scientists working under the auspices of organizations like The Great Ape Project and its cetacean parallel, The Dolphin Project, have argued that these cognitively sophisticated nonhumans morally ought to have legal rights closer to those possessed by humans than other animals (Cavalieri & Singer 1993; CetaceanRights.org 2015). According to many of these advocates, animals like dolphins ought to be afforded as much or nearly as much consideration in our legal and political deliberations as we afford to members of our own species. With respect to chimpanzees, The Nonhuman Rights Project (NhRP) argues for “a right to bodily liberty” (The Nonhuman Rights Project 2013). We understand this to be a composite right including legal rights to bodily integrity (i.e. not to be killed or seriously injured) and liberty (i.e. not to be held captive or seriously interfered with) violable only following due process.<sup>3</sup> While this is a legal right, it does not entail that the people who fail to save the life of a corvid or fail to provide it more liberty are liable to legal sanction. Rather, it only licenses the sanction of someone who interferes with the lives and liberty of corvids.

What morally grounds a right to bodily integrity? Defenders of apes and cetaceans, like the NhRP, usually argue that these animals possess the psychological capacities sufficient for

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<sup>3</sup> We make the simplifying assumption here that a legal right to liberty includes a legal right to bodily integrity on the grounds that killing a creature is a form of restricting its liberty. This is not to deny (or accept) that in some circumstances it might be wrong to take something captive but not wrong to kill it. Such circumstances would not, by themselves, justify a policy that licensed killing but not humane capture.

such a right (Cavalieri & Singer 1993; Herzing & White 1998; White 2008). Others take mutual relationships between entities, rather than any set of capacities, to ground this right (Anderson 2004; Smith 2012).<sup>4</sup> While many agree that sentience -- the ability to suffer -- is sufficient for the possession of morally significant interests, there is no similar agreement that sentience establishes that an entity ought to have legal rights.<sup>5</sup> There is still less agreement on how to fill in the details of such rights and how to navigate rights conflicts. Nonetheless, theoretical disagreements often mask widespread agreement on first-order moral questions. We argue that this is the case with a corvid right to bodily liberty.

### **Rights for Corvids**

A range of prominent theories imply the moral desirability of legal protections for corvid bodily liberty. To show this, we first briefly summarize the most prominent accounts of what could ground an entity's being owed such protection. The empirical section of our paper then shows that corvids likely satisfy the criteria of these accounts. If our arguments are sound, we will have established that a corvid right to bodily liberty has an overlapping consensus.

There are at least four kinds of general defenses given for the claim that a given entity warrants a right to bodily liberty. First, one might argue that the entity has significant enough

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<sup>4</sup> Donaldson and Kymlicka take relational features to more exhaustively specify rights that, aside from basic protections, are left somewhat indeterminate by capacity based views (2011).

<sup>5</sup> Compare the views of Donaldson & Kymlicka 2011, Francione 1996, Garner 2013, McMahan 2002, Regan 2004, Singer 1993, and White 2008 to observe how philosophers from disparate theoretical backgrounds agree on sentience as sufficient for possessing morally relevant interests but disagree on what is necessary for possessing, e.g. rights to life and liberty.

instrumental interest in life and liberty to justify extending them the protection of legal rights. In his response to skepticism about animal liberty rights, Andreas T. Schmidt appeals to the idea that freedom may be “non-specifically instrumentally valuable” to animals (2007). Schmidt’s idea of non-specific value is adapted from the work of Ian Carter who understands some item X as being non-specifically valuable whenever “the value of x cannot be described wholly in terms of a good brought about or contributed to by a specific instance of x or set of specific instances of x” (2003). To illustrate, freedom is non-specifically valuable for humans because our preferences are likely to change over time in ways we cannot foresee. Because we cannot reliably foresee changes in our preferences we have a general interest in having an excess of options as a general safety net against unexpected preference change. As Schmidt notes, this same point plausibly applies to animals.

Beyond this, liberty rights might be valuable for both humans and animals insofar as others face significant epistemic problems in learning what is actually best for us. This value might be even stronger in the animal case as animals have only limited communication with us and our general difficulties in determining the mental state of animals (Schmidt 2015). We emphasize that this classical liberal defense of liberty is in part predicated on the considerable variation between people. The more people vary, the harder it is for politicians to be justified in believing their policies really contribute to the good of all. One recent general trend in behavioral ecology studies behavioral syndromes, i.e. stable correlations in individual animal behavior across different contexts, more popularly called ‘animal personalities’ (Sih et al. 2004). Analogously to humans, greater variation in animal personalities between members of a species

implies greater support for the classic liberal defense. Consequently, if cognitively sophisticated corvids show considerable variation in personality and behavior the strength of the epistemic argument against even benevolent captivity will be correspondingly greater.

Second, one might argue that an entity has an intrinsic interest in life and liberty.<sup>6</sup>

Defenders of such an intrinsic interest often appeal to the value of autonomy, which Alisdair Cochrane defines as “the capacity to frame, revise and pursue one’s own conception of the good” (2009). Our autonomy in this robust sense may be violated by coercive restrictions of our life plans or the kinds of first-order desires we may form, even if at any given moment our first-order desires are satisfied. It is this violation of autonomy that explains how even satisfied slaves have an interest in freedom. The satisfied slave might be relatively free to pursue her first-order desires, but her first order desires are, themselves, the product of coercion.

Robust autonomy is the most demanding account of what an intrinsic interest in liberty requires in that an entity must be capable of sophisticated metacognition in order to qualify as having robust autonomy. Other more permissive accounts require less sophisticated cognitive capabilities such as sentience or being a ‘subject-of-a-life’.<sup>7</sup> Because sophisticated cognitive capabilities imply, or even strictly entail, these less sophisticated capabilities, corvids which satisfy the demanding requirements for robust autonomy will almost surely satisfy weaker accounts as well.

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<sup>6</sup> For prominent defenses of the view that some animals have an intrinsic interest in liberty see Francione 1996, Regan 2004, and Taylor 1986.

<sup>7</sup> See, for example, Tom Regan’s defense of preference autonomy according to which an entity possesses an interest in liberty just “if they have preferences and have the ability to initiate action with a view to satisfying them,” (2004).

Though we have neuroanatomical and behavioral evidence of sophisticated cognitive capacities in some corvids, which we review in the next section, someone might still be skeptical that many, or any, nonhumans are able to engage in the sophisticated metacognition required for robust autonomy. Despite such skepticism, Cochrane notes that “because keeping and using animals such as chimpanzees and dolphins may well be harmful in and of themselves, states should legislate so as to outlaw such practices involving these animals” (2009). In this, he endorses something like the following principle: where there is suggestive but not conclusive evidence that an entity has sufficient interest in bodily liberty to justify a legal right to it, we ought to extend it these rights just to be safe. This precautionary principle, the third kind of approach to nonhuman rights, applies to both of the previous approaches to grounding a right to bodily liberty. Where our evidence indicates groups of nonhumans have sophisticated cognitive capabilities, of the sort which strongly correlate with or ground an intrinsic or instrumental interest in liberty, we ought to treat them *as if* our evidence were definitive.

These previous approaches all ground a right to bodily liberty in what promotes and protects an entity’s interests. But there are justifications for extending an entity legal rights that do not appeal to that entity’s interests. Most prominently it is argued that an entity deserves certain rights in virtue of the relationships it bears to members of the moral community. For an illustration of this view’s explanatory power think of Elizabeth Anderson’s classic case of a pod of dolphins starving in the Atlantic, a pod that will only survive if we feed them (2004). It is quite obvious that the dolphins have an interest in being fed. And it might well be good of us to save them. However, Anderson finds it unintuitive that the dolphins ought to have a *right* to our



aid. The dolphins are wild animals—paradigmatically not members of our community—and so their interests do not place the same kinds of moral demands on us that the starving of our own poor might. By contrast, it seems to Anderson that a dog’s master does owe his pet dinner (2004). Cases like these suggest to Anderson and others that a full specification of an entity’s rights requires reflection on the kinds of relationships we bear to it.<sup>8</sup>

According to the American Veterinary Medical Association, corvids are only rarely our pets (2016). But we should not be misled by any simple “pet vs. wild animal” case into thinking that views of moral status that emphasize the moral relevance of relationships can *only* countenance duties to animals we are individually fond of. In their political theory of rights for animals, Sue Donaldson and Will Kymlicka rightly point out that the category of ‘wild animal’ contains a multiplicity of more specific relationship types. Of particular relevance for corvids is the relationship type Donaldson and Kymlicka call ‘liminal animals’. Liminal animals are those undomesticated animals whose living spaces overlap with our own, such as mice, rats, sparrows, raccoons, and deer (2011).

Donaldson and Kymlicka suggest that once we accept the general animal rights theoretic claim that animals matter morally we should recognize that the unique relationships we bear to liminal animals ground a unique set of rights. They argue that the rights owed to liminal animals are a form of denizenship rights modeled off of the rights we extend to non-citizen human residents of our societies. Such denizens include migrant workers and refugees but also modified

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<sup>8</sup> For some prominent statements of the view that special relationships partially determine moral status see Anderson 2004, Kittay 2005 and Warren 1997.

forms of citizenship like those enjoyed by the Amish and other isolationist groups (Donaldson & Kymlicka 2011). The rationale behind denizenship rights is that some humans (and animals) are such that they “belong here amongst us, but are not one of us,” (Donaldson & Kymlicka 2011). The grounds of an animal’s “belonging here” are multiple and might include moral reasons grounded in the expected harms caused by uprooting any living organism from its environment, rights grounded in the duration of residence, and the unfeasible nature of any serious attempt to relocate all liminal animals (Donaldson & Kymlicka 2011).<sup>9</sup> Many species of corvid are liminal animals such as urbanite crows.<sup>10</sup>

The content of denizen rights is an indeterminate matter to be worked out in individual cases. What unifies denizenship is that it is a legal and moral relationship that makes sense of our obligation to protect the basic interests of all residents of a territory while countenancing that some of these residents (the denizens) are either unable or unwilling to participate fully in the civic life of a modern state. Denizens are often unwilling or unable to accept certain duties. Therefore, as a matter of reciprocity, it is not unjust for them to enjoy a corresponding reduction in the correlative rights associated with these duties. For example, groups that negotiate a tax-exemption might reasonably be denied equal access to the services those taxes support (Donaldson & Kymlicka 2011). Minimally, however, denizenship rights include a right to bodily liberty. Liminal animals are precisely those animals that are “wild,” in the sense that they are not

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<sup>9</sup> Think of squatter’s rights or the rights that modern residents of a territory might possess even if their land was originally settled unjustly.

<sup>10</sup> The success of corvids as liminal animals points to an overlap between these accounts of animal rights. As one prominent explanation has it, the success of crows as urban animals is due to their adaptability and this adaptability is a result of their intelligence (Kulemeyer 2009).

domesticated, despite living in close proximity to humans. Donaldson and Kymlicka are emphatic that capturing and domesticating liminal animals would violate their rights (2011). Essentially, liminal animal denizenship rights entail liberty rights.

### **Corvids in the Empirical Literature**

Numerous recent studies demonstrate corvids engaging in cognitively sophisticated tasks. Empirical research and field work with corvids has shown evidence of episodic memory (Clayton & Dickinson 1998), planning and deception (Bugnyar & Kotrschal 2002 & 2004), complex social relationships (Paz-y-Miño-C et al. 2004), theory of mind (Emery & Clayton 2001; Bugnyar et al 2016), metacognition and self-recognition (Watanabe et al. 2014, Watanabe & Clayton 2016; Prior et al. 2008), as well as cognitive flexibility (e.g; Chappell & Kacelnick 2002).

Why, if the literature is so rich with examples of corvids performing tasks of similar or greater sophistication as primates, is there reluctance to accept corvids or any avian species as intelligent and complex organisms? It is easy to see how pervasive anthropocentrism could develop in the scientific community. Nonhuman primates can be tested on tasks that translate more directly to human abilities. Differences in dexterity of appendages, visual processing, and ecological histories make many of these tasks inappropriate for birds. However, when we step outside of the classic laboratory approach and evaluate the cognitive capacities of animals using an ecologically valid method (i.e. an approach that most closely replicates the natural behaviors,

stimuli, and ecology of a species) (Shettleworth 1998) we find evidence of cognitively complex animals outside of mammals. We provide here an overview of the empirical evidence that supports our claim that corvids meet the moral criteria for a legal right to bodily liberty.

### *Neuroanatomical Evidence*

The neocortex of mammals is a laminated structure of the brain responsible for most higher order cognitive processing, such as planning, reasoning, and flexibility. Neocortex encephalization, and the prefrontal cortex (PFC) especially, is thought to be correlated with intelligence in mammals (Jarvis et al. 2005). Avian brains are structured very differently from mammalian brains and do not possess a neocortex. Instead, birds have a functionally analogous brain area known as the nidopallium which makes up most of the weight of their forebrain and is organized not as a laminar structure, but instead has a nuclear arrangement (Emery & Clayton 2004). The area of an avian brain thought to be most closely analogous to the PFC is the nidopallium caudolaterale (NCL) (Güntürkün 2005).

Seweryn Olkowicz and colleagues (2016) found that corvids and parrots have pallial (which includes the NCL in birds and the PFC in mammals) neuronal densities that are greater than expected for their brain and body size and similar or greater to those found in primates. Comparative analyses of the PFC in mammals and NCL to brainstem ratios show that corvids have equivalent patterns to great apes, with a higher than expected encephalization for their brainstem size (Emery & Clayton 2004a). Emery and Clayton (2004) have argued that as these

brain areas are functionally equivalent, we would expect to see birds with an expanded NCL demonstrate similar cognitive abilities as primates with an expanded PFC.

### *Behavioral Syndromes, Individual Differences, and Personality*

Historically, scientists have been reluctant to ascribe ‘personality traits’ to animals, for fear of anthropomorphizing. Instead, they describe any variation in clusters of behaviors as ‘individual differences’, ‘temperament’, or ‘behavioral syndromes’ (Sih et al. 2004; Carere & Eens 2005). In spite of the hesitancy with terminology, corvids have shown ample evidence in the scientific literature of what is colloquially referred to as personality differences. Steller’s jays (*Cyanocitta stelleri*) show variation in willingness to approach novel objects and search for food in the presence of a perceived predator, characterized as ‘boldness’ versus ‘shyness’ variation in foraging (Rockwell et al. 2012). Rooks also demonstrate similar variation in boldness. Christelle Scheid and Ronald Noë (2010) quantified the boldness traits in rooks by first measuring the levels of cortisol present in a bird’s fecal sample at rest and then after a stressful event. The authors then took behavioral measurements of latency to approach an experimental apparatus and found a correlation between increased cortisol after a stressful event and a longer latency to approach. The birds were ranked along the shy to bold trait continuum and then given a cooperative puzzle to solve. The authors found that variations in boldness can have meaningful impacts on the behaviors and cognitions of birds.

### *Episodic-like Memory*

Episodic memory is described by Endel Tulving (1972) as the ability to recall the past events of one's life in relation to an autobiographical account of time and space. This differs from semantic memory which is based on apparent facts and does not include a temporal component. We memorize the fact that George Washington was the first president of the United States but no person alive that can relate that fact to a moment in their life history. The fact that we ate breakfast yesterday has both a temporal and spatial component in our memory. As the eater of breakfast, we can recall a first person account of the incident, including the time and place. Episodic memory therefore allows the individual to engage in mental time travel and re-experience past events from a first person perspective which Tulving (2002) refers to as *chronesthesia*. This mental time travel can also allow an individual to anticipate future needs using prospective memory (more on this later).

Tulving (2005) claims this type of memory requires a level of conscious awareness of personal, self-referencing memories, known as *autonoetic consciousness*. Researchers looking for evidence of episodic memory systems in animals have struggled as there is no consensus on the appropriate behavioral measure of consciousness (Griffiths et al. 1999). A compromise can be reached by using Tulving's original behavioral-focused definition of episodic memory (1972) which involves spatial (where) and temporal (when) information that is related to the memory of the incident (what) to investigate "episodic-like" memory in non-linguistic animals (Clayton & Dickinson, 1998).

Clayton and Anthony Dickinson (1998) found the first evidence of an episodic-like memory system in food-storing corvids, using a cache and recovery task that required the birds to recall unique caching events. Western scrub jays (*Aphelocoma californica*) were given two different types of food to cache: perishable wax worms (the birds' preferred food item) and non-perishable peanuts. The birds were given two caching trials using different storage trays which could be uniquely identified by an arrangement of Lego® bricks along the top of the tray. The two caching trials were separated by 120 hours, and the birds were allowed to recover the cached items four hours after the second caching trial. This means that one food item had been cached 124 hours prior to recovery, while the other was cached four hours before recovery. When the birds were taught that worms decay they would search for worms that were cached four hours before recovery. If, however, the worms were cached 124 hours prior and likely degraded, the birds would instead search for the non-perishable peanuts. Birds that had not learned that worms decay would search for worms during recovery regardless of the time of caching. The birds showed a predictable change in food search behavior only when they were given information about the perishability of a preferred food item.

These findings demonstrated that scrub jays were able to recall spatial and temporal information about a unique trial and demonstrate preferences based on that information, meeting the requirements for Tulving's original behavioral definition of episodic memory (1972). Other similar studies have shown that scrub jays are also able to integrate information learned during unique trials into a more general memory system and demonstrate flexible usage in novel situations (e.g. Clayton & Dickinson 1999 & Clayton et al. 2003b). Clayton and colleagues

(2003a) note that integration representation, along with flexible usage and the “what-where-when” content of the memory increase the likelihood that scrub jays possess an episodic-like memory system that may operate similarly to the episodic memory system in humans by allowing them to engage in mental time travel.

### *Prospective Memory*

One of the other key components to episodic memory includes future planning, or prospective memory (Tulving 1983). Thomas Suddendorf and Michael Corballis (1997) describe prospective memory as being able to make decisions based on future anticipated desires, independent of one’s current motivational state. They argued that animals were incapable of future planning and therefore could not possess prospective or true episodic memory systems. Studies using the cache and recover paradigm described previously have since demonstrated that corvids are capable of modifying their caching behavior to reduce the likelihood of their food being stolen by an observer (Emery & Clayton 2001) as well as caching food items that are expected to become rare in the future (Raby et al. 2007) and caching food items that they are currently satiated on for future consumption (Correia et al. 2007, Cheke & Clayton 2012). These results support the claim that some corvids are able to engage in mental time travel, future planning, and possess a sense of chronesthesia as described by Tulving (2002).



### *Metacognition and Self-Recognition*

Although there is no behavioral method of measuring auto-noetic consciousness to completely satisfy Tulving's (2005) three concepts of episodic memory - "self, auto-noetic awareness, and subjective time", Arii Watanabe and colleagues (2014) have developed a behavioral method of evaluating a related concept, metacognition, in corvids. Western scrub jays were tasked to evaluate their level of uncertainty and prioritize available information to gain access to food. The birds were trained to view an experimenter baiting food cups in different compartments before being able to retrieve the food item. One compartment had four open food cups (free choice compartment), while the other compartment had one open food cup and three closed food cups (forced choice compartment). During the testing phase, the birds were able to view both compartments being baited simultaneously. It was noted that the birds looked into the free choice compartment, where uncertainty would be higher and information was more valuable, more often and for longer periods of time than the forced choice compartment, where the location of the food was more certain.

The previously described studies offer evidence of corvids possessing a self-referencing memory and the ability to evaluate their own knowledge states, but cannot determine whether corvids have a concept of self. Self-recognition can be measured behaviorally by looking for self-directed actions when in front of a mirror. Gordon Gallup (1970) found that when he marked the faces of the chimpanzees, they were able to use a mirror to find the mark and touched the

correct area on their face, demonstrating an understanding of the mirror reflecting their own image.

Since then, many animals have failed the mirror test, including some species of corvids (Kusayama et al. 2000). In 2008, the first corvid species, the European magpie (*Pica pica*), passed the mirror test (Prior et al). The birds had either a colored or black sticker attached to their black throat feathers and were allowed to view themselves in a mirror. Magpies with colored stickers showed an increase in self-directed behaviors and removed the stickers. Interestingly, once the sticker was removed, the self-directed behaviors stopped. These findings suggest that at least one species of corvids is capable of self-recognition and self-consciousness.

#### *Mental Attribution and Tactical Deception*

In 2001, Emery and Clayton found that scrub jays were able to modify their caching behavior by taking the perspective of a potential thief based on their own history with pilfering caches. This finding indicates the birds are capable of using behaviors from their natural repertoire to deceive. Birds were given a food caching task (similar to the task described above) either in private or while a conspecific observed. During the recovery period, the birds were allowed to re-cache their food in a separate tray in private. The birds that had been observed during their original caching period re-cached more items than those birds that cached in private. However, this result was seen most often in birds that had previous experiences pilfering from other birds' caches. These results suggest that the birds were able to recall and transfer past

personal experiences of pilfering and use this information to protect their caches from future possible pilferers.

Thomas Bugnyar and Kurt Kotrschal (2002) found that ravens (*Corvus corax*) engaged in deceptive behaviors and the manipulation of a conspecifics beliefs when caching food or attempting to pilfer another bird's cache. This practice was seen in captive-raised as well as wild ravens. The caching birds would use large objects to obstruct the view of the observing birds and would guard their caches from a distance. Pilferers would often change their position so they could watch their conspecifics cache unnoticed and would look away if the caching bird paused. They would also wait until the caching bird had left the area before approaching the cache.

In 2004, Bugnyar and Kotrschal conducted another round of studies using the same group of captive ravens as in their 2002 studies and found that ravens will actively mislead a competitor away from a potential food source. The authors tentatively claim this type of deceptive behavior could be evidence of second-order intentionality, which would require mental perspective taking and theory of mind. In 2016 (Bugnyar et al.) it was seen that ravens would engage in cache protection strategies when they could hear a conspecific was in an adjacent room with a peephole. These finding demonstrated that ravens do not require the visual cue of another bird to perceive a potential threat to their cache and demonstrate perspective taking.

### *Complex Social Relationships*

In all corvid species, a mated pair forms a lifelong bond, which they reinforce through affiliative behaviors such as bill twining, food sharing, and allopreening. Western scrub jays do

not engage in cache protection strategies when observed by their mates (Dally et al. 2006). Male Eurasian jays (*Garrulus glandarius*) can predict the future food desires of their mates after observing the female becoming satiated on a single food type. When offered two food options, the most recent food consumed by his mate or a novel food, the male will more often choose the novel food to share. (Ostojic et al. 2013).

Research has found that crows (*Corvus macrorhynchos*) are able to recognize members of their own group using visual and auditory cues and discriminate incompatible combinations, such as a familiar call coming from a strange bird (Kondo et al. 2012). Pinyon jays can not only recognize individuals, they are also able to rank individuals in a dominance hierarchy and use transitive reasoning to make indirect inferences about the dominance status of individuals (Pazy-Miño-C et al. 2004).

### *Cognitive Flexibility*

The flexible use of cognitive skills to engage in problem solving and to anticipate future problems is described by Tulving (2005) as one of the keys to auto-noetic consciousness. There have been many instances of corvids solving problems without any prior training, including examples of complex tool use and development. These experiments demonstrate the abilities of corvids to respond flexibly to changing demands and novel problems. New Caledonian crows (*Corvus moneduloides*) are able to choose a tool of correct length and diameter (Chappell & Kacelnik 2002 & Chappell & Kacelnik 2004) from an assortment of options and use the tool to solve a novel task without training. In these experiments, the birds were presented with a variety

of problems in which they had to choose a rod and use it in order to retrieve food from inside a tube. The length or diameter of the rod required would change between trials so the birds were unable to learn over time. The crows were also able to retrieve an appropriate tool from another location and complete the task (Chappell & Kacelnik 2002). The New Caledonian crows were also able to manufacture tools from large branches, removing twigs thin enough to retrieve food from a tube (Chappell & Kacelnik 2004). There has also been an instance of a crow bending a straight piece of wire to complete a task which required her to lift a bucket containing food (Weir et al. 2002). In 2014 (Jelbert et al.), researchers demonstrated that New Caledonian crows will drop stones, but not buoyant materials, into a water filled tube. The scientists behind the study consider this evidence that the crows have an understanding of fluid dynamics that rivals five to seven year old human children.

### *Summary*

Scientists involved in experimental work on animal cognition use an operationalized vocabulary developed for purposes of categorization, explanation, and comparison to human cognition. As such, it can be difficult to see the implications their experiments have for criteria developed and articulated in the language of ethical and political philosophers. Nonetheless, we take this experimental evidence to suggest that corvids satisfy all four of the theoretical approaches discussed in the previous section.

In these experiments, we see corvids demonstrating capabilities suggestive of an interest in liberty. The presence of episodic and prospective memory indicates that corvids not only

experience momentary suffering or enjoyment but may anticipate and recall such experiences as well. When taken in conjunction with their personality differences, complex social lives, metacognition, cognitive flexibility, and their recognition of self and others, such a capacity for memory raises the likelihood of corvids as having a conception of themselves as engaged with others in extended, and revisable, projects. Any creature with such a self-conception would have an interest in bodily liberty.

### **A Minimal Response to a Right to Bodily Liberty for Corvids**

Such evidence, in conjunction with the aforementioned accounts of when an entity ought to have rights, implies an overlapping consensus that corvids ought to have a legal right to bodily liberty. Such a consensus provides strong evidence for our claim that corvids ought to have such a right. While proponents of each account might raise objections against the others, no such disagreement counts against our claim. An objection to our claim requires that each of these prominent accounts of the grounds of legal rights be false.

Granting corvids a legal right to bodily liberty is not fantasy. See, for example, the assertion from India's New Delhi High Court that birds "...have fundamental rights to fly in the sky and all human beings have no right to keep them in small cages for the purposes of their business or otherwise," (New Delhi High Court 2015). This assertion was grounded in a 2014 ruling that animals, including birds, have five fundamental rights, including rights to freedom

and dignity and came as part of the court's justification for its decision not to return several birds to an owner (New Delhi High Court 2015).

If we do grant corvids a legal right to bodily liberty, what concrete implications does that have for our practices? It means we should revise how we respond to the many ways in which our interests conflict with corvid interests. Corvids attack power lines and dig through garbage and, thereby, disrupt and degrade our living spaces. They invade the territory of other, sometimes endangered, species and slaughter them. They can, sometimes, even carry human-communicable disease. No doubt, giving corvids legal rights will raise practical questions with each new case containing its own complexities. It should come as no surprise that recognizing the legal rights corvids ought to have will demand much of us. The animal rights movement demands the revision of our practices precisely because it begins with a challenge to common attitudes about the moral relevance of nonhuman animals, attitudes which shape all of our interactions with animals.

Given the number and diversity of practical questions presented by legal rights for corvids, resolving the details of particular cases is not a matter for philosophers. Rather, activists and experts will work out the details within the legal system. Once we accept that there is a case for giving corvids a legal right to bodily liberty, philosophical defense of this claim at most requires that the proposal is feasible such that legal practices contain the resources to handle the cases that might arise.

We think the resulting changes from the past several decades of animal rights work demonstrate such feasibility. This work has achieved a number of notable institutional mechanisms for protecting nonhumans both within current law and at the level of broader legislative representation.<sup>11</sup> Consider, for example, the case of Antoine Goetschel, who was appointed as Zurich's first animal advocate in 2007 (Smith 2012). In his capacity as animal advocate Goetschel was tasked with ensuring the enforcement of Switzerland's stringent animal welfare laws. The majority of his cases dealt with treatment of domestic pets, but in 2010 Goetschel pressed for the conviction of fisherman Patrick Giger on the grounds that Giger's taking ten minutes to reel in a pike caused the fish excessive suffering. While Giger was not convicted for animal cruelty (nor were a number of other fisherman Goetschel had brought charges against in 2008), there is little reason to think the Swiss courts had any great trouble functioning merely because the case concerned the welfare of wild animals (Smith 2012).<sup>12</sup>

Moreover, the United States and many other liberal democracies already employ official legal representatives on behalf of those who cannot competently defend their own interests in court, such as children (who may be represented by a guardian *ad litem*). As Kimberly Smith argues, it would not be difficult to extend guardian *ad litem* services to protect animals (2012). The primary qualification for one's acting as a guardian *ad litem* is that one can claim to

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<sup>11</sup> For some examples, consider the recent ruling of an Argentinian court to release an orangutan in Copy & Translation of Argentine Court Ruling: The Nonhuman Rights Project 2015, and consider also a New York court's recent debate over whether *habeas corpus* can extend to chimpanzees, Grimm 2015 . For another example, consider that India, Costa Rica, Hungary and Chile all have instated complete bans on captive cetacean shows (Coelho 2013).

<sup>12</sup> Smith 2012 provides a helpful general overview of existing legal mechanisms that have been or could be deployed to protect animals, as well as philosophical defense of the use of these mechanisms, though we disagree with her over which animals warrant such protections.



adequately represent the interests of their party; formal legal training is not a requirement for service as a guardian *ad litem*.

We have argued that the complex cognitive and social lives of corvids makes it difficult to know what makes corvid lives go best. This epistemic difficulty grounds a presumption in favor of corvid liberty. Consequently, in cases where a corvid's liberty is at stake the court's main task would be to evaluate whether a sufficient case has been made to overturn the presumption in favor of corvid liberty. Our ignorance of what makes a corvid's life go best does not imply ignorance of what makes it go poorly. A corvid that was hooked like Patrick Giger's pike would surely suffer. We know corvids have an interest in avoiding suffering and having their bodies mutilated or mangled. Defending a corvid's right to bodily integrity thus presents no special difficulties *vis-à-vis* existing animal welfare protections.

Over and above our suggestion that corvids should be given legal representation to resolve specific problems, we also want to point out implications a right to bodily liberty would have for the U.S. legal system. Such a right would, in practical terms, be the extension of current protections for corvids. As mentioned previously, American crows and other native birds are protected under the terms of the Migratory Bird Act, the critical terms of which make it illegal to: "pursue, hunt, take, capture, kill, attempt to take, capture, or kill [...] any migratory bird, any part, nest, or egg of any such bird" (U.S. Code 16 2015). Extending corvids a right to life would amount to retiring the various exceptions and licenses that allow killing these otherwise protected birds (and, likely, increasing the severity of violations). Second, it would require eliminating or modifying the other exceptions found within the U.S. Legal Codes one of which,

for example, states that various blackbirds, cowbirds, grackles, crows, and magpies may be killed at any time: “if they are committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock, wildlife, or when concentrated in such numbers and manner as to constitute a health hazard or other nuisance” (Code of Federal Regulations 50 2015). Granting corvids a legal right to life would entail that killing them would require stronger justification than that they are a threat to ornamental plants.

Of course, genuine conflicts of human and corvid interests governed by the existing exemptions, such as worries about public health, provide further justification for the use of lethal force. Yet even in the public health case it is not clear how often lethal force could be justified when alternative means of controlling corvid populations, like flocks of crows, exist. Killing crows is primarily effective only as a means of dispersing them; it is rather difficult to kill a significant part of a crow population with guns. Dispersal is an important part of protecting human interests, but there are numerous non-lethal methods of dispersal, such as various means of frightening the birds off (The Washington Department of Fish & Wildlife 2015). “Clear and present danger” cases, as when we recognize that it would be legitimate to use lethal force against (say) a threatening gorilla are bad analogies. While crows can be a threat to human interests, they’re clearly never a threat to human life in the way that a gorilla can be.

Making current protections more stringent would also not be as great a change as one might think. For example, we could expand the Animal Welfare Act to include corvids (if not other birds as well). Moreover, current law already burdens citizens for killing even pestilential crows. A private citizen who kills a crow on the grounds that it is a menace of some kind is still

legally required to report the incident and may be subject to penalties if the conditions were not actually met or if they used inappropriate means (e.g. poison food, which is deemed to pose too large a risk to other animals). As such, requiring instead that lethal means may only be used following an evaluation of the situation by animal control experts would not be a radical shift in our laws.

Finally, but importantly, recall that the Migratory Bird Treaty Act protects only those corvids native to the United States. As such, it is illegal to own an American crow but not an African pied crow. Given that nativity is not relevant to the grounds of a corvid's right to bodily liberty, we propose protecting non-native corvids, such as the aforementioned Eurasian magpie and New Caledonian crow, too.

None of this entails or implies that we should make it illegal for people to have corvids as companions or to share their space. Rather, people ought to rethink nonhuman companionship in terms other than 'ownership' or even 'pet'. Famed ethologist Konrad Lorenz had such a companionship with various corvids, including a jackdaw he called 'Jock' who Lorenz reared by hand. The young bird became quite attached to the ethologist and would fly behind when Lorenz went for a walk. Nevertheless, Jock matured and developed an attraction to Lorenz's housemaid who lived a couple of miles away and would often spend most of her (as Jock was female) time at the maid's home. Lorenz made no attempt to capture the bird or otherwise restrict her movements. As a companion and not an owned pet, Jock was free to come and go from her resting place at Lorenz's and spend her day realizing her own pursuits (Lorenz 2003).

## Conclusion

As we increasingly recognize the cognitive sophistication of nonhumans, we ought to recognize a need for the legal protection of corvids. Many have already recognized such a need for great apes and cetaceans. Given differences in corvid habitat, population, and physiology, meeting this need may, perhaps, be more difficult. Nevertheless, it is time at least for further philosophical work to clarify our duties to corvids and further advocacy on their behalf, if not for a Corvid Project.

So far, courts have been resistant to any of these accounts in the case of chimpanzees. Defenders of the *status quo* have invoked the language of a “social contract” and ruled that according chimpanzees a legal right to bodily liberty “is inappropriate as they are incapable of bearing any legal responsibilities and societal duties” (*The Nonhuman Rights Project, Inc. v. Samuel L. Stanley Jr., MD.* 2015, 27). In other cases, the presiding judge of a lower court felt bound by *stare decisis*, the legal principle of precedent, to follow the higher court’s decision (2015).

Obviously, we disagree with these decisions on moral grounds. Legal responsibilities and societal duties cannot always constrain who morally ought to receive legal rights. As many have pointed out, consistent application of the Court’s principles would exclude infants, those with various psychological or physiological disabilities, and socially marginalized humans. Moreover, it fails to make sense of the duties that arise out of the various and nuanced relationships we can

share with humans and nonhumans alike. Our consensus approach avoids these difficulties and neatly explains why the aforementioned do have rights.

These chimpanzee cases and our discussion of legal rights for corvids highlight an important structural assumption within the U.S. and similar legal systems. As the judge in one case notes, “For the purposes of establishing rights, the law presently categorizes entities in a simple, binary, “all or nothing” fashion” (The Nonhuman Rights Project, Inc. v. Samuel L. Stanley Jr., MD. 2015, 23). Such a simplistic distinction, rooted in Roman legal tradition, is ultimately a poor fit for the moral complexity of the universe and its inhabitants (Korsgaard 2013). Fortunately, we have the power to evolve our system of laws past these limitations with new, more nuanced, models of legal rights (Berg 2007).

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## **NOTES**

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