This article was downloaded by: [Laurentian University] On: 20 May 2015, At: 11:44 Publisher: Routledge Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



# Angelaki: Journal of the Theoretical Humanities

Publication details, including instructions for authors and subscription information: <u>http://www.tandfonline.com/loi/cang20</u>

# THE ENIGMA OF THE RAVEN

Vinciane Despret<sup>a</sup> <sup>a</sup> Philosophie et Lettres, Université de Liège, 4000 Liège, Belgium E-mail: Published online: 18 May 2015.



To cite this article: Vinciane Despret (2015) THE ENIGMA OF THE RAVEN, Angelaki: Journal of the Theoretical Humanities, 20:2, 57-72, DOI: <u>10.1080/0969725X.2015.1039842</u>

To link to this article: <u>http://dx.doi.org/10.1080/0969725X.2015.1039842</u>

# PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms &

Conditions of access and use can be found at <u>http://www.tandfonline.com/page/terms-and-conditions</u>





# translator's foreword

Vinciane Despret describes her 2002 book Quand le loup habitera avec l'agneau [When the Wolf Will Live with the Lamb] as "the major scientific statement of my research." The book continues along avenues she had started previously, such as the ethology of ethologists, the importance of asking the right questions in research, and the characterization of some ethological inquiries as sleuthing akin to a detective novel. Building on her book about Zahavi and the Arabian babblers. Despret furthers her inquiry into both important historical episodes in the development of ethology and contemporary research that continues to build the discipline. She structures the book in part as a series of letter-essays dedicated to persons who have influenced her thinking and being, with several chapters drawing on concepts or ideas from those to whom they are addressed (the chapter here on ravens is to Bruno Latour, and it draws on his concepts of interest and the Greek middle voice as a formulation that allows for thinking the intertwining of agency in productive contexts of interaction and research). The title of the book, of course, refers to the famous verse in the Book of Isaiah 11.6 that prophesies a time when, "The wolf will live with the lamb, the leopard will lie down with the goat, the calf and the lion and the yearling together; and a little child will lead them." Isaiah provides a vivid imaginary of multispecies bonds and flourishing.

The first chapter of the book, on "Transformations," dedicated to Despret's son Jules-Vincent Lemaire, concerns changes that animals and animal cultures can undergo over time, and makes the case that non-

# vinciane despret

translated by jeffrey bussolini

# THE ENIGMA OF THE RAVEN

human animals are equally as much subjects of history as humans are. The second chapter, "The Primate at the Origin of our History," to Jean-Marc Gay, looks at how conditions of confinement and observation in early research on primates, notably by Solly Zuckerman, introduced longstanding misconceptions about primate behavior that continued to reproduce themselves in the literature for decades. The third chapter, "Apes and Savages in an Anarchist World," to Didier Demorcy, addresses the work of Kropotkin and Russian naturalists who saw cooperation rather than competition defining animal interactions; the chapter also looks at how different figurings of the relationship between apes and so-called primitive humans, for instance in Darwin and Freud,

ISSN 0969-725X print/ISSN 1469-2899 online/15/020057-16 © 2015 Taylor & Francis http://dx.doi.org/10.1080/0969725X.2015.1039842

### the enigma of the raven

have led to widely differing cultural and political ideals. Chapter 4. on "How to Have Trust in Prophets," to Thelma Rowell, analyzes how, despite numerous reports of striking cognitive, technical, and emotional capabilities among primates and other animals in early naturalist literature, quasi-theological and anthropocentric notions such as that of the great chain of being caused a subsequent ignoring or disavowal of them; she points to the importance of changing ourselves as humans to change animals (in our observations and interactions with them). Chapter 5 evaluates "Successes and Achievements" as they might be construed for different animals; the importance of taking into account an animal's own point of view and interests leads to a better sense of interesting achievements. Chapter 6 addresses "The Habits of Researchers and their Animals" and extends the argument about how changing human habits also gives other animals a chance to change theirs, and looks at ethology as a practice of habits involving distance, knowing activity, politeness, milieu, and alliance. Chapter 7, dedicated to Isabelle Stengers, is "Becoming Woman," and it looks at how the practice and activity of women ethologists such as Thelma Rowell, Shirley Strum, and Barbara Smuts refigure ethology (not because of their gender but because of their practice and the questions they pursue); it is no accident that Jane Goodall, Dian Fossey, and Birute Galdikas have transformed the field of primatology. Chapter 8, to Bruno Latour, is translated here. Chapter 9 looks into "What Parrots Talk About" and considers talking birds and primates as subjective interlocutors who can become persons in the exchanges allowed by language; setting, milieu, and influence (cohabitation) are central aspects of the interactions and research with these animals. Chapter 10, to Jocelyne Porcher and Dominique Lestel, concerns "Bringing Animals into Politics" and recalls the intriguing story that Edward Thompson (who has come up earlier in the book) was motivated in naturalism and primatology by his hopes to help instantiate Isaiah's prophecy in terms of multispecies interaction. It looks at the tremendous suffering and domination visited upon animals by human society, and at ideas of composing with and "living well together" as some avenues fraught with possibility yet also vigilance.

#### to bruno latour

"**S** ome years ago, the American Skinnerians, who had heard tell somewhere that there existed other birds than the eternal pigeon, tried to replace it with the great raven. Without success. The raven, who found the situation in a Skinner Box profoundly absurd, did not at all wish to push on the levers at the command of the little lights that illuminated or for any other signal. Instead, it successfully used its enormous beak to completely dismantle the apparatus. This behavior was judged to be *unamerican* and everyone went back to pigeons" (Chauvin 138).

Certainly, in resisting the propositions of the behaviorist researchers with admirable vigor, the raven no doubt escaped years of monotonous labor in dispositives that were probably none too thrilling for beings of such remarkable curiosity.<sup>1</sup> It was this quality that seemed to cause so much consternation for the American researchers: evidently, they never posed the question of knowing what a raven could, through this somewhat maniacal behavior, teach them about what interested it.

"Recalcitrance" to the impoliteness of the behaviorists, in demonstrating such strong incivility, was not the only crime that the ravens were guilty of, according to the researchers. We might recall that before becoming their specialist, Bernd Heinrich classified them at the very bottom of the ladder of choices considered sensible by ornithologists.

The list of their annoying habits does not stop there: when Heinrich submitted to his mentor a thesis proposal to study ravens, he strongly dissuaded him. Little work had been done on ravens, but the testimony of those who knew them or spent time with them converged: they are of remarkable intelligence. It would be better to avoid studying an animal that is smarter than you, he told him, in sagely recommending the study of protozoans the simplicity of which, the author reassures us, nonetheless presents interesting problems. If you want to study ravens, it will take you years before knowing them. Their timidity – that Heinrich attributes to the fact that they had been, in our regions, victims of accusations of the most diverse abuses and persecuted for it – makes them altogether unapproachable. And then count on still more years before any of the information that you would be able to gather with difficulty can make even the least sense.

Beyond that, if you try to elaborate any model to make sense of their behaviors they will take a malign pleasure in contradicting it in the course of subsequent observations. Ravens, evidently, do not want to obey any of the rules that make research possible: the incivility that excommunicated them from the laboratories of the behaviorists having already been stigmatized from the time of the Flood - the ravens were in fact the only ones to have disobeved the rule that stipulated that there be no mating on Noah's Ark. Unruly, unpredictable, calling into question even the intelligence of their researchers, the pertinence of their models, and the solidity of their dispositives, they are by all accounts unreliable; in any case, they were not so to a sufficient degree to succeed in recruiting an army of biographers, as primates had been able to do.

However, after some years spent in caring for the peaceable world of protozoa and no doubt forgetting the sage advice of his advisors, Bernd Heinrich will decide to resubmit his candidacy to the ravens. A sabbatical year offered by the University of Vermont, where he taught, and the possession of a country house in the Maine forests where the ravens Corvus *corax* live, will provide the opportunity for it. This year will be followed by another, by another still, and will end up extending beyond a decade. The ravens will literally recruit their researcher into what will become a passionate inquiry; they will reveal to him the resolution of an enigma the difficulty and the interest of which would be in accord with what makes them impossible to study. This inquiry will come to resemble, gradually with

### despret

its unfolding, more and more those tales to which the master writers of suspense invite us. And this inquiry, full of suspense and sudden turns, from season to season, from enigma to findings, from hypotheses to tests, will transform all that we know about ravens.

However, if we can fairly compare this adventure that will link Heinrich and his ravens to a police investigation it is necessary also to observe that, to the contrary of many of them, the "guilty" of the story are given from the beginning: it is the ravens. That which we could consider to be the "crime," the act that transgresses the rules and expectations, is also known: the ravens present a behavior that has no sense from the point of view of evolution. This "crime" that will kick off the whole affair appeared to Heinrich by accident in the course of an observation even before the inquiry commenced: fifteen ravens were feeding around a carcass. Nothing could be more banal, we might think. Unless this were an assembly of wrongdoers, and these wrongdoers could be deemed guilty of the transformation of an animal into a carcass - which is not the case since ravens generally do not attack living creatures unless they are of very small size - there is really no cause here to open an investigation.

Now, in the eyes of someone who knows Maine ravens a bit, this behavior is justifiably suspect. In principle, these ravens have no business being there all together. In Maine, they are not only rare but most often solitary, with the exception of some couples and whilst raising young. If certain ravens can come together at night to share a communal nest, during the day they generally avoid one another and go about their business in places that are at a distance from one another. The presence of many ravens at the same site can therefore not be due to simple habit or coincidence. Of course, the carcass is a sufficient motive for coming together; but how would they have been made aware of it, from many kilometers away? The response is simple, Heinrich explains: they could not all have come unless the raven who found this carcass had called them, explicitly. If that one had wanted to maintain the privilege of dining on the

carcass, the other ones would never have known: ravens are capable of being silent when they don't care to be noticed. This "recruitment" behavior of others around a carcass, Heinrich concludes, goes against all logic. Given the rarity of resources, a raven who finds food has no interest in being joined by others; and it has all the means of avoiding it in remaining discreet. Why then had a raven called the others, why had it invited the others to share in the party? If food is difficult to find, why take the risk of needing to share it, when ravens are true experts in hiding food items?

Heinrich therefore had the "crime": an absurd behavior from the point of view of traditional models of evolution; he also had the guilty parties. On the other hand, that which would make up the crux of the enigma and which could not be elucidated except at the end of a long and patient inquiry, the most important element in the eyes of an ethologist, would be the motive. Why do ravens do that which the logic of evolution should prohibit them from doing? It is this motive that it will be not only a matter of discovering but also of inscribing in the regime of proof.

As far as suppositions are concerned, there are many that we could make of this situation. We could gamble on the generosity of ravens, in an anthropomorphic version that ethologists prefer to avoid since the hypothesis is difficult to test. We could, in a more plausible and verifiable manner, advance the hypothesis of a moment of distraction or stupidity: the behavior would not be repeated in other circumstances. We could also take up, to give credit to the ravens, the hypothesis that Zahavi developed to understand the babblers: the fact of sharing food affirms the prestige of the one who offers it to others and permits him to climb, with a great economy of conflicts, the hierarchical ladder. Ravens, even if generally timid, are not sparing with moments of bravery. Some of these could be interpreted as a desire to cause a sensation. Many observations describe very audacious aerial acrobatics - steep nosedives toward the ground with a swerve at the last minute – generally followed by an attempt at one-upmanship by one or other congener;

simulations of attacks on wolves, eagles, or dogs, or even the theft of their food from right under their noses. Some observations have even shown that, following simulated attacks. a raven will prevent its companions from coming to its assistance, as if it wanted to conserve the privilege of showing its bravery. Ravens also accomplish a series of acts that appear to be useless, that pertain at once to both the game and to the affirmation of skill: transporting objects in their feet, wrapping up these objects, especially in the presence of a female, it would seem, rolling on their backs, doing superb slides in the snow or pushing snow onto their companions. This hypothesis of "exhibition" therefore would merit being tested.

One could also just as well think that ravens practice a system of reciprocity of exchanges of good conduct, as has been observed among certain vampire bats in Costa Rica. A raven who shares a find can count on the fact that its companions will return the favor, when the occasion presents itself.

Yet another version can be evoked, with the theory of sociobiology. In this case the ravens would constitute an umpteenth example of the "all purpose" model and, dominating in this area, of the theory of the "selfish gene."<sup>2</sup> According to this theory, any animal presenting behaviors that are said to be "altruistic," whether it be a bee "sacrificing" itself for its hive sisters, a bird renouncing reproduction to feed the young of another, or a primate aiding a congener in difficulty, is guided by a single motivation; this would be to transmit the greatest possible number of its genes to the population. Applied to ravens, this theory would stipulate that, certainly, the "altruistic" recruiters diminish their chances of survival in sharing a rare resource, but that the "sacrifice," costly from the individual point of view, can reap benefits in regard to evolution. In effect, still according to this theory, if the raven shares the find with an individual who carries a similar genetic baggage as its own, a close relative for instance, it augments the probabilities of transmitting its genes to the next generation, in promoting the survival of those whom it

# despret

helps. According to the sociobiologists, this model permits the resolution, once and for all, of the mysteries of apparently paradoxical behaviors such as "altruistic" behaviors, whether they concern ants, Florida blue jays, or hamadryas baboons. The animal simply obeys a relatively inflexible rule: help your relatives, ignore others, and you will multiply the copies of yourself.

Ravens, however, do not seem to want to yield to this rule: their sense of the family does not extend beyond the migration of young. One could incidentally think that if they had done so the investigator would have quickly reached his conclusions: when animals are similar and all do the same thing, he says, they very quickly become boring as subjects of study. If the underlying principles become simple enough, they lose all interest once you have grasped them. In other words, no investigator worthy of the name could be fascinated by a crime committed by an idiot without imagination.

Now, everything led Heinrich to believe that this situation had nothing to do with such a person, and that those in whom he was interested would require, on the contrary, resources of imagination, curiosity, and patience to be able to understand the enigma. For of all the available models to take account of the reasons for cooperation among the birds, none seemed able to accommodate the observations. When a model finally seems to connect all the elements and give them meaning, a new version of recruitment appears that places the whole model into question.

How does the motive make the "crime" an achievement for the raven? How to accord this achievement with that which translates, for a raven, the fact of succeeding in its everyday survival? Clearly everything depends upon the criteria that you use to qualify this as an achievement. If you opt for the sociobiological theory, you must evaluate the reproductive success, and try to link together in the same schema the carcass, the recruitments, the relatives, the descendants, long-term strategic choices and DNA. Your animal will be above all similar to others, and all the variations will be nothing but details of the same motive. On the other hand, if you are interested in the differences, in unexpected strategies, if you take into account the fact that the animal does not cease to transgress the rules and models and that it is unpredictable in its choices, you must adopt other criteria of achievement. It is this that the ravens seem to demand. The criterion of achievement chosen by Heinrich has nothing of an ambitious program about it: on the contrary, it leaves the program totally open in regards to its realization. The primary achievement of a raven, the author explains, is first and foremost that it "can procure resources from the environment and convert them to more of itself" (Heinrich, Ravens in Winter 36). Based on this simple premise, all organizations remain possible. "Converting the environment into a little more of itself" offers huge scope for invention – and incidentally responds well to the raven's extraordinary opportunism.

It remained then to understand how the recruitment of others around resources constitutes, paradoxically, a way of realizing this achievement, of accomplishing this conversion.

The search for a motive will demand of the author that he explore all the paths, consider all the conditions, imagine all the tricks and stratagems. The politeness of "getting to know"<sup>3</sup> here takes on a surprising form: the relationship is no longer inscribed in the register on which I insisted in the previous chapters, a register of negotiations of interests and stakes. Certainly, the question remains the same: it does concern "getting to know" by posing the question, in terms of achievement, what it is that interests the raven. But observation alone does not suffice. It is not only a matter of understanding what the raven does and how it does it; it is necessary to elucidate why it does it. Of course one could, in ideal conditions, observe the scene every day, verify whether the raven recruits each time, in what circumstances it does so and in what other ones it does not. But these conditions are not exactly those of ravens. Carcasses do not rain down in the forests of Maine, the activity on the highways notwithstanding. If you want to distinguish from the tangle of all the possible explanations.

in the skein of motives, that which can truly permit you to understand the stakes of the "crime," you have to help things along; you have to create situations that permit the ravens to help you decide, among all the contesting fictions, the right fiction. You have to do so all the more so since the ravens will not show you, straightforwardly, what counts for them. If you see a raven in front of a carcass, hopping about in a "dance of hesitation," not hazarding too close but seeming to wait for one of its comrades to begin the process of cutting into it, you can take up several possible interpretations, each of which modifies the reason for recruitment. The raven may have some fears, in view of past experiences, that the cadaver is in fact a predator who is feigning sleep and waiting for an imprudent raven in order to reverse the situation and convert the bird into a little more of itself: we might recall the trick thought up by Thompson's monkey.<sup>4</sup> You could also imagine that it is a question of precedence in the hierarchy, and that the subordinate ravens wait for the green light from the dominant; or that you are dealing with an inexperienced raven, who does not know how to open a carcass, and who does not know the vulnerable places on it. With the first hypothesis, the motive for recruitment would then be that of salutary egoism: it would be better to be with many others in the case of this type of error. On the second hypothesis, you find yourself with a model of social organization, with, for example, for the dominated, the obligation to share. In the third, you would have still another type of cooperation and the exchange of good conducts to make sense of the motive of recruitment: "I find, you open."

All the work of the researcher consists, then, in leading the ravens to take a position in relation to his fictions and hypotheses: resisting those that do not explain them; clarifying, in those that seem to be able to, that which counted for them. The scientist must, in other words, create a dispositive that confers on the ravens "the power not to submit to his interpretations."<sup>5</sup> It is in this way that the politeness of "getting to know" presents itself. It does so all the more, and it is here that I can develop this story as that of an investigation around a crime, in that it unfolds all along as a test of the intelligence and cunning of each of the partners. Heinrich's research addresses the achievements of the ravens; it is interested in that which renders them enigmatic and fascinating; it interrogates them where they are competent and where we have to become more so, theoretically to the degree that we understand nothing about what they are doing, and practically to the degree that we have to learn their tricks to be able to approach them. And it addresses them above all where they actively resist the models to which they could have been subsumed. It is not only a matter of explaining or understanding but also a matter of finding the procedures that attest to the pertinence of these explanations.

The enigma, like good detective stories, inscribes the protagonists in a relation of rivalry: if I want to understand them, Heinrich says in some way, I must try to be as smart and cunning, or more so, than they are. Not letting oneself be taken in easily, not letting oneself be duped by appearances, not according credence too swiftly; subjecting things to a strong standard of proof, enticing the ravens, cobbling together situations that oblige them to take a position. The politeness of "getting to know" does not necessarily turn on an attentive benevolence but on the art of finding the forces, and exchanging them, in an exercise of rivalry - constituted by a clever mixture of complicity and opposition - and of putting to the test. This politesse can sometimes even take the form of suspicion: "respect," the etymology reminds us, demands of us to look twice (respectare). Confidence without verification offers little guarantee as to its robustness. A competence that is too easily accorded attests to nothing, if not to the great flexibility of our interpretations. If we want to witness in a reliable manner, if that which we learn from the ravens is to be treated with confidence, if we want to define ourselves as authorized by them to speak in their name, we are required to offer them the opportunity to show what they can do. If they are able to take a position in relation to the different versions that could

#### despret

take account of what they do, the version that passes the test will emerge as the most robust.

In this way, if numerous anecdotes on the subject of ravens report their intelligence, it does not honor them to accept this interpretation too quickly. Each anecdote, Heinrich explains, could be susceptible to an alternative explanation that is just as plausible: at times one recollection will suffice, at times the simple vigilance to things that we do not perceive, at other times still happenstance or chance. For example, when one observes a raven throw objects and detritus onto those who approach the nest, we consider right away that it must be an intentional and dissuasive strategy. But, Heinrich says, the behavior closely resembles that of a maniacal disturbed person who takes out their rage on objects. On the other hand, when we see a raven succeed in threading many pieces of meat on its beak before going to hide them, we could think that it anticipates the fact that others will come and steal the pieces he leaves on the ground during the journey. One could always respond that the simple desire not to tire itself out and to economize on comings and goings amply justifies this behavior, and that it gives no proof of the capacity of ravens to anticipate the intentions of others.

Heinrich will propose to the ravens that he welcomed in an aviary to demonstrate their competences: they must prove that they are capable not only of anticipating the intentions of others but of acting accordingly. We have already made reference to this experiment, so we will briefly recall it here. Heinrich gives Orange a number of pieces of meat in front of his fellow creatures White and Red. Orange, anticipating what will become of this unexpected gift, immediately starts hiding the pieces. Each of his movements is, needless to say, watched by the two others, who do not then hesitate to dislodge the pieces of meat from their hiding places. Orange tries to follow them but must soon renounce the effort. Then he changes strategy: he simulates the act of hiding food, and when the others are busy digging to find them, he hides them elsewhere, out of their view. The raven has become a reliable witness for his researcher's proposition; he not only became worthy of the proposition, but he became, by the very form of it, autonomous in relation to the interpretations of his author. He helped the researcher to construct a "fact." And the scientist, in giving the raven a chance to take a position in relation to his proposition, became worthy of witnessing in the raven's name.

Returning to our enigma, to the motive of apparently inexplicable behavior: how to ask the ravens, with the same politeness, to take a position in relation to all the possible conjectures of the investigation? How to ask them to teach us the good explanation, the right motive? How, in other words, to unmask the criminal? The researcher will have to learn the art of the trap and the net: the art of the lure and the trick; the art of learning, from those whose enigma you are trying to solve - and have no intention of helping you - how that which counts can count for them. It is, in sum, the art of the *metis* ( $\mu\eta\tau\iota\varsigma$ ) (Detienne and Vernant, Cunning Intelligence 11, 12; Les Ruses de l'intelligence 10), that particular form of intelligence that the Greeks cultivated. and that they learned from hunters and fishers, that intelligence that combines intuition. cunning, perspicacity, dissimulation, improvisation, vigilant attention and the sense of timeliness. It is the only way of getting to know (making knowledge) that can hope to address "intelligent, highly flexible" (Heinrich, Ravens in Winter 259) beings, like ravens, who require of those who want to know them the same flexibility and the same intelligence. And it is not by chance that it is this type of "getting to know," long eclipsed by the choices made in philosophy, that is now returning in some ethological research. For this type of "getting to know" was constituted exactly "to be found in a domain where human intelligence is constantly at grips with the land or sea animals" (Detienne and Vernant, Cunning Intelligence 317; Les Ruses de l'intelligence 305) in an area where humans saw their intelligence and techniques transform in learning from animals. Heinrich, we will see, will

attest to the possibility of prolonging this transformation.

Strange politeness, some might say, that goes by way of the art of cunning, lures, and manipulation: enticing ravens; seeing without being seen; tracking the least indications that would betray their motives; obliging them to choose; luring them to actualize the choices; creating situations as if they were natural so as to let the birds do the talking. But it is not a matter, in this research, of searching out the faults to weaken the ravens, guite the contrary: it is a matter rather of rendering them more robust in comparison to the researchers, of giving them the occasion to resist, of giving them the power to send the researcher to work. While Harlow's laboratory bet on passivity, the "reactivity" of its subject, Heinrich's dispositive will take form as an invitation to activity to those to whom the questions are addressed. By these strategies and dispositives, the researcher commits to more activities in order to encourage them in return among those that he observes. In other words, and more concretely, the investigator will invite the guilty to take action.

Heinrich's first activity will thus be to create an occasion for the ravens to busy themselves around his problem. To make the crime possible, it would be necessary first of all to find an enticement that interests them, a carcass if possible. To begin with, it would be better to trust the ravens and to act like them. Heinrich will let himself be recruited by them: he will report to the rendezvous made apparent by the cries announcing the discovery of a meal. The cadaver of an elk, left there by a poacher, becomes the object of a noisy feast. The birds take flight at the approach of the researcher. Without shame, he takes the carcass and will place it close to his observation post.

The next day at dawn, two ravens arrive, followed by a third. All three remain silent. Ten minutes later, they are joined by two others. Some "quorks" are exchanged very quietly. These are no doubt salutations, not publicity. The ravens eat silently. When one of them is full, it flies up to a branch and lets out noisy cries. Others arrive. A falcon joins them, rapidly chased off by two ravens. Did they wait until they were full to recruit their fellows? Maybe, Heinrich comments. But does it really amount to recruitment? There is no way to be sure that the later arrivals came because they heard the cry. They were perhaps just passing by. It is necessary therefore to verify the power of attraction in these cries. Heinrich procures a tape recorder to capture them and loudspeakers to be able to disseminate them later. He would also need another cadaver. One of his friends had just killed a pig and offered him the entrails. Eighty kilos should be sufficient to motivate the generosity of the one who would find them. Heinrich places the meat near to his observation post and waits. Two ravens arrive, followed by a third. They eat silently, then they leave discreetly. After hours of waiting the author, discouraged, returns to his lodging. It is at that moment that he hears the cries. He reverses course and succeeds in recording some cries. The next day, the ravens come and go, but none of them appears to touch the meat. The one closest to it executes a small dance of hesitation and finally decides. It takes some little pieces and sets to work going to hide them. None of the birds makes the least noise. Others come in the afternoon but content themselves with flying over the meat, as if they simply wanted to verify its presence. They remain silent. Why are they not recruiting now? The next day, the afternoon scene repeats itself. No one eats or calls.

A new hypothesis must therefore be considered: the reason for their abstention is perhaps linked to the type of food that is offered to them. Perhaps it is not their congeners that they are interpellating, but simply the other scavengers, covotes or bears, endowed with sufficient strength to open carcasses? The pig entrails being directly accessible to them, they may not have needed to call for aid. It would thus be necessary to recommence the experiment, this time with a cadaver that was impossible to open. A goat bought on a visit to Vermont would fit the bill. The next day Heinrich waits with the goat cadaver placed prominently nearby. A raven arrives, approaches it, then takes off again. Others

come, no more interested than the first one. They neither call nor do they eat. Could it be that the goat is, in their eyes, an inferior substitute for what they usually eat? Heinrich goes to test his lure on other ravens, kilometers from there. Those ravens accept his gift with much goodwill.

Nothing, however, says that if the recruitment does not seem to be addressed to other species it would then be a signal of invitation addressed to fellow ravens. The lure could be used to respond to this question: the ravens fall for the trick. The call seems very well indeed to recruit them. There will be, within fifteen minutes, thirty birds around the new feast organized by Heinrich ... but none of them eats!

From squirrel cadavers to rabbit remains from the side of the highway, from cow kidneys to pieces of giblets, the ravens demonstrate the most erratic behaviors: eating without being called, calling without eating, eating and calling, eating in the morning and not in the afternoon, or the contrary. There is only one logic: that of the most complete unpredictability.

Things become singularly and decidedly more complicated: not only do the ravens not respond to questions but they pose new ones. It is no longer about understanding why they call, but on the one hand understanding why they do it in some situations and not others; and on the other why they feed at certain times and seem not to want to do so at other times. For the first question, Heinrich considers that the response could be linked to the quantity of food available: lately, they have been content with small game found here and there. If there is not enough of it, the ravens would perhaps have the advantage of remaining silent. The hypothesis is simple to test; the game warden would help by bringing all that he would be able to find by way of large cadavers in the forest. Heinrich organizes an enormous banquet. Against all expectations, the ravens seem to respond to the first hypothesis: they recruit, no doubt because the food is abundant. But they require the author to pose the second question: they do not, however, touch the food. They execute the dance of hesitation.

#### despret

These two hypotheses combined - they recruit but seem to be scared to approach can become the object of a new formulation: are they perhaps scared of having to do with a fake cadaver and do they wait until they are sufficiently numerous to diminish the risk? But the logic of the following observations does not allow the support of this hypothesis: the ravens, if that were the case, should have stopped calling their congeners once they started to eat and thus verified that it was not a trap. Perhaps the danger does not come from the prey, and their hesitation is simply due to the fact that they are scared of a predator who prowls around? This hypothesis can be tested by simply leaving the choice to the ravens. Heinrich places the meat on the ground and in a tree. The ravens, if the predictions are correct, will go without hesitation into the tree, where they have nothing to fear. However, they will not be so obliging, the author says: against all expectations, they feed on the ground, after a hesitation dance. On the other hand, how to understand the fact that the ravens can seem so fearful when at other times they are capable of so much bravery? Isn't this the crux of the problem? Wouldn't there be some ravens who are braver than others, which would justify the fact that some can eat while others hesitate for a long time before doing so? Wouldn't this be dependent on age or experience: bravery, in raven societies, being precisely "what separates the 'men' from the 'boys'" (Heinrich, Mind of the Raven 272)? But how could we ask them to verify this hypothesis?

The author recounts a shocking coincidence that flows from the comparison of all his observations: sometimes the recruitment is done, sometimes it is not; but, in the second case, it frequently happens that only two ravens eat. Heinrich decides to verify this coincidence: he places two piles of food in nearby places and observes. Two birds come to feed from one of them; a recruitment of many ravens takes place at the other one. Is this then a couple and a group? Later observations support the thought that ravens form very stable couples, that can last a lifetime. We think, moreover,

that when the young leave the nest they associate in bunches until the age of three or four years. However, if the first affirmation concerning couples seems to be correct, Heinrich comments, nothing is less sure for the second one: it is not necessarily the case that since we frequently see groups of ravens around refuse that they live together in a bunch. We can only affirm that they frequently share communal nests for the night. Observations also show that couples defend their territory against all intrusion. This defense can take highly variable forms: they can sometimes attack any congener who approaches, sometimes they settle only for escorting it to the boundary of the territory. Do the first to arrive form a couple, and the second a group of juveniles? Do they all belong to the same group? We can't be sure, since we cannot know whether, on the one hand, birds arriving in a pair form a couple, and whether, on the other hand, these are the same ones who mutually recruit one another, a condition of being able to affirm that this would be a true group.

After all these months of research, Heinrich confesses that he has no answers. Quite the contrary: he now has nine hypotheses and not enough life left to be able to test them all. He had to transport tons of meat, purchased goats, donated pigs, gifts from the game warden, deer abandoned by poachers; he had to scour the highways for road-kill cadavers; and on top of that he had to spend hundreds of hours immobile in his observation post, race through the woods and the snow, climb up into trees, endure extended waits, raise false hopes, use lures in the form of recordings ... and the mystery is deeper now than at the start. Biological detective stories, he comments, are visibly more complicated than the classical investigations: the more you find out the more you know that there are things that you do not know (Heinrich, Ravens in Winter 301). More cunning, more imagination, more activities to oblige the ravens to choose between hypotheses.

It would be necessary to organize more feasts, simulate invitations, call again and again by means of recordings, propositions, and situations capable of interesting the ravens. It would be necessary to find the right way to recruit the ravens for the resolution of his problem.

Now, if Heinrich learns with difficulty the means of recruiting the ravens, it is in fact the inverse that is in the course of declaring itself. It is the ravens who will recruit the author. The indices of this transformation take shape gradually with the research. "It is still dark, and I'm already being awakened by raven calls! Several birds are flying over Kaflunk making short, high-pitched calls that are unlike the usual quorks. These calls convey excitement. The birds are flying to a kill! I feel it. Even I can understand, and I too am recruited" (Heinrich, *Ravens in Winter* 81).

We cannot ourselves understand it otherwise: if this recruitment by non-humans was able to acquire such an efficacy, it is because the human was transformed by those whose enigma he was trying to understand. The story conveys nothing so much as that of a becoming. Heinrich's long investigation connected him to the ravens in an unexpected manner. In learning to recruit them, he learned to be recruited by them. That which constitutes achievement for a raven now constitutes, in another way, achievement for himself; feeding on their emotions, letting himself be pervaded by their joy, letting himself be drawn into their enigma: converting the environment into a little more of himself. He learned to become sensitive to what makes the ravens sensitive. "The majority of bird sounds have no emotional content for us. It surprises me, therefore, that many of the raven's calls sometimes display emotions that I, as a mammal for whom they are not intended, can feel [...] I also feel I can detect a raven's surprise, happiness, bravado, and self-aggrandizement from its voice and body language. I cannot identify such a range of emotions in a sparrow or in a hawk" (Heinrich, Ravens in Winter 250). For the author, the joy of a feast around a carcass takes on the same force of recruitment that it can have for a raven. When the raven dances the dance of hesitation the researcher holds his breath: there he is, also hesitating, before that which he wants to understand.

This becoming "with the raven" that builds up and transforms that to which the human is sensitive will in turn submit him to new demands. These will radically reorient the course of the research. How to take account of what counts for a raven, without going through the ways that the ravens themselves negotiate it together? The position of control and exteriority reached its limits. The ravens cannot respond to questions in the manner that they were posed to them. If some are brave and others are not; if some have good reasons to be afraid and others have none; if the models do not hold water since they cannot take account of the "eccentrics"; if there are small differences we cannot perceive that guide the behaviors; if recognizing one another is important, then it is necessary to go by way of what the ravens demand. "Progress often depends more on how well one follows the situation than on how well one controls it. Especially when control is difficult" (Heinrich, Ravens in Winter 196). One must learn to recognize them. One must also learn to ask them to give evidence differently and to try to understand how a raven ponders a question.

The first evidence will arrive in the form of a weakened raven that has to be saved. The author brings him to his house and feeds him. The surprise is overwhelming: while it will sometimes take a raven three days to approach a carcass, and the least provocation can provoke its flight, the pensive raven seems to find the situation "altogether normal," and comes, after two hours of taming, to eat from his hand. "And now, when everything is suddenly new, this bird acts as if nothing is out of the ordinary! I do not know how they perceive the world. I can only guess that they see it not as an absolute but as departures from the accepted. When everything is different, then comparisons cease, and almost anything can be accepted. And come to think of it, isn't that how humans perceive the world as well?" (Heinrich, Ravens in Winter 133). Heinrich will tag him and release him, after his recovery. The new program is launched: it is necessary to recognize the ravens. It is also necessary to feed some of them who can respond to questions that the

#### despret

other ones do not allow to be asked. Tame and be tamed to better find out what matters from a raven's point of view; gain the trust to respond to the demands of the politeness of "getting to know." Make of this taming a distinctive occasion to convey other things, and to respond to other questions. This occasion, Heinrich explains, "occurs when the individual close to the bird is trusted, has *earned* a trust that is not offered lightly. Given that trust, much is revealed that could otherwise never be seen" (Heinrich, *Mind of the Raven* 32).<sup>6</sup>

A huge aviary will be built in the garden, and young ravens will be released there. Theo, Thor, Ralph, Ro and Rave will teach the author that ravens develop their personality in the course of the first months: Ralph will be the most adventurous and the most curious; he will also be the one who will be the most attached to the researcher. He will soon become the dominant and show that the hierarchy takes shape as a function of bravery. Those who are the first to eat while the others hesitate win a sort of tacit right of precedence, without there being any conflict around this point. The experiment will be an achievement. "My observations were possible only because I was so closely in their midst. My rearing them from nestlings, and daily association with them for ten months, had won me their trust, which made the expression of their fine-grained unfiltered and hence complex behavior possible in my presence. The aviary also compensated for my inability to fly. I could follow them here, while at the same time provide an experimentally crowded situation that elicited flexible and innovative behaviors that otherwise might occur only rarely in the field where the birds can more easily avoid each other if they choose" (Heinrich, Mind of the Raven 259). The dispositive of taming, then, proves to be a privileged access of "getting to know": it actualizes competences that have less chance of occurring in usual conditions: those of the birds and those of the researcher. It transforms habits: once again, those of the birds and those of the one who investigates them.

In a parallel fashion, Heinrich will tag each of the ravens that he can catch. He makes each an

identity file, puts a ring on the leg, and then a small piece on the left wing, in different colors for each one. The colors determine the age and the name of each one of the ravens. The stories change from this moment on: the investigator has become biographer. W20 and Ro try to court R26, but being rejected each time, they finally give up. The juvenile Ro is amazing: in the absence of adults he behaves like a dominant. But as soon as adults arrive, he reverts to all the attitudes of submission. Some birds are very regular, others are often absent. They have habits that individualize them. Ro and R26 both arrived at the same time today, but each one from a different side: they are probably not in a real relationship; or else they have broken up. The marking spreads, in the stories, even to those who are not banded: the one who has only one leg did not come vesterday; the one who has a white spot on the back seems more timid, the one who does not have a tail was there today. Not being there today comes across in another manner: when he tried hard to establish a statistic on their dispersion by attaching a signal beacon to some of the youngest ravens, Heinrich discovers that many among them were killed: "The statistics that I knew so well were taking on new meaning. These were "my" raven friends and neighbors being killed" (Heinrich, Mind of the Raven 81).

If the terms that guide the "getting to know" were transformed, this does not mean that the investigation is abandoned. On the contrary: it will finally, and thanks to these transformations, come to its conclusion. The questions addressed to each one, Ro, R26, W20, white back, one leg, Thor, Theo, and all the others, will bear fruit. One simply has to listen to them tell, at certain times, and to offer them propositions, at other times. First of all, the fact that the birds can mix in many places with resources seems to indicate that the recruitment is not oriented toward the protection of a stable group. Certainly, information can be transmitted among the group that finds itself together during the night: if one keeps some birds in captivity and releases them in the evening after several days, but only letting some of them join a communal nest, the next day the ones who do will be present with their night companions around a carcass that the members of the nest had discovered some time before. Those who could not join the nest will not be.

Next, only the dominant juveniles recruit in the presence of adults, the others do not do it except in their absence or at a distance. If one compares this behavior with those that take place in the aviary, one could then consider that the fact of recruiting must be linked to demonstrations of bravery. The best proof of the value of a bird is its capacity to procure food. As among the ravens, the fact of eating often depends on bravery, and since bravery is often gained by experience, the fact of calling others around a food find, would it not constitute a reliable gauge of the quality of the recruiter? The ravens fully demonstrate this: bravery counts for them, it is a good measure of the value of partners, and a good opportunity to show one's own. Those of a very fearful nature will not take so many risks in many situations, unless it is for something that really counts. It is truly that which, among the ravens, separates the men from the boys.

The first motive for the crime is therefore elucidated. But it is necessary also to understand that this motive was not the only one: it links together many of the events, but not all of them. It cannot explain, for one thing, the fact that in certain cases the recruitment seems to have taken place elsewhere: and, for another thing, that sometimes the ravens who come in pairs sometimes eat and others don't. It is in engaging this detail that the second motive can be brought to light. To elucidate it, it is necessary to link two pieces of information. The first of these requires proof by means of an experiment. This will be set up to determine the link between position in the hierarchy and the manner of recruiting. If the raucous recruitment can be, at some times and in some circumstances, an opportunity to show one's bravery, what would the reasons be for a more discreet recruitment, at a distance? Would it be the fact of less brave or subordinate ravens? Heinrich kept twenty birds for a month and observed

how the hierarchy was organized. When this proves to be clear and stable, the birds are relaxed. The researcher leaves a carcass in a place, and leads a subordinate female there. She does not eat, and stays close to the meat, dancing a little dance of hesitation. That evening, she joins the nest. The next day, they are all there ... and she eats with them. A first explanation can be confirmed: the carcass, like any new object, could be dangerous; the fact of eating, since vigilance for predators is diminished, adds to the danger. The presence of fellow ravens can constitute excellent protection.

But the danger of a carcass that would miraculously revive is not the only cause; if not, then how to explain that sometimes a more raucous recruitment continues after the corpse has been shown clearly to be dead? Possible predators no longer constitute a sufficient reason: there are circumstances showing that it is not the only possible motive. The difference in behavior between the ravens who move in pairs and those who are in a group adds another version to the motive. For once they are identified; these ravens who eat as a pair and who keep others at a distance are shown not only to form a couple but the proprietary couple of the territory where the food is found. The reason for recruitment becomes clear, in this last situation, and permits understanding why ravens present such indecisive behaviors around food: when a territory is occupied by a couple, they will chase off all those who approach. Except if they are too numerous. If some juvenile vagabonds find a carcass and the territorial couple is far away, they will eat silently so as not to attract attention. If, on the contrary, the couple is close, they will call, and wait to be part of a sufficiently large number to eat in safety. And if they do not come, they will not eat.

The achievement that recruitment represents for the ravens now conveys an achievement for Heinrich: he succeeded in recruiting the ravens around his problem, which he could not elucidate without their help; he succeeded in being sufficiently recruited himself to invent pertinent ways of addressing them. The ravens taught him the taste for differences: the despret

models are now commensurate with their unpredictability. He learned flexible habits from the ravens that would permit him to celebrate and to take account of the flexibility and the achievement of their habits. Heinrich became their expert and their reliable spokesperson: he gained the status of being authorized by them to speak in their name. He became the competent expert through whom they acquired their competences. He could now convince and interest his colleagues, in terms that count for them: he could test each hypothesis. He can speak in the name of the ravens, enroll other researchers to pose other questions, offer them new occasions. He could also bear witness for them.

When in Germany, in the mid-1990s, fifty ravens invaded the idvllic Swabian Alps region, near the town of Balinger, the worst accusations were made against them. Farmers suspected them of attacking their livestock. A shepherd described them as a troop of disciplined soldiers who would launch at their victims, at the signal of their commander, to kill them. The newspapers immediately seized on the affair. "Nature turned to horror," ran one headline. The accounts recorded seemed to come straight out of a Hitchcock film. Hunters joined in to support both the poor farmers and the threatened animals. All the observations aligned: the ravens were very often near or in the fields where the cows and sheep gave birth to their young. And these newborn lambs and calves were found with mutilated eves or tongues.

All the groups present testified against the ravens: their killing would be necessary. Heinrich came to the defense of their cause. A new investigation commenced, with a real crime and real guilty parties this time. The motives are, on the other hand, much more heterogeneous, most of them not being those of the ravens: the farmers claimed compensation from the government; the hunters demanded that the law that had protected the ravens since their quasi-extinction be lifted with the goal of preserving other species of birds; politicians, anticipating heavy payments, did not hesitate to jump on the bandwagon, and the press saw, with each "crime," a substantial increase in sales.

To begin with, Heinrich argued, he'd never heard of ravens attacking livestock: they don't approach cadavers that are still moving. At a pinch ravens can eat dead lambs just after birth. But in New England, cows and sheep give birth to their young in stables, such that the ravens cannot be blamed for all the animals that die during farrowing. Now, in this region of Germany, the livestock are left outside all year, including during the birthing periods. Heinrich obtained the support of ecologists, who exerted pressure on the government in favor of requiring autopsies before paying compensation. The results of these autopsies will be definitive: all the animals attacked by the ravens were already dead, for other identifiable causes, before the birds stepped in. These deaths were also, beyond that, much more numerous among negligent landowners. In the light of proof, the number of crimes suddenly plummeted in a dramatic manner; the compensation, which had become pointless, was suspended and the livestock were better kept. The ravens had been exonerated; the truce could once again be respected. The German ravens had in their turn succeeded in recruiting the representative of the American ravens; and he was able to recruit ecologists, who in their turn mobilized experts and politicians, who themselves modified the habits of the owners of the cows and sheep.

The recruitment does not stop there. Heinrich will continue to enroll other humans around his ravens, in drawing this time on particular talents of these birds: in certain circumstances and in certain regions, they can achieve amazing interspecific recruitments. And inasmuch as it is a prophecy that serves as a guiding thread for my story, it is the wolf that I will ask to bear witness to a last version of this achievement. Isaiah's bet would certainly have been less risky if in the place of proposing it to the sheep he had instead addressed it to the ravens to put the wolf to the test in terms of peaceful cohabitation.<sup>7</sup>

Wolf observers, Heinrich remarks, take the presence of ravens so much for granted that

none of them has posed the question of understanding the nature of the bond that ties them to the wolves. Heinrich will seek out those of his colleagues who study wolves in Yellowstone National Park. What is the motive for this surprising association between ravens and wolves? How does this so-called peaceful cohabitation between them play a role in their achievement? Are the ravens of Yellowstone different from the Maine ravens owing to the fact that they live with wolves? The researchers accept the recruitment and the programs of research are launched. The information collected is astonishing: the Yellowstone ravens conform to the hypotheses that had to be abandoned for the Maine ravens! The rules that guided the behaviors and the motives for recruitment in Maine do not apply in Yellowstone. The presence of the wolves transformed the ravens. While in Maine, except in particular circumstances or exceptional bravery, ravens are always hesitant around a carcass and take many precautions; those in Yellowstone, when they are in the presence of wolves, do not demonstrate any timidity and do not hesitate a second before eating. Not only do they not fear the wolves - who are of an exemplary patience with the most mischievous ravens who, with bravery, come to bite them on the tail - but when the wolves are there they are no longer afraid of anything! The wolves allow the ravens to conquer their fear in the presence of large items of food, such as the carcasses of large animals; they changed the constraints that hold sway over the habits of the ravens.

Better still, it seems that the ravens rely on the wolves and seek their company in order to eat. Dan Stahler, the Yellowstone colleague recruited for these observations, put this hypothesis to the test: he left deer carcasses out in the open in places where he had previously seen ravens join wolves just at the end of a hunt. When the wolves did not find the carcass, then either the ravens did not come, or they came, but did not touch it and left straight away. Besides, when a raven finds a carcass that is not open, and therefore inaccessible for it, it calls: in a few minutes the one who was recruited – the wolf – generally appears and opens the prey for it, from which it immediately takes its share of the benefits. But that is not the only benefit of this exchange of good conduct for the wolves. It seems that the ravens are much more alert and vigilant than the wolves. One can relatively easily approach a wolf without it responding, something which is never the case for the raven: they sound the alarm at the slightest noise. Ravens assume with wolves the role that the Viking gods accorded to them; they spy and surveil to the ends of the earth and report everything to those who sent them. One can hide nothing from them, "the birds serve the wolves as extra eyes and ears" (Heinrich, *Mind of the Raven* 238).

The prophecy, translated in terms of recruitment, takes an amazing turn: of course wolves live with ravens and even eat with them. And, certainly, the scientists who specialize in wolves now work with those who specialize in ravens: the recruitment of wolves by the ravens extends to the recruitment of their

spokespeople. But who could have thought, if not no doubt a descendant of La Fontaine, that it is the ravens who protect the wolves and permit them to eat with their eves closed?



# disclosure statement

No potential conflict of interest was reported by the author.

#### notes

Translated from Vinciane Despret, Quand le loup habitera avec l'agneau © Editions du Seuil/Les Empêcheurs de penser en rond, 2002, 207–34.

I The French term *dispositif* has an important specificity that has caused difficulties in prior translation and in capturing the range of meanings that it covers (including technical, military, legal, and ontological/arrangement dimensions). The term is at once an everyday, general term for referring to machines and devices of all kinds (such as cameras and pencil sharpeners but also airplanes) and it is a philosophical concept that has been drawn upon by Gilles Deleuze, Michel Foucault,

#### despret

Louis Althusser, Giorgio Agamben and many others. Owing to the technical connotations of the term, it has often been rendered as "apparatus" in English, but this presents a major problem since the French term appareil, much more closely related to "apparatus," is used as distinct from dispositif by the thinkers mentioned. Owing to the specificity of the concepts, there is an increasing use of the English term "dispositive" to capture dispositif and the distinctions from appareil. Timothy Armstrong's earlier translation of Deleuze's famous essay on Foucault's use of the concept uses "social apparatus" to distinguish it from "apparatus" and to emphasize the social and assembling dimensions. These social and assembling dimensions are particularly important to Despret's use of the concept in the philosophy of science and ethology. See Gilles Deleuze, "Qu'est-ce qu'un dispositif?" in Michel Foucault philosophe (Paris: Seuil, 1989), Giorgio Agamben, Che cos'è un dispositivo? (Rome: Nottetempo, 2006), and Jeffrey Bussolini, "What is a Dispositive?," Foucault Studies 10 (2010): 85-107. [Translator's note.]

2 Despret refers here to the canonical work in gene-centered evolutionary theory, namely Richard Dawkins' *The Selfish Gene*. [Translator's note.]

3 Vinciane Despret uses the French expression "faire connaissance" that has a range of meanings that are difficult to capture in English. "Faire connaissance" denotes getting acquainted in the sense of "meeting" or "making someone's acquaintance," and "getting to know someone," but it also literally means "making knowledge," and Despret is drawing on each of these elements here. It is rendered here as "getting to know" which has resonances of meeting, acquaintance, and friendship, but it should also be read with an emphasis on making and producing, as in "getting to" something via a process of inquiry and labor. "Faire connaissance" is closely related to her concept of politeness as an integral part of the type of research that she is describing here, exemplified by Bernd Heinrich's involvement with the ravens. [Translator's note.]

4 This story was told by the naturalist Edward Pett Thompson in 1851, in *Passions of Animals*. A monkey in Thalassery, from whom some crows were regularly stealing food from its plate on the ground while the monkey was on the top of a climbing pole, once feigned to be sick and laid on the ground. When the crows, deceived by its apparent state of agony, went to take the food the monkey suddenly jumped, took one of them, trapped it, and plucked it vigorously.

5 I borrow this definition "of the work of a scientist worthy of the name" from Isabelle Stengers, Introduction to Nathan, *Nous ne sommes pas seuls au monde*.

6 For each of these passages, the emphasis is the author's.

7 The Book of Isaiah 11.6 emphasizes interspecific relationships in its "The wolf will live with the lamb, and the leopard will lie down with the goat. The calf, the young lion, and the fatling will be together, and a child will lead them." Holman Christian Standard Bible (http://biblehub.com/isaiah/11-6.htm). [Translator's note.]

# bibliography

Chauvin, Rémy, and Bernadette Chauvin. Le Modèle Animal. Paris: Hachette, 1982. Print.

Dawkins, Richard. *The Selfish Gene*. Oxford: Oxford UP, 1976. Print.

Detienne, Marcel, and Jean-Pierre Vernant. *Cunning Intelligence in Greek Culture and Society*. Trans. Janet Lloyd. Chicago: U of Chicago P, 1991. Print.

Detienne, Marcel, and Jean-Pierre Vernant. Les Ruses de l'intelligence. La Mètis des Grecs. Paris: Flammarion, 1974. Print.

Heinrich, Bernd. *Mind of the Raven*. New York: HarperCollins, 2000. Print.

Heinrich, Bernd. Ravens in Winter. New York: Vintage, 1991. Print.

Nathan, Tobie. Nous ne sommes pas seuls au monde. Paris: Les Empêcheurs de penser en rond, 2001. Print.

Thompson, Edward Pett. Passions of Animals. London: Chapman, 1891. Web. Vinciane Despret Philosophie et Lettres Université de Liège 4000 Liège Belgium E-mail: v.despret@ulg.ac.be

Jeffrey Bussolini Sociology – Anthropology Department City University of New York 2800 Victory Boulevard Staten Island, NY 10314 USA E-mail: jbussolini@mac.com