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Distributed Morality and Technological Artifacts

Respecting Things as People

It is well-known that Immanuel Kant's categorical imperative states "*Act only on that maxim through which you can at the same time will that it should become a universal law.*"ⁱ When dealing with "The formula of the end in itself,"ⁱⁱ Kant observes that

[...] man, and in general every rational being *exists* as an end in himself and not merely as a means for arbitrary use by this or that will: he must in all his actions, whether they are directed to himself or to other rational beings, always be viewed *at the same time as an end*. [...] Beings whose existence depends, not on our will, but on nature, have none the less, if they are not rational beings, only a relative value as means and are consequently called *things*. Rational beings, on the other hand, are called *persons* because their nature already marks them out as ends in themselves – that is, as something which ought not to be used merely as a means – and consequently imposes to that extent a limit on all arbitrary treatment of them (and is an object of reverence). [...] Persons, therefore, are not merely subjective ends whose existence as an object of our actions has a value *for us*; they are *objective ends*, that is, things whose existence is in itself an end, and indeed an end such that in its place we can put no other end to which they should serve *simply* as means.ⁱⁱⁱ

Kant uses the word "end" in a very formal way, as synonymous with "dignity"; its teleological nature is, after all, not important. Kant is very clear on this point when he writes that "Teleology views nature as a kingdom of ends; ethics views a possible kingdom of ends as a kingdom of nature. In the first case the kingdom of ends is a theoretical Idea used to explain what exists. In the second case it is a practical Idea used to bring into existence what does not exist but can be made actual by our conduct – and indeed to bring it into existence in conformity with this Idea."^{iv} Hence, Kant defines the "kingdom" as a "systematic union of different rational beings under common laws."^v Kant's considerations lead us to the following practical imperative: "*Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end.*"^{vi} In the "kingdom of ends

everything has either a *price* or a *dignity*. If it has a price, something else can be put in its place as an *equivalent*; if it is exalted above all price and so admits of no equivalent, then it has a dignity.”^{vii} Things that human beings need have a “market price”; moreover, items that are merely desired rather than needed have an affective “fancy price” [*Affektionspreis*]. But “[...] that which constitutes the sole condition under which anything can be an end in itself has not merely a relative value – that is, a price – but has an intrinsic value – that is, *dignity*.”^{viii} A simple example that illuminates the Kantian perspective relates to human moral behavior and the issue of responsibility. Economists say that a decision results in a negative externality when someone other than the decision maker ends up bearing some of the decision’s cost. Responsibility is externalized when people do not take responsibility for the problems they cause and delegate finding a solution to someone who had no part in creating the trouble. When those who must deal with the consequences of the decision are not aware such a task has been delegated to them, they are treated as means. Of course, on the other hand, responsibility is internalized when people accept responsibility for the outcome of their actions. Kant’s wonderful lesson can be inverted: it is possible for things to be treated or respected in ways one usually reserves for human beings. Many things, or means, previously devoid of value, or previously valuable only in terms of their market price or affective price, can also acquire a moral status or intrinsic value. Conversely, just as things can be assigned new kinds of value, so, too can human beings, for there are moral positive aspects of treating people like things, as we shall see.^{ix}

A Profound Struggle

Anthropocentric ideas, like those that inform Kant’s imperative, have made it difficult for people to acquire moral values usually associated with things and for things to attain moral worth traditionally reserved for people. We said that, in Kantian terms, people do not have to be “treated as means (and only as means).” I propose upgrading that idea with a new one – respecting people as things in a positive sense. In this scenario, people are respected as “means” in a way that creates a virtuous circle, one in which positive moral aspects enjoyed by things can be used to reshape moral endowments attributed to things.

Attributing moral worth to things can be seen as a combination of the Kantian imperative and of John Stuart Mill’s idea of freedom: “The only

freedom which deserves the name, is that of pursuing our own good in our own way, so long as we do not attempt to deprive others of theirs, or impede their efforts to obtain it.”^x If, as Mill teaches, beings (or things, we now add) have the right to something, they are entitled not only to the goal itself but also to the unobstructed pursuit of it. When things also became regarded as entities with interests and rights of their own, the philosophical conceptual space of utilitarianism (animals suffer!) and the idea of environmental ecology were constructed. How did this happen?

A special kind of “things”, animals, has always been used to lend some aspects of their own properties and functions to human beings, for instance in biomedical research. In this field *animal models* have served to induce certain conditions in animals for deriving conclusions about some conditions in human beings. The results are achieved by exploiting analogies (for instance rats and humans are alike in various ways) rather than disanalogies. This theme is very important in philosophy of science, because modeling is widespread in scientific practice. Many epistemological problems arise, like the quest of the qualities that make an animal model valid and appropriate.^{xi} I contend that also in the area of ethics we have to look at the moral “models” that come from things, like animals and objects: as I already said, people can be respected as “means” in a way that creates a virtuous circle, one in which positive moral aspects enjoyed by things can be used to reshape moral endowments attributed to humans.

Perhaps the first “things” to gain new moral rights in western culture were women, a change that was not universally welcomed. Indeed, the ideas propagated in this direction by Mary Wollstonecraft in her 1792 treatise *A Vindication of the Rights of Women* were initially considered absurd.^{xii} This sort of ideological conflict has been played out again in the last few decades as animal rights advocates and environmental ethicists have waged a struggle similar to the one women faced in the eighteenth century – that of redefining a means as an end. To achieve that goal, some intellectuals and activists have sought to reframe how various plants, animals, ecosystems – even the land itself – are valued so that they are regarded as “ends” and accorded the rights and protection that status entails.

Endangered Species Wannabes

Delegating moral features to external things, or “non-humans,” in an ecological framework sometimes stirs up a miasma of human

dissatisfaction. Industries externalize their costs of preserving the environment on people – customers and others – who come to feel burdened, frustrated, and disrespected. Every day we see external things like a building, a cultural tradition, or a view, for instance, being endowed with economic and/or inherent moral values, but there is relatively little interest, in, say, denouncing the oppression of women or the exploitation of some people by others in work environments and in families. I think a solution to this paradox might lie in the *moral mediator*, whose role is played by external things that already enjoy both instrumental and inherent values.

How we identify and regard endangered species is an interesting case.^{xiii} Numerous species have acquired moral intrinsic values; not only they have been legally classified as endangered by legislators in many countries. According to a recent report^{xiv} of the United States Fish & Wildlife Service, there are 1,424 endangered species, both plant and animal, that are entitled to some impressive legal protection. Membership criteria for this protected group, however, have been interpreted as discriminatory and limited and groups have demanded that in turn certain people, places, and other things be considered “endangered species.” Nagle’s article describes an ontologically diverse and unbelievably long list of subjects aspiring to the title: New England fishermen, the California taxpayer, middle-class citizens, ranchers, farmers, loggers, infantrymen, corporate middle managers, manufacturing workers, private doctors, park rangers, shrimpers, peanuts, sugar, Atlantic fisheries, American-made typewriters, the maritime industry, amusement park rides, public television, old songs and stories of the Acadian community in Maine, young African-American males, free white human beings in New York, the Jordanian state, women in India, Tibetans, Democrats, family relationships, morality, “housewives and nothing more,” African-American judges in US Courts of Appeal, cultural traditions, unborn children, and so on. The list is hilarious, and it is even more surprising to learn that some of these subjects have actually been granted endangered species status in judicial opinions.

Many people have complained about disappearing wildlife receiving more moral and legal protection than disappearing cultural traditions. A relatively recent US federal statute, the Visual Artists Rights Act of 1990, appropriates the language of ecological preservation when it establishes “rights of attribution, integrity, and the prevention of

destruction of art of recognized stature for the creators of certain paintings, drawings, prints, sculptures, or photographs.”^{xv}

Such efforts to draw parallels between endangered species and other kinds of things or people attempts to validate particular reasons, to underscore their importance (mainly moral, but not only), and to obtain some sort of legal protection. Of course, the threat of extinction is the only legitimate qualification for endangered species, but it is hard to see the disappearance of typewriters as a loss for humanity. Not all things are worth saving, of course, but we have learned something new by examining how people seek to redefine as “endangered” something or someone they see as threatened.

The importance of this analogy lies in the fact that some people consider themselves endangered because they do not feel as if they are treated as well as things (means). And there are ways in which people should be considered uniquely valuable in the way we now value endangered species. Going beyond the humorous cases above, human characteristics like cognitive attitudes and the ability to intelligently manipulate the world qualify people as repositories of knowledge with the capacity to reason and work, and they must therefore be considered unique resources to be preserved and enhanced. Few agencies now undertake this protective role: while many organizations exist to protect things with informational value (many technological artefacts are knowledge carriers, laptops, books, databases, etc.), it seems no one defends people as valuable repositories and carriers of knowledge. I think this leads to a lack of sufficient acknowledgment of human dignity in our technological world.

Human and Non-Human Collectives

Humans and not-humans are inextricably intertwined: “You are different with a gun in your hand; the gun is different with you holding it.”^{xvi} We are in some sense “folded” into non-humans, so that we delegate action to external things (objects, tools, artifacts) that in turn share our human existence with us. The idea of the “collective” expresses an exchange of human and non-human properties akin to what I have just described in the case of things in search of intrinsic values: “what the modernist science warriors see as a horror to be avoided at all costs – the mixing up of objectivity and subjectivity – is for us, on the contrary, the hall mark of a civilized life.”^{xvii}

Many such examples are mentioned by Bruno Latour: using knowledge about non-humans to reconfigure people and, conversely, projecting on non-humans the properties and functions of

humankind. When considered from the ethical perspective, the first case depicts our problem of respecting people as things, while the second depicts ideas illustrated earlier in the chapter about the moral representations of non-humans: “The new hybrid remains a non-human, but not only has it lost its material and objective character, it has acquired properties of citizenship.”^{xviii} Of course, the non-moral case of endowing non-humans entities with speech, intelligence, and other human properties – things from classical media to computational tools, from paintings to artificial intelligence, from simple tools like a hammer to sophisticated machines – is related to this movement. So, too, are agriculture and the domestication of non-human animals, which involves their socialization and reeducation.

In turn, external things (electrical, transportation, and telecommunication industries, for example) have constructed new social frameworks for people, and so in the case of the many new roles delineated by factories, machines, and institutions in establishing new constraints in managing humans and in stabilizing new types of human negotiations: “It was from techniques, that is, the ability to nest several subprograms, that we learned what it means to subsist and expand, to accept a role and discharge a function.”^{xix} Tools, that have always played the role of human prostheses, become integrated into our bodies as we use them in a kind of anthropological transformation of both the individual and the collectives. This mixture between human and non-human is also expressed in human bodies that are increasingly shaped and integrated by “sociotechnical negotiations and artifacts.”

The cyclical process of transferring qualities between humans and non-humans is, of course, an inextricable part of our evolution, and consequently it requires ongoing negotiations and a continual redrawing of the lines between the two kinds of entities.

Qualities transferred from things to people and vice versa often carry troubling overtones: the idea of the person as a machine, which dates back to the nineteenth century, has a negative connotation, as does the phrase “organism’s program.” It is also said, in an ominous way, that one “deprograms” people when dissuading them from certain convictions – political or religious beliefs, for example.

Humans beings are reduced to things in all these cases, making it is easier to *treat people as means*. After all, if regarded as mere machines, people do not count very much. Often the expansion of men’s power through technology is countered by a contraction of their self-concept

when they are likened to such inventions. More knowledge is needed to overcome this situation, so that humans can be “respected” in a better way. Teasing out the meaning and significance of these complex issues is our duty, especially when dealing with problems in collective settings like work, school, and politics as well as in family arenas, where sex, children, relationships, and, as we have seen, reproduction can create challenges.

Let us illustrate some ethical issues just related to the relationship between “cognitive beings” and “cognitive things”.

Distributing Morality

I call the external objects and structures – in science – to which cognitive aspects and roles are delegated *epistemic mediators* – a blackboard with a diagram, for example. In a recent book on creative reasoning, I have just described epistemic mediators not only as external objects and structures but also as human organizations – in this case, viewed as distributors of externalized cognitive potentialities.^{xx} Cognitive mediators function as enormous new external sources of information and knowledge, and, therefore, they offer ways of managing objects and information that cannot be immediately represented or found internally using only “mental” resources. Analyzing these external structures is especially important in clarifying the role of media and of computational and information techniques. Epistemic mediators also help to organize social and cognitive decisions made in academic settings: examples of epistemic mediators are for instance artifacts in a scientific laboratory (a telescope or a magnetic resonance imaging machine) but also the organized collective of scientists itself, that is characterized by a specific distribution of cognitive roles, skills, and duties.

I think the best approach to studying these problems is to use what I called *computational philosophy*.^{xxi} The advent of certain machines and various rational methods and models brought about a computational turn in the last century, and this shift has revealed new ways to increase knowledge by embedding it in scientific and technological environments and by reshaping its major traditional topics. Just to make an example, the role of PCs and Internet in improving scientific research is very clear. In the new century, computational philosophy will allow an analysis of problems in recent logical, epistemological, and cognitive aspects of modeling activities employed in scientific and

technological discovery. Computational philosophy supplies modern tools (new concepts, methods, computational programs and devices, logical models, etc.) to reframe many kinds of cultural (philosophical, ethical, artistic, etc.) knowledge that would remain inaccessible using old approaches, just mainly centered on the exploitation of mere “narratives”.

It is in this intellectual light that I introduce the concept of the *moral mediator*. Moral mediators play an important role in reshaping the ethical worth of human beings and collectives and, at the same time, facilitate a continuous reconfiguration of social orders geared toward rebuilding new moral perspectives. To make an example, thinking in terms of cognitive capacities, a human being can be considered a kind of “thing” that can incorporate information, knowledge, know-how, cultural tradition, etc., just as cognitive objects like a book, a PC, or a work of art do. Unfortunately, human beings are sometimes assigned less value than things. Consider, for example, the life of a typical library book: depending on its age and value (not only instrumental and economic), librarians record its circulation, monitor its condition, repair it when needed, and replace it when necessary; books in wealthy countries are generally guaranteed such treatment. But the same care is not extended to many people who are carriers of the same knowledge one might find in the book described above or in other external objects like databases. Unfortunately, the cognitive content and skill of human beings are not always given the same rights and moral values as a book or a database. There are no precise moral (and/or legal) rules that enjoin us to tend to the cognitive skills of human beings or the information they carry as we care for external objects and configurations endowed with cognitive worth. A book or a database can play the role of moral mediators.^{xxiii}

Templates of Moral Doing

It is difficult to establish an exhaustive list of invariant behaviors that can be considered ethical manipulative reasoning. As illustrated above, expertly manipulating non-human objects in real or artificial environments requires old and new *templates* of behavior that are repeated at least somewhat regularly. Only exceptionally we are referring here to action that simply follows articulated, previously established plans; at issue are embodied, implicit patterns of behavior that I call tacit templates. This variety of “hidden” moral activity is still conjectural: these templates are embedded moral hypotheses that

inform both new and routine behaviors, and, as such, enable a kind of moral “doing.” In some situations, templates of action can be *selected* from those already stored in the mind-body system, as when a young boy notices his baby sister crying and, without thinking, automatically tries to comfort the infant by stroking her head or singing a lullaby as he has seen his parents do many times. In other instances, new templates must be *created* in order to achieve certain moral outcomes. Such newly forged behavior patterns are, as we will see, important components of the concept of knowledge as a duty. New challenges require new templates and in this book we have illustrated many new challenges generated for example by the technological products.

The following tacit templates of moral behavior present interesting features:

1. sensitivity to *curious or anomalous aspects* of the moral situation. In this case manipulations are performed to reveal potential inconsistencies in received knowledge, as when we suddenly adopt a different embodied attitude toward our spouses to elicit a reaction that confirms or discounts hypotheses about their feelings or to develop new hypotheses about the relationships. This might be the case when a man becomes more aggressive to check his wife’s tolerance and caring for him. Or when investigating a crime, detectives spontaneously further investigate the evidence to get more interesting data to build a moral data shape of the suspect;
2. preliminary sensitivity to *dynamical character* of the moral situation, and not only to entities and their properties. A common aim of manipulations is to practically reorder the dynamic sequence of the events and of the human relationships associated with the moral problem in order to find new options for action. An example might be a woman who, having decided to have an abortion, then spontaneously tries to modify the dynamical aspects of both her behavior and her relationships in hopes of to try to establish new perspectives helping her to envisage a possible decision different from the first one first envisaged. She is unconsciously changing her behavior in hopes of making herself decide against the abortion;
3. referral to manipulations that exploit *artificial created environments and externally induced feelings* to free new possibly stable and repeatable sources of information about hidden moral knowledge and constraints. This template feature is apparent, say, in a discussion of

the moral problem of capital punishment when we exploit resources like statistics, scientific research, or information from interviews to gather real rather than faulty information, like the one about the genuine relief the murder victim's relatives feel when the criminal is killed. In this way a new configuration of the social orders of the affected groups of people is achieved;^{xxiii}

4. various contingent ways of spontaneous moral acting. This case contemplates a cluster of very common moral templates. A person will automatically look at issues from different perspectives; *assess* available information; *compare* events; *test, choose, discard* and *imaging* additional manipulations; and implicitly *evaluate* possible *new orders* and *relationships* (for instance simpler orders, to facilitate analogies or comparisons). These strategies are all useful ways to get suitable evidence to test previously established moral judgments also through stimulating the derivation of significant consequences of those judgments;^{xxiv}

More features of our tacit templates are related to the following additional issues:

5. spontaneous moral action that can be useful in presence of *incomplete or inconsistent information* or a *diminished capacity to act morally* upon the world. Such action works on more than just a "perceptual" level – it is also used to get additional data that restores coherence and/or improves deficient knowledge;

6. *action as a control of sense data* illustrates how we can change the position of our bodies (and/or of the external objects) to reconfigure social orders and collective relationships; it also shows how to exploit artificially created events to get various new kinds of stimulation. Action of this kind provides otherwise unavailable tactile, visual, kinesthetic, sentimental, emotional, and bodily information that, for example, helps us take care of other people (cf. below in the following subsection);

7. action enables us to build new *external artifactual models* of ethical mechanisms and structures (through "institutions," for example) to substitute for the corresponding "real" and "natural" ones. (Keep in mind, of course, that these "real" and "natural" structures are also artificial – our cultural concept of "family" is not a natural institution.) For instance, we can replace the "natural" structure "family" with an environment better suited for an agent's moral needs, which occurs

when, say, we remove a child from the care of abusive family members. In such a case we are exploiting the power of a *artificial* “house” to reconfigure relationships. A different setting – a new but still artificial framework – facilitates the child’s recovery and allows him or her to rebuild moral perceptions damaged by the abuse. A similar effect occurs when people with addiction problems move into group homes where they receive treatment and support. An even simpler example might be the external structures we commonly use to facilitate good manners and behavior: fences, the numbers we take while waiting at a bakery, rope-and-stanchion barriers that keep lines of people in order, etc.

Of course many of the actions that are entertained to build the artifactual models above are not tacit, but explicitly projected and planned. However, imagine the people that first created these artifacts (for instance the founders of the group houses for addicted people), it is not unlikely that they created them simply and mainly “through doing” (creation of new tacit templates of moral actions) and not by following already well-established projects. Many of the actions which are performed to build technological artifacts and machines endowed with moral delegations (moral mediators) are of this type.

Moral Agents, Moral Patients, and Moral Mediators

Technological artifacts and machines are designed, produced, distributed, and understood in the human world; they are strictly intertwined with the social interactions of humans: technology affects what people do and how they do it. For example computers possess moral agency because they 1. have a kind of intentionality and 2. can have effects on the so-called “moral patients” (see below), that is they can harm or improve the interests of beings capable of having their interests impeded or furthered:

Artifacts are intentional insofar as they are poised to behave in a certain way when given input of a particular kind. The artifact designer has a complex role here for while the designer’s intentions are in the artifacts, the functionality of the artifact often goes well beyond what the designer anticipated or envisaged. Both inputs from users and outputs of the artifacts can be unanticipated, unforeseen, and harmful.^{xxv}

Some ethicists maintain that entities can be framed as moral *patients* and as moral *agents*. Not only human beings but also things can be

conceived of as moral patients (as entities that can be acted upon for good and evil) and also as moral agents (as entities that can perform actions and are sources of moral action, again for good or evil). I think the more extended concept of “moral mediator” can better encompass and explain the issues above: the moral patients and moral agents are special cases of moral mediators.

The considerations in the previous subsection indicate the fact that a significant portion of manipulations is also devoted to building a vast new source of information and knowledge: external *moral mediators*. I have derived this expression from “epistemic mediators,” a phrase I introduced in a previous book,^{xxvi} which consist of external representations, objects, and artifacts that are relevant in scientific discovery and reasoning processes. As I have already illustrated moral mediators represent a kind of redistribution of the moral effort through managing objects and information in such a way that we can overcome the poverty and the unsatisfactory character of the moral options immediately represented or found internally (for example principles, prototypes, etc.). I also think that the analysis of moral mediators can help accounting for the mechanisms of the “macroscopic and growing phenomenon of global moral actions and collective responsibilities resulting from the ‘invisible hand’ of systemic interactions among several agents at local level”.^{xxvii}

More than just a way to move the world toward desirable goals, action also serves a moral role: we have said that when people do not have adequate information or lack the capacity to act morally upon the world, they can restructure their worlds in order to simplify and solve moral tasks. Moral mediators are also used to elicit latent constraints in the human-environment system. The links discovered grant us access to precious new ethical information. For instance, let us imagine a wife whose work requires long hours away from her husband, and her frequent absences cause conflict in their relationship. She then spontaneously begins to spend more quality time with her spouse in an attempt to save their marriage. The mediating effect of her spontaneous action can cause variables affected by “unexpected” and “positive” events in the relationship to covary with informative, sentimental, sexual, emotional, and, generally speaking, bodily variables. There was no discernible connection between these hidden and overt variables before the couple adopted a reconfigured “social” order – that is, increased time together – and uncovering such links reveals important new information, which, in our example, might

be renovated and unexpected sexual pleasure, astonishing intellectual agreement, or surprising identical emotional concerns on specific matters.

Natural phenomena can also serve as external artifactual moral mediators: when in previous chapters we considered the problem of “respecting people as things,” we were referring to the ability of external “natural” objects to create opportunities for new ethical knowledge, as in the case of endangered species: we have learned something new by examining how people seek to redefine themselves as “endangered”.^{xxviii} Many external things that have been traditionally considered morally inert can be transformed into moral mediators. For example, we can use animals to identify previously unrecognized moral features of human beings or other living creatures, as we can do with the earth, or (non natural) cultural entities; we can also use external “tools” like writing, narrative, ritual, and various kinds of pertinent institutions to reconfigure unsatisfactory social orders. Hence, not all moral tools are inside the head – many are shared and distributed in external objects and structures that function as ethical devices.

External moral mediators function as components of a memory system that crosses the boundary between person and environment. For example, they are able to transform the tasks involved in simple manipulations that promote further moral inferences at the level of model-based abduction.^{xxix} When an abused child is moved to a house to reconfigure her social relationships this new moral mediator can help her to experience new model-based inferences – new model-based cognitive hypotheses - (for instance new emotions concerning adults and new imageries about her past abuse).

Moreover, I can alter my bodily experience of pain through action by following the template *control of sense data*, as we previously outlined, that is through shifting – unconsciously – the position of my body and changing its relationships with other humans and non-humans experiencing distress. Mother Theresa’s personal moral rich feeling and consideration of pain had been certainly shaped by her closeness to starving and miserable people and by her manipulation of their bodies. In many people, moral training is often related to these kinds of spontaneous (and “lucky”) manipulations of their own bodies and sense data so that they build morality immediately and non-reflectively “through doing.”

Throughout history, women have traditionally been thought to place more value on personal relationships than men do, and they have

been generally regarded as more adept in situations requiring intimacy and caring. It would seem that women's basic moral orientation emphasizes taking care of both people and external things through personal, particular acts rather than relating to others through an abstract, general concern about humanity. The ethics of care does not consider the abstract "obligation" as essential; moreover, it does not require that we impartially promote the interests of everyone alike. Rather, it focuses on small-scale relationships with people and external objects, so that, for example, it is not important to "think" of helping disadvantaged children all over the world (like men aim at doing) but to "do" so when called to do so, everywhere.^{xxx}

My philosophical and cognitive approach to moral model-based thinking and of morality "through doing" does not mean that this so-called female attitude, being more closely related to emotion, should be considered less deontological or less rational and therefore a lower form of moral expression. I contend that many of us can become more intuitive, loving parents and, in certain situations, learn to privilege the "taking care" of our children by educating our feelings – maybe by heeding "Kantian" rules.^{xxxi} The route from reason to feeling (and, of course, from feeling to reason) is continuous in ethics. Many people are suspicious of moral emotional evaluations because emotions are vulnerable to personal and contextual attributes. Nevertheless, there are moral circumstances that require at least partially emotional evaluations, which become particularly useful when combined with intellectual (Kantian) aspects of morality.

Consequently, "taking care" is an important way to look at people and objects and, as a form of morality accomplished "through doing," achieves status as a fundamental kind of moral inference and knowledge. Respecting people as things is a natural extension of the ethics of care; a person who treats "non-human" household objects with solicitude, for example, is more likely to be seen as someone who will treat human beings in a similarly conscientious fashion. Consequently, even a lowly kitchen vase can be considered a moral mediator in the sense I give to this cognitive concept.

When I clean my computer, I am caring for it because of its economical and worth and its value as a tool for other humans. When, on the other hand, I use my computer as an epistemic or cognitive mediator for my research or didactic activities, I am considering its intellectual prosthetic worth. To make a case for respecting people as we respect computers, we can call attention to the values human beings have in

common with these machines: 1) humans beings are – biological – “tools” with economic and instrumental value, and as such, can be “used” to teach and inform others much the way we use hardware and software, so humans are instrumentally precious for other humans in sharing skills of various kinds; and 2) like computers, people are skillful problem solvers imbued with the moral and intrinsic worth of cognition.

Conclusion

The main thesis of this paper is that in recent times, non-human beings, objects, and structures like technological artifacts and machines have acquired new moral worth and intrinsic values. Kantian tradition in ethics teaches that human beings do not have to be treated solely as “means”, or as “things”, that is in a merely instrumental way, but also have to be treated as “ends”. I contend that human beings can be treated as “things” in the sense that they have to be “respected” as things are sometimes. people have to reclaim instrumental and moral values already enjoyed by external things and objects. this is central to the aim of reconfiguring human dignity in our technological world. Aiming at illustrating the intrigue of this ethical struggle between human beings and things I have discussed the role of objects, structures, and technological artifacts by presenting them as *moral carriers* and *mediators*. I maintain this perspective can be very fruitful to approach many other problems related to the relationships between machines and ethics.

REFERENCES

- Carse, Alisa L., “Facing up to moral perils: the virtue of care in bioethics” (1996) in *A Health Law Reader. An Interdisciplinary Approach*, ed. by Robinson, John H., Berry, Roberta M., and McDonnell, Kevin, (Durham, Carolina Academic Press, 1999), pp. 51-59.
- Kant, Immanuel, *Groundwork of the Metaphysics of Morals* [3d ed.] (New York: Harper & Row) reprint of the 1956 edited and translated by H.J. Paton (London, Hutchinson & Co., Ltd., third edition, 1964); originally published 1785.

- Knorr Cetina, Karin, *Epistemic Cultures. How the Sciences Make Knowledge* (Cambridge, MA: Harvard University Press, 1999).
- Johnson, Deborah G, Integrating ethics and technology, European Conference Computing and Philosophy (E-CAP2004_ITALY), Abstract (Pavia, June 2-5, 2004, Italy).
- Latour, Bruno, *Pandora's Hope* (Harvard University Press, Cambridge, MA).
- Mill, John Stuart, *On Liberty* (1859), in: J.S. Mill, *On Liberty, Representative Government, The Subjection of Women* (Oxford: Oxford University Press, 1966) twelfth edition, pp. 5-141.
- Magnani, Lorenzo, *Ingegnerie della conoscenza. Introduzione alla filosofia computazionale* (Milan: Marcos y Marcos, 1977).
- Magnani, Lorenzo, *Abduction, Reason, and Science. Processes of Discovery and Explanation* (New York: Kluwer Academic/Plenum Publishers, 2001).
- Magnani, Lorenzo, and Dossena, Riccardo, "Perceiving the infinite and the infinitesimal world in mathematics: unveiling and optical diagrams", *Foundations of science*, forthcoming.
- Nagle, John C., "Endangered species wannabees", *Seton Hall Law Review* 29 (1998), 235-255.
- Shelley, Cameron, Disanalogies and the validity of animal models, International Conference Model Based Reasoning in Science and Engineering (MBR04), Abstract, Pavia, December, 16-18, 2004, Italy.
- Singer, Peter, "All animals are equal", *Philosophic Exchange* 1(5) (1974), 243-257.
- Urban Walker, Margaret, Feminist skepticism, authority and transparency, in *Moral Knowledge? New Readings in Moral Epistemology*, ed. by Sinnott-Armstrong, Walter and Timmons, Mark, eds. (Oxford: Oxford University Press, 1996), pp. 267-292.

ENDNOTES

ⁱ Kant, 1964, p. 88.

ⁱⁱ Cit., pp. 95-98.

iii Cit., pp. 95-96.

iv Cit., p., 104.

v *Ibid.*

vi Cit., p. 96.

vii Cit., p. 102.

viii *Ibid.*

ix To further clarify my concern about the moral relationships between “people” and “things” cf. below section 4 “Distributing Morality”.

x Mill, 1966, p. 18.

xi Shelley, 2004.

xii Singer, 1974.

xiii Nagle, 1998.

xiv <<http://www.fws.gov/r9endspp/boxscore.html>>.

xv Nagle, 1998, p. 249.

xvi Latour, 1999, p. 179.

xvii Cit., p. 200.

xviii Cit., p. 202.

xix Cit., p. 209.

xx Magnani, 2001a.

xxi Magnani, 1997.

xxii Many ethicists believe it is only the ability to experience pain and pleasure that makes a being worthy of moral consideration. I think also cognitive aspects are important.

xxiii On the reconfiguration of social orders that is realized in science (laboratories), cf. Knorr Cetina, 1999.

xxiv Analogues of all these manipulative templates are active in epistemic settings: cf. Magnani, 2001a and Magnani, Piazza, and Dossena, 2002.

xxv Johnson, 2004

xxvi Magnani, 2001, chapter three.

xxvii Floridi and Sanders, 2003.

xxviii Cf. above, section 1..

xxix I introduced the concept of model-based abduction in (Magnani, 2001). The term “model-based reasoning” is used to indicate the construction and manipulation of various kinds of representations, not mainly sentential and/or formal, but mental and/or related to external mediators. Obvious examples of model-based reasoning are constructing and manipulating visual representations, thought

experiment, analogical reasoning, but also emotional feeling. Of course abductive reasoning - which is reasoning to hypotheses - can be performed in a model-based way, internally or with the help of external mediators. In this case I am referring to an activity of producing “moral” hypotheses in an abductive model-based way.

^{xxx} Moreover, both feminist skepticism in ethics and the so-called “expressive-collaborative model” of morality look at moral life as “a continuing negotiation *among* people, a socially situated practice of *mutually* allotting, assuming, or deflecting responsibilities of important kinds, and understanding the implications of doing so” (Urban Walker, 1996, p. 276). Of course, this idea is contrasted with the so-called “theoretical-juridical conception of morality.”

^{xxxi} The role of ethics of care in bioethics is illustrated in Carse, 1999.