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Moral Particularism and Space Exploration

Lucian MOCREI REBREAN¹

Abstract

Through human exploration the extraterrestrial space becomes more and more the subject of an anthropological debate. Regarding the rationality of moral actions related to space exploration, the purpose of this article is to compare two moral approaches: generalism and particularism. Moral generalism claims that the rational authority of morality is founded on the affirmation that a moral principle exists in order to ensure that a moral reason in a particular case is automatically a reason in all future particular cases. If its mere application determines the moral statute of any conceivable action then it should be capable of functioning as an action guide in any new case. Unfortunately, ethical-regulative presumptions cannot explain the moral statute of any new action and especially cannot provide guidance in exceptional cases. This is precisely the peculiarity of the action of exploring. Instead, ethical particularism provides us with an alternative epistemological position: instead of conforming to a series of principles, our actions are justified by those moral aspects of a situation which are self-evident, aspects which do not possess the same moral importance in each new situation that may arise. Because of the multitude of morally relevant aspects of environmental action, in order to tackle complicated or completely new ethical issues we are more in need of actual moral discernment than of ethical-regulative presumptions. This kind of approach is more adapted to the extremely complex and unpredictable (from a normative and evaluative standpoint) character of the exploration and exploitation of outer space.

Keywords: *extraterrestrial environment, ethical generalism, ethical particularism, moral action, rationality.*

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1. Introduction

In the area of environmental ethics debate, deontological theories have advantages and disadvantages. Once the value of the environment considered as a whole is accepted, ecosystems can no longer be treated as mere resources. Long term human interest in preserving nature does not rely solely on its economic, aesthetic and spiritual value but coincides widely with that of the particular ecosystem they are part of. Accepting that no axiological border can be traced in our favor between that which is purely human and that which is natural, human egoism can become, as Rolston says, “ecoism” [1]. This brings their main advantage, which is flexibility: once declared on an ethical level, our obligations towards nature can be conjugated with other reasons of human action in real life. The acknowledgement of its systemic natural value involves human duties and obligations in preserving it but does not exclude a degree of instrumentalization of its component parts as long as the integrity of the ensemble is not threatened [2]. The main disadvantage is the following: because of the fact that it is difficult to derive strict moral duties directly from the acknowledgement of natural values, neither the coerciveness of advocating a certain good or the prevention of an evil does sufficiently result. Therefore, they are relatively easy to topple in practice. Moreover, if our understanding of ethical duties towards the environment is taken to the absolute, then its principles cannot access that deliberative dialectics which constitutes a vital aspect of our real moral life. If two opposing principles of acting within the environment are in conflict even if only in one case then one of them should be abandoned.

2. Theoretical Background

Regarding the rights and immediate duties towards natural world, space exploration is a new field of opportunity in expressing an environmental ethic because human action extends more and more within an entirely new environment, namely extraterrestrial space. In this concern, we observe that human action within any environment can have many relevant moral aspects, some in favor of its correctness and some against it. There are two different ways of making moral action intelligible: by subsuming them to prior generalizations, in the manner of the natural sciences, or by always placing them in the context of a series of for and against rational considerations.

From an ethical generalist standpoint, related to difficult particular cases, absolute principles of moral action cannot alternatively show us how matters should be from one standpoint or another. Ethical generalism demands identity: one and the same consideration is functioning case after case, tending to specify the same invariable reasons [3]. The problem is it ignores the fact that when we choose to act, many situational properties or particular aspects can be relevant from a moral point of view.

Alternatively, regarding the rationality of our moral actions, moral particularism stands on the observation that our effective decisions do not depend so much on the existence of a sufficient supply of universal principles for us to apply [4] because we arrive at them rather in a spontaneous and intuitive way than in an algorithmic manner.

3. Argument of the paper

Space exploration is unpredictable. In order to solve complicated or completely new ethical issues, we are in more need of actual discernment than of ethical-regulative presumptions [5]. This affirmation is founded on the following finding related to the rational authority of morality: a moral principle is that law which assures us that that which constitutes a reason in a particular case is automatically a reason in all or the majority of future particular cases.

If its mere application determines the moral statute of any conceivable action, then it should be able to function as a guide for action in any new case [6]. Unfortunately ethical-regulative presumptions cannot explain the moral statute of any human action by themselves and, more importantly, cannot provide guidance in exceptional cases. This is precisely the nature of exploration.

Because of this, when it comes to human activities which take place in the unknown of space, classic standards of moral action are not sufficient. The mere observation of a series of eco-ethical principles [7] cannot generate normative and explicative reasons capable, presumably, of justifying and explaining all actions, states of fact, events and present and future attitudes vis-à-vis the extraterrestrial environment.

Once we become aware of the plurality of the relevant moral considerations that can compete in determining the moral statute of existing or possible situations in the field of the exploration and exploitation of space it is preferable to deliberate using *contributive reasons* [8].

4. Arguments to support the thesis

Considering that nonhuman nature deserves our respect in the most absolute way, we could not legitimately make use of its resources as we would affect its integrity. A more nuanced moral approach is then necessary, in which deontology can be found together with other moral reasons of human action in space environment.

We are taking moral particularism into consideration not as a meta-ethical thesis but as an epistemological position which offers a direct challenge to the classical vision according to which the rationality of our moral practice is threatened if the latter is not founded on the unconditional application of a series of absolute and invariable moral principles [9].

The particularistic vision is founded on the observation that the field of moral rationality is not only a contemplative one, a simple setting where thought must justify action. To effectively morally discern means to be intimately connected to the world in which both human thought and action take place. In order to bring into the light the multiple morally relevant aspects which characterize it, instead of conforming to a single principle, particularists maintain that actions are justified by those moral aspects of a situation that make themselves conspicuous. These aspects do not have the same moral importance in each new possible situation that may arise [10].

This kind of approach is more adapted to the extremely complex and unpredictable character of exploring and exploiting outer space, firstly because the multitude of relevant moral aspects of environmental action is irreducible and secondly because ethical-regulative presumptions cannot guide us in exceptional cases.

Even if, following the ecological principles of respect and preservation, we had enough normative reasons to choose a certain course of action, we could be confronted with stronger opposing instrumental reasons. Depending on their moral gravity, considerations opposing one another can constitute reasons for or against depending on different sets of circumstances [11].

There are, for example, with regard to the concrete question of whether the exploitation of the extraterrestrial environment is morally permissible or not, environmentally centered or anthropocentric arguments. A restriction or even a prohibition of exploiting the orbital terrestrial environment based only on the acceptance of the fact that the integrity of its lifeless nature is worthy of moral concern seems completely implausible.

On the other hand, reaffirming the fact that, in relation with the environment, only the interests of rational human beings matter, would cause an ecological debate on the natural values of the extraterrestrial

environment to fall completely under the jurisdiction of exclusively human concepts such as rights, duties and rational agency.

5. Arguments to argue the thesis

Regarding the act of moral deliberation: even if we accept in principle that various reasons can have variable relevance, the correctness of an action can only be determined by actually weighing their specific contributions. In this regard, the mere conservation of natural sites out of scientific reasons or for the protection of potential economic resources is much easier to sustain than the preservation of extraterrestrial environments as bearers of intrinsic values.

Introducing an ethics that can pay attention to the morphological identity or to the landscape aspects of a certain planet is difficult because of the fact that planetary exploration is presently centered on the discovery of extraterrestrial life starting from identifying the presence of factors that might favor its existence [12]. The debate on the intrinsic value of a series of possible extraterrestrial organisms raises ethical problems of such complexity that an ethical justification of preserving abiological values is automatically pushed into the background [13].

6. Dismantling the arguments against

Despite this, the natural items encountered until now by exploring the Solar System are exclusively lifeless. Milligan introduces the concept of *contributive reasons* in an ethical debate on future extraterrestrial mining activities[14]. He suggests that one of the possible contributive reasons in favor of protecting this kind of natural value is that it deserves respect and preservation because it satisfies the criterion of *natural integrity* introduced by Rolston.

Planetary protection, is presently confined to implementing a set of methods in order to protect other planets, moons and asteroids from contamination with terrestrial biological matter [15]. It expresses the preoccupation for protecting environments still untouched by man in which indigenous life may thrive or to preserve *in situ* evidence regarding cosmological evolution. Such extraterrestrial environments must be conserved in order to avoid compromising present or future research.

From an environmental perspective this concept of protection is a restrictive one for two reasons. Firstly because, in a more ecologically inclusive definition, a planetary environment does not only include the

planet by itself but also its satellites and orbital surroundings [16] and secondly because it does not take into consideration the non-instrumental value of geomorphologic particularities of celestial bodies which may be threatened during exploration activities, in the extraction of resources and in future space tourism activities. In this sense, because the law of space is poor in relevant ethical considerations, the concept of planetary protection should be extended beyond the prevention of biological contamination of other planetary bodies, or the contamination of Earth with extraterrestrial matter [17]. Its abiological values, mostly of geophysical nature, can also be taken into ethical consideration.

On the acknowledgement of the irreducible noninstrumental value of the entire nonhuman world, starting with its inorganic entities, is founded a key concept previously mentioned, that of *natural integrity*. Ecologic responsibility towards extraterrestrial ecosystems currently explored, at present insufficiently convincingly derived from the mere possibility of the existence of life, can be more firmly based on the affirmation that a planet, asteroid or comet have value as natural systems, regardless if they host life or not.

From an environmental ethics perspective, planetary systems are particular environments that respect the criteria of natural integrity. This new kind of genuine natural landscapes, unchanged over billions of years, could be irreversibly affected by humans direct or indirect actions. If their contemplation awakens our respect and admiration it is because they are bearers of the following associated values: complexity, inorganic fertility, rarity, cosmological-historic meaningfulness and content of scientifically relevant information, potential for development, structural stability and aesthetic value [18].

Starting from this premises, when taking into account their geophysical heterogeneity (deserts, volcanoes, ice caps, canyons, impact craters etc.), once the cardinal value of the integrity of the system is acknowledged, the criteria above can be used to identify those particular natural values we need to protect. These specific natural items are the final results of cosmic evolutions that individualized each and every one of them. Examples of such natural values are: the Martian polar caps for the possibility of harboring life, the Valles Marineris, the blue dunes and other natural beauty sites sprinkled in the wilderness of Martian surface for their aesthetic value, Olympus Mons because of uniqueness in the Solar System for its cosmological history, etc. These kind of natural extraterrestrial sites have objective attributes to which the informed moral agent tends to react instinctively with respect.

A selective protection would demand the progressive examination of all planetary environments of the Solar System both according to the

criterion of projective integrity. If we take this into account along with an assessment of the site's ecological sensibility to human interference we have the premises for a moral particularistic approach regarding the exploration of planetary environments. In conclusion, if the necessary and sufficient conditions for a celestial body to satisfy the criterion of integrity can be defined, then, as Milligan says, the concept can be engaged in an ethical debate on the regulative practices necessary to protect the environment in exploration and exploitation activities outside Earth.

7. Conclusions

An exploration ethic that operates with contributive reasons is more flexible, more sensible to a context which, because it has a radically new character, ethical principles cannot effectively anticipate.

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