

**USAMVB TIMISOARA ROMANIA
FACULTY OF AGRICULTURE
MASTER FIRST YEAR
ADMINISTRATION OF ENVIROMENT AND NATURAL RESOUCES**

**ENVN FRANCE
NATIONAL VET-SCHOOL OF NANTES
FIRST YEAR**



ETHICS IN OUR UNIVERSITIES

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**STUDENTS: ALOISIA ARDELEAN-ROMANIA
DANIELA NICOLETA BÎTEA- ROMANIA
VIRGINIE BLETTERY-FRANCE
MARLEEN BRUGGINK-FRANCE**

*Nous tenons à remercier sincèrement Jean-Marc Frasin et Gabriel
Arsene pour l'organisation de ce projet interculturel..
Merci pour votre gentillesse.*

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I-INTRODUCTION

Between human and his environment of life always existed a balance, human-being is considered an integrant part of this. As society evolves, as science and technology register progress, this balance is damaged. The first consequence that has been noticed by human, as a result of this lack of poise is pollution. The episode of the London smog, which in 1952 killed over 4000 peoples (Vădineanu, 1999) called someone's attention and it came necessary to settle some rules in this relationship between man and environment. The most acute lack of poise between man and environment is being felt in this relation with other species of Terra. In present, we assist to a drastic decrease of biodiversity which is being felt in Romania too. Boşcaiu et al in 1994 showed that 17% of the species included in Romanian flora are found on the Red Lists. Moreover, with the emergency of animal protection organization, animal experimentation which is necessary for medicine researches is threat.

In this context, ethics, which first settled only the interhuman relations, expanded its field in the relation between human and environment. After Tincu (2007), in West philosophy in the relation between man and nature existed three positions: *Cartesianism* (nature is totally rightless), *Republican and humanist tradition* (man is bound with animals through some obligations, in special those that don't harm them) and *Utilitarian thinking* (the human isn't the only creature that is liable to feel pleasure and pain).

Once with utilitarian thinking appear ethics extension to the non-human creature. This orientation, beside ecology progress as science, leads to appearance of two new currents: *Shallow Ecology* and *Deep Ecology*.

Shallow Ecology – an ecology of surface is reformist and zoocentrist. It has principal leaders: *Singer* and *Regan*. They bought support that sensibility is the frontier of moral approach. Singer is militating for animal release and rights, while Regan supports the preserve principle: to let to exist. But, not only animals are capable to sensibility. Tompkins and Bird in “Plants secret life” show that plants are also capable to feel, for example when someone is approaching with the thought to harm them.

Primack et al. (2002) bring the following ethics arguments for which all species must be draw, no matter of importance: every species has the right to exist, all species are interdependent, people have the responsibility to act as superintendent of Terra, people of today have the responsibility for the next generation, the respect for human life and the concentration on human interest are not opposed with the respect for biological diversity, nature has a spiritual and aesthetic values higher economic values, biological diversity is necessary to know life's origins.

Deep Ecology – profound ecology is radical and ecocentric. This current includes two orientations:

1. *Biocentrism* – it couldn't exist value besides life and all living creatures, human, animal and vegetable are dignified for moral consideration and respect.

2. *Ecocentrism (Holism)* – the ensamble is superior to the person from the moral point of view such that all natural objects (alive or non-alive) must be taken in consideration in decisions that are regarding the natural environment as a unitary total.

What about ethics in animal experimentation?

Sometimes, animal experimentation is necessary or obliged to learn more about animals and human beings or to develop drugs. What are the limits that should exist in animal experimentation? To answer that question, Ethics committees have been established. They have to control experimentation protocols to protect animals, because animals feel pain, even if it has been ignored for a very long time.

That is why nowadays, during animal experimentation, searchers have to control animal's pain and suffering.

The primary rights given to an animal are included in the 5 freedoms:

- physiological freedom = no hunger, no thirst
- behaviour freedom = express normal behaviour

- psychological freedom = no fear and stress
- sanitary freedom = no pain, injuries or diseases
- environmental freedom = comfort

The main subject of our paper was to find out the opinion of people about bioethics. But, we haven't the same inquire and the same target public, that is why we split our reflections:

- The Romanian part of this paper was to find out if ethics mean something for the students from University of Science and Veterinary Medicine of the Banat – Timișoara. If they know the meaning of environmental ethics and if they know something about the animal and plant species endangered.
- In France, each person who wants to carry out animal experimentation has to follow an education that can take place in our vet school. Moreover there are some ethic committees and one of them includes some teachers of our school. That is why we choose to make an inquire about legislation and the working of ethic committee.

II. RESEARCH METHOD

A. Romanian inquire

This paper is proposing to find the opinion of the future experts in science of life regarding ethics in general, environmental ethics and ethics issues raised by biodiversity in special.

University of Science and Veterinary Medicine of the Banat - Timișoara
SOCRATES Program (IP)
"Bioethics in life and environment science"
Inquire

1. Sex M <input type="checkbox"/> F <input type="checkbox"/> 2. Age
3. Faculty
3. Specialization

1. What meaning you assign to "ethics"?

2. Are moral values still important in the XXI century?

YES NO They are relative

Explain why? _____

3. Do you consider that in the Romanian society moral values are important?

YES NO

Other answer _____

4. Do you consider yourself a person for which is moral / ethic is important?

YES NO

Other answer _____

5. In what field do you respect most ethic/ moral reasons? (Choose one answer)

a) Family, in the relation whit your parents, brothers, sisters,...

b) At school

c) In couple relation/sex

d) In society

6. Do you consider your teachers as moral models?

YES NO

Other answer _____

7. Who do you think that could be considered/ you consider to be a moral model?

8. Form whit marks from 1 to 6 the importance of ethics/moral in:

- Family _____
- Church _____
- Profession _____
- Mass – media _____
- School _____
- Environment protection _____

9. How do you think that the environment problem is reflected in school programmes?

- a) Well represented
- b) Almost well represented
- c) Almost missing
- d) Missing

10. Do you think that bioethics and environment ethics should be studied in school?

NO

YES if you say yes, at what age? (Choose one answer)

- a) In secondary school
- b) In those Faculties who are working with living organisms
- c) At masterate

11. In the job for which you are preparing is it necessary to have a deontological code? (A code of ethical rules?)

YES NO

Explain why? _____

12. In the future, ethics matters:

- a) Will be more important
- b) They would have the same importance
- c) Will decrease in importance

13. Do you think that in Romania bioethics and environmental ethics are important? On a scale beginning from 1 to 10 give a mark to environmental ethics in Romania, where 1 means that it isn't important and 10 means that is very important.

1	2	3	4	5	6	7	8	9	10

14. Form with marks from 1 to 4 the fields within the frame work of environment protection in what ethics plays/should play an important part:

- Waist administration _____
- Protection/ preserving nature _____
- Pollution checking and preventing _____
- GMO problem _____

15. Do you think that animals, plants, landscapes should have the same rights as humans?

YES NO

Explain why? _____

16. Where do you think that preserving nature should start from?

- a) From economic interests
- b) From humans general interests
- c) Taking into account the right of future human generations
- d) From religious considering
- e) From the right of every living creature to exist

17. What do you think about animals cloning?

- a) I agree

- b) I agree only if it's made to obtain necessary products for treating humans and animals
- c) I don't agree

18. Do you agree with experimentation on animals?

YES NO YES, but if some rules are respected

19. In the next 10 years the number of endangered animal and plant species (choose one answer)

- a) Will increase
- b) Will decline
- c) Will remain more or less constant

Explain why? _____

20. Do you agree to consume food made from genetically modified plants/animals?

YES NO

21. If an acquaintance would invite you at his place and would show you that he has a whole collection of endangered plants and animals, although you know that they are prohibited by law, how would you react?

- a) You would be impressed and you would try to convince him to tell you how you could have a collection alike
- b) You would try to convince him that what he did is not proper and then you would forget that you saw the collection
- c) You wouldn't do anything; you didn't see or hear anything
- d) You would try to convince him to let go of that collection, and if he does not do it in a certain period of time, you would notify the authorities
- e) You would try to convince him to donate the whole collection to a special institute
- f) You would notify the authorities

22. Are you willing to get involved in rescuing a plant or animal endangered species?

YES Motivate: _____

NO Motivate: _____

23. How would you be willing to involve yourself in rescuing an endangered species of plant or animal?

- a) With money
- b) I offer my professional knowledge accumulated in school
- c) As an active member in an organization
- d) By doing nothing

24. If you were offered of a large sum of money in exchange for capturing/ picking up an animal/plant species about which you know that is endangered, what would you do?

- a) I would accept immediately
- b) I would think about it
- c) I would categorically refuse
- d) I would accept only if I were in a financial crises

25. Is the disappearance of one species involved in the disappearance of another?

YES

NO

Explain why? _____

26. Can a species once vanished be brought back to life?

YES

NO

Explain why? _____

27. If you were on trip and you were to see a plant species about which you know that is endangered, what would you do?

- a) If there are more than one, then I pick up one
- b) I pick up all, something like that you don't see more than once in a life time

- c) I wouldn't even one pick up, because I don't want to contribute to their disappearance
- d) If someone else picked up, then I would pick up too
- e) I wouldn't even one pick up for fear of a fine

28. Can human create new species?

- YES
- NO

Explain why? _____

29. Do humans have the right to cause the disappearance of one species?

- YES
- NO

Explain why? _____

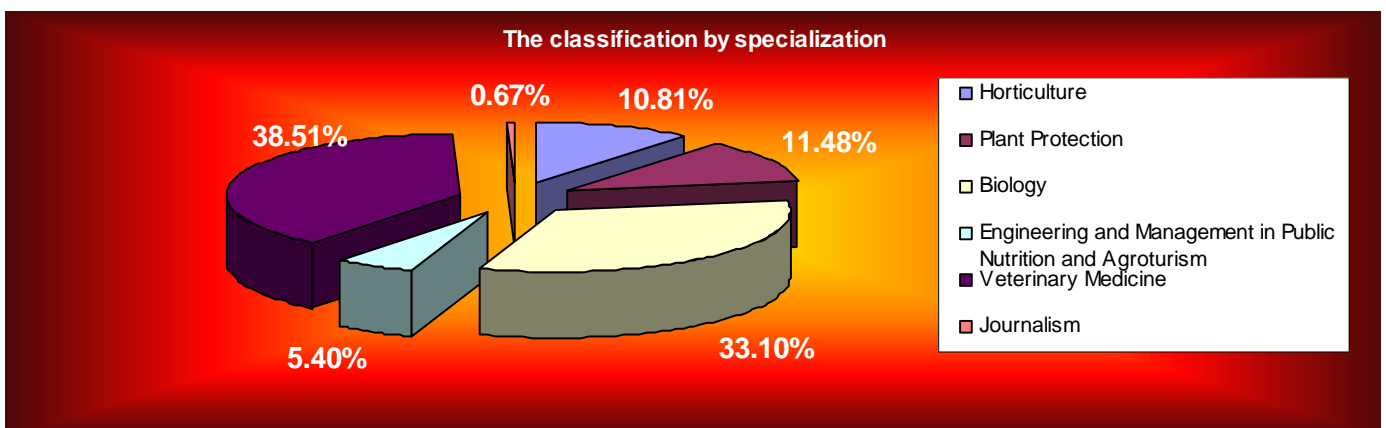
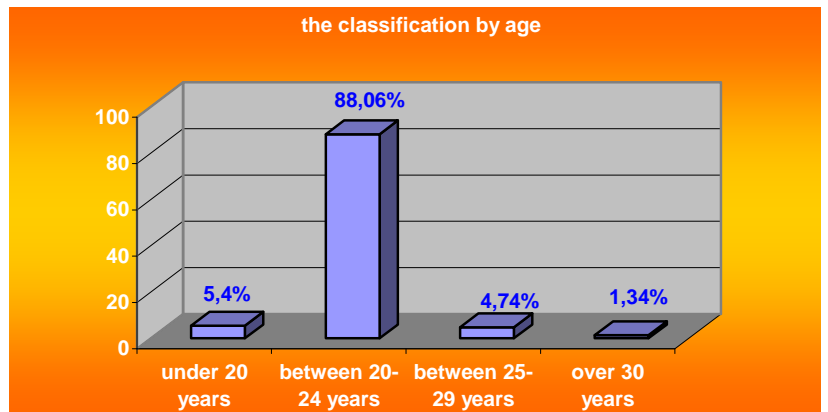
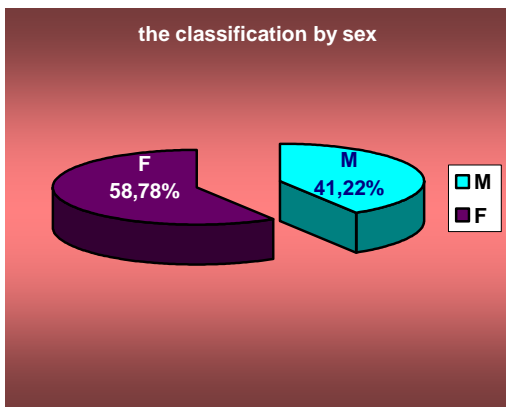
30. If, by chance, you were at a show that exploited an animal that you knew is endangered, how would you react?

- a) You would watch the show with interest
- b) You would watch the show, and then you would do nothing
- c) You would watch the show, and then you would notify the authorities
- d) You would leave immediately

Note:

This test is nameless! You are asked not to sign your name and to answer to as many questions as you can. Fill in the blanks with capital letters.

The total number of the questioned persons is 148 from what 61 (that is 41.22%) persons are male and 87 (58.78%) are females. As regarding the classification by specialization and by age and sex they are presented in table number 1 and respective table number 2.



B. French inquire

Le questionnaire ci dessous a été envoyé par courriel à tous les enseignants de l'école nationale vétérinaire de Nantes.

*Vous pouvez répondre en surlignant en gras les options choisies et en complétant les espaces vides.
Les réponses au questionnaire resteront **confidentielles** sur le nom du laboratoire ou des personnes.
Nous vous remercions d'avance pour votre aide.*

1. Quels sont les espèces animales utilisées dans votre laboratoire ?
2. Vos expérimentations ont pour but :
 - L'enseignement.
 - Le diagnostic de maladies.
 - Des essais toxicologiques et autres évaluations de sécurité.
 - La production et le contrôle de qualité en médecine vétérinaire.
 - La production et le contrôle de qualité en médecine et dentisterie humaine.
 - La recherche et le développement en médecine humaine et vétérinaire.
 - L'étude de la biologie fondamentale.
 - Autre (précisez) :
3. Quel est le nombre d'animaux que vous avez utilisé en :
 - 2000?
 - 2003?
 - 2006?
4. Quel est le nombre de personnes travaillant dans votre laboratoire ?
5. Combien de personnes sont sensibilisés à l'éthique au sein de votre équipe ?
6. Utilisez-vous des méthodes expérimentales de substitution ?
 - € Oui
 - € Non
 - € Si oui, lesquelles ?
7. Grâce aux méthodes expérimentales de substitution, avez-vous pu diminuer le nombre d'animaux d'expérimentation ?
 - Oui
 - Non
 - Si oui, en quelle proportion ?
8. Avez-vous déjà remis des animaux en liberté conformément au décret 84 & 01 : article 1^{er}.2 ? (*Lorsque les buts légitimes de l'expérience le requièrent, la remise en liberté de l'animal utilisé peut être autorisée par le préfet du département du lieu de cette remise en liberté. Celle-ci ne peut intervenir que si elle permet de*

conserver le bien-être de l'animal, pour autant que son état de santé le permette, et qu'il n'existe aucun danger pour la santé publique et l'environnement.)

Oui

Non

Si non, pour quelles raisons ?

Animaux inadaptés à la vie en extérieur

Parce que la tâche est compliquée

Par manque de temps

Par ce que vous n'avez pas envie de vous investir dans ce projet

Autres

9. Dans vos protocoles, existe-t-il des procédures rédigées prenant en compte l'éthique ?

€ Oui

€ Non

10. Réalisez-vous des expériences douloureuses conformément au décret 87 & 01 : article 1^{er}.3. (*Lorsque les expériences sont incompatibles avec l'emploi d'anesthésiques ou d'analgésiques, leur nombre doit être réduit au strict minimum, et [...]justifiée dans la demande d'autorisation [...]Ces expériences[...]doivent être expressément déclarées et justifiées[...], auprès du préfet, préalablement à leur mise en œuvre. Il ne peut être procédé, sans anesthésie ou analgésie, à plus d'une intervention douloureuse sur un même animal*).

Jamais

Rarement

Parfois

Fréquemment

Souvent

11. Parvenez vous à quantifier la douleur lors des expérimentations animales ?

Oui

Non

Ce n'est pas toujours évident

12. Les critères que vous utilisez pour quantifier cette douleur sont ils ?

€ Objectifs (perte de poids, hyperthermie, blessure...)

€ Subjectifs (en fonction de votre expérience personnelle)

13. Quelles sont les raisons menant à l'euthanasie dans votre laboratoire ? (nécessité du protocole, animal trop âgé, surplus de stocks...)

14. Quelles méthodes d'euthanasie utilisez-vous ?

15. Connaissez-vous l'existence des comités d'éthique, et en particulier celui dont vous dépendez ?

€ Oui

€ Non

16. Soumettez-vous vos protocoles d'expérimentations au comité d'éthique ?

Toujours

Parfois, quand cela vous paraît nécessaire

Jamais

Quelles sont les raisons pour lesquelles vous ne soumettez pas vos protocoles à ce comité ?

17. A votre connaissance, la soumission des protocoles expérimentaux à un comité d'éthique est-elle obligatoire
- € Oui
 - € Non
18. A votre connaissance, la soumission au comité d'éthique de chaque nouveau protocole expérimental générant de la douleur est-elle obligatoire ?
- € Oui
 - € Non
19. Avez-vous déjà subi un refus de la part de la DDSV , ou un avis négatif de la part du comité d'éthique ?
- € Non
 - € Oui, pourquoi ?
20. Le comité d'éthique répond-il à vos attentes ?
- Oui
 - En partie
 - Non
21. La législation concernant l'expérimentation animale vous semble-t-elle ?
- € Rigide
 - € Adaptée
 - € Souple
22. Vous estimez vous suffisamment renseignés sur l'éthique en expérimentation animale ?
- € Oui
 - € Non
23. Êtes-vous satisfait de votre travail d'un point de vue bioéthique ?
24. Afin de compléter notre étude, nous souhaiterions visiter quelques laboratoires. Seriez-vous prêts à nous accueillir ?
- € Oui
 - € Non

Cinq chercheurs ou techniciens de cinq laboratoires, sur douze présents dans notre école, ont finalement répondu à notre questionnaire.

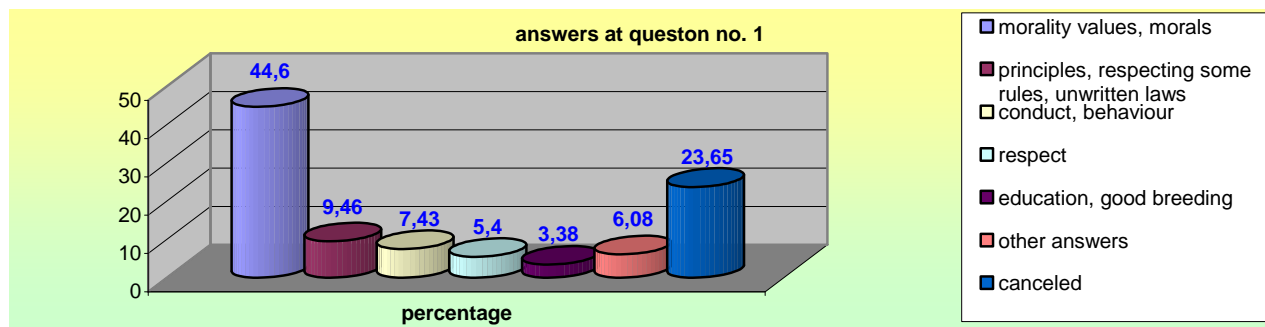
III.Results and debate

A. Romanian inquire

1. Ethics role and place in XXI century

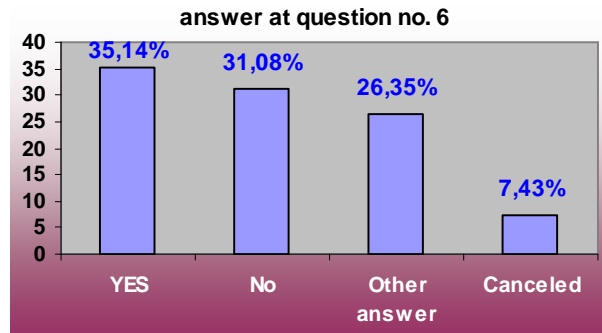
TABLE NO. 1 Answers at question 1

Number of persons that give the same answer	ANSWER	PERCENTAGE
66	morality values, morals	44.6%
14	principles, respecting some rules, unwritten laws	9.46%
11	conduct, behaviour	7.43%
8	respect	5.40%
5	education, good breeding	3.38%
9	other answers (culture, science, something right honesty, civilized man, justice)	6.1%
35	cancelled (don't answer)	23.65%



Majority consider that ethics means **morality values, morals** (approximately 45%), almost **25%, can't define ethics**, either they don't answer or give ambiguous answer. Can't be observed differences by specialization and by age. Regarding the French students that I asked they are saying in majority that ethic is morality values.

In majority the persons questioned consider that morality values are still important (approximately 72%), almost 25% consider that morality values are relative. By specialization – excepting those from Veterinary Medicine where two third of them say „ YES” morality values are still counting and one third say that they are relative – the majority consider that morality values are important.



At the question „Do you consider your teachers moral models?” the answers are balanced, we have similar percentage between YES, NO, and OTHER ANSWER: 35, 14%; 31,08% and, respective 26,35%. By specialization an exception make those from Plant Protection where the majority say „NO” and the Management say in majority „YES”. At this question I can make an observation French students in majority are saying that teachers are not moral models 83.33%.

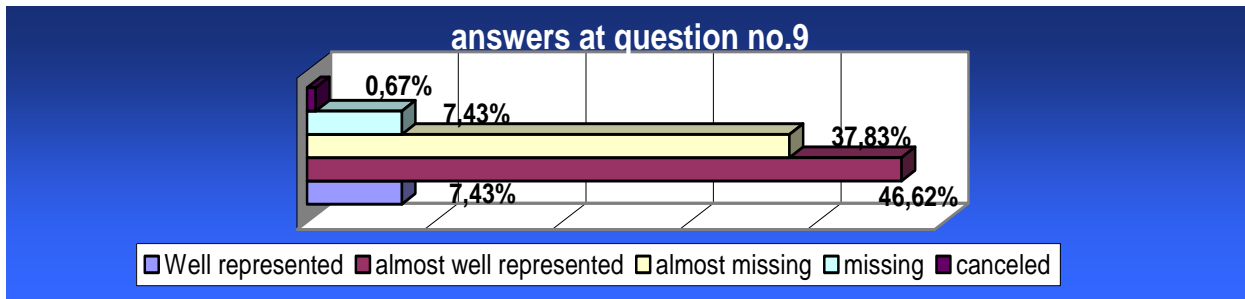
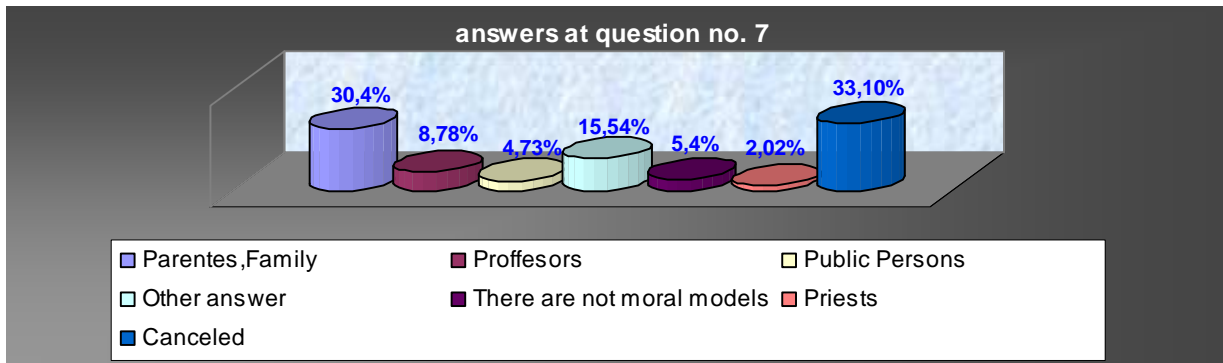
2. Environment ethics role and place in XXI century

TABLE NO. 2 Answers at question 7

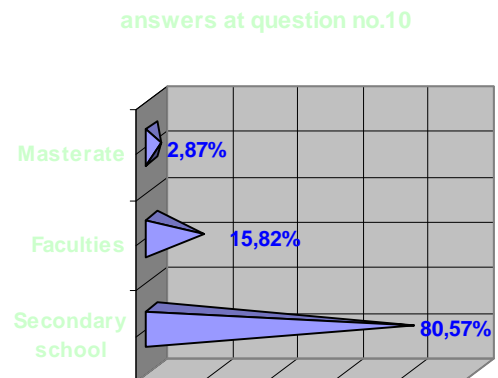
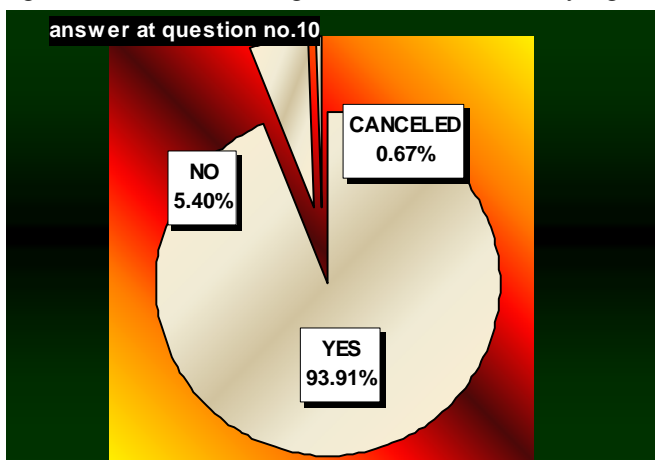
Number of persons that give the same answer	RĂSPUNS	PERCENTAGE
45	parents, family	30.40%
7	public personalities (Prigoană, Becali, Diaconescu, Corneliu Vadim Tudor, Pruteanu, Napoleon, Nobel)	4.73%
13	professors (Gicu Gabriel Arsene, Coste Ioan, Alexandru Moisuc, Grozea Adrian, Gabi Dumitrescu, Carmen Ganță, Mariana Șincai)	8.78%
3	priests	2.02%
8	I didn't find, I don't think that exist a moral model	5.40%
23	other answer (anybody can be a moral model; persons that have success, but kept their moral; correct people; yourself)	15.54%
49	cancelled (not answer)	33.10%

In a large number, approximately 30%, consider that parents, family are moral models. It can be observed that we have a large number of cancelled answers at this question, because they don't answer or give ambiguous answer. By specialization we can say that exist exceptions at biology, where the number of those that consider that teachers are moral models is very close with the number of those that say that parents, family are moral models. That is contradictory with the answers at the previous question where those that are saying that teachers are not moral model is very large. Another exception it can be noticed at Veterinary Medicine, Biology and Horticulture where the number of cancelled answers is bigger, for this question, that those that are validated.

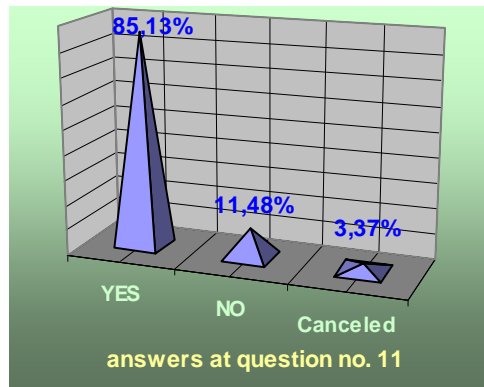
Observation: Professors given for moral example are Prof. COSTE, conf. Univ. Dr. ARSENE, Prof. MOISUC



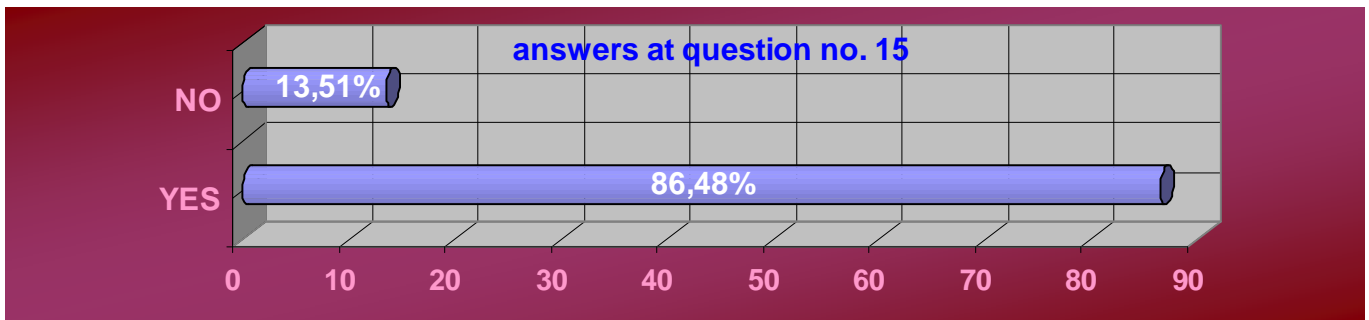
Majority is considering that environment ethics is well represented almost 47%. Exist however a percentage big enough that are saying that is almost missing 37.83%. Those from Veterinary Medicine consider, in majority, that is almost missing. The Biologists in majority consider that is well represented. At Plant Protection and Management it can be observed that those that are saying that is almost well represented and those that are saying that is almost missing are at a draw. At Horticulture we have a contradiction because those that are saying that ethics is missing and those that are saying is almost well represented are at small differences.



The majority ($\approx 94\%$) are agree that it is necessary to study bioethics and environment ethics in schools, and as regarding at what age should be studied they say that it should be studied in secondary school (80.57%). By specialization aren't differences, a small exception it can be observed only at Biology and Management which are in unanimity agree that it should be studied bioethics and environment ethics.



The majority are saying „YES” it is necessary a deontological code in any job approximately 85%. A small exception it can be observed, by specialization, at Horticulture where the percentage of those that are saying „NO” ($\approx 38\%$) is close of those that are saying „YES” ($\approx 56\%$).

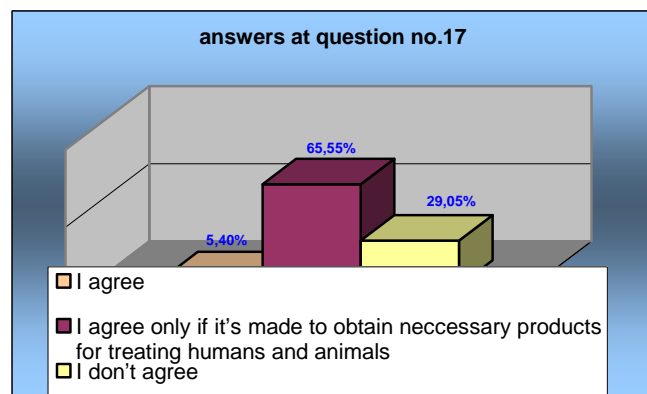
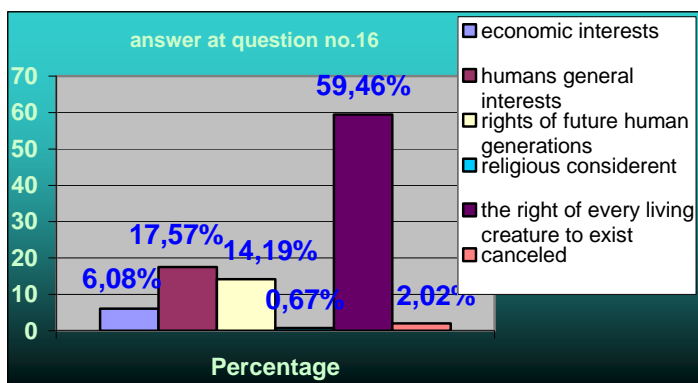


Answers in majority are „YES” approximately 87% are saying that animals, plants, and landscapes should have the same rights as humans. A particularity appear by specializations at Engineering and Management in Public Nutrition and Agrotourism where in unanimity are saying “YES”. Here the French students have not the same opinion because they are saying that animals, plants, and landscapes should not have the same rights as humans.

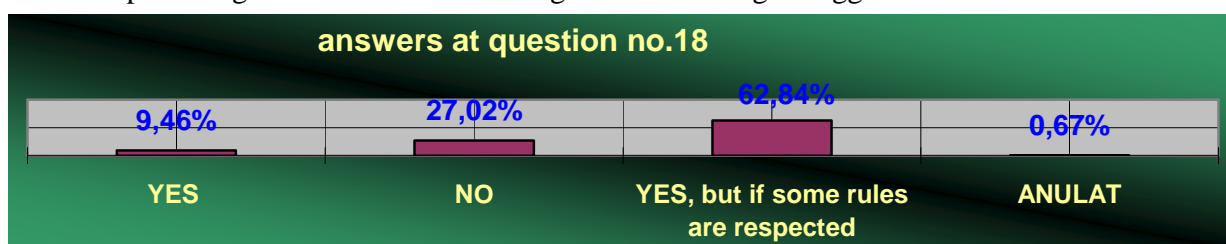
3. Ethics issues regarding protected specie

In pretty big part approximately 60% are agree that the action of preserving nature should start from the rights of every living creature to exist. It can also be noticed that those who consider that we should start from taking into account rights of future human generations are close for those that consider that we should be started from humans general interests. By specialization are two small exceptions:

- at Horticulture the number of those who consider that we should start from humans general interests is bigger than those that are saying that we should started from the right of every living creature to exist
- at Engineering and Management in Public Nutrition and Agrotourism the percentage of those who consider that we should start by taking into account the rights of future human generations (37.5%) and those who consider that we should start from the right of every living creature to exist (50%) is very close.



In a big part approximately 66%, were agree with cloning only if it's made to obtain necessary products for treating humans and animals. A percentage pretty important ere not agree with cloning 29.05%, and a small percentage are agreeing cloning 5.40%. By specialization it can be made only an observation and that is that at Horticulture the percentages of those that are not agree with cloning in bigger than in rest 43.75%



Most answers, that is a percentage of 62.84%, are agreeing with experiencing on animals, but if some rules are respected. Exist a percentage bigger enough that are saying that they are not agree with experiencing on animal approximately 27%.

By specialization appear some exceptions

- At Horticulture the percentage of those that are saying „NO” 43.75% is pretty close with those that are saying „YES, but if some rules are respected” (56.25%)
- At Plant Protection we have a percentage closer of those that are saying „NO” 41.17% with those that are saying „YES, but if some rules are respected” (47.05%).

An important percentage 79.05% don't agree to consume food made from plants/animals genetic modified. Exist however an signifying percentage (19,59%) that are willing to consume these products. Almost 85% of the French students agree to consume GMO.

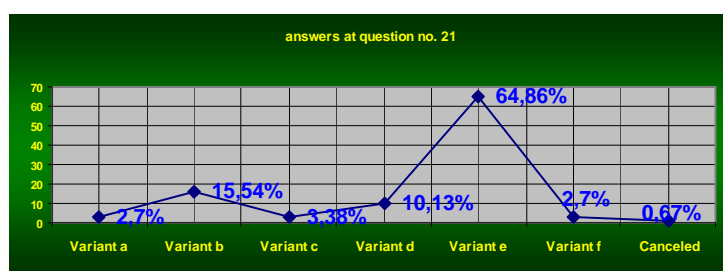
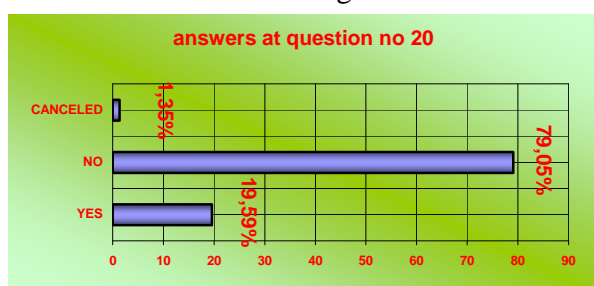


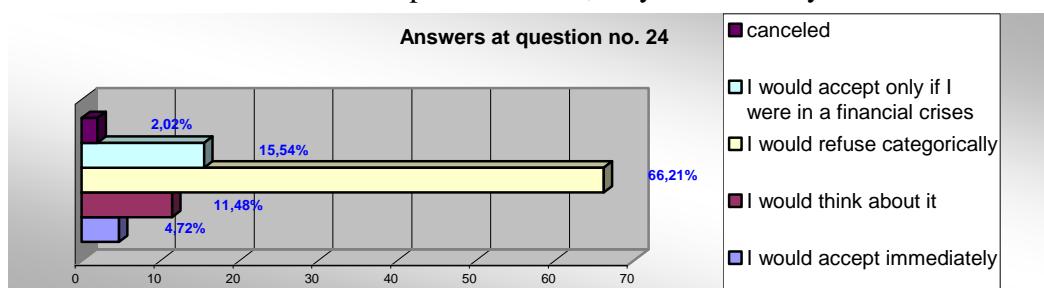
TABLE NO. 3 Answers at question 21

Number of persons that give the same answer	ANSWER	PERCENTAGE
4	you would be impressed and you would try to convince him to tell you how you cold have realise a collection alike	2.70%
23	you would try to convince him that what he did is not properly and then you would forget that you saw the collection	15.54%
5	you wouldn't do anything, you didn't see or hear anything	3.38%
15	you would try to convince him to let go of that collection, and if he does not do it in a certain period of time, you would notify the authorities	10.13%

96	you would try to convince him to donate the whole collection to a special institute	64.86%
4	you would notify the authorities	2.70%
1	cancelled	0.67%

If they are put in a concrete situation and that is to find that a friend or an acquaintance is in the possession of a collection of endangered species the major react is to try to convince him to donate the whole collection to a special institute (64.86%). We can say that the percentage of those that would try to convince him to let go of the collection, and if he does not do it in a certain period of time they would notify the authorities and of those that would try to convince him that what he did is not properly and then they would forget that they saw the collection are close 10.19% and, respective 15.54%.

As regarding the situation by specialization the only notable observation is at Veterinary Medicine where the number of those that would try to convince him that what he did is not properly, then they would forget that they saw the collection is more than double than those that would try to convince him to let go of that collection, and if he does not do it in a certain period of time, they would notify the authorities.

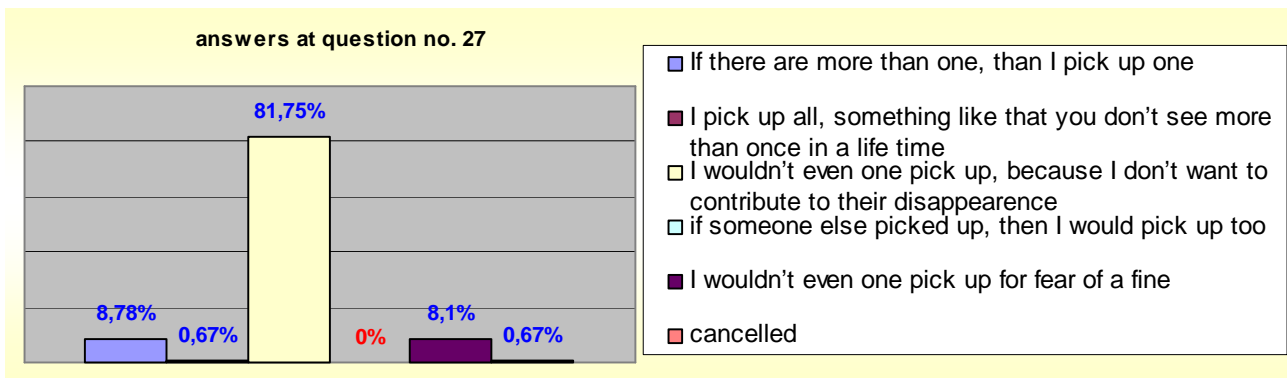


Approximately 2/3 from the total peoples questioned are saying that they would refuse categorically if they were offered of a large sum of money in exchange for capturing/picking up an animal/plant endangered, the percentage of those that would accept only if they were in a financial crises is pretty close 11.48% and respective 15.54%. Per total the number of those that are not sure what they would do in this situation is 26.84% that is a considerable number of those that perhaps would accept.

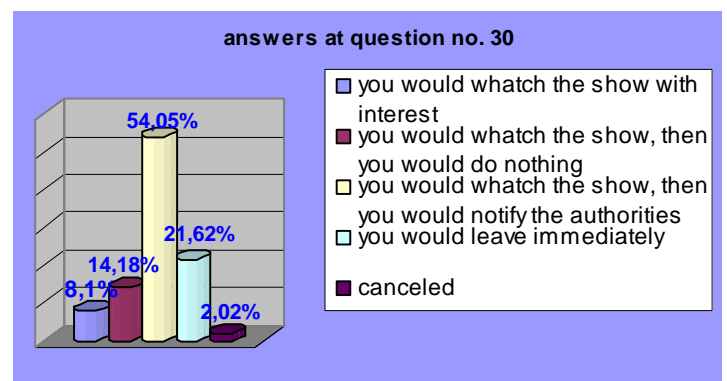
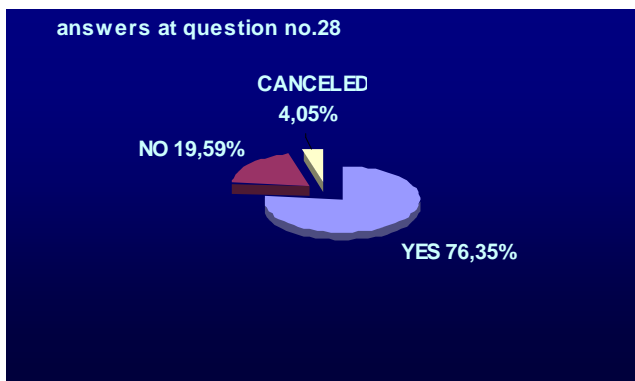
TABLE NO. 4 Answers at question 27

Number of persons that give the same answer	ANSWER	PERCENTAGE
13	If there are more than one, than I pick up one	8.78%
1	I pick up all, something like that you don't see more than once in a life time	0.67%
121	I wouldn't even one pick up, because I don't want to contribute to their disappearance	81.75%
-----	if someone else picked up, then I would pick up too	-----
12	I wouldn't even one pick up for fear of a fine	8.10%
1	cancelled	0.67%

If they are put in the situation of meeting a species of plant about they know that is endangered the majority say that they wouldn't even one pick up, because they don't want to contribute to their disappearance (81.75%). Close percentage say that If there are more than one, than I pick up one and they wouldn't even one pick up for fear of a fine 8.78% and, respective 8.10%. As a particularity and a question is that there is not even one person who says that if someone else picked up, then he would pick up too. It is really possible that humans are so independent and they don't let themselves to be influence by someone else?



More than three quarter of those questioned are saying that human can create mew species. I know we have the possibility, but is really true human has the right to create new species.



If by chance they would be in the situation to be at a show that is exploiting an animal endangered the majority said that they would watch the show, and then they would notify the authorities 54.05%, and a pretty important percentage answer that they would leave immediately 21.62%. By specialization two small exceptions can be observed at Horticulture where the number of those that are saying that would leave immediately 31.75% is closer for those that are saying that they would watch the show, then they would notify the authorities 43.75%. At Plant Protection the number of those that are saying they would watch the show, then they would notify the authorities is 29.41% and is smaller than the number of those that would leave immediately 41.17%.

B/ French inquire

NB : Nous avons interrogé un seul chercheur, ou technicien par laboratoire.

1. Animaux utilisés

Avec douze différents laboratoires, travaillant sur des thèmes très variés (physiologie, parasitologie, alimentation...) notre école utilise de nombreuses espèces animales en expérimentation :

-souris-rat-lapin-chien-porc-chèvres-chats-bovins-chevaux-cobayes-volailles-moutons-poissons-gerbilles-cobayes.

Nombre d'animaux	Souris	Rats	Lapins	chien	porcs	chèvres	chats	bovins	chevaux
Nombre de laboratoire	60		50	80+6+12			70		
travaillant avec l'espèce	1	2	2	4	1	2	3	1	1

	cobayes	volailles	moutons	poissons	gerbilles
Nombre de laboratoire travaillant avec l'espèce	1	1	1	1	1
Nombre d'animaux utilisés en 2006	60	15		Quelques centaines	350

Tableau montrant les réponses à la première et la troisième question.

La majorité des laboratoires ne nous a pas communiqué le nombre d'animaux utilisés en fonction des années, mais seulement une estimation globale sur l'année 2006, nous n'analyseront donc que ces derniers résultats.

Les chiens et les chats sont les espèces les plus communément utilisés (ils sont présents dans la majorité des laboratoires, même si leur nombre est faible), cependant en terme de quantité par espèce, ce sont les gerbilles et les poissons qui semblent le plus employés.

Il est vrai que les rongeurs ont « un coté pratique », par leur taille, leur coût, etc. Ceci expliquerait que la répartition du nombre d'animaux utilisés en fonction des espèces, est le reflet de l'anthropomorphisme que l'homme projette sur les chiens et non sur des animaux tels que les rongeurs.

On peut donc se demander si certaines espèces d'animaux méritent plus la vie que d'autres.

2/ Buts des expérimentations

Toutes les filières de notre école travaillent sur la recherche et le développement en médecine humaine et vétérinaire. Les autres buts des expérimentations animales sont l'enseignement pour un seul des laboratoires interrogés, le diagnostic de maladies pour un autre et un dernier fabriquer des anticorps.

3/Formation du personnel

Nous avons cherché à connaître la proportion du personnel travaillant avec les animaux de laboratoire sensibilisée à l'éthique au sein de chaque équipe.

En France, les personnes travaillant avec les animaux de laboratoires doivent valider « la formation d'expérimentateur animale ». Lors de cette formation, l'éthique est enseignée ce qui justifie que toutes les personnes manipulant les animaux dans les laboratoires interrogés sont sensibilisées à l'éthique animal.

Nous pouvons aussi souligner qu'il existe une formation de chirurgie expérimentale obligatoirement nécessaire à toutes les personnes qui doivent opérer des animaux.

Cependant il nous a été signalé que suite à cette formation, aucun renouvellement des connaissances n'est exigé. Les chercheurs ou techniciens qui souhaitent se renseigner sur les questions de bioéthique en expérimentation animale doivent chercher l'information par eux-mêmes, alors que les réflexions concernant la bioéthique évoluent continuellement.

4/Méthodes expérimentales de substitution

Les méthodes expérimentales de substitution ne sont possibles et ne sont réalisées que dans un seul laboratoire, ce qui a permis de diminuer considérablement le nombre d'animaux utilisés lors de ces dix dernières années, d'après leurs dires.

5/Devenir des animaux de laboratoires

Deux des laboratoires ont déjà remis des animaux en liberté conformément au décret 84 01 : article 1^{er}.2. Les animaux qui ne sont pas remis en liberté conformément à ce décret sont soit des animaux inadaptés à la vie en extérieure (par exemple, difficultés d'éducation des chiens ayant toujours vécu en chenil), soit des animaux ayant reçu des pathogènes, les rongeurs et les lapins ne sont jamais relâchés.

Concernant l'euthanasie des animaux, elle est pratiquée :

- par nécessité du protocole pour prélever le sang ou les organes par exemple.
- lorsqu'il y'a inoculation d'organismes pathogènes
- lorsque les animaux sont trop âgés (par exemple des chiennes de reproduction).

Les méthodes d'euthanasie employées dans tous les laboratoires sont :

- dose d'anesthésie létale
- Dolétale ou T61 en intraveineuse

Et pour deux laboratoires, lorsque le protocole l'exige, les animaux sont sacrifiés par exsanguination soit sous anesthésie générale soit après une commotion cérébrale.

Enfin, nous pouvons souligner que les poissons sont parfois tués par un choc sur la tête.

6/ Protocoles expérimentaux et douleur

Quatre laboratoires déclarent rédiger des procédures prenant en compte l'éthique.

Le dernier laboratoire qui déclare ne pas écrire ces procédures ne réalisent que des échographies classiques (expérimentation non invasive ne générant aucune gêne pour l'animal).

A la question de savoir si les expériences pratiquées sont douloureuses :

- trois chercheurs estiment que ce n'est jamais le cas
- un en pratique parfois notamment lors de l'injection de certains pathogènes
- un ne s'exprime pas car il travaille sur des poissons et a des difficultés à identifier la douleur.

Cependant, il existe une contradiction avec ces informations sachant que deux chercheurs sur quatre ne pensent pas savoir évaluer la douleur car ce n'est pas toujours évident notamment avec des espèces comme les souris ou les gerbilles et les deux autres pensent pouvoir évaluer efficacement la douleur.

Les critères pour évaluer cette douleur sont pour quatre chercheurs subjectifs et pour un seulement objectif.

Notre question a été mal formulée car on ne sait pas si ces critères objectifs sont inscrits dans le protocole.

7/Comité d'éthique et législation

Seulement trois personnes sur les cinq interrogées connaissent le comité d'éthique dont leur laboratoire dépend. Une personne sait qu'il existe des comités d'éthique mais ne connaît pas celui dont elle dépend et enfin, une personne ne connaissait pas l'existence du comité d'éthique, mais tous les protocoles de son laboratoire étaient soumis aux comités d'éthiques des sociétés pour lesquels ils travaillent.

Trois laboratoires ne soumettent jamais leur protocole au comité d'éthique et un quand cela lui paraît nécessaire. Les chercheurs soulignent que le fonctionnement du comité régional d'éthique est très peu diffusé.

Les raisons pour lesquels les protocoles ne sont pas soumis aux comités d'éthique sont :

- absence d'obligation

- alourdissement de la tâche administrative
- retardement de l'expérimentation

La soumission à un comité d'éthique des protocoles expérimentaux générant de la douleur ou non n'est jamais obligatoire pour les laboratoires. Trois des laboratoires pensent qu'il est obligatoire de soumettre un protocole expérimental générant de la douleur au comité bien qu'ils ne le fassent pas ; il s'agit en fait des personnes ne réalisant pas d'expériences douloureuses. De plus un chercheur déclare ne pas savoir si les protocoles générant de la douleur sont obligatoirement soumis au comité d'éthique, et enfin un chercheur pense que ce n'est pas obligatoire. Toutes les personnes interrogées savent que la soumission des protocoles n'est pas toujours obligatoire.

En France, les protocoles expérimentaux doivent être validés par le préfet qui est aidé par un vétérinaire de la direction départementale des services vétérinaires. Aucun des laboratoires interrogés n'a subi de refus de la DDSV, ni du comité d'éthique puisqu'aucun de leur protocole n'a été soumis au comité. Par contre, la soumission des protocoles générant ou non de la douleur aux comités d'éthique n'est pas obligatoire.

Le comité d'éthique répond clairement aux attentes d'un chercheur sur cinq. Pour un scientifique, le comité d'éthique ne fonctionnant pas, il ne peut répondre à ses questions. Les autres chercheurs ne travaillant pas avec le comité d'éthique ne s'expriment pas sur cette question.

Quatre des personnes interrogées pensent que la législation concernant l'expérimentation animale est adaptée et une seule pense qu'elle est souple.

Ceci est peut-être le reflet d'un certain statisme de la réflexion éthique puisque les scientifiques sont satisfaits de notre législation et n'éprouvent pas le besoin d'utiliser le comité de bioéthique.

D'ailleurs, quatre chercheurs sur cinq s'estiment suffisamment renseignés sur l'éthique en expérimentation animale et tous les chercheurs sont satisfaits de leur travail d'un point de vue bioéthique.

IV. CONCLUSION

Almost 25% of the persons questioned do not know anything about ethics.

First teachers are not moral models (31,08%) and then when they had to find a person to be a moral model they say teachers are moral models, that is quite strange.

We find out that ethics is approximately well represented and it is necessary a deontological code (85%). About preserving nature should start from the rights of every living creature to exist

They agree with cloning but only if it is made for medical purpose and with experimenting on animals, but if some rules are respected, but do not agree to consume GMO.

So we can see that everyone is not aware of ethical notions. What about people who are still working?

Concerning animal experimentation, laboratories were very suspicious to our enquiry due to the pressure of animal welfare organisations.

Finally we can say that the staff of the laboratories is aware of ethics. But these questions are always evolving, so the submission of each protocol to someone to someone who do not come from the laboratory could allow another point of view.

Protocols are almost never submitted to the ethics committee. This one exists in our school but members do never meet.

There is an European project which will oblige people to submit their protocols to an ethics committee. That kind of project seems necessary to make scientists taking care of ethical questions.

To conclude, we can think these two inquiries are the mirror of the scientific circle.

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