Ethical Thinking

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EXAMPLE: Johanna's research is about children with ADHD. In the 90's many children were participants in her research. She then gave a promise to the children's parents that she under no circumstances would share personal data about their children to people outside her research group. Now, Johanna's work is criticized on scientific grounds. Other researchers demand access to Johanna's data in order to control the scientific validity of her claims. Johanna faces a choice. Either she **a)** breaks her promise to the parents and shares the data. With no doubt, her scientific claims will then be supported and her academic reputation restored. Or, she **b)** keeps the childrens' identities secret. Her scientific claims will remain unexamined and her name denigrated. What should Johanna do?

1 Ethics

Each time we say something about what should be done we put values into work. In science it is highly important to be aware of what values our claims and actions reflect. It is a matter of morality. This short text is an introduction to ethical thinking. The example with Johanna is intended to illuminate moral questions of right and wrong. Answering moral questions is not that different from answering empirical ones. It requires structured and precise thinking, and there are some key rules to follow. This short paper aims at spelling out the basics of some of those rules.

Before proceeding, some distinctions must be made. First, "morality" is different from "ethics". Morality is an individual's set of norms and intuitions concerning what is *good or bad*, *right or wrong*, and *allowed or disallowed*. Ethics is here understood as the systematized study of morality. Once distinguished, we can think and talk about ethical *theories*. Second, the question of what Johanna should do belongs to the field of normative ethics. In normative ethics we aim to give an answer to the question of how people *should* behave and how they *should* live their lives. Had the question been "what *did* Johanna do?" it would have belonged to the field of descriptive ethics, in which we investigate how people actually behave and how they live their lives. Third, morality and

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law are separate things. What is immoral is sometimes legal, and vice versa. For instance, in many places it is not illegal for romantic partners to cheat on each other—although doing so is usually immoral.

To make their points clear moral philosophers use illustrative examples, such as the one with Johanna. Sometimes these examples are designed to speak to our intuitions and convince us not by reason but by gut feeling that the point they want to make is valid. Non-philosophers also do that. For instance, many have heard their parents say: "If all your friends jumped off a bridge then would you too?" By using examples that speak to their intuitions, adults teach children about concepts such as autonomy, responsibility, and critical thinking.

The use of examples also demonstrates the desirability of consistency in ethics. Our moral standards, actions, and values should not be contradictory. They should be rationally justified components in a coherent system of moral beliefs. For instance, if one chooses **a)** in the example with Johanna, one cannot consistently choose **b)** in an example that manifests the same underlying moral principles. As with the empirical sciences ethical thinking requires a systematic approach. Sound moral beliefs are well grounded and thought-through. They are supported by structured arguments and justified assumptions. In other words: ethicists try to give methodologically reliable answers to questions of a moral nature.

Below, three main theories of normative ethics are presented: consequentialism, deontology, and virtue ethics. Supporters of these believe that their favored theory best provides answers to why some things are right and wrong. In many cases the theories support identical views, while their ways of drawing those conclusions differ.

2 Normative ethics

2.1 Consequentialism

According to consequentialists, an action is right if and only if it brings about the best consequences. The consequences and nothing but the consequences of what Johanna does will determine if she did the right thing or not. However, there are some difficulties with this way of thinking. Which consequences are "good" and which are "bad"? Utilitarianism, the most famous consequentialist doctrine, holds that happiness (or utility) is *the* good. All other "good" things, such as honesty or prosperity, are good if and only if they contribute to happiness. Thus, a utilitarian would tell Johanna to do what brings about the most happiness. Johanna should calculate the consequences of her possible courses of action and choose the one that produces most happiness. Maybe she should reveal the childrens' identities, maybe not. Utilitarian calculations will have to determine that.

Let us assume that happiness can be measured in units of φ. A good concert could then be expressed as, for instance, $3\ \varphi$ and missing a flight could be expressed as $-12\ \varphi$. In the example, Johanna has two choices. She could **a)** break her promise to the parents

and share the data. Suppose that having her scientific claims supported and her academic reputation restored will give Johanna 10 φ. However, she will also feel guilty for breaking her promise to the childrens' parents, so we must subtract 5 φ. The rest of the scientific community will be very relieved to see that Johanna's research is sound, which translates into 10 φ. Most of the children and their parents will feel betrayed by Johanna. Their total happiness amounts to -10 φ. Thus, the net sum of Johanna's choice **a)** is $10-5+10-10 = 5$ φ. Johanna's other option is to **b)** keep the childrens' identities secret. Suppose that standing up for her principles gives Johanna 5 φ, but that those units of happiness are outweighed by the -10 φ of having her name denigrated. The scientific community is upset, which translates into -10 φ, while the children and their parents will never know the difference. The net sum of Johanna's choice **b)** is then $-5 - 10 - 0 = -15$ φ. According to these calculations, Johanna should reveal the childrens' identities (see table 1 below).

The problem of calculation, a critic might say, is fundamental to utilitarianism. First, it is unsettled whether or not happiness is *the* good that all other good things amount to. Second, it is unreasonable to assume that we can measure happiness in φ, let alone know exactly how many φ each action produces. Third, since all actions affect happiness—our own, or others', or both—the utilitarian idea is too demanding. Humans are not equipped with the mental abilities that utilitarian calculations require. Therefore, some say, utilitarianism cannot be true. Maybe, if it is shown that these problems are fundamental to consequentialism as such, we must abandon consequentialist ethical theories altogether.

TABLE 1 – UTILITARIAN CALCULATION: WHAT SHOULD JOHANNA DO?

Choice	Johanna's φ	Scientific community's φ	Research participants' φ	Total φ
a)	5	10	-10	5
b)	-5	-10	0	-15

2.2 Deontology

Deontologists believe that some things are right and wrong no matter the consequences. Johanna should not reveal the identities of the children, a deontologist might say, since doing so is wrong in itself. But why would it be wrong in itself? Or any other action, for that sake? If we do not take the consequences of actions into consideration we must provide other reasons for why some things are right and wrong.

Some claim that individuals have rights, and that there are some things we cannot do to others without violating these rights. One example of such a right is called *self-ownership*. According to the self-ownership thesis, each person is exclusively entitled to her own body and mind—her *self*—and this entitlement is expressed through the language of *rights*. The self-ownership right works as a normative constraint on others. "Do as you wish", the rights theorist might say, "but do not cross the boundaries formed by people's self-ownership." We can explain why Johanna should not reveal the identities of her research participants with reference to the self-ownership thesis. The children

own personal information about themselves. Through their parents as proxies, they have agreed to Johanna collecting the data. However, they have not agreed to her sharing it. If Johanna shares personal data about the children, she commits a fault comparable to theft or wrongful disposal: she uses other people's property without their authorization to do so. Therefore, a rights theorist might say, no matter the consequences it would be wrong in itself of Johanna to reveal the childrens' identities.

Another common deontological theory is called Kantianism (after the Prussian philosopher Immanuel Kant). Kantianism expresses moral obligations and prohibitions in terms of duties. According to Kantians, we have a duty to treat humanity always as an end in itself, never only as a means. If Johanna reveals the childrens' identities against their will she uses them for other ends. It is her duty, Kant and his followers might say, to treat her research participants as ends in themselves by keeping their identities secret.

2.3 Virtue ethics

Virtue ethics is not first and foremost an action guiding theory. Its focus is rather on developing good character traits. A person who does what is right, virtue ethicists say, is not doing so because she performs the correct utilitarian calculations, respects people's rights, or obeys duties. She does what is right because she has an inner sense of moral orientation. According to a virtue ethicist, morality is about being a good person and leading a good life: we should show kindness, courage, generosity, self-discipline, patience, honesty, tolerance, compassion, fairness, and so on.

Virtue ethics is commonly said to consist of three components: virtue, practical wisdom, and eudaimonia. To possess practical wisdom is to have the capacity to recognize the importance of different features of a situation. Eudaimonia is a Greek word usually translated to "happiness". However, in virtue ethics it is better understood as "human flourishing". Eudaimonia is the moral objective of a person's life and is attained by practically wise people being virtuous: such persons *flourish*.

Johanna, if virtuous, should experience emotional resistance when faced with the scientific community's demands. She should not calculate the outcome of revealing the childrens' identities, weighing her gains against their losses. Neither should she cognitively refer to the participants' rights, or to her own duties, before deciding what to do. She should be emotionally disposed to enjoy respecting the childrens' anonymity.

3 Research ethics

Many scientists confront ethical dilemmas in their work, for instance when studying the effects of certain medicines on animals or when choosing whether or not to publish results that could be used in warfare or terrorism. The field of research ethics is devoted to treat these types of problems. This section is a brief introduction to four topics in research ethics: informed consent, research on animals, the precautionary principle, and scientific openness.

3.1 Informed consent

Informed consent is usually understood as a research subject's informed, voluntary, and decisionally-capacitated consent to participate in research. A person must authorize her participation in research by giving her informed consent for the research not to be considered wrong. It is a legal requirement in many countries and most research institutes have formal procedures regarding how to obtain it. However, the concept needs elaboration. If science is about producing new knowledge, what can research subjects be informed about, really? Is a starving person's participation in potentially harmful research voluntary if he or she is being paid to participate? Are intelligent but unconscious people decisionally-capacitated? The three criteria of informed consent may be further expounded as follows:

A research subject **i)** is informed if and only if she has received all relevant information about the purpose of the research project, how it will be carried out, and in what way it will affect her. Her consent **ii)** is voluntary if and only if she is non-coerced, so that no one uses coercion or credible threat thereof to force her to participate, and if she is sufficiently free from negative influences such as social and economic pressure (so-called undue inducement). Lastly, a research subject **iii)** must have the decisional capacity to assess the information provided, appreciate in what way it concerns her, as well as make and communicate a decision in favor of participating in order for her consent to be valid.

Research ethicists tend to agree that informed consent is important, but disagree on why. Some scholars leaning toward consequentialist thinking say that society's trust in science would decline if informed consent was not treated seriously in research. There are many reasons why society's trust in science is important. For instance, the consequences of widespread distrust in research regarding climate change or vaccines against infectious diseases might be dreadful in terms of harm and happiness. Others, preferring a deontological (or virtue ethicist) view on ethics, emphasize individuals' autonomy as the main reason why research subjects' informed consent to participate in research is necessary. Such thinkers claim that it is wrong in itself not to obtain research subjects' informed consent, as not doing so would violate their autonomy.

3.2 Research on animals

There are many different views on animal experimentation. One is that all experiments on animals are morally allowed as long as they contribute to the development of science. Another view is that the benefits of animal experimentation are exaggerated and that the practice is completely unjustified. Most views on the matter are based on the idea that humans are distinct from animals in a moral sense, and that humans therefore are morally allowed to treat animals in a way that they are not allowed to treat other humans. However, it is not entirely clear that there are morally significant differences between humans and animals.

Obviously, there are biological differences between humans and animals. The problem

in question is whether or not those differences are morally significant. An argument can be made that humans are cognitively superior to animals, and that the superiority entails a special moral status. Supposedly, this superiority enables secondary goods such as a qualitative capacity to experience suffering and well-being, be creative, take responsibility, love and care for others, and so on. Creatures that are cognitively equipped to enable such secondary goods are morally distinct from others. Therefore, the argument goes, humans are morally distinct from animals.

One problem with this argument is that some animals seem to possess at least basic forms of such capabilities. Apes in captivity have learned to communicate sophisticated wishes and desires, dogs show signs of exaltation and satisfaction, elephants have been observed mourning, and so on. Are they morally equal to humans? Also, some humans, such as babies, some seniors, and severely handicapped people, clearly lack the above mentioned cognitive capabilities. Are they therefore morally equal to animals? Furthermore, maybe the distinction between humans and animals entails an obligation for humans to care for "lesser" beings, rather than a right to treat them as they wish.

Nonetheless, animal experimentation have unquestionably lead to significant achievements in a wide range of scientific fields. These continuously contribute to morally important progresses, perhaps most notably in medicine. Therefore, most moderate debaters agree to at least some experimentation on animals. Accordingly, *The European Code of Conduct for Research Integrity* includes the following statement:

> The use of animals in research is acceptable only if alternative ways to achieve the results have been investigated and have been found inadequate; any harm or distress to be inflicted on an animal must be outweighed by the realistic expected benefits and must be minimized as much as possible.

3.3 The precautionary principle

In January 1998 a group of scientists, philosophers, lawyers, and environmental activists gathered at Wingspread, Wisconsin, to discuss the precautionary principle. The conclusion they reached after three days of deliberation includes the following statement:

> When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof.

Hence, according to the precautionary principle it is mandatory that we limit, regulate, or prevent potentially dangerous technologies even before scientific evidence is found. The reason why we should adopt the precautionary principle is that some scientific activities carry the potential to be harmful. Chemists should take it into consideration when working on improving detergents, biologists before introducing species to new ecosystems, and so on. The precautionary principle is accepted and advocated by the

scientific community, and very often some version of it is at least implicitly present in universities' ethical policies.

3.4 Scientific openness

Scientific openness is the ideal of transparency in the research community. Usually, it denotes the sharing of research data. Such openness is necessary to achieve reliable scientific results, for future data analysis, verification and replication by others, and so on. It ensures accountability and enables investigations of misconduct and error. Furthermore, by sharing results we do not waste scientist's time by forcing them to conduct experiments that have already been properly made.

There are a few exceptions to the rule. It is ethically justifiable to refuse to share data at least temporarily in order to protect intellectual property claims, if sharing jeopardizes the chances of publishing, if additional data checks are necessary, or if sharing the data infringes on people's integrity (as in the example with Johanna). However, in some cases data should not be shared at all. When the sharing of data poses a serious threat to humanity we may be obligated to keep it secret. For instance, we should not share information on how to produce viruses that can be used for bioterror.

4 Summary

Questions of morally right and wrong require structured thinking. There are three main theories in normative ethics: consequentialism, deontology, and virtue ethics. They are methodologically reliable attempts to solve ethical problems and tell us something about what we should do or are allowed to do, or what sort of persons we should be.

Research ethics treats moral questions that arise in science. Here, four important topics in research ethics have been accounted for: informed consent, research on animals, the precautionary principle, and scientific openness. Hopefully, this short text has helped you as a TaMoS student to structure your thoughts on ethics.