

Nico Frijda: opening Pandora's box of Sciences

Interview by Linh Lan Phan and Silvia Barriga

Besides his piece of writing on Free Will, Professor Nico H. Frijda has honored us a detailed interview, aimed at his scientific life and attitude. However, it turned out to be a "long and winding", nevertheless more and more heating up talk about... anything but himself. An emeritus professor of Psychology at the Universiteit van Amsterdam, Frijda is also a pioneer in Cognitive science in the Netherlands, in whose name an Honorary Chair has been established at his university. Every year, a prominent researcher in the field of cognition is appointed as visiting professor on the Frijda Chair, who also gives the annual Frijda lecture. We suspect if he took some caution not to mention any of these facts even once to us, for all those years long we have known him!

Hereunder is the transcript, almost word-by-word, of our fascinating interview with Professor Frijda. Read through these pages, and you will be surprised no more why we would never hesitate to call him the most eloquent and inspiring lecturer of Psychology.

Linh: Our first questions are about what it means to you being a scientist, what appeals to you?

Silvia: And how did you turn into the path of psychology of emotion?

Frijda: I never planned such a direction in my life. I started out my work as a student on facial expressions, which was a passion of the moment, inspired by being in love with a very expressive girl. And then I happened to turn to thinking about computer simulation and psychological processes...and turned towards emotions in general and it just so happened. I even have worked as a clinical psychologist for a while...with the intention of becoming a psychoanalyst, but I abandoned that because I was scientifically unsatisfied with that.

Still I must admit that I learned a lot, and I am happy to have been more or less familiar with psychoanalysis, because they know things that nobody else knows...even things that nobody else wants to know... *(laugh)*

Linh: What is the dilemma of being a scientist? It seems that you are very happy being a scientist, do you have any dilemma?

Frijda: Yes, I'm happy with being a scientist... *(thinking)*...not always! *(laugh)* Why? There are always four or six levels of explanation! But to some extent it is what I'm able to do. There's a nice story. There was once a juggler who came in the big Notre Dame cathedral in Paris and performed in front of the altar. Then a priest came and asked him: "Why do you juggle like that in front of the Virgin Mary?" He said: "That is the only thing I can do well, and so it is the only way I can honor her." I do science, and I like science, because to some extent that is what I'm capable to do, and the only thing I can do well. Why can I do it? Because nature endowed me with curiosity and culture endowed me with food.

Linh: Culture?

Frijda: Well, I just mentioned the minimal condition for being curious *(laugh)*... You can only be curious when you have enough to eat. But to be clearer: culture gave me tradition. My father was a professor; we had books in the house. I had many books that made me want to read. Culture also gave me more, learning and knowing things, that was a cultural value in my surroundings. My parents liked knowledge; my father did things that are more related to knowing than building houses or technical work. If you ask me to reflect, that value was traditionally rooted. I'm Jewish, and from very early in history the Jewish people had to go to school, even though only for reading the Bible and learning the law. Learning is a traditional value, knowledge is a traditional value, and that comes in the

neighborhood of integrity. It has been theorized that the Jews developed such an attitude towards knowledge because knowledge is the only solid thing in a world of persecution. Sartre advanced that idea. I think it is a good point of view, though whether this is correct I cannot judge.

But also –this comes a little nearer to explanation and is less at the level of speculation about origins of cultural value– I have become convinced that the only way of ever having the slightest hope of decreasing interpersonal conflict and persecution is to find out how things really are. Being as old as I'm now, and being in the 21st century, I'm pretty much convinced that no truth exists, and that no absolute Truth can ever be discovered; but at least we can try. Not all untruths are equally untrue. And what is perhaps the essential point: nobody should claim a truth when he knows it to be untrue, when it is to further his own purposes.

Linh: What about white lies?

Frijda: That's where my last addition came... I may lie for another person's benefit, for my children's benefit... Well, there are other ethical limitations. I should not lie when it is to harm someone else.

Silvia: But in science, we scientists all want to acquire knowledge, isn't it sometimes so easy to fall into a trap...we want to know so much in depth that maybe we tread over ethics in the name of knowledge?

Frijda: I have no answer to this! It is one of the exemplary dilemmas, the possible clashes between ethics and the advancement of knowledge. Take for example the development of the atomic bomb. Couldn't they have said "Let's stop here" with pursuing knowledge? We have to live with dilemmas such as this, and one has to live as well as one can with those dilemmas – weighing all ethical alternatives. One of the primary ethical principals, beside and beyond pursuing Truth is the well-being of the people that depend on you.

Linh: And what about caring for those who're not depending on you, your country fellows, "species-fellows"?

Frijda: There indeed is another ethical limitation, which comes from the incompatibility between human's strivings and desires. It is impossible to satisfy all one's desires at the same time, and even to obey all one's ethical obligations simultaneously. For instance, it is impossible to strive for the well-being of all people on earth. For the people whom one pledges –made an ethical oath– to protect, people that never asked to live but that one brought to life, one's children: caring for them is an ethical obligation. But that obligation may get into severe conflict with other moral obligations. These obligations and conflicts are very alive for me, and for people of my age and my faith. I was in hiding to avoid falling victim to the persecution to the Jews in WW2. The only way I survived was by the help of people that risked their own lives and that of their children to take me into their house. I hope the future will save me that dilemma ever...I have no prescription for how to solve such a dilemma. I can only say that one has to take that decision at the moment... One interesting thing I know from psychology is that people take those decisions at the moment, without much thought. That is one of the most moving findings. A beautiful example is that of the Hutu woman in Rwanda who took a Tutsi child into her house. Would she be discovered, she would be killed with her whole family. Why did she do that? One probable answer is that "Had I not done that, I could not have looked myself in the eye any longer". Is that an ethical principle? Sure it is.

Linh: I was thinking that norms are set by emotions from the very primitive level. If many people in a group are angry with one behavior, then it is set as a norm that such a behavior should not be committed. Maybe ethical rules should emerge in the same consensual way around the norm, at a higher level, and then they become ethics.

Frijda: Well, people control their behavior in accordance with the norms...yes...but they may also object to those norms, as a minority did in the Milgram experiment. There exists

independent action that disproves an absolute power of norms. If everybody did everything according to ongoing current rules, there never would be a revolution.

Linh: Norms are set from emotions and not the other way around. Revolution is resetting the norm.

Frijda: Revolution sometimes does that. Or maybe some other feeling sets another norm! Remember the big intellectual hero of science, Galileo, who refused to conform to the norm and to say that the Earth was the center of the universe, and his final reply to the Inquisitor: “Epur si muove”¹.

Silvia: Thinking about rules, not all rules are ethical, and not all the ethical things are translated into rules. That is the dilemma.

Frijda: Ethical rules, I would say, developed from emotions. One of the philosophers of emotion (Bob Solomon) strongly argues that emotions are at the root of ethics, moral principles, and justice, not the other way around; or at least not only. Where else can they come from...not from God sitting up there and telling me what to do. It also is unlikely that moral judgments come from rational considerations, as traditional theories (e.g., by Kant and by Kohlberg) have it.

That moral judgments do not originate in rational considerations has recently been forcefully argued by a young colleague in the US, Jonathan Haidt. Moral judgments come from emotion-based intuitions. He may well be right, but that can only be part of the explanation of moral principles, because emotion-based intuitions also form the source of prejudice and social discrimination. Because it allows anyone to claim that, “according to my moral intuition, immigrants should remain where they are instead of coming here to take my job and social wealth fare”... or that “it is my terrorist intuition that 2000 people who are killed in the WTC does not really worth human consideration.” Intuitions tell people that foreigners are stupid and other races are inferior.

In fact, in theories of morality, philosophers have been always fiercely opposed to the idea of emotion having anything to do with morality, because it serves as the entrance point for moral subjectivity and self-interest. Now, I agree that moral actions are relatively directed by emotion, but it doesn't mean that emotion can give justification to certain morality. A statement that moral actions come from intuition is unwarranted without putting into question what the nature of intuition is, or the validity of intuition. In other words, it needs more exploration what kind of emotions do underlie moral rules and feelings.

Silvia: Did you meet or observe any ethical dilemma in your working experience?

Frijda: I never encountered unethical behaviors at my work. Although you often come close to a boundary, and you often are confronted with temptations. A zero added here and there which can change your significant level, make your research outcomes look better than they are, etc...

Silvia: Why is ethics expected to be more important to scientists than to other professionals?

Frijda: I am not sure they are more important in science than elsewhere. But the burden of moral consideration has become central in scientific discussions since 1945, the development of atomic bombs. Should one, or should one not, have worked towards the relevant discoveries and research? The ethical issues became blatant in the actual dropping of the first bombs, when militarily speaking it might not have been needed anymore. Dropping the bombs on Hiroshima and Nagasaki may have been instigated mainly by the researchers' desire to know whether such bombs would really work when dropped from the air.

¹ “And yet she (the Earth) moves.”

At present, the discussion of ethics in science is very much alive, but in a limited circle only. In an issue of the magazine of the American Academy of Science, a number of articles were concerned with the development of gene technology, or lethal chemicals that terrorists might make use of, and the moral problems thus connected with their development.

But coming back to issues of truth and morality: we as scientists are searching for truth. Isaiah Berlin², a British philosopher of Russian origin, made a statement which has important implications for how we view truth. I'll quote: "No ideology is good when it pretends to be the Truth". The link between ideology and truth is a tragic and devastating one. Nobody can hold fast to an ideology without pretending that it is the Truth that is worth sacrificing whatever you think to have to sacrifice for it. In that regard, Communism, Islamism, Christianity etc. all are the same. They all have led to mass murders and oppression.

Linh: Is the focus of philosophical discussion as much on how to practice the ethical principles as on what those principles are?

Frijda: Sure, contemporary philosophy focuses much on the practical aspect of ethics. Berlin formed one instance. Another one was Bertrand Russell³, for whom ethical problems were at the core of his work. He was an important philosopher in the West, an absolute pacifist, one of the major voices opposed to the atomic bomb.

Linh: I think ethics form very basic issues; ethical dilemmas are just a part of human condition. But sometimes I'm appalled that our behaviors are not so different from those of other primates. I mean our cruelty, especially toward our own fellows... all those cold-blood killings, deception, etc...

Frijda: Humans are *enormously* different from other primates. It is a current fashion to consider human beings as very close to the primates. And I think it is a big mistake. It is a fad that is blinding oneself to the profound difference between animals, primates included, and humans. In terms of 2 major things: curiosity and inventiveness. There have been all sorts of interesting findings about the intelligence of all sorts of animals, and the existence of culture in animals. There are chimpanzees that have the cultural invention of getting ants to eat by putting a straw in the ants' hill. Of course, the fact that that habit is more dominant or salient in one chimpanzee culture group than in another one is very interesting. But it is absolutely trivial as compared to the difference between walking on foot, riding a bicycle, and inventing an airplane. It is ridiculous to neglect the scale of difference. It may be that the endowments for the acquisition of cultural habits are similar; I'm not expert enough in animal psychology in to be sure about that. But I think the difference between the human and the chimpanzee, and maybe the dolphin, on a bit lower level, is like the difference between a wave and a collection of water droplets. Both are made entirely out of the same material; nothing has been added to the water droplets to make it being a wave, except more water droplets. In other words, in the philosophy of science there is a concept of "supervenience". Many processes are supervenient to the interaction of processes. The wave is the best example. A wave has emergent properties that could not be predicted from the properties of water droplets. It might be traced back *post-hoc* to the properties of water droplets. But had I been in the world of water droplets, I would never have thought of a wave. The notions of emergent property and supervenience are relevant for distinguishing and separating a human being from Sultan – the most famous bonobo that ever lived in The Netherlands. Sultan was so bright that the director of the zoo thought he belonged to a different species than the chimpanzee. But even though Sultan was a very bright bonobo, he wasn't even close to a human in scope of intelligence, whatever the only infinitesimal genetic difference there may be between the bonobo and us. One huge manifest difference is reflective consciousness. It is known

² Isaiah Berlin (1909-1997)

³ Bertrand Russell (1872 - 1970)

that the bonobo, and chimpanzee, has experiences of anger, and love perhaps even. But he hardly knows that he is feeling them, or maybe not at all.

Consciousness, persistence in task executions... you name a number of other properties... What I want to say is this: humans have enormously important properties that perhaps may all be traced back to apes, to elements that other primates also have, but that together make for the emergence of properties that render human existence drastically different from that of any other primates. In my view, theoretically this is becoming to be understood a little bit by the notions of emergence or supervenience. When the capacity of making sounds, of abstracting general categories from individual phenomena (concept formation), for establishing conditions reactions, and for memory that we all share with any primate come together in a certain proportion, you get something basically different. You get creatures that build houses, that have history. The most beautiful illustration of the influence of supervenience or emergence generating something new is writing. You can be absolutely certain that evolution has not created a capacity for writing. Writing is now 5 thousand years-old, no longer. 10.0000 years we, as *homo sapiens*, lived without writing, I don't know how long we were without speaking. Tomasello⁴, a counter-Chomskian in many regards, doubts the existence of an innate pre-wired capacity for language. Language, he proposes, is just concocted out of the haphazard collection of capabilities that are not as a coherent set wired down in the brain.

Some people say the basis of human cognition is formed by a human capacity to form abstract representations, and store these as "meanings" connected to words and speech. Tomasello and some others (like Barsalou⁵) say, "Nonsense." What we do have is ad-hoc (or language in writings reinforced) construction based on absolutely elementary sensory experiences. The representation of knowledge is in no way laid down in the brain in an abstract format, in "mentalese". It is a coherent collection of modularity specific traces, – traces of visual, auditory, motor impressions.

Well, all this talk is just to underline the concepts of emergence and supervenience. The importance of the notion of supervenience, of *ensemble*, is that something new is created out elements that may have always been there, but which collection of elements as a whole has properties that cannot be reduced to the properties of the elements. The result is that causes and consequences are in some sense incommensurate. You know the famous example of the butterfly in Madagascar causing a tornado in Caribbean⁶. There are so many loops and layers of interactions that nobody is capable of precisely predicting the consequences of a flap of a butterfly's wings. And the impossibility of precisely predicting is fundamental. It is because we cannot know the state of the world with sufficient precision to be able to predict which of the infinite number of possible consequences will materialize. By the moment I learn the precise state of the world, so much time has past since when I began to learn it that everything has already changed.

Anyway, coming back to the difference between humans and chimpanzees! We humans are animals, but different from other animals. For one thing, few chimpanzees ever knew the notion of cruelty, and no chimpanzee at all can walk up to another chimp and say, "You know, chimp, that's enough. You should not treat other fellows that way" (*laugh*)...

If I ask you to do a laboratory psychological experiment, and that you can give people very strong electric shocks to punish their mistakes, and that it is for the goodness of human beings, what will you do? Milgram had 90% of subjects obey, but there is a 10% that did not. I doubt you find the same thing with chimpanzees. They have no free will! Humans have the options of obeying or not obeying, going or not going against convictions. Disobedience here is making choice on the basis of evaluations of different implications. And there must be conditions when people will be willing to receive shocks

⁴ Tomasello, M. (1999). *The Cultural Origins of Human Cognition*, Harvard University Press, Cambridge, US.

⁵ Barsalou, L.W. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences*, 22, 577-660.

⁶ An example in Chaos Theory, by Edward Lorenz, 1972.

for not doing what they are told. Isn't that a basic difference between humans and other primates?

Linh and Silvia, I must make it absolutely clear that I have great admiration for animals. They have distinct principles of morality. There are lovely stories about altruism in chimpanzees. There once was a chimpanzee that went down into a ditch and another chimp took away the beam that allowed him to get out. And some other elderly female chimp looked from a distance and heard the chimp in the ditch shriek and cry, and then she walked over and put the beam down again.

Silvia: I wonder if you can say animals have morality, and can be compared to humans in that aspect.

Frijda: Well, I doubt that we can say that animals have morality. But many, at least primates, have dispositions that come close. One of my friends, who best knows these animals, Frans de Waal, talks about the morality of primates. And he argues for something as the early fold of morality in animals⁷.

Linh: But exactly (because human has free will whereas animals do not) that I worry about morality in human beings. Maybe I should express it in other words. I mean that the consequences of our aggressive actions are increasing, while our ethical considerations have not increased.

Frijda: The scope of morality in humans is simply incomparable to whatever there is that looks like a trace of morality in animals. Let's count on human morality starting from Sumeria, 5000 thousand years ago. Do you know the story about that terrible king that tyrannized his people of the time, in the Gilgamesh epic? The notion of morality was already there. But still I wouldn't want for a single moment to change (the morality of) our society for that of the Sumerian.

I'm not sure that our morality has gone down.... On the other hand, there is one thing that certainly goes up, with not so small implications on morality; that is our capability of wide-scale arms. We don't throw stones anymore, but we throw atomic bombs, (which is) much more efficient. I fully agree that interpersonal harm has gone up. And about the scale of cruelty, I'm not sure. Take history of Christianity for example, the Crusades, Conquerors of cities, Saint Louis and his Christian knights, they had been killing many people, going out of their way to murder the Jews met on the way... Has our morality gone down since then?

Well, human goodness at one's own expense has been always rare anyway. But there are cases, even though few people, only 10% of Milgram's participants that do help. Say, helping for the Tsunami victims, what do those far-away people have to do with me that I had to help? It is not because my nature was good, but because of pictures of crying children, like me and my children, so I helped.

Linh: I agree that it has to do with the scope of things. The scope of our worldview is much bigger than before. Many people help because they do see more of poverty and want to change it.

Silvia: May be we are more conscious of morality. Evil has existed forever.

Frijda: There is one moral principle that has gone up, not without blemish though. I can imagine few people nowadays are willing to go public by saying that certain other human beings are not really human beings, are not worth the consideration of human beings, by saying "black people" are primitives like animals, or women are not fully human, or people with Jewish faith are not really human beings, and you can just kill them when

⁷ De Waal, F.B.M. (1996) *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, Mass.: Harvard University Press.

they are not useful for work anymore. Those things were freely said just 100 years, no, 60 years ago. Isn't that brightening up the future?

Yes, we totally agree with our professor, as we do hope in a brightening future. In a way, aren't we scientists all trying to do the same thing as the mythical Pandora of the Greek? We curiously open our boxes, in search for knowledge, and somehow there also come Sadness and Worry. But we do not mind, for if we may be sad and worried, it is because we do care, for ourselves and others. Because we have the capability of feelings and emotions. And we still move forward, keep looking up, for out of the very same box we also found Hope, the very last fairy that comes and soothes the distress of Pandora and all Humanity.

All footnotes are by interviewers.