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Agrobiotechnologies in the Italian media
A study carried out by the Osservatorio di Pavia

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Over the last few years the media – and especially television – have focussed on presumed health emergencies such as mad-cow disease, genetically modified organisms (GMOs), the Di Bella cancer-cure case and the Lipobay case. Topics such as these have a strong emotional impact on public opinion and subscribe to the dictates of the ratings rather than following the more or less prescriptive rules of scientific communication.

In a highly competitive environment, if the ratings prevail against information, it is obvious that news follows the rules of fiction, health reports become mere entertainment, and moderation and accuracy give way to triviality, overstatement and alarmism. The loyalty of the target audience becomes the ultimate aim of the communicator, because that is what the advertisers are interested in. There is no point in blaming the journalists, though they too share the responsibility of this phenomenon. The mechanism seems to be exactly the same for all kinds of “emergencies”: immigration, criminality, weather changes, new diseases, war. The format prevails over the event. Communication depends less and less on the topic and more and more on the medium, the debate on GMOs being no exception.

The context

A topic like food entails many "psychological, ethical and cultural values" [1], and this is even more true in a country such as Italy. The application of biotechnologies in the food sector in particular involves various group interests. The economic interests of different typologies of food producers, for one. Then there are clashes between different ethnical groups, movements and political parties. Trends such as "good food" and "healthy food" are also called into play, together with other factors related to the dynamics of cultural, gastronomic and environmental sectors of the Italian economy, like "slow food", agritourism restaurants, biological food, local products and tradition. The issue has such manifold interests that a single TV programme or newspaper article cannot possibly deal with all its facets. To these objective difficulties, must be added the difficulties journalists and TV hosts face in tackling a scientific topic which is becoming increasingly specialized, while respecting the rules of the media and the taste of the audience. Although the present article does not meant to be moralistic or censorious, it does aim to show how communication runs the risk of being tainted by elements other than information, which seem to play a major role in determining the attitude of the media.

The study

The Osservatorio di Pavia has recently carried out a study on how the main Italian media dealt with agrobiotechnologies in the years 2001-2002. The analysis was based on a corpus of articles published in ten national newspapers (*Corriere della Sera*, *La Repubblica*, *La Stampa*, *Il Sole 24 ore*, *Il Giornale*, *Il Messaggero*, *Quotidiano Nazionale*, *L'Avvenire*, *L'Unità*, *Il Manifesto*), two weekly magazines (*Panorama*, *L'Espresso*) and seven national TV channels (the three *Rai* channels, the three *Mediaset* channels and *La7*). The analysis focused on both quantitative variables (time/space devoted to the subject, values involved, elements of evaluation, communication agents, topics chosen, types of GMOs) and qualitative variables, such as usefulness of GMOs (pros and cons) and alarmism (safe/risky). The results were published between April

[1] Giancarlo Sturloni, *Food for thought – Communicating food-related risks*, Jekyll.comm, n**. 4**, March 2003

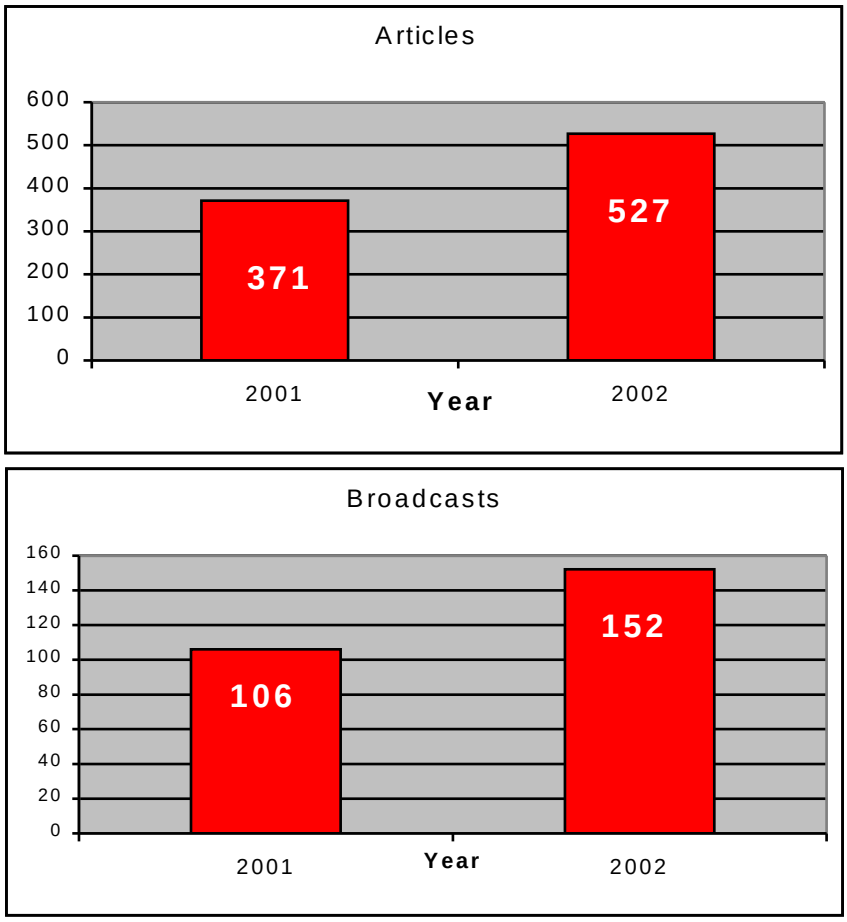
2002 and April 2003 in the form of three reports, available on the website http://www.osservatorio.it/.[2] The following commentary focuses mainly on TV communication.

The results

1) The first term of comparison is the amount of information on GMOs provided (**graphs 1 and 2**):

- In the press: from 371 articles in 2001 to 527 in 2002;
- On television: from 106 broadcasts (about 2hrs. 40min.) in 2001 to 152 broadcasts (6hrs. 40min.) in 2002.

Graph 1 and 2. *Increase in the attention devoted to GMOs by the media*



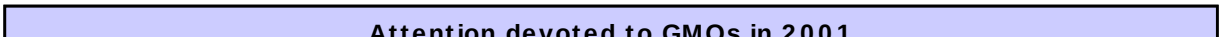
[2] A.A.V.V., *Le agrobiotecnologie nei media italiani*, a cura dell'Osservatorio di Pavia, 2001-2002

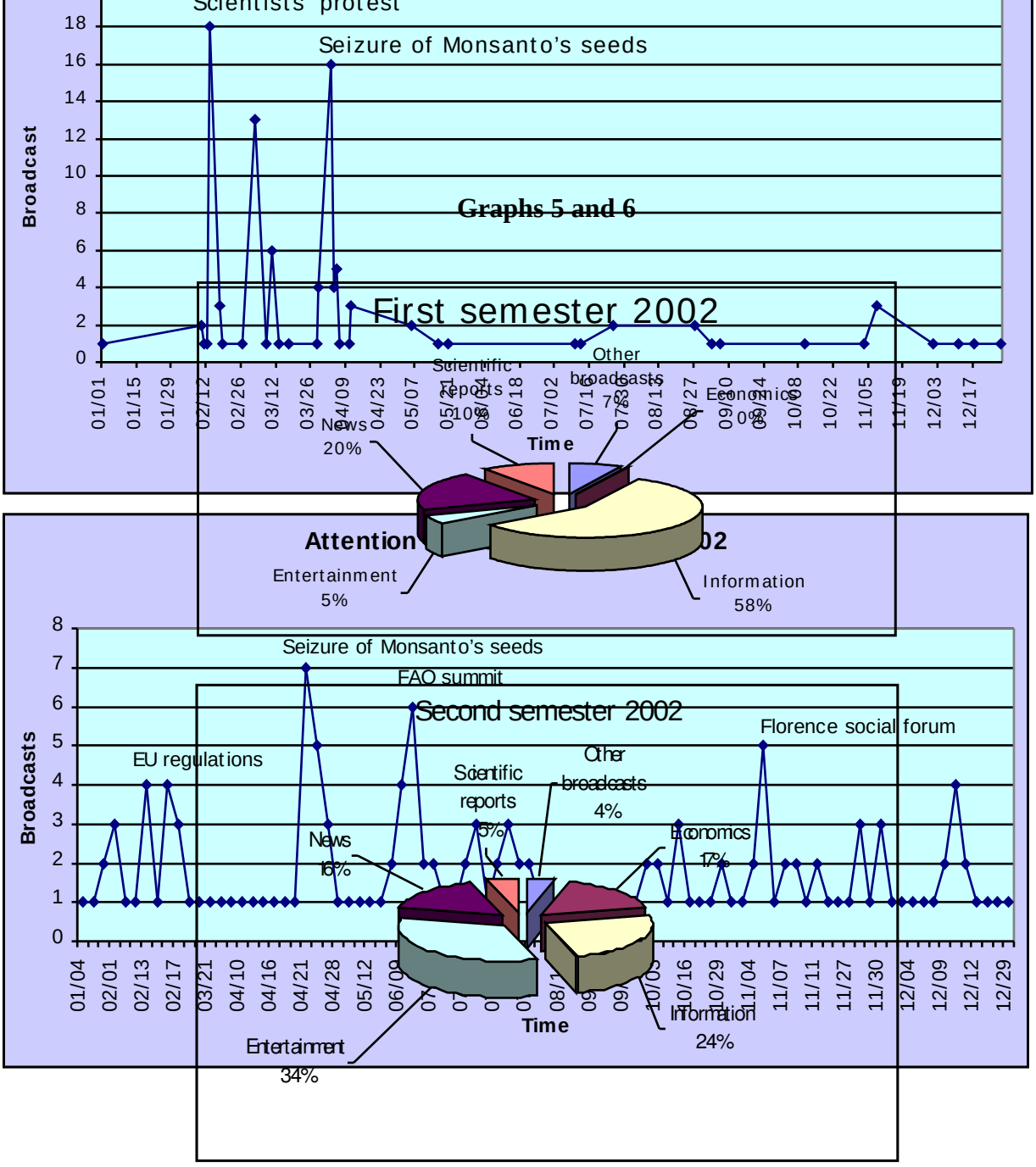
These data show that there was a significant increase in interest in agrobiotechnologies in 2002. However, a distinction should be made between the various networks: the Rai channels and La7 showed a significant rise in the attention devoted to GMOs, as compared to the Mediaset channels. As for the press, Il Manifesto and L'Avvenire proved to be the most sensitive to this topic. The former takes up a very critical attitude and makes ethical and economic considerations with respect to the dynamics of the industrial sector. The latter is more in favour of the use of biotechnologies in agriculture, especially when it comes to the problem of world hunger.

2) Another sign of evolution is the new dignity of the subject, which is no longer seen as a secondary topic. The study indicated that in 2001 the topic of GMOs was mainly dealt with when other GMO-related subjects were being discussed, such as the protest of scientists for freedom of research, the seizure of seeds in Monsanto and the controversies raised in Italy by an article in the German paper Frankfurter Algemeine Zeitung on "radioactive pasta". In 2002 the debate on GMOs seems to be more autonomous and central in media communication. **Graphs 3 and 4** show the uneven distribution of information throughout the years 2001 and 2002: few high but isolated peaks in 2001, while a more even distribution can be seen in 2002, with lower but more frequent peaks.

3) The marginalisation of information on television is due to an increase in entertainment programmes and a decrease in news and scientific reports (see **graphs 5 and 6**). This phenomenon is particularly evident if we compare the first and the second semester of 2002: in the second semester GMOs become central in infotainment programmes (*Uno mattina*, *Cominciamo Bene*, *L'Italia sul 2*). The news related to GMOs is no longer treated as a scientific report, but is included in programmes targeted at large consumers. Rather than dispassionately evaluating the opportunities offered by GMOs through a moderate debate involving different stances, the news revolves around the question "are we sure of what we eat?", which is often also the title of the report. Expressions such as "transgenic invasion" or "genetic alteration" are used, which associate GMOs to mad-cow disease, artificial colouring and preservatives, while superficially opposing them to the products of biological agriculture and local traditions, intrinsically regarded as the very emblem of quality.

Graph 3 and 4. *Attention devoted to GMOs in 2001-2002*





4) The shift from the news to entertainment programmes implies a different approach: GMOs are tackled in a more theatrical manner, the scientist fades into the background while the journalist/host takes the floor. The authority of both the journalist/host and the scientist is actually quite questionable. The impartiality of the former has often proved to be dubious and, at the same time, one wonders whether the scientists we see on a TV show really have a proper scientific grounding, as the audience is usually incapable of evaluating their actual competence in the matter. It often happens that experts in different fields are brought together to discuss topics such as GMOs: a cook, a biologist, an economist, a physician, a physicist, a geologist and so on. The discussion closely resembles the theatre of absurd, as the participants speak different languages and cannot possibly come to any conclusion.

5) Another crucial element is the tendency to present the opinion of Everyman. This practice has no statistical value and it conveys no informative meaning. It is just for the sake of the show, as it meets the audience's demand for sensationalism and truth. It has nothing to do with the scientific contents on GMOs. Rather, it is concerned with the formula of the broadcast that contains it. The general public become leading characters. They ask questions and sometimes even give the answers. They express their legitimate demands, which are unfortunately turned into resolute stances by the media. Many a time this mechanism has had dramatic consequences, as in the debate on the Di Bella therapy against cancer.[3]

In order to be commercially successful (selling the news, gaining the trust of the consumer), this communicative style rests on factors like personalism, sensationalism and controversialism, which often clash with the requisites of reliable information. In order to catch the viewer's attention, the news often has to be personalised. If GMOs are deemed not attractive enough for the audience, the programme resorts to personalities such as Vandana Shiva and Josè Bove, who have a greater impact on the average viewer, or to emblems with a negative connotation such as Monsanto, representing the power of multinationals. Similarly, in the debates on the Di Bella method the professor himself and the magistrate whose task it was to decide on whether the treatment was to be made available to the general public were positively connoted, while the representatives of traditional medicine were depicted as arrogant individuals, insensitive to the needs of patients affected by cancer.

Sensationalism has always been a typical weapon of the media. An event represented on the media cannot simply lead to a modest improvement or slight snags. It must have theatrical and devastating consequences: the extinction of some animal species, which reduces biodiversity and jeopardises the balance of the ecosystem, or the manifestation of new allergies (all better if deadly) due to GMOs, or miraculous cures for cancer (the Di Bella case), millions of people intoxicated by Lipobay, the killer drug produced by Bayer, etc. The effect of sensationalism is that, despite the tremendous outcry, viewers have probably still not understood how things really stand: do GMOs endanger your health? your life? Does the Di Bella therapy work? What is the recovery percentage? Does Lipobay kill you or can it save your life? In the long run, the consequences are even worse. People start to ponder on the following questions: can we trust the Italian health service? What are the best rules to keep us healthy?

[3] A.A.V.V. *Il caso Di Bella nella televisione e nella stampa italiana*, a cura dell'Osservatorio di Pavia, RAI-ERI, 1999

The above-mentioned characteristics are not found solely in scientific communication. They are the basis of media communication in general. Let's think of the "epidemic" of out-of-order elevators, exploded in March 2002 ("300,000 elevators at risk", claimed the news after some accidents occurred within the space ofa few days), the waves of illegal immigrants disembarking on our shores, which seemed to prelude an invasion, or the alarm against an ever-increasing and violent surge of criminality. The media make us feel as if we were constantly swept away by a flow of emergencies. Yet, once the flood is over, the only traces left by these emergencies lie in the memory of the viewers (the news usually refer an old sensational piece by saying "Do you remember the story of…"). Viewers continually have to disentangle themselves from a maze of true and false alarms.[4]

Strictly related to personalism and sensationalism is the third element: controversiality. By controversiality I refer to the way the media play on the split in the scientific community, a split, by the way, which has never been deeply investigated: the opposition between environmentalist associations and consumers on one hand, and scientists and representatives of the biotech industry on the other. At times when the controversy reached its highest peak, the dispute ended up being polarised between "official science" on one hand, in favour of GMOs and, according to the critics, under the sway of international business capitals ("Scientists are not new priests. This crusade is an example of deep fundamentalism. It is not fought for the common good of the citizens, but in the interest of multinationals", claimed the Green leader Grazia Francescato in *La Repubblica*, February 12th 2001), and the variegated crowd of environmentalists (associations, the Green party, etc.) on the other hand, seen by the researchers as fundamentalists and obscurantists trying to "lock our brains" ("Research is blocked by the environmentalist Talebans", stated the physicist Tullio Regge in *La Stampa*, March 15th 2003). The press and the television did nothing to shift the debate onto less ideological grounds and focus on the contents. Quite the contrary, sometimes they even overdid the polemics, by opposing the researchers' point of view to the opinions of the general public, or by putting together prejudices, opinions and scientific argumentations in the same broadcast. This element too seems to be typical of the media, not of the topics of debate. In the Di Bella case, for example, the emphasis was placed on the opposition between the supporters of the official medicine – negatively connoted through the identification with political and bureaucratic power – and the

[4] Robin Baker *Fragile Science: The Reality Behind the Headlines*, London, Macmillan, 2001

upholders of the alternative therapy – positively connoted by almost hagiographic reports depicting the old professor fighting alone against the mighty Establishment.

It is not surprising then that, with the exception of scientific and educational broadcasts, which are not quantitatively relevant anyway, on the whole the evaluation of GMOs seems to be independent from a risk/benefit analysis. Consequently, the ideological positioning appears to be more important than an evaluation based on the real merits of GMOs, and this is partly confirmed by the dangerous habit of delegitimising your opponents instead of criticising their opinion. The data actually show a slight asymmetry in the kind of arguments used: there seem to be few well-founded criticisms against GMOs. This is probably due to the repetitious resort to rhetorical and striking arguments, such as the opposition between natural and artificial:

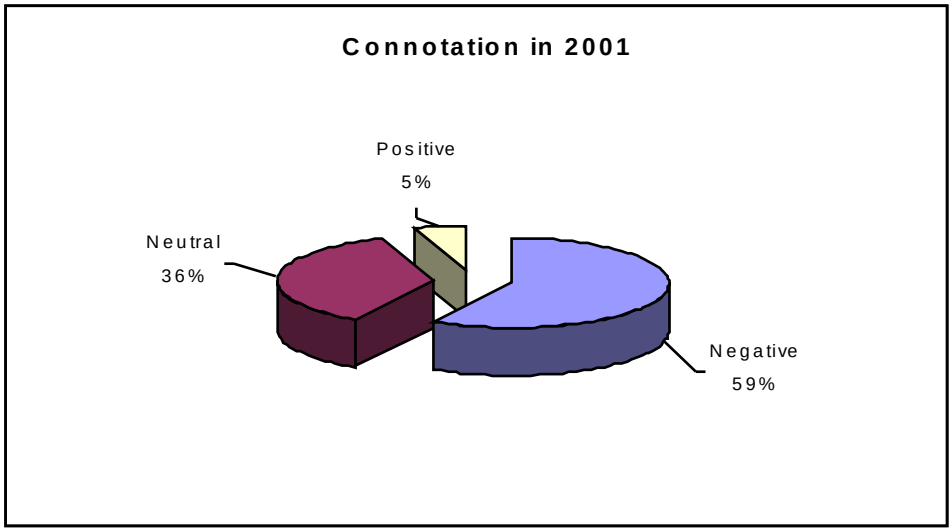
- "good" means natural, not altered, produced and distributed by small producers. This is why personalities such as Vandana Shiva and Josè Bovè are appealing to the audience. It is not just a matter of what they say, but how they are portrayed by the media. They seem to be born out of the uncontaminated world of nature, and thus become the symbol of loyalty to local traditions and resistance against the process of globalisation and the levelling of cultures;
- the advice to the consumers, worried about the recurrent food scandals, often ends in a simple recommendation to turn to Italian products instead of foreign ones ("more spaghetti, fewer hamburgers", says an Italian politician attentive to local issues; "Italian wine: you know what you are drinking", asserts a journalist);
- no less important is the lexicon used by the opponents to GMOs: genuineness, pollution, contamination, freedom of choice, business, multinationals' interests. Sometimes it recalls the lexicon used in the reports on drug dealing, doping or illegal immigrants: NAS (anti-adulteration units) investigation, zero tolerance, traffic in GMOs, positive maize, seizure of suspicious seeds, illegal seeds, transgenic invasion, and so on. There are plenty of expressions such as "Frankenstein food" or "monster food", and associations with mad-cow disease, foot-and-mouth disease, artificial colouring and preservatives. The media are dominated by what I would call a "quoting mania", that is the tendency to call "GMO" anything presenting a negative alteration: an above average and deep red strawberry, a doped athlete, a low-quality TV show. Advertising campaigns are not insensitive to this phenomenon, and have started using words such as

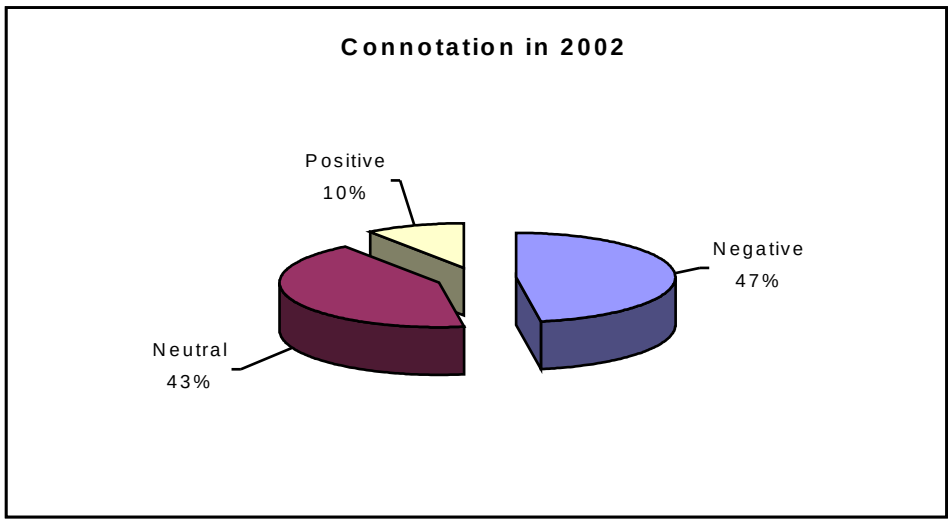
"bio", "nature" and "GMO-free" to reassure the consumer, while in turn nourishing the idea that these qualities are per se warrantees of high quality.

6) Generally speaking, the attitude of the press towards topics such as GMOs is negative, and the situation has worsened over the last year (**Graphs 7 and 8**). On television, on the contrary, while the trend is still markedly negative, for the year 2002 the data show signs of improvement and a tendency towards greater neutrality. Nevertheless, GMOs are still mainly tackled:

- with an alarmist tone, usually leading to negative evaluations;
- in broadcasts hosting mainly GMOs critics;
- when particularly unfavourable events occur.

Graphs 7 and 8. *GMOs connotation on TV broadcasts in 2001 and 2002*





7) The category dealing the most with this topic is that of press and TV journalists, especially those participating in TV shows as hosts or guests and directly speaking on the matter behind the camera. Then there are politicians, followed by experts and scientists. Increasing attention is devoted to the agricultural sector, while less attention is given to the biotech industry (defensive strategy).

8) The evaluations of these communication agents on TV are still mostly negative, but a clearer positioning of opinions emerges: there are more positive and more negative judgements, but fewer neutral opinions. In short:

- the titles of the newspapers tend to remain neutral;
- journalists mainly take negative stances;
- politicians tend to criticize GMOs rather than support them;
- scientist support GMOs for the main part;
- environmental and consumer organizations still look at GMOs with a very critical eye;
- the agricultural sector is also quite critical, though a distinction has to be made between the Coldiretti (National Small Farmers' Confederation) side, absolutely against GMOs, and the CIA (Italian Farmers' Confederation) and Confagricolura (General Confederation of Italian Agriculture) side, open to new compromises. CIA and Confagricoltura, however, are seldom represented on television.

Conclusions

The results of the study carried out by the Osservatorio di Pavia show that in Italy communication on agrobiotechnologies still lacks the quality of information – and the problem is not restricted to scientific content-, the pluralism of opinions, the ability to distinguish between facts and opinions, moderation, etc. Despite the increase in the attention devoted to GMOs, it does not seem that the media enables readers and viewers to form their own opinion on the basis of accurate information. The purpose of GMOs has become a secondary aspect, while the profits of multinationals is placed in the

foreground: it is reasonable to remember that multinationals are not charitable institutions, but this does not mean that their products cannot be put to good use. Can GMOs help defeat world hunger? This may seem a "technical" question, but the media manage to turn it into an ideological question. The media find it hard to understand whether GMOs can be of help in the fight against world hunger. What is much easier, however, is to broadcast the reciprocal delegitimisation of the two parties to the case, laying charges of anti-Americanism – very fashionable during the war – or of compliance with the industries and power. Do GMOs simply influence the quantitative aspects of agricultural production, as the Minister of Agriculture, Mr. Alemanno, states, do they lead to a greater standardisation, or do they help to protect the heritage of Italian traditions and quality products (DOC, DOP, etc.), as claimed by some researchers? The regulations on GMOs undergo continuous changes and the policies adopted in EU countries are inconsistent with one another. Nonetheless, the media should report the current Italian and EU legislations correctly. Food safety is a great concern both in the media and in public opinion. Does a TV debate on GMOs change our state of mind? The risks related to GMOs tend to be presented with a very alarmist tone. With reference to Giancarlo Sturloni's considerations[5], the social acceptability of the risks related to new technologies relies on a wide-ranging risk/benefit ratio. But, as Sturloni rightly says, if the risks are twisted and the benefits are almost ignored, it is hard to believe that the audience can ever come to a realistic evaluation of this risk/benefit ratio.[6]

"To form" and "to inform" are two distinct activities. They rely on different methods and purposes. A TV broadcast whose main aim is educational would probably be bound to commercial failure. This makes the role of the media even more delicate: if in the end the logics of the media were to prevail over the need for high-quality information, communication would result – and it actually does result – in a self-referential short circuit. The above-mentioned cases (Lipobay, Di Bella, mad cow disease, GMOs) and many others function as a warning: if communication continues to adhere to these rules, it will be at the expenses of clarity and information. In the long run, this could lead to inductions such as "Lipobay, Di Bella, mad cow and GMOs $\Rightarrow$ *malasanità* ('bad healthcare')", where the associations and similarities between the

[5] Giancarlo Sturloni, *Food for thought – Communicating food-related risks*, Jekyll.comm, n**. 4**, March 2003

[6] A.A.V.V. *Europeans and Biotechnology in 2002*, Eurobarometer 58.0, 2003.

events are a mere effect of the media, and their political implications can easily be manipulated by one demagogue or another.[7]

What makes these associations possible? It is the view of the world given by the media, which allows a lay public to understand foreign and distant events. The most specific and characteristic features are left out, and this results in the loss of meaning the experts complain about. The media give the events new meaning fitting them into new contexts. This is how the associations that promote understanding come into being, but the event has now taken up a different shape and a different sense. So the media provide all the constitutive elements of the prejudices und erlying experience, classification of the events and relations with the world. The role of the communicator thus becomes increasingly crucial: the relation between the media and public opinion runs the risk of becoming a vicious circle at the expense of the specific meaning of the event. As for what remains, the more familiar it sounds to the lay public, the vaguer it sounds to the expert.

The difficult role of the reporter, traditionally pressing those in charge of food safety (researchers, businesses, institutions) with a rapid succession of direct questions, seems to have been replaced by that of the TV host, trying to gain the assent of the audience (consumers) and acting as an accomplice, with frequent winks and witty remarks.

The tedious struggle for consent has become the ultimate goal for the media: gaining the loyalty of the audience by telling them what they conventionally want to hear. Communication prevails over argumentation. The discourse of the daily press and television o ften closely resembles the "rhetorical" d iscourse of Aristotle's De Interpretatione, as opposed to what he calls "declarative" discourse. The latter aims at stating the truth, while the former – the discourse of the sophists, the lawyers and the hucksters of all times – is content with plausibility, because its main aim is persuasion.

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[7] Anna Meldolesi, *Organismi geneticamente modificati. Storia di un dibattito truccato*, Einaudi, 2001

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