

Neuroscience news journalism in Italy: when ethical standards make the difference

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Abstract

What idea of neuroscience do readers of Italian newspapers share and how does the Italian press write of neuroscience, if we take into account the ethical role of mass media? To answer these questions, we employed a survey: neuroscience news published on the four most popular Italian newspapers (*Corriere della Sera*, *La Repubblica*, *La Stampa*, *il Sole 24 ore* and six neuroscience sections of the latter two), with about 11 million readers (22% of our population) were monitored between January and June 2011. Eighty-two neuroscience news were valued based on criteria established beforehand; of the forty-nine authors, 77% had written of neuroscience only once in the time frame considered, while a small minority (4 %) had authored more than six neuroscience news. Journalists were slightly more than 50% of the total number, the rest being neuroscientists or experts. 40 % of the neuroscience news was substantiated by iconographic material. 85% of the time, the nation or place of the investigation or discovery was mentioned; the name of the team leader or scientist interviewed was available in 90% of the cases; however, 46 % of the neuroscience news reported a generic reference and only 12% of the data included the title of the article and the scientific journal or the reference textbook, for further reading. In addition, our survey seems to go along with our claim that the attitude of both journalists and experts in dealing with the neurosciences is fluctuating. In fact, besides an elevated percentage of accurately reported news on the applications of innovative therapies to treat diseases like Parkinson's, Alzheimer's, ALS, etc., there are still too many neuroscience news that lack a substantial content, objectivity, clarity and style and are, therefore, less "scientific", rhetoric and of poor quality. In dealing with the neurosciences, the unmet but unrenounceable adherence to ethical standards and the ideological partiality typical of our culture may very well be the cause of the low quality we attribute to Italian neuroscience journalism, a loss of meaning and ends being a consequence. In conclusion: who is at fault? We attribute the responsibility to those journalists whose struggle to "attract" more readers abdicate to ethical standards, easily forget that expertise and objectivity are always a requirement and fail to refrain from sensationalism; also, the very little concern for the quality of the information provided proves counterproductive. However, journalists are not the only ones to blame: in our country, a growing number of neuroscientists and experts collaborate in this science journalism enterprise; unfortunately, their approach is often reductionist, ideologically oriented and denies any aspiration to transcendence. The unaware reader becomes, therefore, the victim of a scientific journalism unwilling to provide fair and accurate information, made incapable of acquiring those tools that are necessary to navigate this branch of science and at risk of dangerous equivocations.



Survey

With a population estimated in 52.4 million, Italy has about 24.2 million newspaper readers; between January and June 2011, we selected four major newspapers, including their neuroscience sections and collected a total of eighty-two neuroscience news. The newspapers are:

1. *Corriere della Sera*
2. *La Repubblica* (*Affari e Finanza*, *R2*, *Il Venerdì*, *Insero Salute*)
3. *La Stampa* (*TST*, *Tuttoscienze*)
4. *Il Sole 24 ore* (*Nova*)

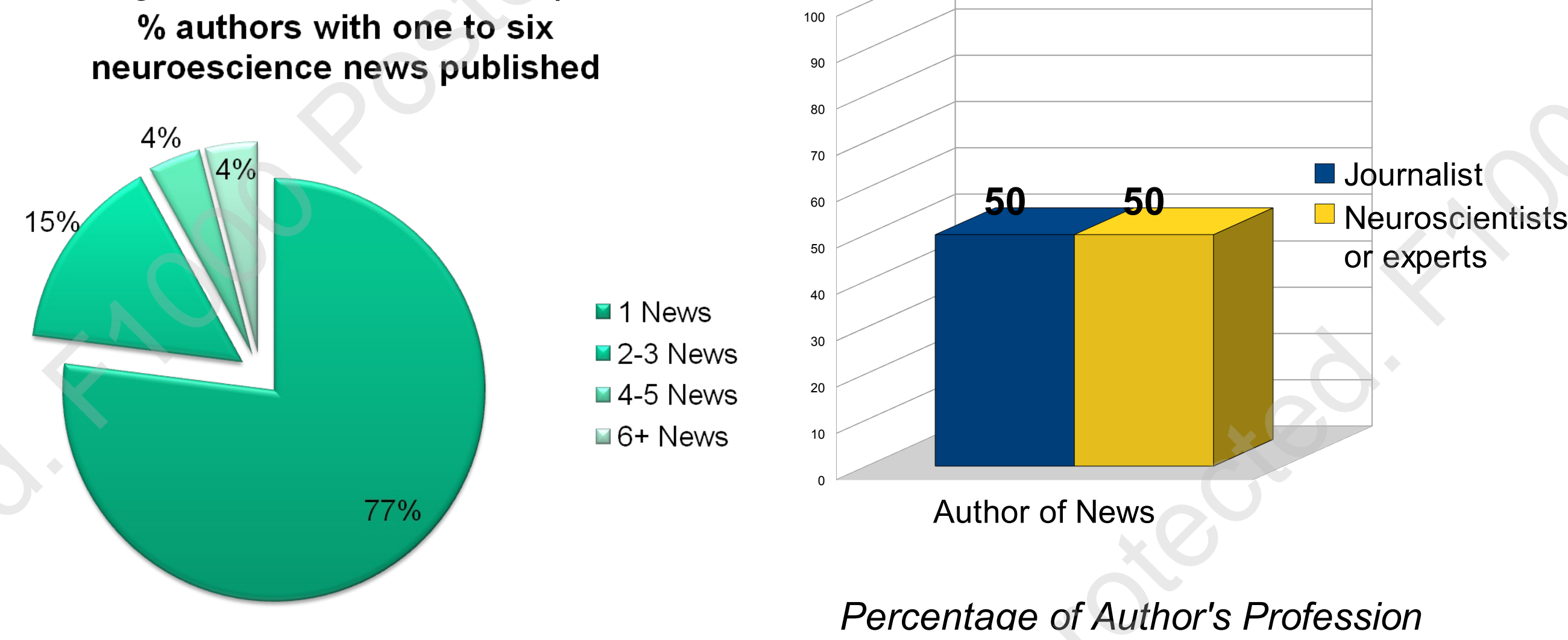
We ended up surveying 48% of the newspaper readers, about 22% of the Italian population:

Newspapers sold	Web site visits	Total number	% Readers	
<i>La Repubblica</i>	3.276.000	920.000	4.196.000	17.3%
<i>Corriere della sera</i>	3.274.000	640.000	3.914.000	16.1%
<i>La Stampa</i>	2.132.000	157.000	2.289.000	9.4%
<i>Il Sole 24 ore</i>	1.015.000	244.000	1.259.000	5.2%
Total	9.697.000	1.961.000	11.658.000	48%

Source Audipress: 2011: <http://www.audipress.it/>

Authors' skills

We found that of 49 authors, 77% had written of neuroscience only once in the time frame considered, while only a small minority (4 %) had authored more than six neuroscience news. Journalists were slightly more than 50% of the total number, the rest being neuroscientists or experts.



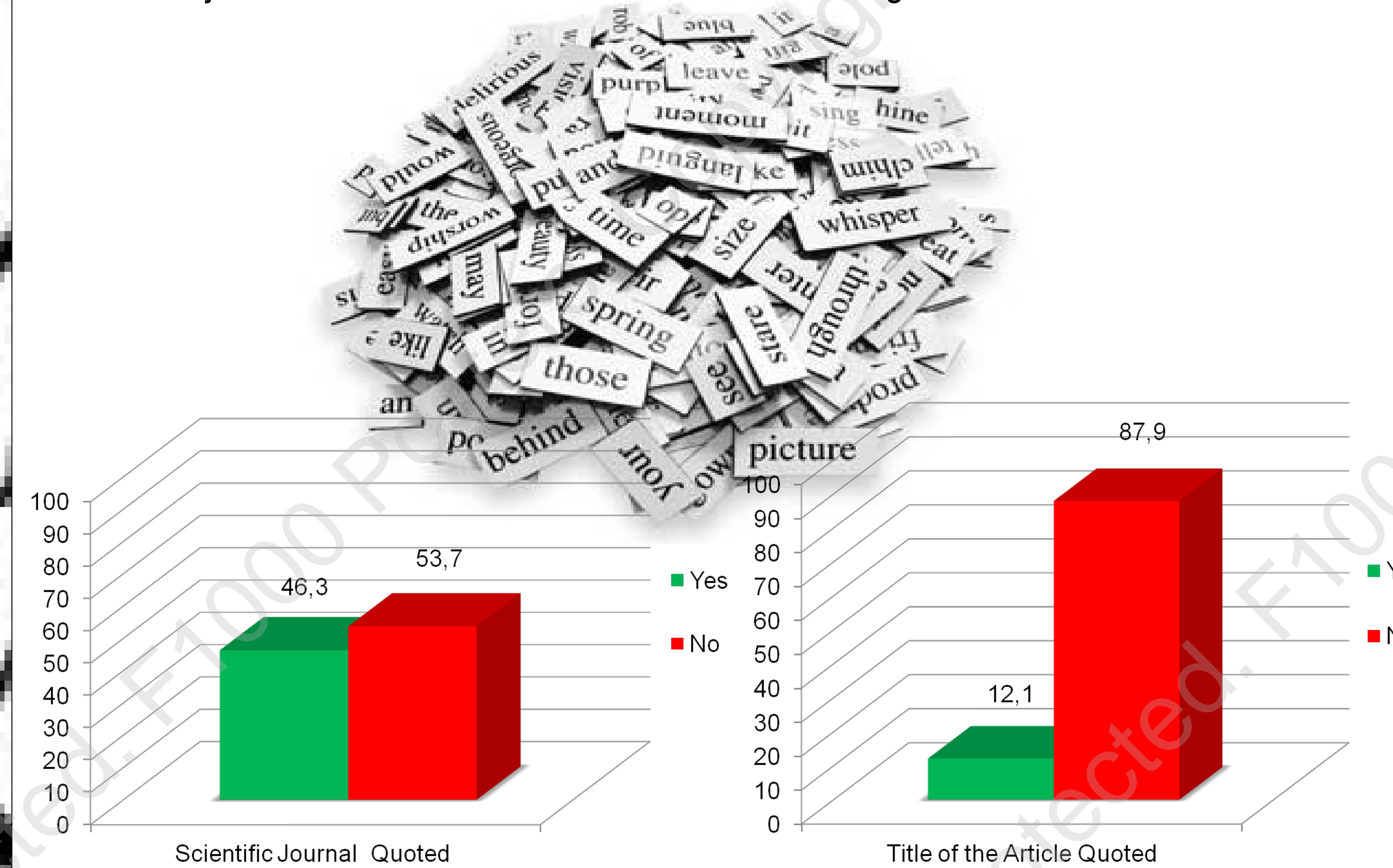
Where & Who?

The nation or place of the investigation or discovery was mentioned 85% of the time; the name of the team leader or scientist interviewed was available in 90% of the cases; we also found that 40% of the neuroscience news surveyed were substantiated by iconographic material.

	N° of articles	%	
Where	70	85.3%	Place: nation. civ. etc.
Who	74	90.2%	Name of the scientist, research team leader or person interviewed
Additional explanatory material	33	40.2%	images – graphs – bars – boxes

Scientific references

46% of the neuroscience news reviewed reported a generic reference (e.g. a scientific journal) and only 12% of the data referred to the title of the article and the scientific journal or a textbook, to allow further reading.

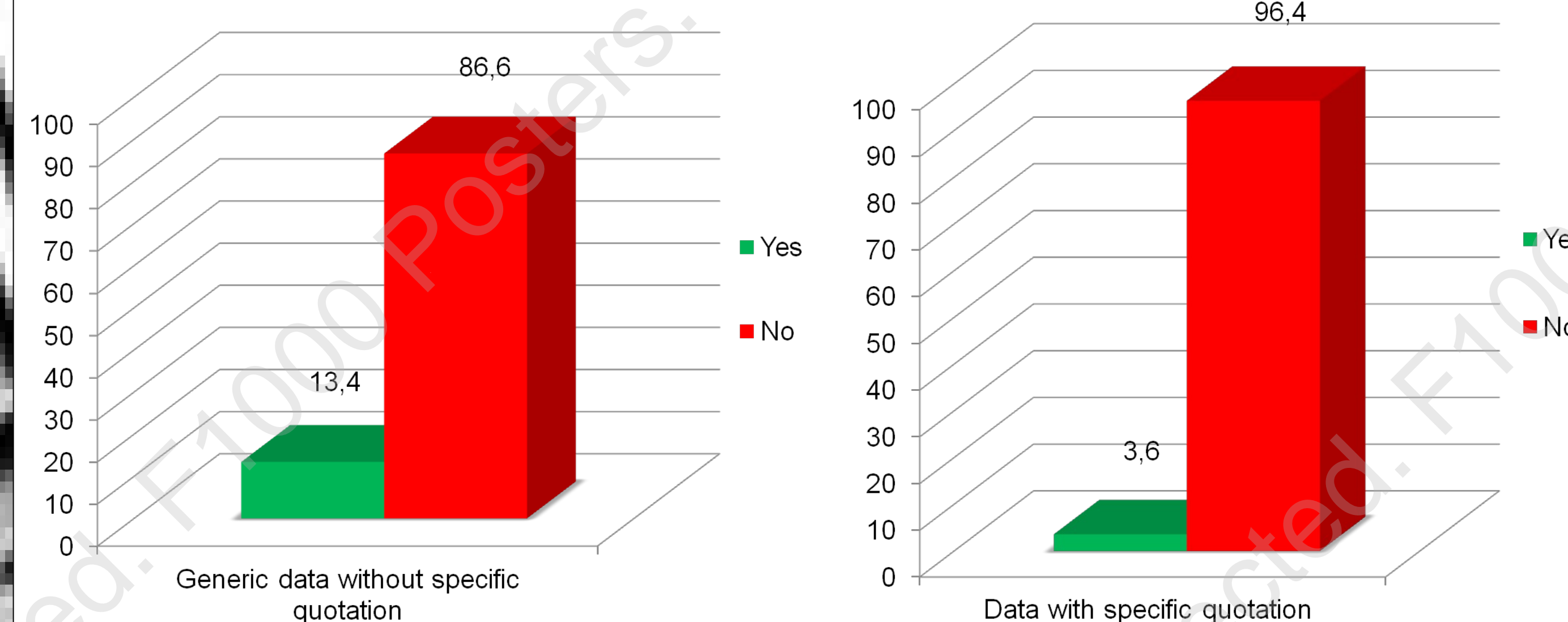


Quoted data



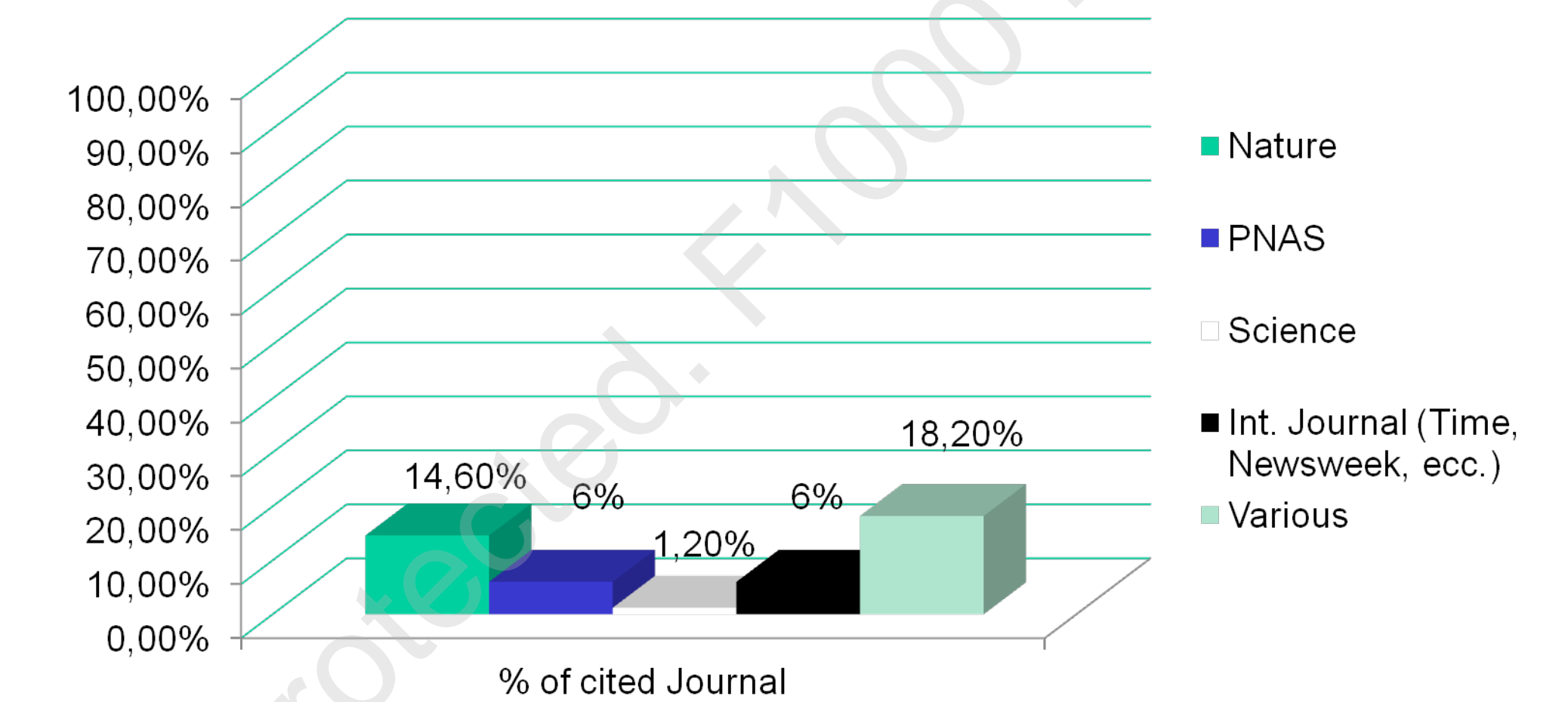
13.4 % of the neuroscience news quoted generic data without mentioning the source.

Among the 11 neuroscience news that reported real data, only 3 gave a quotation (3,6%):



Scientific Journals and their % quotation in the newspapers

- Nature 14,6%
- PNAS 6%
- Science 1,2%
- International newspapers and magazines 6% (*Time*, *Newsweek*, *Wall Street Journal*)
- Others 18,2%



Materials & Methods

Following an initial data collection that lasted about six months, we decided to employ a set of parameters and monitor them in our neuroscience news selection.

The parameters chosen were:

- The author:** the name of the author of the neuroscience news;
- The professional title:** to indicate if the author were a Journalist, a University Professor, a Neuroscientist, a Politician, etc.;
- The heading:** to indicate the name of the newspaper or neuroscience section;
- The page:** the page of the newspaper where the neuroscience news is found;
- The schemes/images/graphics/etc:** to indicate if iconographic material was present or not to facilitate the readers' comprehension;
- Where:** to indicate if a city, nation, University or Institution where the research was conducted or the press release made were quoted or not;
- Who:** indicates if the name of the researcher or person interviewed was quoted or not;
- What:** indicates if the heading of the journal where the neuroscience news was published had been quoted or not (*Nature*, *Science*, *Neuron*, *Pnas*, etc.);
- The scientific heading:** to indicate if the title of the referred scientific article or the name of the textbook had been quoted or not;
- How/data:** if numerical data were available in the neuroscience news or not;
- When:** to indicate the date (d/m/y) of the neuroscience news publication;
- Title:** the title of the neuroscience news surveyed.

Conclusive Remarks

How does the Italian press cover neuroscientific research and neuroethics?

From our survey of eighty-two neuroscience news from four major newspapers over a six-month period (covering almost a quarter of our population and half of Italian newspaper readers), we found that journalists' professional skills do not meet quality and ethical standards especially when it comes to accuracy of reports and references quoted; moreover, if over the years we have seen a growing interest in the public salience and visibility of neuroscientific news, the Italian Neuroscience news journalism lacks the quality that makes the difference!

Moreover, it is desirable that, since public perception of what is "good and bad" in the neuroscientific discourse applied to man has also to do with how the brain-mind-body problem is presented, a non-dichotomous and non-reductionist approach, one that does not negate transcendence and provides a unitary vision of the human person, be more often conveyed to the public.

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