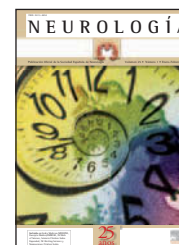




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## EDITORIAL

### Ghost-authors, improvement article communication, and medical publications

J. Matías-Guiu, \* R. García-Ramos

*Servicio de Neurología, Instituto de Neurociencias, Hospital Clínico San Carlos, Universidad Complutense de Madrid, Madrid, Spain*

#### KEYWORDS

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Medical writers;  
Pharmaceutical  
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#### Abstract

**Introduction:** Relationship between ghost-authors and medical writers has been debated, even arriving to citizens. Accusation that through ghost-authors, market messages are introduced in medical journals has been suggested.

**Development:** This paper carried out an analysis of ghost-authors and their application to medical writers and discusses the intellectual authorship of the scientific articles, as well as the relationship with research groups and pharmaceutical industry, as well as the position of journal.

**Conclusions:** The role of medical workers is advisable because improves communication of articles. Using authorship criteria, medical writers cannot be considered as ghost-authors. Misconducts for medical writers should be pursued but also those from editors and authors. Responsibility of articles belongs to authors who are responsible of false conclusions obtained from data research and to the editor in the case of the paper was published.

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\* Corresponding author.

E-mail: inc.hcsc@salud.madrid.org (J. Matías-Guiu).

**PALABRAS CLAVE**

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profesionales;  
Industria farmacéutica

**Autores-fantasma, mejora en la comunicación de artículos y publicaciones médicas****Resumen**

**Introducción:** La relación entre la autoría fantasma y los redactores profesionales de artículos médicos ha estado en el debate, llegando incluso al ciudadano. La acusación que, a través de la autoría-fantasma, se introducen mensajes de mercado también ha sido publicada por algunas revistas científicas.

**Desarrollo:** Se realiza un análisis del concepto de autoría-fantasma y su aplicación a los redactores profesionales y se discute la responsabilidad intelectual de los artículos científicos, así como la relación en grupos de investigación e industria farmacéutica, así como la posición de la revista.

**Conclusiones:** La labor de los redactores profesionales es recomendable para mejorar la comunicación del artículo. Utilizando los criterios de autoría, los redactores profesionales no pueden ser considerados como autores-fantasma. Deben perseguirse las malas conductas no solo de redactores profesionales sino también de editores y autores. La responsabilidad de los artículos pertenece a los autores, que son quienes la incumple si existen aseveraciones que no corresponden a los datos de los artículos, así como al editor que aparezcan publicados.

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**Introduction**

In July 2009, the United States Federal Court decided that 1,500 articles considered scientific and published in important medical journals contained promotional messages that had been written by professional writers hired by pharmaceutical companies as ghost-writers, under the authorship of academics and scientists. Various articles in the *New York Times* brought this topic to the general public's attention, referring to ghost-writing as an academic crime. The reader can find further information on this topic in the literature,<sup>1</sup> and even find "marked" articles on the website <http://dida.library.ucsf.edu/documents.jsp>.

The term ghost-writer<sup>2,3</sup> describes professionals who have taken part in the development of a manuscript but do not sign it as authors.<sup>4-12</sup> Although this has been considered an authorship anomaly, it is also true that in many cases, using ICMJE criteria,<sup>13</sup> these writers are professional writers of medical articles (they are also called *medical writers*,<sup>14</sup> a term that when translated into Spanish could give rise to error, as it could involve the doctors in literature<sup>15</sup>); these professionals should not form part of those who appear as the authors, given that they do not take part in the complete process of the production of the article from an intellectual point of view,<sup>16</sup> as set out in the criteria.

With this, the relationship between the scientific world and commercial interests has been questioned,<sup>9,17-20</sup> along with scientific communication activities in journals and congresses that the pharmaceutical industry undertake.<sup>21</sup> There is concern about the risk that, through such activities, information will be issued that is not regulated by marketing rules and also not filtered by external scientific assessment.<sup>22</sup> In this article, we hope to analyse the neurology management team's view on ghost-writing in relation to the intervention of professional writers in preparing medical articles.

**Medical article writers**

We know that some pharmaceutical companies hire professional writers to collaborate on articles whose authorship belongs to scientists.<sup>12,23</sup> In fact, in *European Editing Science* itself (a journal with European editors), there are occasionally advertisements offering work to professional medical journal writers for collaboration within the industry. Some authors have considered that defining this role as ghost-writing is a mistake.<sup>4</sup> Particularly eloquent is the distinction that Cindy Hamilton makes, clearly separating the work of professional writers from that of a ghost-writer.<sup>25</sup> In her article, Hamilton describes the process that Aleski, an author who must publish an article on research carried out by him, should undertake. When a professional writer turns up, she calls the individual a "professional medical communicator", separating that person clearly from what a ghost-writer is.

Through a Delphi panel, Jacobs et al.<sup>26</sup> have analysed what the role of professional writers should be in scientific articles. Among their conclusions, they state that such professionals should improve the scientific article and that their function should be clearly specified in the manuscript for the reader. The contribution by Karen Shashok<sup>27</sup> is also very enlightening, where she differentiated the interventions on the draft manuscript during the period that leads towards its publication into two types: those that tend to improve it, but adapting it to the criteria and structure of the journals, and those that tend to improve it from the perspective of better message communication and better understanding by the readers.<sup>28</sup> While the first intervention (which she called a selection function) would be undertaken by reviewers<sup>29</sup> or the editor in the external review process,<sup>30</sup> the second one (the improvement function) is carried out by professional writers or translators. As Shashok

recognised,<sup>27</sup> the two functions are not watertight and usually interrelate. In fact, it is unquestionable that external review in many publications has clear objectives aimed at improving the manuscript and even at learning for younger authors; however, such review always involves scientific and methodological areas and not communication capacity, adaptation to the reader's culture or language.<sup>31,32</sup> Thus, the improvement in the second intervention would be seen in better terminology choices, grammar and syntax, in developing figures and tables, in organising the manuscript so that ideas are developed and expressed coherently, and in reasoning and rhetoric.<sup>33</sup> Some authors have suggested that the lack of this second intervention could be one of the reasons for the imbalance in accepting manuscripts from some countries over others.<sup>34</sup>

In an interesting debate published in *Plos Med*,<sup>35</sup> the reader can find two ideological trends. Everybody recognises ghost-writing as a practice to be avoided. However, while some clearly separate the legitimacy and importance of the role of professional writers, others tend to suggest protectionist aspects in the authorship criteria affecting them. It is paradoxical that some editors who find themselves in this line are the same ones who advise authors having a non-English maternal language to use linguistic correctors for their articles, in words similar to *editing by a native English speaker*. Some of these editors even recommend specific companies to carry out this task. In any case, the question of translators participating is not going to be the motive for this article.

### Ethics and professional writers

The debate is not set out as a question of task distribution in elaborating a manuscript, but as an ethical question, under the definition of authorship. The fact that professionals intervene in improving an article and its presentation should not be associated with manipulating the contents of an article.<sup>36</sup> Nor is it necessary for professional writers, even if they have been hired by a company, to be at the service of market interests. Any misconduct in a professional writer's intervention should be condemned, in the same way as it is for authors<sup>37</sup> or for editors,<sup>38</sup> but the fact that there are specific cases does not mean extrapolating that it is a generalised practice, and that has nothing to do with the concept of authorship. Shashok and Jacobs<sup>39</sup> published in *The Write Stuff*, the official *European Medical Writers Association* journal, that after condemning a leading journal for possible non-ethical behaviour by a professional writer, they did not wish to publish a note defending the group. This is, in essence, paradoxical behaviour by the journal.

Recommendations from this association have separated the author's function from that of professional writers,<sup>40</sup> pointing out the need for transparency in their work, their mention in the acknowledgement section defining their work, mention of how their work has been financed, as well as the ethical commitment that the articles are a reflection of the data,<sup>41</sup> in the same way that authors do it. In any case, it is those who sign the articles as authors who have the responsibility to guarantee that the manuscript is a true reflection of the research, not professional writers. Consequently, if this is not the case, the authors should be

first in line to be held responsible for the misconduct. The editor's responsibility and that of the editorial process cannot be obviated if promotional messages appear in articles that are accepted.

### Ghost-writers and the pharmaceutical industry

The United States Federal Court's decision, which we have mentioned previously, puts into manifest a certain trend of opinions held by some publishers who have highlighted the pharmaceutical industry's role in manuscript writing and that scientific publications can be used as a marketing tool. The case in question, which the Federal Court's sentence set out, referred to the risks of a drug used in gynaecology.<sup>42</sup> The medical professional who carried out the selection of the articles marked is also the editor of the journal that has most stressed idea of ghost-writing in articles based on from research financed by the industry. Faced with this criticism, professionals from the affected pharmaceutical industry responded by defending the strict compliance with authorship criteria.<sup>43</sup> In effect, *Plos Med* has published many articles questioning not only the professional writer's role, but even questioning the role of statistics in one of them<sup>44</sup> (although with an editorial that toned it down).<sup>45</sup> This has put the journal at the front ranks of condemnations of ghost-writers, yielding a large number of citations. In this stated article, which defended 75% of ghost-writers in trials carried out by the industry, the criteria used for authorship did not correspond to the ICMJE definition that the publication itself defends. It does not seem reasonable that some criteria are applied differently by the journal itself, depending on individual circumstances. The debate is whether ghost-writing is an unusual or frequent event<sup>46,47</sup> and this obviously depends on the definition of authorship. Other examples of industry-promoted ghost-writing have been documented with paroxetine,<sup>48</sup> gabapentin,<sup>49</sup> rofecoxib<sup>5</sup> and sertraline.<sup>19</sup>

It is true that research promoted by the industry has different characteristics from that which is solely academic. Research centres are hired for its development, companies are contracted to monitor data collection and statistics—even if through independent groups—, articles are written and reviewed by professional writers and approved and edited by the main researchers, under a publication plan that is shared by them and the company.<sup>50</sup> As far as ICMJE<sup>51</sup> is concerned, the author is the person who contributes substantially and jointly to the study creation and design, data collection, analysis and data interpretation, who intervenes in drafting the article and in its intellectual review and who approves the final version to be sent out. The complexity of the research carried out by the industry is a good example that, following these authorship criteria, very few professionals who intervene in these fulfil them, it having been suggested that the remaining professionals should appear in the acknowledgement section or annex. This section should include the participants who are involved in data collection, technical help, helping in the writing, financing, supervision of the research groups and those smaller research contributions.<sup>52</sup> By applying the criteria defended in *Neurology*, we reach the same conclusion.<sup>53</sup> This is why some medical journals have clearly separated

the concept of ghost-writing from the function of professional writers.<sup>54</sup> Not all editors are the same; those of large journals are editing professionals, while those who manage smaller journals are recruited from clinical practice<sup>55</sup> or research. In the second case, the editors are transitory and maintain a relationship with the research field; while in the first, they undertake long professional careers, constituting a specific lobby, which justifies them as being professional and having experience but distances them from direct research.<sup>56</sup> Some editors in this group are those who put the most stress on applying ghost-writing to this task, while non-professional editors, mainly clinicians (who probably better understand the process and complexity of the large multi-centre studies), are the ones who understand the appropriateness of professional writers for these large studies.

## Conclusions

Publishing is not just transmitting knowledge,<sup>57</sup> it is not a supportive model to communicate what you know,<sup>58</sup> it also has such self-serving connotations as professional career, academic renown, availability of access to scientific literature,<sup>59</sup> academic leadership, relevance of institutions or countries<sup>60</sup> and, in short, competitiveness. This means aspects that surpass simple communication of results, because scientific articles not only have to convince us of their veracity (which is inherent in the editorial process), they also have to show the relevance of what they say. In essence, making the communication expressed in the article as good as possible is also the authors' challenge.

In our opinion, the debate centres on two specific aspects. The first refers to whether the professional writers are authors or not. They are not and should not be if they just play a role in improving the communication method of the scientific results, transmitting the way that the intellectual authors have set out the contents. No matter how much some editors or long-standing editors of large journals argue that professional writers are indeed authors (making them into the figure of a ghost-writer), if the authorship criteria are followed, they cannot be authors. The debate is therefore fallacious, which does not detract from the fact that professional writers have an important role in the final writing of the manuscript. It seems legitimate, not only for the authors but for the pharmaceutical industry, that an article including results that could influence them should be prepared as well as possible and be communicated as efficiently as possible, or should comply with all the criteria for a specific publication as closely as possible. We should not reproach the use of professional writers for this, as their collaboration does not imply that the article has been manipulated in favour of that company's interests. On the contrary, the journals themselves (for example, *Neurology*) want their articles to communicate the results and findings of their authors in the best way possible, and therefore consider the work of professional writers as favourable.

The second aspect in this debate refers to whether using a ghost-writer is a practice to avoid, and of that there is no doubt. In our opinion, this practice should be sought out in authorships, because it is not known how frequently articles

created by younger members of research groups are signed by those in charge of them.<sup>61</sup>

The work of professional writers is recommendable for improving the communication in the article, given that these professionals cannot be considered as ghost-writers using the authorship criteria. It is not just misconduct by professional writers that should be pursued, but also that by editors and authors. The responsibility for the article lies with the author and he or she is the one who does not fulfil it if there are statements that do not correspond to the data in the articles, as well as the editor who publishes them. The editors who have become known for frequently publishing data on ghost-writing, especially when not complying with authorship criteria, should not be judges of how often ghost-writing occurs.

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