

Legal and Ethical Aspects of Ghostwriting in Medicine

Agata Wnukiewicz-Kozłowska

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Abstract Ghostwriting in medicine represents a highly significant problem in both legal and ethical terms, and particularly in recent years owing to a sudden increase in the practice. The main goal in this paper is to present the legal and ethical rules connected with the ghostwriting phenomenon. The problem is presented in the context of international, European and Polish law. From a legal perspective the issues bound up with ghostwriting are those of the notion and authorship of a work, authors' rights (both moral rights and copyright), the content of these rights and their nature, as well as the question of the transfer of such rights. From the point of view of ethics there arises a need for reflection on honesty, accuracy and credibility as defined both generally and scientifically.

Keywords Ghostwriting · Authors' rights (copyright and moral rights) · Transfer of authors' rights

Problem

Ghostwriting in medicine represents a highly significant problem in both legal and ethical terms, and particularly in recent years owing to a sudden increase in the practice. The basic and most popular definition, cited by the online encyclopedia Wikipedia, explains that: "a ghostwriter is a

professional writer who is paid to write books, articles, stories, reports, or other texts that are officially credited to another person" ([Wikipedia contributors](#)). According to Elise Langdon-Neuner: "medical ghost-writing is a new term, different from the ghost-writing of autobiographies, fiction and political speeches. The ghost-writers in medicine are medical writers used by pharmaceutical companies or contract research organisations and medical communication agencies that serve the industry" (Langdon-Neuner 2008). Ghostwriting is defined by the World Association of Medical Authors as: "undisclosed contributions by medical writers to manuscripts for publication in medical journals" (World Association of Medical Editors 2005). Ghost authors could also be defined as: "individuals not named as authors who contributed substantially to the preparation of an article or as unnamed individuals who participated in writing the article" (Phillips and Carey 1999).

From a legal perspective the issues bound up with ghostwriting are those of the notion and authorship of a work, authors' rights (both moral rights and copyright), the content of these rights and their nature, as well as the question of the transfer of such rights. From the point of view of ethics there arises a need for reflection on honesty, accuracy and credibility as defined both generally and scientifically. Ghostwriting is not, admittedly, a phenomenon associated solely with medicine. On the contrary, it derives rather from politics—where the composition of speeches by third parties is accepted—and literature—in the writing of autobiographies of famous people on their behalf. However, on account of the specificity of the field, it is in medicine that this practice may bring about effects of the greatest significance. If articles relating to results of research, monitoring of treatment, new discoveries, applications of medicines and their interactions and innovative treatment methods are in practice in whole or a large part

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A. Wnukiewicz-Kozłowska (✉)
Chair of Public International and European Law, Faculty of Law,
Administration and Economics, University of Wrocław,
Uniwersytecka 22/26, 50-145 Wrocław, Poland
e-mail: wnukiewicz@prawo.uni.wroc.pl

formulated or composed by persons with no medical education, no involvement in the research or no participation in the treatment process, there is a serious risk of distortion of data, misrepresentation of results and simplification of occurrences described. In the case of medicine the results of such dishonesty and negligence may affect not only the accuracy of the material, but, worse, the health and even life of the patient. It appears, therefore, that setting out principles, whether legal—in the area of intellectual property rights—or ethical—in scientific research and the reporting of its results—is indispensable in clarifying the problem, pointing out the permissible and the prohibited, and protecting the rights of the author, the readership and the patient.

Legal Aspects

The Notion of a Work

For the purposes of legal analysis it seems most appropriate to refer to that notion of a work presented in legal acts. Since the problem of both ghostwriting and authors' rights is not limited to national law, relevant regulations of international law should be taken into consideration. In the area of authors' rights these are above all the Berne Convention for the Protection of Literary and Artistic Works of 9 September 1886 and its Paris Act of 24 July 1971, the Universal Copyright Convention of 6 September 1952 as revised at Paris on 24 July 1971, and the WIPO Copyright Treaty of 20 December 1996 (Ricketson 1987).

Article 1 of the Universal Copyright Convention provides that: "Each Contracting State undertakes to provide for the adequate and effective protection of the rights of authors and other copyright proprietors in literary, *scientific* and artistic works, including writings, musical, dramatic and cinematographic works, and paintings, engraving and sculpture" (The Universal Copyright Convention 1952). According to the Berne Convention for the Protection of Literary and Artistic Works: "The expression 'literary and artistic works' shall include every production in the literary, *scientific* and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature [...]" (Berne Convention for the Protection of Literary and Artistic Works 1886). The WIPO Copyright Treaty, defining the scope of copyright protection, provides that: "Copyright protection extends to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such" (art. 2) (World Intellectual Property Organization Copyright Treaty 1996). This document also defined the relationship of the Berne Convention to the Copyright Treaty, stipulating that: "Contracting Parties

shall apply *mutatis mutandis* the provisions of Articles 2 to 6 of the Berne Convention in respect of the protection provided for in this Treaty" (art. 3).

In Polish law, as described by J. Barta in his commentary on art. 1 of the act of 4 February 1994 on copyright and related rights: "the subject of copyright is the **work**" ("The subject of copyright is every expression of creative activity of an individual character, recorded in any form, irrespective of value, purpose and manner of expression (work)", art. 1 sec. 1 of the act on copyright and related rights) (Act of 4 February 1994). This is a non-material legal good, which should be distinguished from the material subject (the material means of conveying, also defined as the *corpus mechanicum*), on which it is usually recorded" (Barta et al. 2001). A non-material product, in order to qualify as a "work" as defined by art. 1 sec. 1 of this act, should (a) constitute the result of the work of a person (author), (b) constitute an expression of creative activity, and (c) have an individual character.

Taking into consideration these articles quoted regarding the notion of a work, the following conclusions may be drawn. A work is literary, artistic or scientific (irrespective of the form in which it is expressed), created by a person as part of creative activity (meaning, for instance, in writing, research or interpretation) and of an individual character (and therefore unique, innovative, of the author) (Colston and Middleton 2005). Thus, relating the general definition of a work to publication in medicine, there should be categorical qualification of a medical article first as a work and second as an expression of creative activity in the field of science. With the above established, it is without doubt safe to state that a scientific publication or article is subject to copyright protection.

The Concept and Scope of Copyright and Moral Rights

It transpires from the articles quoted above, drawn from international conventions relating to authors' rights, and the act on copyright that the subject of the protection of intellectual property rights is the work. As is also indicated above, a work is defined as a so-called non-material legal good, which should be distinguished from the material subject (the material means of conveying, also defined as the *corpus mechanicum*), on which it is usually recorded. The first to turn attention to this peculiar dichotomy was Kant, introducing a distinct differentiation between ownership of the *opus mechanicum* of a work, to which there is a property right, and the expression articulated in the work. From this perspective, with which there should in principle be agreement, a work is not solely a material thing, the subject of circulation. This is the means of conveying on which the work was recorded which has this material significance (e.g. the book). The content of the work,

however, is the expression of the author, his thoughts and views. As defined explicitly by Kant: “the right of the author is not a right to the thing, that is, to a copy (for an owner may burn such before the eyes of the author), but an innate right, immanent to his person”. At once there arises here an analogy with the notion of dignity, which is both for Kant and in general in contemporary law understood as a personal quality of each individual, based on humanity and integrated with the person (Goldstein 2001; Josselin 1992; Nizankowska 2007).

In line with the conception initiated by Kant, copyright and moral rights are differentiated, with a consequence of the acceptance of this dualistic conception of authors’ rights being the introduction of separate legal status for the two groups. At the same time, it should be emphasized that the internal legislation of states does not necessarily link both of these concepts. There is a distinct division into a Continental doctrine and an Anglo-Saxon one, the former recognizing both types of protection, with moral rights (*droit moral*) even given priority, the latter focusing on the economic aspect of authors’ rights and their protection in copyrights (Bainbridge 2009; Colston 1999; Cornish 1981; Goldstein 2001).

In England the trend had been firmly towards a scheme of statutory protection which regulated the scope of these rights. Common law rights were thus regarded as the precursors to the statutory claim to exclusivity, balancing it with policy requirements and public interest where appropriate. In contrast, the system of copyright in France was still solidly grounded in natural law. The French laws had given formal expression to the philosophical position that authors had an inherent property right in their work (McJohn 2006; Radkova 2001; Seville 2006).

For deliberations on the issues of ghostwriting the question of material rights is of marginal significance since these rights encompass use of a work and control in all fields of exploitation as well as remuneration for such use. They thus place the author in the position of ‘owner of a thing’, with the potential to perform actions binding as well as binding and authorizing. An example of this type of action is the transfer of copyrights or an agreement on use of a work, the so-called license, in such fields of exploitation as recording, multiplication, introduction to circulation, public performance and reproduction. In all of these situations the author of the work is clearly indicated, with the subject of a contract being the fields of exploitation and manner of use defined within.

At the heart of the matter in the practice of ghostwriting is concealment of the true authorship of the work and its attribution to another person. Practice of this type infringes moral rights, the essence of these rights being unlimited in time and not subject to waiver or to the dismissal of the bond between author and work. This bond is defined as the

personal relationship of the author to the work and is understood above all as the right of the author to mark the work with his surname or pseudonym or make it available anonymously, the right to the inviolability of the content or form of the work and its honest use and the right to decide on first publication and supervision of the manner in which the work is used (such a sample enumeration is contained within art. 16 of the Polish act on copyright and related rights).

It should be emphasized that the question of moral rights protection is not self-evident in international regulations. The Berne Convention, for instance, protects both types of authors’ rights, while formulating the principles of this protection as a minimum standard, not restricting the potential of states parties to the agreement to extend the level of protection (Goldstein 2001). The scope of moral rights protection guaranteed in the Convention encompasses the right to claim the authorship of a work and the right to oppose every kind of distortion, mutilation or other change to the work which could bring discredit to dignity or good name. Decidedly, however, both the Preamble and the first article make it clear that the primary concern here is the person of the author (Colston and Middleton 2005). The Universal Copyright Convention in turn concentrates solely on copyright, not relating to moral rights. The difference in the scope of protection most likely results from the purposes the conventions are to serve and their geographic influence. The Berne Convention came about first and adopted principles established in the legal systems of European states. As a consequence, protection on the basis of this agreement is provided irrespective of whether formalities are completed and encompasses both types of authors’ right. The Universal Copyright Convention, however, based originally on a greater universalism, takes into account only copyright. Each solution has benefits and drawbacks. From the point of view of fullness and cohesion in protection of the rights of the author, more favorable solutions are contained within the Berne Convention, presenting a broad, objective scope of protection. At the same time, however, the imperfection of this convention is a comparatively limited circle of signatory states. By contrast, the Universal Copyright Convention protects the author to a limited extent, yet, in line with the intentions of its creators, reconciling to a certain extent the Anglo-American and Continental conceptions, it is effective in a larger number of states. It is worthy of mention here that the United States is a signatory to both conventions, though its accession to the Berne Convention came only after 102 years had elapsed since its creation (McJohn 2006; Patterson 1968).

For the protection of authors’ rights it is also essential to underline that these rights are personal rights, to be discussed at the level of human rights (Holderness 1998). It is sufficient to quote art. 27 sec. 1 of the [Universal](#)

[Declaration of Human Rights](#), which provides that: “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” ([The Universal Declaration of Human Rights](#)). Admittedly, while the Universal Declaration of Human Rights does not have a formally binding character, it is undoubtedly endowed with great moral authority and to a significant extent does bind states, a reflection of general principles and custom. In fact, the provision quoted was reproduced by states in the form of the (binding) international agreement which is the [International Covenant on Economic, Social and Cultural Rights](#), in art. 15 sec. 1 cl. c, which provides that: “The States Parties to the present Covenant recognize the right of everyone: [...] To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author” (The International Covenant on Economic, Social and Cultural Rights).

When it comes to European Union law, the conception of authors’ rights is not entirely clear. It is emphasized that in the past the competences of the European Community in the area of these rights were disputed, for a principle of EU law is that its institutions exercise only such competences as have been granted by the states in treaties (Keeling 2003; Seville 2009). The Treaty of Rome provides in art. 222 that it: “shall in no way prejudice the rules in Member States governing the system of property ownership”. This formulation has been interpreted as the exclusion of these intellectual property rights from application of the rules of the treaty establishing the EEC (The Treaty of Rome 1957).

The European Commission has commented on the question of moral rights. In a document from 19 July 2004 published by the Commission entitled [Commission Staff Working Paper](#) on the review of the EC legal framework in the field of copyright and related rights it was stated that although there are differences in the protection of moral rights in individual member states, there is to date a lack of evidence that these impact negatively on the proper functioning of the common market, despite the fact that sometimes—and particularly in an electronic context—such instances may arise. It was observed that in practice the articles of the Berne Convention provide a sufficient level of protection, and indicated too that this is also supported by the conclusions of research conducted at the request of the Commission in 2000 by outside experts. As the Commission recapitulated: “On the basis of these arguments there is no apparent need to harmonise moral rights protection in the Community at this stage” (Commission Staff Working Paper).

At the same time, however, the European Court of Justice (ECJ) has defined sufficiently clearly the significance and nature of moral rights. For instance, in the Phil Collins case

the ECJ acknowledged the importance of moral rights, stressing that these allow authors to oppose any mutilation, deformation or other manipulation and alteration of their work which may be detrimental to their reputation (Case T-68/89 1991). In the Case T 68/89 judgment, the court went even further, holding that the essential function of copyright is to: “protect the moral rights in the work and to ensure a reward for the creative effort” (Cases C-92/92 1993).

One way or another, even if EU law does lack direct regulations relating to the question of moral rights protection, the duty to protect this type of right may derive indirectly from the Berne Convention, on the basis of the WIPO Copyright Treaty, to which the European Union has been a party since 14 March 2010 (Keeling 2003; Langdon-Neuner 2008). Article 1 sec. 4 of the WIPO Copyright Treaty imposes on the parties the obligation to abide by art. 1–21 of the Berne Convention, while art. 6 bis sec. 1 of this convention provides that: “Independently of the author’s economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation” (Rosenblum 2004).

The Question of Transfer of Authors’ Rights

Owing to the nature of the practice of ghostwriting, manifested in the complete transfer of all of the rights of the true author of a text to the person denoted as the author of the work, though not in fact being such, the permissibility of a contract for the transfer of authors’ rights should be considered. In the case of copyrights the question of transfer is not in doubt. It is in keeping with law and widespread enough. It is possible to accept the form of assignment or absolute transfer of the right of ownership, exclusive license or the authorization to exploit the work in accordance with the procedures provided for in the contract to the exclusion of any other person, including the author, simple license or the authorization to exploit the work in competition with other authorized third parties. With regard to ghostwriting the transfer of copyrights alone does not exhaust the issues, the fundamental problem being the question of transfer of moral rights. In the classical view this type of practice is inadmissible, whereas in contemporary commentaries referring to newly developed practice attempts may be encountered to justify the need and consider the potential for such (Goldstein 2001).

The key issue as regards this potential for contractual transfer of moral rights is determining the conception of these rights with which we are dealing, whether we are working under Continental law, treating moral rights and copyright as an integral whole, or in a common law system,

in which copyright is of fundamental importance and moral rights are treated as peripheral.

In states adhering to the principle of the inseparability of both types of right, such as Germany, France and Poland, an agreement on transfer of moral rights is unlawful. In states in which the conception of copyright dominates, such as the United States and the United Kingdom, the potential for such contractual transfer is not ruled out (Colston and Middleton 2005, Rosenblum 2004).

In the classical Continental view, these rights come into being naturally in line with the basic principle on behalf of the author. In the matter of determining the identity of the author the presumption is that he is the person whose name is presented as such on copies of the work or whose authorship has been made publicly known in any other manner in connection with the distribution of the work (see, for instance, art. 8 sec. 2 of the act on copyright). Moral rights relate to the non-property (non-economic) sphere of author interests, linked with a specific work, and come into being at the moment at which the work is established, even if it has an ongoing nature. Accepted widely and rather unanimously is the doctrine that moral rights are so closely linked with the person of the author that they may be neither relinquished nor dismissed. Nonetheless, it should be pointed out that the formation of a judicial interpretation (admittedly entirely contrary to previous practice and theory), according to which individual moral rights may be the subject of waiver or dismissal, is not out of the question. In the case of the Polish act, the basis for such an interpretation would then be the ‘scrupulous’ linguistic interpretation of art. 16 since this article states solely that the bond between author and work is not subject to waiver or dismissal. Unsettled, therefore, is the question of actual potential for waiver or dismissal of individual rights protecting this bond. It may additionally be argued that the transfer of individual moral entitlements does not determine the simultaneous renunciation or transfer of ‘the bond between author and work’ (Gawlik et al. 2009).

As far as principle is concerned, civil law provides for freedom of contract. In states with a common law system this is understood rather broadly, including with reference to this area of authors’ rights. This contractual freedom concerns both the economic rights, that is, copyright in a strict sense, and the non-economic rights. A copyright exploitation contract in copyright countries may, therefore, be defined as follows: “A legal act whereby the copyright owner undertakes either to transfer copyright or to authorize acts of exploitation in respect of copyrighted works; the author may, by the same act, definitely relinquish his or her non-economic prerogatives pertaining to the work, or authorize the other contracting party to undertake any act infringing those prerogatives” (Josselin 1992). In states with a Continental legal system agreement on transfer is

restricted to copyrights, and a contract for the exploitation of authors’ rights in this system may be defined as: “a legal act having as its object the economic rights of the author in respect of his work, whereby the author transfers his rights within a necessarily specified limit” (Josselin 1992).

The difference between the two legal systems in understanding of these rights and subjecting their contractual relationship to scrutiny thus arises out of three questions. Above all, in a Continental system copyrights alone may be the subject of a contract for transfer, justified by the fact that moral rights are inalienable and fall outside the scope of legal transactions Colston (1999). In a common law system there are no such restrictions. In addition, economic rights, which find practical expression in the monopoly of exploitation, may be transferred, but this does not entail transfer of full ownership. In a common law system transfer of these rights may be absolute in nature. Finally, in Continental law transfer of indeterminate scope will be subjected to the appropriate restriction of the courts. Under common law this type of contractual restriction of transfer purpose does not occur.

In the case of the output of ghostwriters there occurs in practice the transfer by them of all copyrights and the simultaneous waiver of the exercise of moral rights. The situation is similar in relation to the creative contribution of the ghostwriter when from the circumstances it transpires that he is the co-author, and not the sole author, of a given work. The subject of a ghostwriting contract is the creation of a work and its distribution as the product of another. The question may thus arise of whether the ghostwriter is the author, possibly the co-author, of a work, of whether his role consists of nothing but functioning as an individual human tool utilized for the technical compilation of the work (Colston and Middleton 2005).

Reducing the role of an author (in this instance that of a ghostwriter) to a function characteristic of an object would appear to constitute denial of the essence of the process known as artistic production. After all, moral rights take us to the heart of the key question of what it is that makes art different from other goods. It also raises the question of what makes artists different from other producers (Rushton 1998). In responding to what is admittedly a rhetorical question, it should be stated categorically that reducing artistic production and its effects in the form of the works created solely to the role of a good is unacceptable. To be sure, it is possible to invoke the definition of a good in EU law to classify a work as such, since it is possible to express its monetary value and it may form the subject of a commercial transaction. Nonetheless, the value of a work is not only its objective aspect, but also its subjective one, which is manifested in practice even if only by recognition or its absence in relation to a particular author. That element distinguishing a work from other goods produced and distributed on the market is, however, its non-economic value.

As such, a work is treated in law as a so-called personality right, understood as a subjective right of a nature absolute and inalienable. This category also encompasses scientific works, or the result of artistic production as positive legal rights—in contrast to natural rights—formed during the development of social life and finding their expression in legal or judicial norms (Gawlik et al. 2009).

From the point of view of civil law it would be of value to consider whether in reference to the practice of ghostwriting, which infringes the moral rights of the author, it is possible to speak of a lack of unlawfulness based on the consent of the true author of the text. It appears that in the case discussed, that of commissioning a text from a ghostwriter, the use of both consent and justification is out of the question. In medical treatment, for instance, the consent of the patient averts the liability of the physician for violation of the physical and psychological integrity in the area designated. A similar effect is triggered by construction of a justification. Considering, however, the civil law view of the exclusivity of an author concerning moral rights, and, on account of this, their inalienability, consent does not remedy the unlawfulness of publication of a work under the surname of a person other than the author. Furthermore, it should be underlined that it is not possible for the consent of an authorized entity to be contrary to the fundamental values acknowledged by a legal system. In particular, the phenomenon that is the commercialization of personality rights, intensifying of late, and occurring also in the case of authors' rights, does not justify the assumption that this consent may be limited in some way. Indeed, being contrary to law or to principles of social coexistence, it will in fact be recognized as legally ineffective.

There is also no use of justification given the lack of a circumstance in the relationship between fictitious author and ghostwriter which would justify the appropriation or 'purchase' of the moral rights to the work. Neither the interest of the fictitious author in the form of publication of a scientific paper and acquisition of possible benefits from it—whether personal (e.g. standing, the respect of the community and acknowledgement of scientific competence) or material (payment for the formulation of the views in a text or employment on the basis of papers published) —nor the material benefit on the part of the ghostwriter constitutes a basis for averting liability in law.

Ethical Aspects

Scientific and Medical Ethics and the Practice of Ghostwriting

Cognitive ethics are based on the assumption that the overriding purpose of science is the accumulation of

knowledge and discovery of truth. This goal is accomplished through the realization of a group of norms regulating scholarly conduct, norms which include above all credibility, objectivity, openness and disinterestedness (Resnik 1998; Rollin 2006; Shamoo and Resnik 2009). In the case of the practice of ghostwriting the norm of credibility is certainly violated. In doctrine there is a critical definition of this type of activity; it is described as: “bad publication practice in the medical sciences, and some argue it is scientific misconduct” (Gotzsche et al. 2009). It is also underlined that scientific communication depends on trust. Application of a method by which the true author of a text is concealed and his moral rights are transferred thus violates principles of scientific ethics.

With regard to professional medical ethics, it is best to begin with the fundamental principle binding a representative of the profession, contained within the traditional Latin formula “*Salus aegroti suprema lex esto*”; there is also the contemporary wording of the [Declaration of Geneva](#) adopted by the World Medical Association in Geneva, September 1948: “The health of my patient will be my first consideration” (Declaration of Geneva). In assuming this primacy of the good of the patient over other values and laws, it may be pondered whether utilizing the services of ghostwriters gives rise to a contradiction, for this type of practice may expose patients and physicians to risk, such as interpretation and possible application in practice of research results based on data either false or misrepresented owing to a lack of professional preparation.

An interesting conception has been adopted in the Polish Code of Medical Ethics, in art. 49: “Addition of one's surname to the work of a team in which one did not participate or omission of the surnames of persons who did in fact participate is a violation of ethical principles”. This article relates to violation of the rules of honesty and, understood broadly, to the ethics of scientific research. Conduct of this type admittedly constitutes neither plagiarism, fabrication of data nor falsification of results. Nonetheless, it is undoubtedly within the limits of the notion of scientific dishonesty. If omission of the surnames of individuals who have participated in research constitutes an offence against honesty and is morally reprehensible, it may well be wondered whether the omission of the true author of a scientific text and, further, its replacement with that of another researcher or scientist, does not in actual fact constitute the same type of offence. From the point of view of ethics and honesty in science this type of behavior would appear to qualify as dishonest since, above all, it is at variance with the truth and, moreover, consists of nothing but use of the skills and abilities of another under one's own surname. Thus the commissioning of a ghostwriter to write a scientific text and the provision of this text with one's own surname would appear in turn to possess

the hallmarks of an act of dishonesty, which, particularly in science, with its assumption of honesty, should be met with condemnation.

There may be observed, however, a distinct tendency to relativize and attempt to justify the ‘ethicity’ of the practice, with this seeming to result in large part from the particular activity of the lobby of so-called medical authors. For instance the European Medical Writers Association (EMWA) has drawn up guidelines on the role of medical writers in developing peer-reviewed publications. This initiative was justified by the association as being necessary to provide guidance for medical writers and to outline the legitimate role of professional writers in developing publications (Jacobs and Wagner 2005). It is worthy of note that used in the justification itself is the term “legitimate”, which indicates that in the opinion of the EMWA the commissioned writing of scientific articles is not treated as a practice contrary to law.

The most significant issue with regard to these guidelines is the definition of authorship. This is based on the following requirements: the named authors should have made a substantial contribution to study conception and design, or data analysis and interpretation, drafting the article or revising it critically for important intellectual content, and final approval of the version to be published (Jacobs and Wagner 2005; Swedberg 2008). On account of this definition the conclusion is drawn that in essence so-called ghostwriters will therefore fulfill solely an editorial function, which limits the risk of infringing authors’ rights considerably and means that the substance of a study will be guaranteed by the researcher/physician. As a matter of fact, it is stressed in the guidelines cited that named authors should be prepared to take public responsibility for at least one aspect of the research. A reflection of the conception of the ‘editing’ of texts by medical writers is the introduction of two terms, ghostwriting and ghost authorship. There is an important distinction between these two notions. Ghostwriting occurs when a medical writer drafts a paper under the direction of a named author, and ghost authorship occurs when the unnamed ghostwriter not only writes the paper, but also has control over its intellectual content. The practice of ghostwriting understood as such is simultaneously recognized as being ethical, while activity within ghost authorship is described as unethical (Jacobs 2005). In addition, underlined clearly is the need for transparency with regard to the actual participation of a named author in the creation of a work.

It is at the same time safe to agree with the view that none of the criteria for authorship are satisfied when physicians are paid to place their names on reviews written by someone else, because they did not participate to any significant degree in the research and writing of the manuscript. Those who actually do the research and

then write review articles and editorials for scientific journals should be clearly acknowledged as authors of those articles and take responsibility for the work (Cullen 1997).

Conclusions

Concluding these legal and ethical deliberations concerning the phenomenon of ghostwriting in medicine, attention should be paid to the following problems. Above all, as demonstrated, the practice of ghostwriting is indeed tied to issues of copyright and civil law as broadly understood. Depending on the conception adopted in a given legal system, it may seriously infringe rights related to intellectual property, in particular moral rights, or non-material rights (McJohn 2006). It is beyond doubt that in the legislation of Continental system states the conclusion and execution of a contract for ghostwriting is contrary to the law and violates the personality rights of the author of the work. In other words it constitutes a legally inadmissible practice. The situation is otherwise in states with a common law system, where moral rights are treated as peripheral in comparison to material rights. In these countries the conclusion of a contract transferring these rights is acceptable, in both economic and non-material aspects, in the sense that the legal system does not distinguish the moral rights of the author. At the same time, however, it should be emphasized that the question of such rights is also a subject in international law. The relevant conventions referred to in this text relate to this question, as does the internal law of states, though in a manner which varies. The Berne Convention provides for the protection of both types of right, while the other conventions concentrate on economic rights. Nonetheless, in line with the general principle of international law, *pacta sunt servanda*, states that are parties to an agreement should abide by its provisions. Simultaneously, according to the Vienna Convention on the Law of Treaties, states may not justify the non-performance of obligations resulting from an agreement as being due to a conflict with national law. Therefore, states acceding to the Berne Convention, even if they are common law states, should in their law take account of moral rights protection.

From the point of view of ethics, the practice of ghostwriting gives rise to serious reservations, violating as it does general moral principles as well as principles relating to the practice of science and the medical profession. Of concern here are honesty, accuracy, the dignity of the profession, public confidence, credibility, disinterestedness and the good of the patient. However, we are in this sphere also dealing with a certain relativization. This practice is visible in the activities of associations of

medical authors which, though admittedly on certain conditions, do allow ghostwriting in medicine.

It should thus objectively be acknowledged that as far as principle is concerned ghostwriting may significantly violate both legal and ethical norms, although the practice is not prohibited in absolute terms. On the contrary, it occurs and is evolving, bringing about a relativization of legal and ethical regulations. This is, as may be suspected, a result of the practice, and practice is, in fact, of crucial significance: no system of norms, whether legal or moral, will, in itself, in isolation from human honesty and decency, ensure respect for human rights (in this case property rights, authors' rights and the rights of the patient).

Ultimately, therefore, it appears that in the area of law, ethics and practice two different views representative of the problem will clash. Above all, according to one, "moral rights are indeed of equal if not greater importance than pecuniary rights" (Kase 1967; Niżankowska 2007); and furthermore, "Ghostwriting debases fundamental tenets of the medical profession. It violates authors' personal integrity, responsibility, and accountability. More importantly, ghostwriting threatens the very fabric of science and thus the validity of our medical knowledge, and in doing so it jeopardizes patient care" (Kassirer 2009). According to the second position, "Potential benefits associated with the use of professional medical writers include improving the quality and readability of articles, leading to enhanced acceptability, speeding the submission process, and educating researchers in writing, editing, and good publication practices" (Lagnado 2003).

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