

TESIS DOCTORAL

# ESTRATEGIAS DE PRODUCCIÓN ACADÉMICA DE LOS INVESTIGADORES ESPAÑOLES EN UN CONTEXTO GLOBALIZADO

## Dificultades, motivaciones y pautas de publicación

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# Estrategias de producción académica de los investigadores españoles en un contexto globalizado: dificultades, motivaciones y pautas de publicación

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*A Ibán y a Jana, mi inspiración.*

*A mis padres y a mis preciosas abuelas, por enseñarme la vida, cada uno a su manera.*



*«For the potential author the choice of language is only one aspect of the complex process of research communication and identity construction.»*

A. Duszak y J. Lewkowicz (2008)

*«Peripheralized scholars are in a unique position to field-test current dominant centre theories from alternative perspectives and investigate issues that may never occur to mainstream scholars.»*

D. D. Belcher (2007) al respecto del trabajo de J. Flowerdew (2001)





La presente tesis doctoral corresponde a un compendio de trabajos previamente publicados, que se especifican a continuación:

1. Moreno, A.I., Rey-Rocha, J., Burgess, S., López-Navarro, I. y Sachdev, I. (2012). Spanish researchers' perceived difficulty writing research articles for English-medium journals: the impact of proficiency in English versus publication experience. *Ibérica*, 24, 157-184.
2. López-Navarro, I., Moreno, A.I., Burgess, S., Sachdev, I. y Rey-Rocha, J. (2015). Why publish in English versus Spanish?: Towards a framework for the study of researchers' motivations. *Revista Española de Documentación Científica*, 38(1), e073.
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D. Miguel Ángel Quintanilla Fisac, Catedrático de Lógica y Filosofía de la Ciencia de la Universidad de Salamanca y Director del Instituto Universitario de Estudios de la Ciencia y Tecnología, D. Jesús Rey Rocha, Investigador Científico del Instituto de Filosofía del Consejo Superior de Investigaciones Científicas y D<sup>a</sup> Ana I. Moreno Fernández, Profesora Titular del Departamento de Filología Moderna de la Universidad de León,

**CERTIFICAN:**

Que el trabajo doctoral por compendio de artículos o publicaciones realizado bajo su dirección por D<sup>a</sup> Irene López Navarro, titulado “Estrategias de producción académica de los investigadores españoles en un contexto globalizado: dificultades, motivaciones y pautas de publicación”, reúne las condiciones de originalidad requeridas para optar al grado de Doctor en Estudios Sociales de la Ciencia y la Tecnología por la Universidad de Salamanca.

Y para que así conste, firman la presente certificación en Salamanca, a 21 de abril de 2015

Fdo. Miguel Ángel  
Quintanilla Fisac

Fdo. Ana I. Moreno  
Fernández

Fdo. Jesús Rey  
Rocha



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## 1. Introducción

La comunicación científica es una actividad inherente a la tarea investigadora. Más allá de fronteras y particularidades nacionales, la necesidad de compartir los resultados de una investigación con el resto de la comunidad científica ha sido una de las constantes que han caracterizado esta actividad profesional desde sus inicios. Esta transmisión de conocimiento se llevó a cabo, en un primer momento, a través de cartas manuscritas o exposiciones orales para, más adelante, circunscribirse principalmente al ámbito de las publicaciones científicas especializadas (Priest, 2010). Así, desde la aparición del primer ejemplar de este tipo de revistas, en el año 1665, el género del artículo científico se ha ido consolidando hasta convertirse en el principal canal para la difusión de nuevos resultados (Meadows, 1980, 1985).

En el ámbito de la comunicación científica, distintos idiomas -como el alemán, el francés o el inglés- han alcanzado a lo largo de la historia el estatus de lenguas vehiculares (Nyhart, 2015). Sin embargo, la ciencia contemporánea ha asistido a un notable incremento del uso del inglés para fines académicos, de modo que, hoy en día, los registros científicos escritos en otras lenguas son cada vez más escasos (Ammon, 2012). Como consecuencia, este hecho ha puesto de manifiesto algunas dificultades y desigualdades a las que se enfrentan los investigadores no anglófonos a la hora de desarrollar su actividad profesional en un contexto que perpetúa el inglés como lengua franca en la comunicación científica (Tardy, 2004; Lillis y Curry, 2010). Asimismo, ha dado origen a un cambio en las pautas de publicación de los investigadores españoles asociado a las diferentes actitudes relacionadas con la elección de la lengua en la que comunican sus resultados (Curry y Lillis, 2004).

En este contexto, la presente tesis doctoral analiza las dificultades percibidas por los investigadores españoles a la hora de escribir artículos de investigación, tanto en inglés como en su lengua materna, así como las motivaciones que influyen en su decisión de publicarlos en uno u otro idioma. Su contenido sigue la estructura recomendada por la Comisión de Doctorado y Posgrado de la Universidad de Salamanca a través su «Procedimiento para la presentación de la tesis doctoral en la Universidad de Salamanca en el formato de compendio de artículos/publicaciones», de 15 de febrero de 2013.

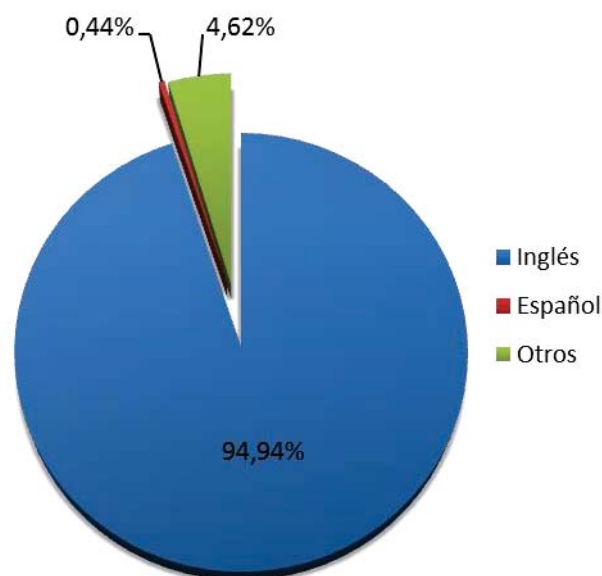
La composición de esta tesis incluye, además de los tres artículos que desarrollan el contenido principal de la investigación, un capítulo introductorio dedicado a justificar la unidad temática de la tesis doctoral y la relevancia e implicaciones del tema objeto de estudio (1.1). A continuación se dedicarán los siguientes epígrafes a la introducción de los dos grandes temas abordados en los artículos: las dificultades de los científicos no anglófonos a la hora de escribir artículos de investigación en revistas internacionales en inglés (1.2) y sus principales motivaciones a la hora de elegir entre el inglés y su lengua materna con fines de publicación científica (1.3). El capítulo 2 se dedicará a desarrollar la hipótesis de trabajo y los objetivos de la investigación doctoral. Seguidamente, los capítulos 3, 4 y 5 contienen las copias completas de los artículos originales. Para finalizar, en el capítulo 6 se dedicará un espacio a las conclusiones finales a modo de discusión y síntesis de los resultados publicados y en el 7 se propondrán una serie de recomendaciones en clave de política científica. La lista de referencias utilizadas en la introducción y las conclusiones

se ha detallado en una sección aparte (8) ya que cada uno de los artículos incluye una bibliografía propia. Asimismo, se ha dedicado un Anexo a la presentación de una cuarta publicación que describe la metodología y el cuestionario original diseñado para la investigación, junto con una breve reseña del equipo de investigación y el proyecto del que forma parte este trabajo.

### 1.1 Estado de la cuestión y relevancia del objeto de estudio

Actualmente el inglés se ha convertido en lengua franca dentro del ámbito de la comunicación científica (Ammon, 2001; Tardy, 2004). A pesar de que la mayor parte de la comunidad científica internacional no posee este idioma como primera lengua (Flowerdew, 2008), la proporción de artículos escritos en inglés y firmados por autores no anglófonos no ha dejado de aumentar en los últimos años (Wood, 2001; European Comission, 2003; Swales, 2004; Bordons y Gómez, 2004; Benfield and Feak, 2006; Flowerdew, 2013; Gordin, 2015). Escenario en el que España no representa una excepción (Rey et al., 1998; Curry y Lillis, 2004; Gómez et al., 2006; Pérez-Llantada et al., 2011; FECYT, 2014). En concreto, según Plaza et al. (2013), el 94,9% de los documentos recogidos en la base de datos *Web of Science* están escritos en inglés, mientras que el español representa únicamente el 0,4% (Figura 1). Todo ello ha propiciado la aparición de un fuerte desequilibrio en torno a la distribución de los artículos, su alcance y las prácticas de publicación de los investigadores no anglófonos (Salager-Meyer, 2008).

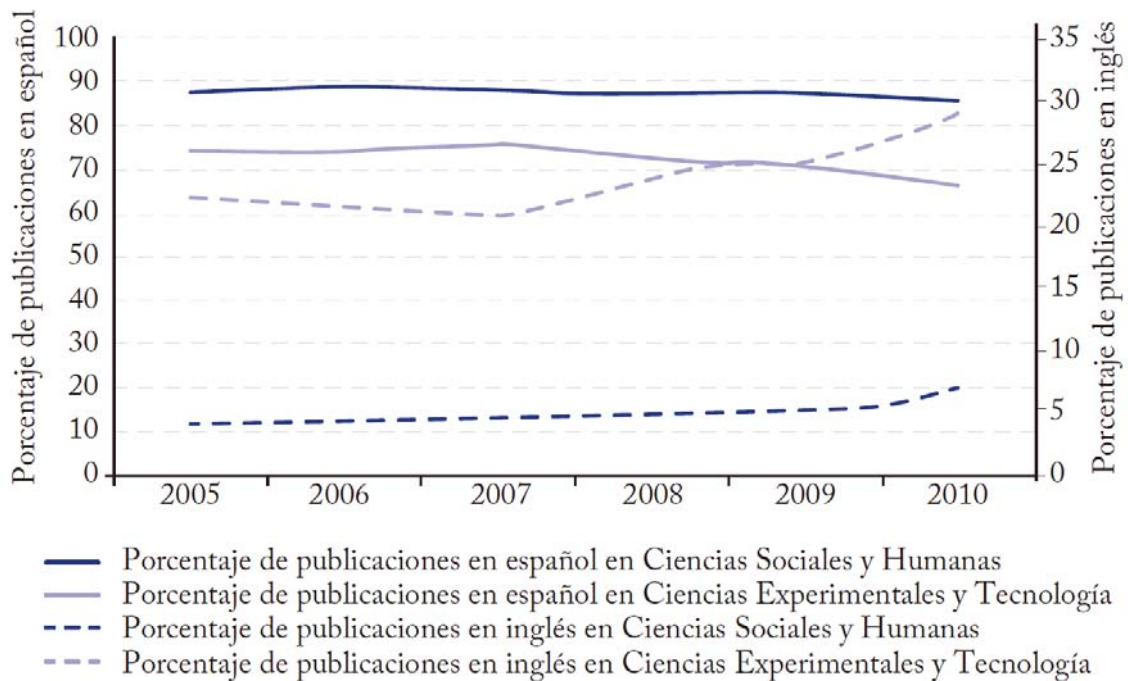
Figura 1. Número de documentos en la base de datos *Web of Science* (2005-2010)



Fuente: Plaza et al. (2013). Elaboración propia.

A escala nacional, según los datos sobre producción científica en revistas españolas recogidos en las bases de datos bibliográficas del CSIC, la presencia del español como medio de comunicación científica es todavía significativa, si bien existen importantes disparidades en función de las grandes áreas de conocimiento (Figura 2). En el caso de las Ciencias Sociales y Humanas, por ejemplo, la producción científica en este idioma representa en torno al 90% del total. No obstante, en los últimos años se observa una tendencia creciente a favor del uso del inglés, especialmente acusada en el caso de las Ciencias Experimentales y Tecnológicas, áreas en las que representa casi el 30% de los documentos publicados.

**Figura 2. Evolución de la producción científica en revistas españolas en español e inglés**



Fuente: Plaza et al. (2013)

Las implicaciones que conlleva esta situación han sido recientemente señaladas en estudios previos cuyos resultados apuntan en muy variadas direcciones (para una revisión ver Uzuner, 2008; Flowerdew, 2013; Kuteeva y Mauranen, 2014). En primer lugar, los estudios relacionados con el uso del inglés para fines académicos por parte de la comunidad científica no anglófona incidieron inicialmente sobre las consecuencias lingüísticas de este fenómeno. El uso eficaz del lenguaje es uno de los principales retos a los que se enfrenta cualquier investigador, independientemente de su lugar de origen o su lengua materna. En este sentido, Hewings (2006) señala, por ejemplo, que los comentarios de los revisores acerca del uso del inglés tienen un alto grado de aparición en todas las evaluaciones, también en las de autores que tienen el inglés como primera lengua. Sin embargo, numerosos estudios ha revelado un importante matiz: la comunidad investigadora no

anglófona se ha visto cada vez más presionada a publicar en inglés en lugar de hacerlo en su lengua materna (Curry y Lillis, 2004; Swales, 2004; Moreno, 2010; Lillis y Curry, 2010). Este hecho aumenta necesariamente la dificultad percibida en el manejo del lenguaje (Flowerdew, 1999) en un contexto que, además, establece un sesgo negativo hacia usos y formas de expresión que se apartan del «inglés estándar» impuesto por las estrictas políticas lingüísticas de las revistas (Li y Flowerdew, 2007), como veremos a continuación.

El efecto de la progresiva globalización lingüística de la ciencia ha conllevado una creciente presión hacia la estandarización, no sólo en el ámbito lexicogramatical sino también en el semántico, textual y sociopragmático (Gotti et al., 2002; Gotti, 2012). En este sentido, autores como Preisler (2005) y Ferguson (2007), entre otros, apuntan hacia una progresiva «pérdida de dominio» (*domain loss*) en el ámbito científico que tiene como una de sus principales consecuencias el empobrecimiento del registro de vocabulario científico en lenguas diferentes del inglés (Ferguson, 2013).

Desde el campo específico de la lingüística dedicado al estudio del inglés para fines académicos se ha venido consolidando desde hace años la hipótesis de la transferencia retórica intercultural (Kaplan, 1966, 2001; Connor, 2002, 2008) para explicar, al menos parcialmente, la exclusión lingüística de los investigadores que no tienen el inglés como primera lengua (Flowerdew, 2013). Este concepto se basa en la asunción de que, a la hora de escribir, se produce un traspaso de características retóricas y estilísticas propias de la lengua materna -o dicho de otra manera, «modos de decir» derivados a su vez de «modos de pensar» (Duszak, 1994)- que causan interferencias en la escritura de una segunda lengua, en este caso el inglés (Ammon, 2000; De Swaan, 2001; Curry y Lillis, 2004; ElMalik y Nesi, 2008; Giannoni, 2008; Moreno, 2008, 2011b; Lillis y Curry, 2010). Las características «híbridas» (Pérez-Llantada, 2014) de estos textos hacen que los manuscritos se desvíen del inglés normativo o estándar, lo cual produce una penalización durante del proceso de revisión -que puede incidir en un aumento de la tasa de rechazo (Uzuner, 2008; Hanauer y Englander, 2011)- debido a desajustes lingüísticos y choques culturales, a pesar de que funcionalmente no afecte a la comprensión del mensaje (Gotti, 2012). De este modo, como apuntó Flowerdew (2008), tanto si los autores no anglófonos sufren realmente discriminación como si no, lo cierto es que se encuentran en desventaja con respecto a aquellos que tienen el inglés como primera lengua. Así lo han atestiguado diversos estudios llevados a cabo en contextos tan distintos como Hong Kong (Flowerdew, 1999), España (Ferguson et al., 2011) o Rumanía (Muresan y Pérez-Llantada, 2014).

Además de las implicaciones estrictamente lingüísticas, la creciente incorporación a la comunidad científica internacional de investigadores cuya lengua materna no es el inglés ha abierto un debate en torno a los usos, normas y modos de entender la comunicación científica. Así, por ejemplo, existen voces que defienden el uso del idioma nativo para fines académicos por parte de los investigadores no anglófonos a fin de no agotar sus registros en este ámbito, especialmente en ciertas áreas (Petersen y Shaw, 2002; Swales, 2004; Flowerdew y Li, 2009). Del mismo modo, hay quienes proponen el uso del inglés como lengua internacional, pero manteniendo cierta permisividad en los usos lingüísticos respecto de la norma anglosajona dominante (Cannagarajah, 2002), de manera que no se penalice el trasvase de rasgos culturales (Moreno y Suárez, 2008; Pérez-Llantada, 2014).

Además del esfuerzo extra que supone para los investigadores no anglófonos, en términos de tiempo y dinero, publicar en una segunda lengua (Ammon, 2001; Uzuner, 2008; Hanauer y Englander, 2011; Burgess, 2014), algunos autores como Canagarajah (1996, 2002), Ferguson (2007), Salager-Meyer (2008, 2014) y Bennet (2014) han tratado de visibilizar aquellos factores no discursivos a los que éstos deben hacer frente cuando, además, se encuentran en países no anglófonos periféricos o semiperiféricos, como es el caso de España: problemas de infraestructura, restricciones de financiación, bibliotecas desfasadas y falta de suscripciones institucionales a las principales revistas internacionales, entre otros.

La elección por parte de los investigadores del idioma en el que publican sus resultados también constituye una respuesta al deseo de ampliar su audiencia más allá de las fronteras nacionales (Rey-Rocha y Martín-Sempere, 1999; Haarman y Holman, 2001; Gómez et al., 2006; Uzuner, 2008), a la creciente internacionalización de universidades y centros de investigación (Pérez-Llantada et al., 2011) y a los criterios de evaluación y de recompensa que emplean los sistemas nacionales de ciencia y tecnología y las agencias de evaluación científica, para los cuales la publicación en revistas internacionales ocupa un lugar preferente (Ferguson, 2006; Moreno, 2010; Osuna et al., 2011; Hicks, 2012). De este modo, las implicaciones de esta «estandarización» de la comunicación científica han abierto un fructífero terreno para el estudio de sus consecuencias en ámbitos relacionados con el diseño y gestión de la política científica, así como con las estrategias de publicación de los investigadores. Como resultado, entran en juego aspectos como la colaboración internacional, la productividad, el impacto y la visibilidad de la investigación. En este sentido, se ha señalado cómo en el contexto actual los investigadores no anglófonos pueden ver reducidas sus oportunidades de éxito a la hora de publicar (Flowerdew, 1999; Lillis y Curry, 2006; Hanauer y Englander, 2011) e incluso resultar mermado su reconocimiento dentro de la comunidad investigadora o sufrir serias dificultades en las revisiones de sus manuscritos por parte de revistas cuyos comités editoriales están formados mayoritariamente por científicos anglosajones (Uzuner, 2008; Harzing y Metz, 2012).

Por último, es importante señalar las implicaciones formativas de esta globalización lingüística en el caso concreto de la comunidad académica española. Debido al contexto de incesante presión para publicar en revistas internacionales, en los últimos años ha aumentado el interés de los investigadores con respecto al aprendizaje del inglés para fines académicos, así como una demanda de formación cada vez más especializada (Fernández Polo y Cal Varela, 2009; ver Moreno, 2011b, para una lista de cursos). En estas circunstancias, algunos investigadores dedicados a la lingüística aplicada han llamado a la reflexión colectiva sobre cuáles pueden ser las mejores maneras de proveer de una adecuada formación específica sobre el uso del inglés con fines académicos a los científicos que no tienen el inglés como primera lengua (Swales, 2002; Harwood y Hadley, 2004; Moreno, 2010; Pérez-Llantada et al., 2011) con el fin de contribuir a mejorar sus estrategias de publicación así como aumentar sus tasas de éxito -lo cual a largo plazo puede facilitarles el acceso a la financiación de sus grupos así como aumentar sus posibilidades de promoción profesional-.

En este contexto, se puso en marcha en el año 2010 el proyecto «Estrategias retóricas para publicar en revistas científicas internacionales desde una perspectiva intercultural español-inglés» (FFI2009-08336), dirigido por Ana I. Moreno, en el marco del cual se ha realizado esta tesis doctoral. Dicho proyecto, así como el equipo que se formó para ejecutarlo, en el seno del Grupo de Investigación ENEIDA (Moreno, 2011a), surgieron con la intención de dar respuesta a la desventaja que experimentan los investigadores españoles durante el proceso de escritura y evaluación de artículos en revistas internacionales. De este modo, se eligió la perspectiva propia de los estudios comparados español-inglés para alcanzar una mejor comprensión acerca de las razones que impulsan a los investigadores españoles a publicar tanto en su lengua materna como en inglés, cuáles son las principales dificultades que se encuentran durante este proceso -escritura y publicación de artículos- y cuáles son sus actitudes, estrategias de publicación, experiencias y demandas formativas en este sentido, entre otros aspectos (Moreno et al., 2011). Los resultados del proyecto, finalizado en 2014, están disponibles a través del sitio web del mismo (<http://eneida.unileon.es/>).

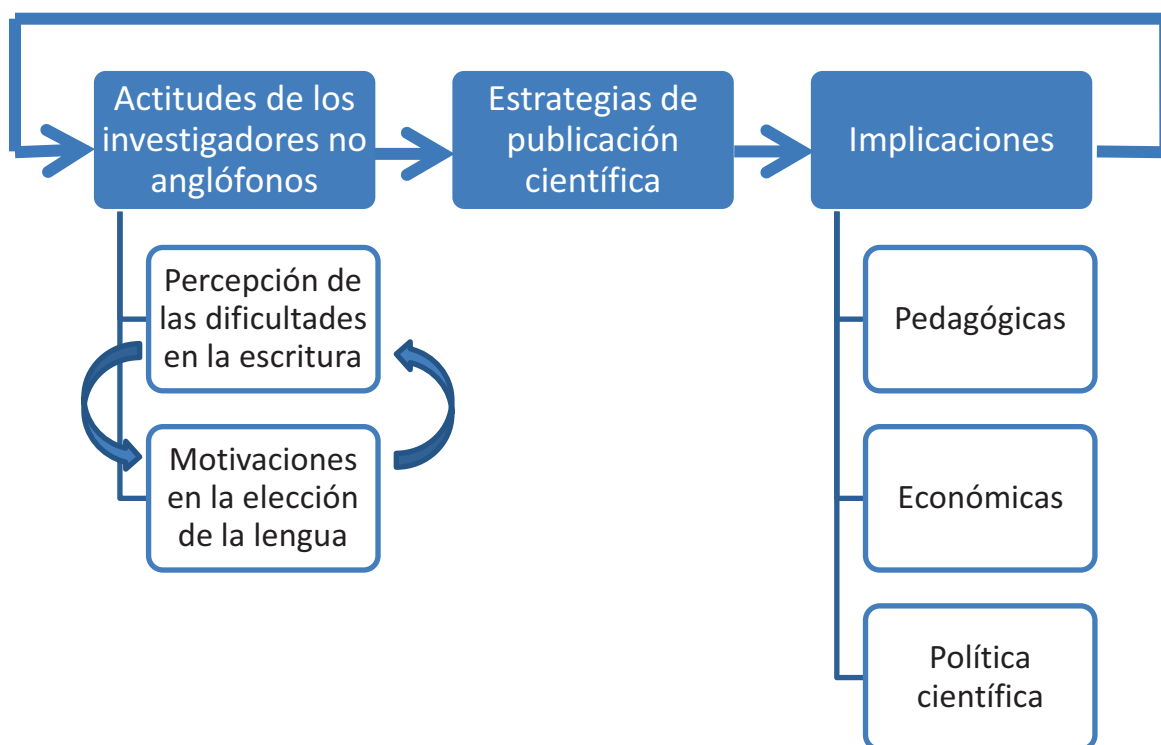
Para abarcar los objetivos de este proyecto fue necesaria una perspectiva multidisciplinar en la que la hipótesis de partida -transferencia retórica- incluyera no sólo elementos lingüísticos, sino también psicosociales y culturales, para dar cuenta de las actitudes y percepciones de los investigadores españoles ante la escritura tanto en su lengua materna como en inglés. Esta tesis doctoral es, pues, el resultado del acomodo entre dos perspectivas, la retórica y la propia de los estudios sociales de la ciencia. Además del enfoque interdisciplinar, los artículos que componen esta tesis comparten una misma metodología -cuyos detalles se exponen en el documento incluido en el Anexo- basada en una encuesta realizada a 8.794 investigadores de cuatro universidades españolas y del Consejo Superior de Investigaciones Científicas.

Del mismo modo, es importante señalar otros elementos derivados de la metodología que subyacen en todos los artículos presentados. En primer lugar, el uso de una perspectiva intercultural español-inglés derivada del enfoque comparado del proyecto ENEIDA (Moreno et al., 2011). En segundo lugar, una aproximación a la variable relativa a la producción científica a través del número de artículos de investigación publicados, obviando otro tipo de formatos debido a la hegemonía de este género en la comunicación científica y a la comparabilidad que proporciona con estudios previos, la mayor parte de ellos centrados también en esta modalidad de publicación. Por último, la disciplina científica, así como la experiencia de los investigadores, se han considerado variables independientes clave en los tres artículos por su posible relación con las motivaciones, dificultades y estrategias de publicación de los autores.

De este modo, siguiendo un enfoque y metodología comunes, en las publicaciones presentadas se toma por objeto de estudio el complejo ámbito de las actitudes de los investigadores no anglófonos ante la comunicación científica -tanto en su lengua materna como en inglés- a través de dos elementos estrechamente relacionados: la percepción de la dificultad a la hora de enfrentarse a la escritura de artículos de investigación y el tipo de motivaciones que influyen en la elección de la lengua en la que estos son publicados, así como las posibles variables que influyen en ambos fenómenos. Estas cuestiones tienen

especial relevancia tanto para la evaluación científica y la toma de decisiones en el ámbito de la política científica, como para el ámbito pedagógico relacionado con el diseño de recursos formativos específicos que respondan a las demandas y necesidades del personal investigador en función de sus distintas áreas de conocimiento.

**Figura 3. Cuadro resumen de la estructura de la tesis doctoral**



### 1.2 Percepción de la dificultad a la hora de redactar un artículo de investigación

Bocanegra-Valle (2014) distingue entre dos tipos de retos o dificultades a los que se enfrentan los investigadores no anglófonos a la hora de publicar artículos en revistas internacionales: los lingüísticos y los extra-lingüísticos. Entre los primeros se encuentran, por ejemplo, el nivel de competencia en el segundo idioma o los inconvenientes derivados de la transferencia retórica (ver revisión detallada en Moreno, 2012); mientras que los impedimentos no lingüísticos -a su vez clasificables en materiales, económicos y sociales (Canagarajah, 1996)- están relacionados con la falta de recursos económicos, los obstáculos en el acceso a la información científica o la excesiva inversión de tiempo a la hora de escribir en una segunda lengua.

La primera parte de esta tesis doctoral (artículo I) se ubica, según esta clasificación, dentro del grupo de dificultades de tipo lingüístico. Tradicionalmente los estudios sobre las dificultades en el uso del inglés como segunda lengua con fines académicos han estado caracterizados por su naturaleza eminentemente descriptiva sobre los problemas que experimentaban los investigadores no anglófonos a la hora de escribir en inglés y por una

aproximación exclusivamente lingüística basada en análisis textuales (Gosden, 1995; Belcher, 2007; ElMalik y Nesi, 2008; Kaplan y Baldauf, 2005; Lillis y Curry, 2006). Estos resultados han puesto de manifiesto las interferencias derivadas de la transferencia retórica -con el consiguiente aumento de la probabilidad de que el manuscrito sea rechazado-. Además, representan un indicio de la dificultad añadida que puede conllevar para los investigadores no nativos la escritura y publicación de textos en inglés que cumplan con los requisitos exigidos por parte de las revistas internacionales. Sin embargo, son pocas las aproximaciones que, más allá de la mera comparación de textos, han tomado a los propios investigadores como objeto de estudio valiéndose de sus opiniones acerca de la dificultad percibida como principal fuente de datos (Flowerdew, 1999; Duszak y Lewkowicz, 2008; Hanauer y Englander, 2011; Ferguson et al., 2011). Esta perspectiva aún poco explorada, en la que se enmarca nuestro primer artículo, ha corroborado y enriquecido en matices los resultados de los análisis textuales. No obstante, se enfrenta aún a dos importantes retos.

En primer lugar, desde la publicación del trabajo pionero de Swales (2004) se ha evidenciado la necesidad de distinguir entre las características y retos específicos propios de cada género académico. Entre ellos, el artículo científico requiere de unas destrezas particulares que, en el caso de la escritura en inglés, lo convierten en un desafío especialmente acusado para los investigadores no anglófonos (Moreno, 2010). Sin embargo, a pesar de que existe ya un gran número de estudios centrados en este género, no se ha llevado a cabo una comparación sistemática entre los distintos apartados de un artículo en términos de dificultad percibida por los investigadores a la hora de enfrentarse a cada uno de ellos. No obstante, autores como St. John (1987) y Flowerdew (1999) han encontrado indicios que apuntan a una probable disparidad en este sentido, en función de las convenciones de escritura y expresión particulares de cada sección.

En segundo lugar, existe un debate aún abierto en torno a las principales variables que pueden influir en la percepción de los investigadores no nativos sobre la dificultad de usar el inglés para fines académicos, así como un déficit de comprobación empírica de las principales hipótesis expuestas. En este sentido, algunos autores han atribuido la causa de las dificultades al nivel de destreza en el segundo idioma (Man et al., 2004). Sin embargo, pronto surgió un nuevo enfoque que, en lugar de poner el acento en la competencia lingüística del investigador, introdujo su experiencia profesional y el aprendizaje de las convenciones discursivas dentro de cada área científica como principales variables relacionadas con las variaciones en la dificultad percibida (Swales, 2004).

No obstante, trabajos recientes cuestionan la atomización de este debate en torno a dos polos supuestamente antagónicos (competencia lingüística vs. experiencia). Así, Duszak y Lewkowicz (2008) advierten de los peligros de caer en la simplificación a través de unos resultados que muestran que, si bien existe relación entre nivel profesional y éxito en la publicación en inglés, ésta no responde a una distribución lineal, tal y como parecía derivarse de la tesis de Swales (2004). En su estudio, los investigadores más jóvenes y los más maduros son los que ostentan mejores tasas de éxito a la hora de publicar en un segundo idioma, mientras que los cuadros medios resultaron ser los que más rechazos recibían por parte de las revistas. La posible explicación se atribuye de manera tentativa a la disparidad en términos de competencia lingüística en inglés de los primeros. Ésta



probablemente fuese mejor que la de los investigadores *senior* como resultado de las mejoras introducidas en el sistema educativo con respecto al aprendizaje de una segunda lengua. Mientras que los *senior* pudieron haber llegado a un alto nivel de competencia del inglés a través de su bagaje profesional y tener un reconocimiento académico y una red profesional más consolidada y extensa que les facilite la publicación en revistas internacionales de referencia (*mainstream journals*).

Del mismo modo, Flowerdew (2008) pone en cuestión que se pueda explicar el éxito o el fracaso de los investigadores no nativos a la hora de publicar únicamente en base a la experiencia profesional, sin tener en cuenta aspectos intrínsecamente relacionados con el lenguaje y la creciente demanda de formación específica por parte de los académicos. Los investigadores que usan el inglés como segunda lengua para fines académicos no pueden ser entendidos como un colectivo homogéneo ni admiten clasificaciones excesivamente dicotómicas. El grado de dificultad para enfrentarse a una segunda lengua está estrechamente relacionado con el tipo de multilingüismo que se practique en una región determinada. Así, existen países en los que la segunda lengua está plenamente incorporada en los contextos formales (como el profesional y el académico); sin embargo, en otros el contacto con un segundo idioma es exclusivo de una minoría privilegiada (Salager-Meyer, 2008).

Teniendo presentes estas consideraciones, algunos autores han admitido que la distinción entre investigadores nativos y no nativos se ha vuelto borrosa (Flowerdew, 2013; Bocanegra-Valle, 2014). Por tanto, el reconocimiento de la experiencia profesional así como de otros factores contextuales importantes como la disciplina académica (para una revisión exhaustiva ver Flowerdew y Ho Wang, 2015) pueden ayudar en gran medida a explicar las dificultades de los investigadores, sin olvidar que la competencia en el manejo de un idioma sigue siendo una variable fundamental que no se puede dejar de lado en los análisis (Salager-Meyer, 2008; Kuteva y Mauranen, 2014; Muresan y Pérez-Llantada, 2014).

Gnutzman y Rabe (2014) inciden, por su parte, en las diferencias que existen en el proceso de escritura dependiendo del área científica y del nivel de jerarquía profesional. Por ejemplo, en el área de la Biología las tareas de redacción se reparten habitualmente de forma muy escrupulosa en función de la jerarquía académica. De esta manera, los investigadores más jóvenes suelen llevar a cabo la redacción del apartado metodológico pero raramente se enfrentarán a una discusión, tarea reservada normalmente a los científicos más experimentados. Asimismo, los procesos de escritura difieren también en función del área de conocimiento, debido a la distinta naturaleza de los datos objeto de estudio y a las exigencias discursivas de cada disciplina. Existen áreas técnicas donde el discurso académico está más estandarizado mientras que en otras, como ciertas disciplinas del área de las Humanidades y Ciencias Sociales, se requiere que las narraciones sean más complejas.

Sin embargo, la escasez de estudios en este área, especialmente sobre el contexto español, está agravada por lo reducido de sus tamaños muestrales y la falta de procedimientos rigurosos en la selección de sus informantes, así como la imposibilidad de comparar entre distintos factores causales debido a la inexistencia de una medición

simultánea de varios de ellos en una misma muestra (St John, 1987; Curry y Lillis, 2004; Burgess et al., 2006). No obstante, merecen aquí ser destacadas algunas notables excepciones como el trabajo de Burgess y Fagan (2006), Fernández Polo y Cal Valera (2009) y Ferguson et al. (2011), los cuales analizaron los problemas y actitudes de los investigadores españoles a través de métodos cuantitativos. Algunas de las limitaciones de estos trabajos, en comparación la investigación llevada a cabo para esta tesis doctoral, están relacionadas con su circunscripción a una única institución, un tamaño muestral relativamente limitado que dificulta la posibilidad de realizar cruces de variables así como análisis estadísticos más elaborados y, por último, la ausencia de una perspectiva comparada (español-inglés) que permita interpretar las respuestas de los investigadores teniendo en cuenta el posible sesgo intercultural. Pese a estas excepciones, siguen siendo necesarios más estudios en profundidad sobre las dificultades concretas que afectan a los investigadores españoles y los contextos en que se producen, así como sobre las posibles variables que intervienen en esta realidad.

A la luz de estos antecedentes, el primer artículo que compone esta tesis doctoral centra su aportación en cuatro objetivos fundamentales. En primer lugar, contribuir a aumentar el nivel de información disponible acerca de las dificultades percibidas por los científicos españoles a la hora de escribir un artículo de investigación. En segundo lugar, comparar los desafíos y problemas concretos que representa la redacción de cada uno de sus apartados desde una perspectiva comparada español-inglés. En tercer lugar, ampliar el sustento empírico en el que están basados los estudios previos a través de una mejora sustancial del tamaño muestral y la elaboración de análisis estadísticos más complejos. Y, por último, contrastar las diferentes hipótesis acerca de las variables que intervienen en la dificultad percibida por los investigadores no anglófonos: área de conocimiento, experiencia profesional y nivel de competencia en el uso del inglés. A través de todo ello se espera mejorar la comprensión de este fenómeno y contribuir al diseño de herramientas de formación específicas que ayuden al personal investigador a superar dichas dificultades.

### **1.3 Motivaciones relacionadas con la elección del idioma para la comunicación científica**

Tal y como se desprende del apartado anterior, el acceso a la comunidad científica internacional es particularmente difícil para los investigadores cuya lengua materna no es el inglés. Sin embargo, la mayor parte de los investigadores no anglófonos reconocen reservar sus mejores trabajos para su publicación en revistas internacionales en inglés (Li, 2014) siguiendo el criterio ampliamente establecido a través del cual la comunidad científica internacional reconoce la calidad de los trabajos (Rey et al., 1998; Ferguson, 2006; Osuna et al., 2011). Por su parte, otros investigadores continúan publicando en su lengua materna a pesar de que las recompensas fundamentadas en los sistemas de evaluación apunten en sentido contrario (Burgess et al., 2014). Sin embargo, pese a las implicaciones que puede llegar a tener la elección de la lengua sobre la productividad y visibilidad científica (ver apartado 1.1), determinar qué factores motivan a los investigadores no anglófonos a publicar en inglés con respecto a hacerlo en su lengua materna constituye una cuestión que

ha pasado muy desapercibida en el campo tanto de la lingüística como de los estudios sociales de la ciencia.

Recientemente algunos estudios han mostrado cómo las actitudes y opiniones positivas hacia el uso del inglés con fines académicos se encuentran estrechamente relacionadas con criterios utilitaristas o pragmáticos como la búsqueda de un aumento del impacto del artículo o de su alcance y visibilidad dentro de la comunidad académica (Petersen y Shaw, 2002; Duszak y Lewkowicz, 2008; Flowerdew y Li, 2009; Li, 2014; McGrath, 2014). Y es que el inglés, en su papel de lengua franca de la ciencia, se percibe como el mejor medio para alcanzar mayor notoriedad más allá de las fronteras nacionales. Además, la publicación en revistas internacionales de referencia constituye uno de los requisitos más importantes de la evaluación científica (Gibbs, 1995; Wood, 2001; Jiménez-Contreras et al., 2003; Osuna et al., 2011; Lam, 2011; Salager-Meyer, 2014). Optar por publicar en inglés no significa únicamente optimizar los retornos derivados de la comunicación (Van Raan, 1997; Bordons y Gómez, 2004; Ferguson, 2007) sino también competir por un lugar dentro de una selecta minoría de revistas atestadas de manuscritos, en detrimento muchas veces de la comunicación y divulgación a nivel local o nacional (Hamel, 2007; Burgess, 2014; McGrath, 2014).

Pero, a pesar de la influencia de este criterio pragmático que muchos investigadores no anglófonos han adoptado en la práctica de su profesión, existen discursos que reflejan actitudes negativas hacia el uso del inglés relacionadas principalmente con las dificultades particulares a las que se enfrentan estos investigadores (ver apartado 1.2) durante el proceso de escritura y revisión de manuscritos (ver Uzuner 2008 para una revisión más extensa). Las consecuencias que ha producido en contextos no anglófonos la presión generada para seguir la regla académica actual del «publica o muere» han sido puestas de manifiesto recientemente por distintos autores (Curry y Lillis, 2004; Salager-Meyer, 2014; Li, 2014; Gentil y Séror, 2014; en el caso de España ver Ferguson et al., 2011); hasta el punto de que McGrath (2014) ha llegado a cuestionarse recientemente si esta disyuntiva es realmente una *elección*. La noción de «estigma» utilizada por Flowerdew (2008) para dar cuenta de las dificultades que tienen los investigadores no anglófonos a la hora de producir textos académicos en un nivel de inglés aceptable para las revistas, también puede darnos algunas pistas sobre las motivaciones para publicar en su lengua materna en lugar de en una segunda lengua en la que estén permanentemente fuera de la norma. Otras razones para optar por la lengua materna están relacionadas con cuestiones subjetivas e ideológicas, como determinadas preocupaciones sociales respecto al declive del número de revistas locales, la pérdida de vocabulario científico en lenguas distintas al inglés, la marginación de temas de investigación de relevancia local o nacional y la disminución de la divulgación científica en contextos locales (Duszak y Lewkowicz, 2008; Pérez-Llantada et al., 2011; Li, 2014; Bocanegra-Valle, 2014).

Pese a todo, al igual que sucedía con la dificultad percibida por los investigadores, no es este un terreno propicio para explicaciones dicotómicas. En muchos casos actitudes positivas y negativas coexisten en un mismo discurso, llenando de ambivalencia las motivaciones de los investigadores (Tardy, 2004; Duszak y Lewkowicz, 2008; Bocanegra-Valle, 2014; Muresan y Pérez-Llantada, 2014). En otros, la práctica de los investigadores

con respecto a la publicación de artículos es distinta del discurso que mantienen, de tal modo que pautas de publicación fuertemente internacionalizadas pueden ser llevadas a cabo por investigadores que, en el plano teórico, cuestionan el uso del inglés para fines científicos y que experimentan esta decisión como una aceptación (Pérez-Llantada et al., 2011) o incluso una resignación (Ferguson et al., 2011) con respecto al dominio del inglés. Sin duda, la principal contribución de estos hallazgos es la de alertarnos acerca de la complejidad y multidimensionalidad de nuestro objeto de estudio.

Además, este amplio abanico de motivaciones relacionadas con la lengua de publicación se extiende más allá de las fronteras nacionales. Así, encontramos que las actitudes de los españoles en este campo (Ferguson et al., 2011; Burgess, 2014) no difieren demasiado de las de sus homólogos en Portugal (Bennett, 2010), Italia (Giannoni, 2008), Polonia (Duszak y Lewkowicz, 2008), China (Li y Flowerdew, 2009), Suecia (McGrath, 2014), Canadá (Gentil y Séror, 2014) o Alemania (Gnutzmann y Rabe, 2014).

Sin embargo, estamos lejos aún de entender la compleja manera en la que operan las motivaciones. En primer lugar, debido a la falta de un marco teórico de referencia, validado empíricamente, y que tenga en cuenta que las motivaciones necesitan explicaciones dinámicas e interactivas, ya que pretenden reflejar las preferencias de los investigadores. Las aportaciones realizadas hasta el momento adolecen de una perspectiva multinivel, es decir, que integre los niveles macro -sistemas normativos, contexto cultural, sistemas de recompensa- y micro -actitudes, comportamientos, percepciones y creencias- con factores intermedios como el contexto institucional -nivel meso- para producir una perspectiva más completa de este fenómeno. En segundo lugar, es necesario un mayor número de investigaciones empíricas que contrasten las hipótesis lanzadas desde el campo teórico. El enfoque eminentemente cualitativo de muchos de los estudios en este área proporciona interesantes hallazgos descriptivos, que son ciertamente sugerentes en sus análisis pero que resultan insuficientes para identificar relaciones causales o explicativas. En este sentido sería deseable mejorar ámbitos como el tamaño muestral y la sistematicidad en la recogida de los datos, así como la rigurosidad de los procedimientos de selección para facilitar la réplica posterior. Por último, es mucho aún lo que se ignora acerca de las variables que intervienen en la formación de las distintas motivaciones. Muy pocos estudios se han propuesto medir de forma sistemática la posible relación entre las motivaciones para elegir una lengua y variables como el nivel de competencia en el uso del segundo idioma (Muresan y Pérez-Llantada, 2014), la experiencia o categoría profesional (Flowerdew, 2013) o el área de conocimiento (Petersen y Shaw, 2002; Ferguson, 2007; Duszak y Lewkowicz, 2008; Kuteeva y Mauranen, 2014).

Los estudios incluidos en los artículos II y III de esta tesis doctoral han tratado de tener en cuenta estas deficiencias y necesidades detectadas en los estudios previos, así como la influencia e integración de la dificultad percibida (artículo I) en el fenómeno de las motivaciones a la hora de elegir la lengua en que los investigadores comunican sus resultados. De este modo, en el artículo II se propone un marco teórico más complejo para el estudio de dichas motivaciones, validado a través de su aplicación en una muestra más amplia de lo habitual en este tipo de trabajos. Dicho marco ofrece además la ventaja de

atajar los principales inconvenientes teóricos y metodológicos detectados en estudios previos, a través de la comprensión del entramado motivacional como un proceso complejo, dinámico y multidimensional, siguiendo así las recomendaciones que otros autores también estaban sugiriendo de manera simultánea e independiente (Ferguson et al., 2011; Gotti, 2012). Asimismo, en este artículo se realiza una primera aproximación a la posible relación significativa entre las distintas motivaciones y variables como la experiencia en publicación, la experiencia profesional y el género. Por último, el tercer artículo continúa con esta exploración y se dedica por entero a aportar evidencia empírica acerca de las relaciones entre las motivaciones de los investigadores en función de las cuatro grandes áreas de conocimiento (Ciencias Naturales y Exactas, Ciencias Tecnológicas, Ciencias Sociales y Artes y Humanidades).



## 2. Hipótesis y objetivos

En el marco del contexto descrito en el capítulo anterior, las hipótesis de trabajo que orientarán los objetivos de esta tesis doctoral se presentan a continuación:

- 1) Los investigadores cuya primera lengua no es el inglés, perciben una dificultad añadida a la hora de elaborar y publicar artículos científicos en inglés respecto a cuando lo hacen en su lengua materna.
- 2) Además de la competencia en el uso de la lengua extranjera, existen otros factores socioculturales ligados a la percepción de dificultad y a la falta de éxito en la publicación de artículos en inglés que tienen que ver con los procesos de transferencia retórica (Moreno, 2010). Dichos procesos se encuentran relacionados con las convenciones propias de cada disciplina, las prácticas y rasgos propios de la comunidad científica nacional y la propia experiencia de publicación de los investigadores.
- 3) Los investigadores no anglófonos no se ven motivados por el mismo tipo de factores a la hora de publicar sus trabajos en inglés respecto a cuando lo hacen en su lengua materna.
- 4) La experiencia en publicación, la categoría profesional y el área científica de los investigadores influyen en el tipo de motivaciones que les conducen a elegir entre el inglés o su lengua materna como lengua de publicación.
- 5) La interiorización de la necesidad de publicar en inglés como requisito del sistema de evaluación nacional e internacional se ha producido de manera asimétrica en función de las distintas áreas o disciplinas académicas.

A partir de estas hipótesis se plantean los siguientes objetivos de investigación:

- 1) Comprobar si entre la comunidad investigadora española se puede ratificar la misma percepción acerca de la dificultad añadida para publicar en inglés que se ha encontrado en otros países no anglófonos.
- 2) Identificar de manera precisa qué apartados del artículo de investigación contribuyen en mayor medida a dicha percepción de dificultad.
- 3) Determinar la influencia en esta dificultad percibida de factores como la competencia en el uso de la lengua, la experiencia en publicación y el área de conocimiento.
- 4) Diseñar un marco teórico que permita el análisis de las motivaciones de los investigadores a la hora de elegir la lengua en que publican sus trabajos, que tenga en cuenta el carácter dinámico, complejo y multinivel de este fenómeno.
- 5) Analizar los distintos tipos de motivaciones de los investigadores españoles a la hora de publicar sus resultados en inglés y comprobar si existen diferencias con respecto a los estímulos que encuentran para hacerlo en castellano.
- 6) Comprobar si existen diferentes pautas de motivación para publicar en castellano vs. inglés dependiendo del área de conocimiento a la que se adscribe el investigador.





### **3. Artículo I: Spanish researchers' perceived difficulty writing research articles for English-medium journals: the impact of proficiency in English versus publication experience**

Moreno, A.I., Rey-Rocha, J., Burgess, S., López-Navarro, I. y Sachdev, I. (2012). Spanish researchers' perceived difficulty writing research articles for English-medium journals: the impact of proficiency in English versus publication experience. *Ibérica*, 24, 157-184

#### ***La dificultad percibida por los investigadores españoles al escribir artículos de investigación para revistas en inglés: los efectos del nivel de inglés y de la experiencia de publicación***

##### **Resumen**

Estudios cuantitativos previos sugieren que escribir artículos de investigación (RAs) en inglés (como L2) supone una dificultad añadida del 24% a los investigadores cuya primera lengua no es el inglés con respecto a escribirlos en su primera lengua (L1). Sin embargo, se desconoce qué aspectos de los RAs les resultan más difíciles de escribir en inglés (como L2) y cuáles son precisamente las causas de dicha dificultad añadida. Con este fin, se envió un cuestionario estructurado a 8.794 investigadores españoles doctores afiliados a cinco instituciones españolas, una de investigación y cuatro universidades, obteniéndose respuestas por parte de 1.717 investigadores. El cuestionario contenía 37 preguntas sobre sus experiencias de publicación en revistas científicas en inglés y en castellano. Nuestros primeros resultados indican que la discusión es el apartado del RA que se percibe como más difícil de escribir en revistas en inglés en todas las áreas de conocimiento sin que el menor nivel de competencia lingüística lo explique completamente. El artículo propone la hipótesis de la transferencia retórica como posible explicación de dicha dificultad añadida. Los resultados también muestran que la percepción de dificultad añadida no se reduce de forma apreciable hasta que los investigadores afirman tener un nivel alto, o superior, de competencia en inglés (como L2) para fines académicos o generales o han publicado por término medio al menos 37 Ras como autores principales en revistas en inglés en los últimos diez años. Se extraen implicaciones para la docencia y la investigación en inglés con fines académicos (IFA).

**Palabras clave:** artículo de investigación, escritura académica, dificultad, análisis de necesidades, estudios mediante encuestas.



# Spanish researchers' perceived difficulty writing research articles for English-medium journals: the impact of proficiency in English versus publication experience

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## Abstract

Previous quantitative studies suggest that the burden researchers who use English as an additional language perceive when writing research articles (RAs) for publication in English (as L2) is 24% greater than the burden they perceive when they write RAs for publication in their L1. It remains unclear precisely which aspects of research article (RA) writing in English present these writers with the greatest challenge and just why they perceive this increase in difficulty. A structured questionnaire comprising thirty-seven questions about researchers' publication experiences in scientific journals in English and in Spanish was designed and sent out to all ( $n = 8,794$ ) Spanish postdoctoral researchers at one research-only institution and four universities in Spain, yielding responses from 1,717 researchers. Our first results show that the discussion is the section that is perceived as more difficult to write for English-medium journals, across the four broad knowledge areas in a way that cannot be fully explained by their lower level of proficiency in English (as L2). This article proposes the rhetorical transfer hypothesis as a possible explanation for their additional difficulty. Our results also reveal that their increased perceived difficulty writing RA discussions in English (as L2) does not decrease noticeably until Spanish researchers report high or very high levels of proficiency in English (as L2) for academic or general purposes or have published on average at least 37 RAs as corresponding author in English-medium journals over the last ten years. Implications for English for Academic Purposes (EAP) research and pedagogy are discussed.

**Keywords:** research article, academic writing, difficulty, needs analysis, survey studies.

## Resumen

### *La dificultad percibida por los investigadores españoles al escribir artículos de investigación para revistas en inglés: los efectos del nivel de inglés y de la experiencia de publicación*

Estudios cuantitativos previos sugieren que escribir artículos de investigación (RAs) en inglés (como L2) supone una dificultad añadida del 24% a los investigadores cuya primera lengua no es el inglés con respecto a escribirlos en su primera lengua (L1). Sin embargo, se desconoce qué aspectos de los RAs les resultan más difíciles de escribir en inglés (como L2) y cuáles son precisamente las causas de dicha dificultad añadida. Con este fin, se envió un cuestionario estructurado a 8.794 investigadores españoles doctores afiliados a cinco instituciones españolas, una de investigación y cuatro universidades, obteniéndose respuestas por parte de 1.717 investigadores. El cuestionario contenía 37 preguntas sobre sus experiencias de publicación en revistas científicas en inglés y en castellano. Nuestros primeros resultados indican que la discusión es el apartado del RA que se percibe como más difícil de escribir en revistas en inglés en todas las áreas de conocimiento sin que el menor nivel de competencia lingüística lo explique completamente. El artículo propone la hipótesis de la transferencia retórica como posible explicación de dicha dificultad añadida. Los resultados también muestran que la percepción de dificultad añadida no se reduce de forma apreciable hasta que los investigadores afirman tener un nivel alto, o superior, de competencia en inglés (como L2) para fines académicos o generales o han publicado por término medio al menos 37 RAs como autores principales en revistas en inglés en los últimos diez años. Se extraen implicaciones para la docencia y la investigación en inglés con fines académicos (IFA).

**Palabras clave:** artículo de investigación, escritura académica, dificultad, análisis de necesidades, estudios mediante encuestas.

## Introduction

In recent decades, multilingual researchers from many countries have been gradually moving towards publishing their research findings in English (Lillis & Curry, 2010). As has been widely discussed in the literature, these researchers frequently face the additional burden of not having English as

their first language (L1 henceforth), which reduces their chances of publication success (Flowerdew, 1999; Lillis & Curry, 2006; Hanauer & Englander, 2011). Spanish researchers are no exception (Rey et al., 1998; Curry & Lillis 2004; Gómez et al., 2006; Pérez-Llantada et al., 2010) and feel, in fact, at a linguistic disadvantage with regard to other writers for whom English is an L1 (Ferguson, Pérez-Llantada & Plo, 2011). Although their concerns have been voiced infrequently until very recently (Clavero, 2011), a clear indication that Spanish researchers are facing additional challenges is reflected in their plea for specialised training in English for research publication purposes (ERPP) in all scientific areas (see Moreno, 2011, for a list of courses). These observations contrast with Curry and Lillis' (2004) account of the situation earlier this century, when researchers working in contexts like Spain were “unlikely to attend formal classes in English academic writing, if indeed such classes are available” (Curry & Lillis, 2004: 682). They are, however, consistent with Fernández Polo and Cal Varela's (2009) more recent survey findings at the University of Santiago de Compostela. In their study at least 32.4% of their respondents said they would choose courses in written scientific English as one of three preferred ways of catering for their English language learning needs.

Given these circumstances, a number of applied linguists have called for a collective reflection on the most appropriate means of providing training in ERPP for researchers who use English as an additional language (EAL) (Swales, 2002; Harwood & Hadley, 2004; Moreno, 2010; Pérez-Llantada et al., 2010). Moreno (2010), for instance, emphasises the importance of taking into account their specific recurrent difficulties with academic writing and the reasons for these difficulties. However, although English for academic purposes research has provided descriptions of academic texts that are both rich and increasingly accurate (Hyland & Salager-Meyer, 2008), few studies have focused on the actual writing difficulties Spanish researchers face (St John, 1987; Curry & Lillis, 2004; Burgess, Fumero Pérez & Díaz Galán, 2005; Moreno, 2012). This, together with the small scale nature of the few studies that do exist and their lack of rigorous procedures for selecting informants, means that there is insufficient systematic information on Spanish researchers' writing difficulties (including causes) relative to their level of proficiency and publication experience. Without this, appropriate training programmes cannot be developed.

Recent survey studies have taken larger scale quantitative approaches to charting the difficulties that multilingual researchers confront. For instance,

Duszak and Lewkowicz (2008) report that 59% of the 99 researchers answering their questionnaire had difficulties with the language and 18% with writing academic texts. In their study, Hanauer and Englander (2011) suggest that the increased burden perceived by a sample of 148 Spanish-speaking Mexican researchers in writing RAs for publication in English-medium journals is 24% greater than that they experienced when writing for Spanish-medium journals. However, while they attribute this increased burden to language, it is difficult to assess the significance of their finding for EAP research and pedagogy since their study controls for neither the researchers' level of proficiency in English (as L2) nor their research publication experience. None of these studies, furthermore, examines the relative difficulty the various sections of the research article (RA) present for researchers, though Flowerdew (1999), drawing on 26 interviews with Chinese researchers, has already shown that the degree of challenge varies.

There are, then, a number of questions to which clearer answers are required before ERPP teaching materials for Spanish researchers can be designed. In particular,

1. Which sections of the RA are implicated in the perceived increased difficulty in writing RAs in English (as L2) as opposed to Spanish (as L1)?
2. Does the perception of increased difficulty writing these sections of the RA in English (as L2) vary across knowledge areas?
3. What is the relative impact of the researchers' writing proficiency in English (as L2) versus their RA publication experience on their perception of difficulty writing the section of the RA they find most challenging to write in English?

To answer these questions, this study has taken a large-scale comparative survey approach, probing Spanish researchers self-reported perceptions of difficulty writing RAs in English (as L2) as opposed to Spanish (as L1). The survey is part of a larger multiple-methodology three-phase project carried out by the ENEIDA (Spanish team for Intercultural Studies on Academic Discourse) research group at one research-only institution and four universities in Spain. One of its ultimate aims is to develop a comprehensive picture of the writing difficulties, both self-reported and real, that Spanish researchers face when writing manuscripts for English-medium scientific journals (see Moreno et al., 2011). Drawing on Moreno's (Forthcoming

2012) notion of intercultural rhetoric accommodation, we distinguish between perceived difficulties and actual writing obstacles in English (WOEs). WOE's are defined as those writing problems encountered in the process of RA publication making it necessary for multilingual authors to revise their manuscripts so as to conform to the expectations of English-medium scientific journals. We also aim to offer Spanish researchers pedagogical solutions to their real WOE's grounded in sound research. The present paper, however, focuses on their perceived difficulties writing RAs in English (as L2) relative to writing them in Spanish (as L1), and thus represents only a part of the larger picture needed to inform the design of future studies of their actual WOE's and of pedagogical resources. The following section outlines the major theoretical assumptions underlying the design of a number of items in our initial survey relevant to the present study and to the way the population was defined.

## Theoretical framework

Our initial survey acknowledged the fact that the RA is not a monolithic genre (Swales, 2004). As many studies have shown, each section of the RA has a different linguistic and rhetorical configuration, which may make some sections more difficult to write than others. In fact, writing introduction/literature reviews and discussions/conclusions in English is known to be especially challenging for multilingual researchers, so much so, in fact, that it is seen as “potentially critical to the acceptance or rejection of their articles, whatever the merits of their actual findings might be” (Flowerdew, 1999: 259). Our survey methodology also reflects the view that the most appropriate means of assessing this difficulty is through comparison with the difficulty felt by EAL researchers writing these sections in their L1. Thus, our survey charts researchers' perceived difficulties writing each section of the RA in English (as L2) relative to their writing them in Spanish (as L1).

In addition, our survey recognised that the RA is not a stable genre (Salager-Meyer, 1999). For this reason, it focused on the publication experiences and difficulties of Spanish researchers over the last decade, the period in which their ERPP training needs have increased in number and specificity. Our research also acknowledged the expected correlation between “the nature of knowledge domains and the nature of the

associated disciplinary cultures” (Becher, 1994: 153) and assumed that academic writing features, communicative skills and discourse practices would vary across disciplines (Hyland, 2000). Likewise, since discipline is regarded as a key factor in the design of relevant pedagogical resources (Dudley-Evans & St John, 1998: 51), data on difficulties as a function of disciplinary area were also obtained.

We also took into account various factors that have been proposed in the literature to explain the difficulties faced by multilingual researchers in the process of publication of RAs in English-medium journals. One such factor is familiarity with academic discipline. As some applied linguists have argued, difficulty has more to do with having learned or failed to learn the disciplinary conventions of scientific writing than with using the language itself (Swales, 2004). Thus, to ensure that participants were well versed in the conventions of scientific writing in their disciplines, our survey targeted only Spanish postdoctoral researchers and included finer indicators of familiarity with the RA genre in question. Other researchers have argued that the factor that plays a major role, not only in a researcher’s reduced productivity (see Man et al., 2004), but also in the perception of increased difficulty (Flowerdew, 1999; Hanauer & Englander, 2011) is language proficiency. For this reason, our survey included operationalizations of this factor too.

A third issue frequently debated in the literature is the influence of cultural factors in writing in English (as L2). As Moreno (2008) explains, specific forms of socialisation into writing values, norms and practices characterising given educational and socio-cultural contexts interact in complex ways with the effects of communicating through a given language code. In EAP research, the suggestion has also been made that a still uncertain number of rhetorical and stylistic habits that researchers have learned, or simply acquired, in the process of socialisation into their disciplinary cultures in their L1 are likely to be transferred unconsciously to their writing in ERPP as an L2 (Mauranen, 1993; Moreno, 1998; Flowerdew, 1999). This is especially likely in those academic fields in which the effects of globalisation in scientific communication have not yet had enough time to filter through. They are perhaps even more patent in settings, like Spain, where English is used as a foreign as opposed to a second language (Graddol, 1997).

The rhetorical transfer hypothesis rests on the well-known Contrastive Rhetoric hypothesis (CR) (Kaplan, 1996; Connor, 2004), whereby (academic)



writers from different cultural and language backgrounds have distinct preferences for articulating messages which share a similar purpose. This hypothesis has recently been extensively explored in relation to Spanish researchers presenting their research results in Spanish-medium academic journals in comparison to Anglo-American researchers writing for English-medium academic journals (Moreno, 2011, for a review of studies). For example, Spanish researchers writing in Spanish (as L1) for business management journals have been reported to omit Move 2 (Swales, 2004), the rhetorical move whereby authors situate their current research in terms of its significance in the field in RA introductions, more frequently than North-American researchers writing in English (as L1) in the same field (Mur Dueñas, 2007). In our view, the absence of an evaluative writing move in the rhetorical structure of RA introductions may be related to the ways in which Spanish researchers have tended to be socialised into their corresponding disciplinary communities of practice in Castilian-Spanish (henceforth Spanish).

Our survey, therefore, ensured that our participants only included Spanish-speaking researchers who had been socialised in Spanish in a Spanish educational context. Thus the population for the present survey is defined as those Spanish-speaking postdoctoral researchers who have received most of their secondary and pre-doctoral education in Spain and in Spanish (henceforth Spanish researchers). Given that this project was one component of a larger study to be carried out in the five institutions participating in the project, we decided to focus on the population of Spanish researchers working for these institutions. In April 2010, we applied for the e-mail addresses of all the staff with doctorates at these institutions, obtaining a population of 8,794 postdoctoral researchers.

## Method

This section outlines the methodology used to design the survey items intended to answer the research questions posed in the introduction. It also briefly describes the procedures used for validating the questionnaire and implementing the survey. Finally, it provides an overall characterization of the valid sample of participants (for fuller details of this methodology, see Moreno et al., 2011).

## Interviews

Structured face-to-face interviews (1.5 hours long) were conducted in Spanish at three of the institutions with 24 informants who represented a good cross-section in terms of gender, researcher seniority and knowledge area. The aim of these interviews was to validate the relevance of further phases of the project, to identify or confirm relevant variables for inclusion in the survey, and to find the most appropriate register/language for communication with our informants through an online questionnaire. The recorded (with permission) interviews were content analysed to help develop the survey. From our informants' answers, we were able to confirm that training in ERPP was considered to be highly relevant in most fields. In contrast, the need for training in Spanish for research publication purposes was only suggested in a few cases.

## Tools

Following these interviews, we designed a structured online questionnaire (our main tool) comprising thirty-seven questions phrased to avoid leading participants to answer in specific ways and to avoid ambiguities. The questionnaire was divided into several sections that included:

- 1) personal, professional, demographic, academic and language background;
- 2) self-reported level of competence in the use of Spanish (as L1) and English (as L2);
- 3) motivations, feelings, views, attitudes toward publishing in English versus Spanish, and academic journals preferred;
- 4) past experience and difficulties with publishing RAs;
- 5) current strategies for writing RAs for English-medium journals; and
- 6) RA writing learning strategies in these two languages, as well as future needs for ERPP training.

The information thus collected would allow us to carry out more complete needs analyses (Dudley-Evans & St. John, 1998) of specific groups of informants, as well as in-depth analyses of specific factors affecting writing for publication purposes of EAL writers, such as the present one.

Once we had a clean draft, our questionnaire was converted into an online format by means of the Limesurvey application. It was then hosted on a server to be accessible by means of a password. A covering letter was drafted to announce the survey explaining who we were and our project aims and to ask for recipients' cooperation in completing the online questionnaire. Both documents were written in Spanish. The questions (translated from Spanish and contained in the Appendix to this paper) were posed in the survey to illuminate the particular issues under consideration in the present study. Original numbering of the items in the questionnaire has been kept.

Question no. 25 (Q25) was designed to answer research question 1 in our study. As can be seen from its layout in the Appendix, instead of measuring perceived increased difficulty in relation to writing an RA as a whole (as in Hanauer & Englander, 2011), our survey measured perceived difficulty in relation to the various sections of an RA and to the documentation involved in the process of RA publication in Spanish (as L1) and in English (as L2). We provided answers on a five-point Likert scale with an additional option for those who did not consider each section or document applicable to their individual circumstances.

Question no. 9 (Q9) uses a nominal scale to obtain answers for research question 2 on researchers' perceptions of difficulty writing RA sections or documents across the disciplinary areas represented in our sample. As our interviews had shown, although there is a need for revision of many UNESCO codes at the lowest levels of delicacy, they allowed most informants to classify themselves down to the second digit level, that is, at the level of disciplinary area (e.g. life sciences). As the UNESCO system is widely used, this classification of disciplinary areas opened up the possibility of future comparisons with researchers from other national contexts.

Question no. 10 (Q10) and question no. 11 (Q11) were constructed to answer research question 3 on the relative impact of writing proficiency in English (as L2) on Spanish researchers' perception of increased difficulty when writing RAs in English. Answers were provided on a five-point Likert scale. As previous studies have suggested, self-reported measures of proficiency correlate well with "objective" measures (Gardner, 1985). Moreover, our interviewees had no difficulty plotting their language proficiency on a five-point (very low to very high) scale. They also reported greater confidence in their performance in English for academic purposes than for general purposes and believed that their reading was better than

their writing and their spoken interaction in English. Our survey thus includes an important innovation by operationalizing Spanish researchers' perceived proficiency level according to: a) communication purpose (general versus academic) b) language (Spanish versus English); and c) language skill (which we glossed with examples to increase the reliability of informants' answers). This procedure yielded four categories: Spanish for general purposes (SGP), English for general purposes (EGP), Spanish for academic purposes (SAP) and English for academic purposes (EAP). It allowed us to better assess informants' level of proficiency in the variables that interested us most, namely EGP and EAP writing.

Finally, question no. 12 (Q12), using a ratio scale, also provided answers to question 3 on the relative impact of informants' level of research publication experience. In order to operationalize this factor, we used the number of RAs published as corresponding author as a direct indicator of their research publication experience, and of their probable familiarity with the conventions of RA writing in their disciplines both in Spanish and in English writing cultures. From our interviews, we gathered that corresponding authors in most fields would generally be in a better position than other co-authors to report on the writing difficulties involved in the process of RA publication.

### **Procedures for validating the questionnaire and implementing the survey**

The online questionnaire was first validated with experts (both a selection of our interviewees and Phase 1 team members other than the authors) and then with a random pilot sample of 200 informants from the eligible population at the five selected Spanish institutions. After minor revision, it was administered to the entire population of staff with doctorates ( $n = 8,794$ ) through the covering letter sent by e-mail. After two reminders, the survey was closed on 15th December 2010. The information retrieved was kept in a database called the ENEIDA Database.

### **Participants**

Our survey yielded responses from 1,717 Spanish postdoctoral researchers. Of these, 1,454 (84.7%) met the L1 and educational background criteria we had established; 57.4% came from the research-only institution and 42.6% from the four universities. These varied in size, including one large, one

medium-sized and two small universities, one of which was bilingual (Spanish and Catalan). Almost two thirds of the sample (63.6%) were male, while over one third (36.4%) were female. Their mean age was 46.3 (SD = 8.8) and their mean degree of seniority was 16.2 (SD = 9.5) post-doctoral years. In terms of their academic status, 60.6% (n = 881) of the participants were permanent non-promoted staff, 31.5% (n = 458) were permanent promoted staff, and 7.9% (n = 115) were non-permanent staff.

The analyses revealed that only 2% (n = 34) of the respondents reported not having published an article as corresponding author over the preceding ten years. Of the rest, 52.3% (n = 742) published in both languages, 38.2% (n = 542) published only in English and 9.6% (n = 36) published only in Spanish. The average number of articles published as corresponding author over the preceding ten years was 6.1 in Spanish and 16.3 in English but the ranges were very wide (0-100 for Spanish; 0-200 for English). It is also noteworthy that 90.1% (n = 1,279) of the informants in the sample reported acting as peer reviewers for at least one journal, principally for English-medium journals. This suggests that most of the informants in our sample are fully-fledged researchers in their fields, who can be assumed to be capable of providing highly reliable information on their perceived difficulties in the RA publication process.

The researchers came from the following disciplinary areas ordered by frequency (from higher to lower number of participants): Life Sciences, Technological Sciences, Chemistry, Physics, Agricultural Sciences, Earth and Space Sciences, History, Medical Sciences, Economics, Mathematics, Linguistics, Psychology, Pedagogy, Arts and Humanities, Law, Astronomy and Astrophysics, Sociology, Geography, Political Sciences, Philosophy, Anthropology, Demography, Logics and Ethics. In the present study, we collapsed the 24 resulting disciplinary areas into four knowledge areas (Natural and Exact Sciences, Technological Sciences, Arts and Humanities and Social Sciences). The result is that over half of the sample (56.2%) come from the Natural and Exact Sciences, 16.9% come from the Technological Sciences, 16.9% come from the Social Sciences, 16.3% come from the Arts and Humanities and 2.5% remain unclassified (having classified themselves into three or more disciplinary areas). Descriptive data in relation to most variables in the survey can be seen in Moreno et al. (2011).

## Results and Discussion

In order to address the particular issues of the present study, this section presents the analyses of the responses to the survey items previously stated:

1. Which sections of the RA are implicated in the perceived increased difficulty in writing RAs in English (as L2) as opposed to Spanish (as L1)?

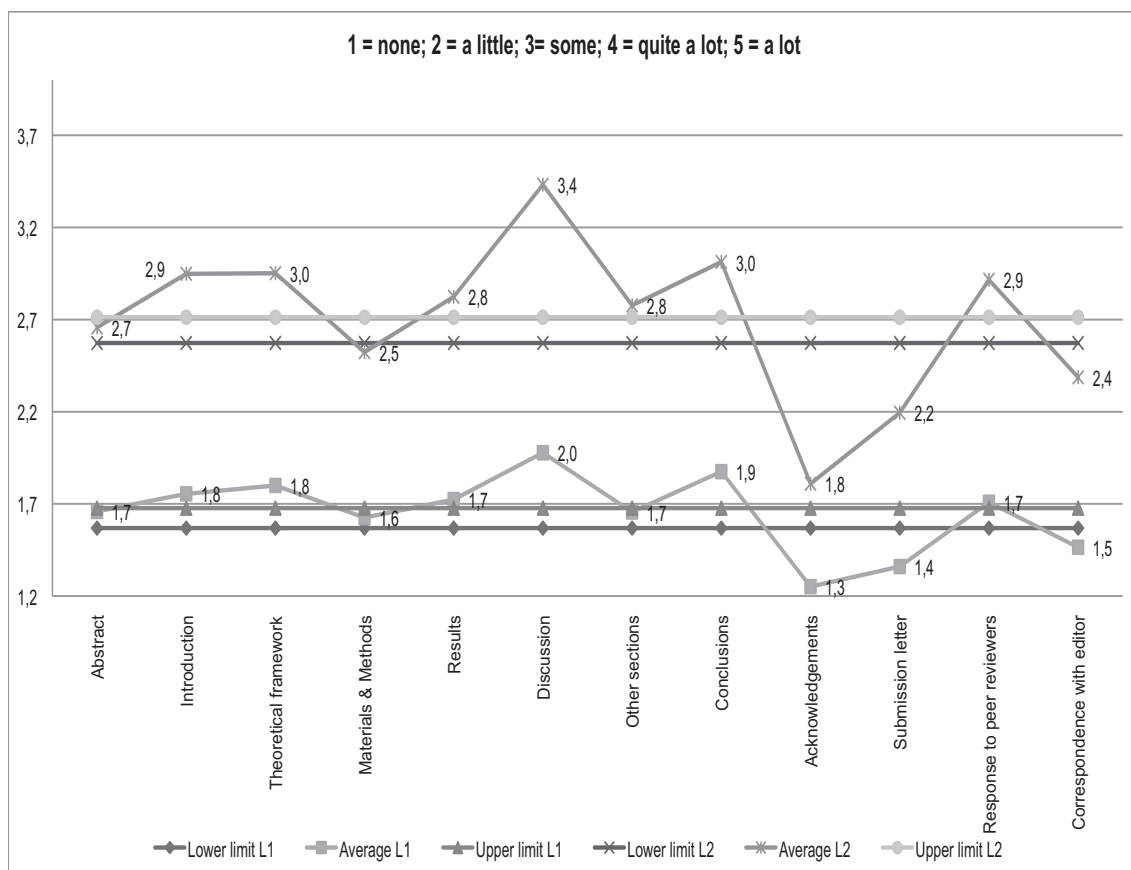
To ensure that participants were in a position to compare their perceived difficulty writing RAs in English (as L2) as opposed to Spanish (as L1), for the current study we selected only those who had published at least one RA as corresponding author both in English and in Spanish. Thus, the initial sample of 1,454 valid participants in our survey was reduced to 742 (52.3%). Table 1 shows the means and standard deviations for informants' perception of the difficulty writing RAs in Spanish (as L1) and in English (as L2). In order to determine whether the means for this paired sample were systematically different, we applied the Student's t-test, adjusted using the Bonferroni correction. Values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means. We also added a D-score which calculates the percentage of increased difficulty, following Hanauer and Englander (2011), in order to be able to compare results.

| (n = 742)<br>Q25. RA article section or<br>publication-related document | (1 = none; 2 = a little; 3 = some; 4 = quite a lot; 5 = a lot) |                              |                           |
|---|--|------------------------------|---------------------------|
|   | Spanish (as L1)<br>Mean (SD)                                   | English (as L2)<br>Mean (SD) | Difference<br>D-score (%) |
| Abstract  | 1.66 <sub>b</sub> (0.94)                                       | 2.66 <sub>a</sub> (1.17)     | 20.0%                     |
| Introduction  | 1.75 <sub>b</sub> (0.94)                                       | 2.95 <sub>a</sub> (1.18)     | 24.0%                     |
| Theoretical framework   | 1.80 <sub>b</sub> (0.94)                                       | 2.95 <sub>a</sub> (1.19)     | 23.0%                     |
| Materials & Methods   | 1.63 <sub>b</sub> (0.85)                                       | 2.52 <sub>a</sub> (1.18)     | 17.8%                     |
| Results   | 1.72 <sub>b</sub> (0.90)                                       | 2.82 <sub>a</sub> (1.17)     | 22.0%                     |
| Discussion  | 1.98 <sub>b</sub> (1.09)                                       | 3.43 <sub>a</sub> (1.20)     | 29.0%                     |
| Other sections  | 1.66 <sub>b</sub> (0.88)                                       | 2.78 <sub>a</sub> (1.22)     | 22.4%                     |
| Conclusions   | 1.87 <sub>b</sub> (1.10)                                       | 3.01 <sub>a</sub> (1.26)     | 22.8%                     |
| Acknowledgements  | 1.25 <sub>b</sub> (0.59)                                       | 1.81 <sub>a</sub> (1.06)     | 11.2%                     |
| Submission letter   | 1.36 <sub>b</sub> (0.70)                                       | 2.19 <sub>a</sub> (1.21)     | 16.6%                     |
| Response to peer reviewers  | 1.71 <sub>b</sub> (0.98)                                       | 2.92 <sub>a</sub> (1.25)     | 24.2%                     |
| Correspondence with Editor  | 1.46 <sub>b</sub> (0.81)                                       | 2.39 <sub>a</sub> (1.20)     | 18.6%                     |

Table 1. Difficulty experienced in writing the various sections of RAs and publication-related documentation in Spanish (as L1) and English (as L2).

As Table 1 shows, Spanish researchers' perceived difficulty writing all the sections in English (as L2) is consistently and statistically significantly

higher than the difficulty experienced writing each comparable section in Spanish (as L1), as might be expected. The average percentage of increased difficulty writing all the sections as a whole is 21%, this being slightly lower than, but comparable to, the percentage arrived at by Hanauer and Englander (2011) regarding the RA as one whole block (24%). In order to assess which sections were perceived as relatively more difficult to write within each language, we also calculated the confidence interval for the means of all sections in each language with a confidence level of 95% (see Figure 1).



| Language   | Means (all items) | Upper limit of the confidence interval | Lower limit of the interval confidence | Interval confidence level |
|------------|-------------------|--|--|---------------------------|
| English L2 | 2.64              | 2.71                                   | 2.57                                   | 95%                       |
| Spanish L1 | 1.62              | 1.68                                   | 1.57                                   | 95%                       |

Figure 1. Spanish researchers' perceived difficulty writing RA sections or publication-related documents in English (as L2) versus Spanish (as L1).

As can be seen in Figure 1, the degree of perceived difficulty of each comparable RA section across the two languages is very similar relative to other RA sections within the same language, although it is always

significantly greater in English (as L2), as already demonstrated. The sections situated on the peaks, that is those lying outside the confidence interval, are those that show statistically significant differences from a greater number of other sections in the same language. Those sections whose means are above the confidence interval can be said to cause the greatest difficulty for Spanish researchers when writing RAs in English (as L2). They include, in order of difficulty, the Discussion, the Conclusion, the Introduction and the Theoretical framework, the Response to peer reviewers, the Results and Other sections. Due to their position in the graph, the Discussion and the Conclusion can be said to be statistically significantly different to the other most difficult RA sections. Furthermore, the Discussion is the only section whose mean is consistently statistically significantly different to the means of the other most difficult RA sections.

2. Does the perception of increased difficulty writing these sections of the RA in English (as L2) vary across knowledge areas?

Table 2 shows the means and standard deviations for our informants' perception of the difficulty they felt writing RA sections and publication-related documents in English (as L2) across the four knowledge areas. The right-hand column (Contrast) shows the result of our comparison. In order to determine whether the means for these four independent samples were systematically different, we also applied the Student's t-test, adjusted using the Bonferroni correction.

As Table 2 shows, not all sections are perceived as equally difficult for Spanish researchers across the four knowledge areas. For instance, writing the materials and methods sections is on average perceived as more difficult in the Social Sciences and in the Arts and Humanities than in the Natural and Exact Sciences and the Technological Sciences. Also, writing abstracts is perceived as more difficult in the Social Sciences than in the Arts and Humanities. In our view, this kind of information will serve to prioritize the design of relevant ERPP training resources addressed to Spanish researchers in particular knowledge areas. As can be observed, writing the discussion section is considered as the most difficult section for all participants in our sample, since the means for this section are on average systematically higher than the means for the other sections or documents across all knowledge areas. This suggests that resources to train Spanish researchers to write discussion sections for English-medium journals in all knowledge areas will be especially relevant.



| (n = 742)<br>Q25. RA section<br>and document | (1 = none; 2 = a little; 3 = some; 4 = quite a lot; 5 = a lot) Mean (SD) |                               |                                |                             | Contrast                 |
|--|--|-------------------------------|--------------------------------|-----------------------------|--------------------------|
|  | Natural<br>and exact<br>sciences<br>(NS)                                 | Tech.<br>sciences<br>(TS)     | Arts and<br>humanities<br>(AH) | Social<br>sciences<br>(SS)  |                          |
| Abstract                                     | 2.62 <sub>a,b</sub><br>(1.16)  | 2.77 <sub>a,b</sub><br>(1.09) | 2.37 <sub>a</sub><br>(1.11)    | 2.85 <sub>b</sub><br>(1.24) | SS > AH                  |
| Introduction                                 | 2.81 <sub>a</sub><br>(1.15)  | 2.98 <sub>a,b</sub><br>(1.06) | 2.79 <sub>a</sub><br>(1.19)    | 3.33 <sub>b</sub><br>(1.20) | SS > (NS, AH)            |
| Theoretical framework                        | 2.70 <sub>a</sub><br>(1.14)  | 2.89 <sub>a</sub><br>(1.08)   | 3.11 <sub>a,b</sub><br>(1.24)  | 3.51 <sub>b</sub><br>(1.21) | SS > (NS, TS)            |
| Materials &<br>Methods                       | 2.21 <sub>a</sub><br>(1.06)  | 2.37 <sub>a</sub><br>(1.15)   | 2.99 <sub>b</sub><br>(1.22)    | 3.12 <sub>b</sub><br>(1.17) | (SS, AH) ><br>(NS, TS)   |
| Results                                      | 2.62 <sub>a</sub><br>(1.11)  | 2.85 <sub>a</sub><br>(1.11)   | 2.93 <sub>a,b</sub><br>(1.25)  | 3.27 <sub>b</sub><br>(1.16) | SS > (NS, TS)            |
| Discussion                                   | 3.36 <sub>a</sub><br>(1.21)  | 3.32 <sub>a</sub><br>(1.09)   | 3.19 <sub>a</sub><br>(1.22)    | 3.79 <sub>b</sub><br>(1.18) | SS ><br>(NS, TS, AH)     |
| Other sections                               | 2.51 <sub>a</sub><br>(1.15)  | 2.73 <sub>a,b</sub><br>(1.09) | 3.06 <sub>b,c</sub><br>(1.23)  | 3.28 <sub>c</sub><br>(1.25) | SS > (NS, TS)<br>AH > NS |
| Conclusions                                  | 2.86 <sub>a</sub><br>(1.25)  | 2.83 <sub>a</sub><br>(1.19)   | 2.93 <sub>a</sub><br>(1.18)    | 3.55 <sub>b</sub><br>(1.22) | SS ><br>(NS, TS, AH)     |
| Acknowledgements                             | 1.70 <sub>a</sub><br>(1.01)  | 1.76 <sub>a,b</sub><br>(0.98) | 2.00 <sub>a,b</sub><br>(1.02)  | 2.05 <sub>b</sub><br>(1.23) | SS > NS                  |
| Submission letter                            | 2.12 <sub>a</sub><br>(1.19)  | 2.16 <sub>a</sub><br>(1.18)   | 2.24 <sub>a</sub><br>(1.08)    | 2.36 <sub>a</sub><br>(1.27) | None                     |
| Response to peer<br>reviewers                | 2.86 <sub>a</sub><br>(1.25)  | 2.97 <sub>a,b</sub><br>(1.19) | 2.44 <sub>a</sub><br>(1.09)    | 3.23 <sub>b</sub><br>(1.26) | SS > (NS, AH)            |
| Correspondence with<br>editor                | 2.28 <sub>a</sub><br>(1.17)  | 2.41 <sub>a,b</sub><br>(1.18) | 2.19 <sub>a,b</sub><br>(1.03)  | 2.66 <sub>b</sub><br>(1.28) | SS > NS                  |

Table 2. Perceived difficulty writing the various sections of RAs and publication-related documents in English (as L2) by knowledge area.

One reason for the discussion section being perceived as more difficult for Spanish researchers to write in English (as L2) might well be their lower level of proficiency in English (as L2), as suggested by Hanauer and Englander (2011). In fact, our study hypothesises that the greater the level of proficiency in English (as L2), the lower the researchers' perception of difficulty writing discussions in English. However, as Table 1 demonstrates, the discussion stands out as being 8% more difficult for Spanish researchers to write in English (as L2) (29%) than the rest of the RA sections as a whole (21%), relative to Spanish (as L1). Since the researchers' level of proficiency in English (L2) is likely to have similar implications for all sections of the RA, it would appear that a factor other than their proficiency level in English must be at work here if we are to account for this extra increase in their perception of the difficulty involved. Also, since the informants in our subsample have published at least one RA in each language, the disciplinary factor (Swales, 2004) can be discarded as a potential explanation for our results. In our view, a plausible hypothesis to consider is the transfer of the

researchers' L1 critical attitude in research publication contexts (Moreno, 2010), for the following reasons.

Introductions and discussions have been identified by researchers in academic writing in English as those RA sections where readers need to be persuaded that the research is “sound, significant, and worthy of publication” (Flowerdew, 1999: 259). As Swales and Feak (2004: 112) also explain, discussions or “data commentaries,” as they call them, “are exercises in positioning yourself”. Some common purposes of discussion sections these authors mention include the following: assessing standard theory, common beliefs, or general practice in light of the given data; comparing and evaluating different data sets; and discussing the implications of the data, among others. All of these purposes involve using critical thinking strategies and the use of subtle evaluative text resources.

On the other hand, previous studies of academic discourse have demonstrated that Spanish researchers tend to be less critical when evaluating the literature in their field in academic public settings than expected. For instance, in their study of the changes made to the initial version of an RA submitted by a full professor to an English-medium journal in educational psychology for publication, Burgess, Fumero Pérez and Díaz Galán (2005) noted that one of the problems the writer had was that he had not articulated his contribution to the field clearly. As later discussed in Moreno (2010), this professor's problem was caused by his reluctance to criticize earlier work in the field and foreground his own contribution. The reluctance on the part of Spanish researchers to be critical of earlier work is also shown by various contrastive studies of English-Spanish academic discourse. For example, this is shown to happen consistently throughout all RA article sections in the field of business management (Mur, 2007) and in literary academic book reviews (Moreno & Suárez, 2008).

Given the differences found in the critical attitude of Spanish researchers towards previous academic works, and their own findings, it appears that a lack of critical attitude and/or a lack of positioning are more acceptable in the eyes of Spanish-medium journal gatekeepers than they are to those with editorial control of comparable English-medium journals. This is likely to reflect an L1 rhetorical practice into which Spanish researchers have been more or less implicitly socialised. We surmise that this rhetorical practice may have been unconsciously transferred to their writing of RAs in English (as

L2), causing them to face some unexpected WOE's in the publication process, which is likely to affect their perception of increased difficulty writing discussions in English (as L2). Thus in the present study we also hypothesise that the more familiar Spanish researchers are with the conventions of the RA genre in English-medium journals (including the display of an appropriate critical attitude towards their own and others' previous work) the less difficult they will find it to write discussions in English (as L2). In order to assess this effect better, we will compare it with the effects of familiarity with this genre in Spanish-medium journals and with the effects of proficiency level in English (as L2), both EGP and EAP.

3. What is the relative impact of the researchers' writing proficiency in English (as L2) versus their research publication experience on their perception of difficulty writing the Discussion section in English?

To explore this third question, we used the responses from the complete valid sample of informants ( $n = 1,454$ ) in order to include both those informants who had research publication experience as corresponding authors and those who did not. In order to assess the relevance of distinguishing between writing proficiency in EGP and EAP, Table 3 shows the means for informants' proficiency in the two languages according to the two domains of communication purposes under consideration and language skill. To compare means, we also applied the Student's t-test, adjusted using the Bonferroni correction.

| Q10-Q11<br>N = 1454<br>Language skills                | 1 = very low 2 = low 3 = medium 4 = high 5 = very high |                 |                 |                 |             |
|---|--|-----------------|-----------------|-----------------|-------------|
|   | SGP  | EGP             | SAP             | EAP             | Contrast    |
|   | Mean<br>(SD)   | Mean<br>(SD)    | Mean<br>(SD)    | Mean<br>(SD)    |             |
| Listening   | 4.98<br>(0.157)  | 3.31<br>(1.035) | 4.96<br>(0.228) | 3.73<br>(1.070) | (1) (2) (3) |
| Speaking  | 4.96<br>(0.224)  | 3.37<br>(1.046) | 4.93<br>(0.300) | 3.51<br>(1.115) | (1) (2) (3) |
| Interacting   | 4.94<br>(0.282)  | 3.21<br>(1.100) | 4.92<br>(0.322) | 3.38<br>(1.155) | (1) (2) (3) |
| Reading   | 4.98<br>(0.175)  | 4.18<br>(0.863) | 4.97<br>(0.216) | 4.45<br>(0.834) | (1) (2) (3) |
| Writing   | 4.93<br>(0.293)  | 3.54<br>(1.055) | 4.92<br>(0.327) | 3.64<br>(1.135) | (1) (2) (3) |
| Corresponding with<br>editors, reviewers              |  |                 | 4.93<br>(0.318) | 3.83<br>(1.069) | (2)         |
| Contrast: (1) SGP > EGP; (2) SAP > EAP; (3) EAP > EGP |  |                 |                 |                 |             |

Table 3. Perceived level of proficiency in the use of SGP, EGP, SAP and EAP.

As can be seen, the means for each skill in English (as L2) are consistently lower than those for each comparable skill in Spanish (as L1) in both domains, as might be expected. In particular, Spanish researchers perceive their level of proficiency writing in EAP as 25.6% (1.28 points) lower than their level of proficiency writing in SAP, the difference being statistically significant (for  $p < 0.05$ ). In addition, our informants' level of proficiency in EGP for each skill is on average statistically significantly lower than their level of proficiency in EAP (for  $p < 0.05$ ), as is often mentioned. Of all the variables in Table 3, we selected writing proficiency in EGP and in EAP as the most relevant to our study.

The model we tested was one that had the dependent variable as Spanish researchers' perceived difficulty writing RA discussions in English (as L2), and the four independent variables as: 1) their perceived level of proficiency writing in EGP; 2) their perceived level of proficiency writing in EAP; 3) the number of RAs they had published as corresponding authors in Spanish (as L1); and 4) the number of articles they had published as corresponding authors in English (as L2). We conducted categorical regression analysis (CATREG) using data drawn from these four variables provided by the informants that answered our question about the dependent variable ( $n = 1,284$ ). Our results show that all independent variables included in the model are significant as explained by its standardized beta coefficient (proficiency in EGP  $\beta = -.155$ ,  $p < 0.000$ ; proficiency in EAP  $\beta = -.350$ ,  $p < 0.000$ ; number of articles in English  $\beta = -.087$ ,  $p = 0.000$ ) except for the number of articles in Spanish ( $\beta = -0.061$ ,  $p = 0.214$ ). The model is significant (ANOVA  $p < 0.000$ ) and 24.3% of the variance in the dependent variable is explained by the independent variables (adjusted R square = 0.243).

In order to graphically represent and compare the effects of all the variables included in this analysis, their values were typified so that the average was zero and the standard deviation was one. Then, ranges were automatically assigned by the statistical program, under the following statistical assumptions: given that we chose five range categories in order to fit the five-point Likert-type scale of the "writing proficiency" variables, the CATREG performed an optimal partition of the "publication experience" variables in order to find the five categories maximizing the correlation among variables. Thus those researchers who are within the same, but not necessarily regular, range in number of published RAs experience on average similar levels of difficulty, however large the range may seem. The points on the curves in Figure 2 below show where noticeable changes can be observed in the slopes.

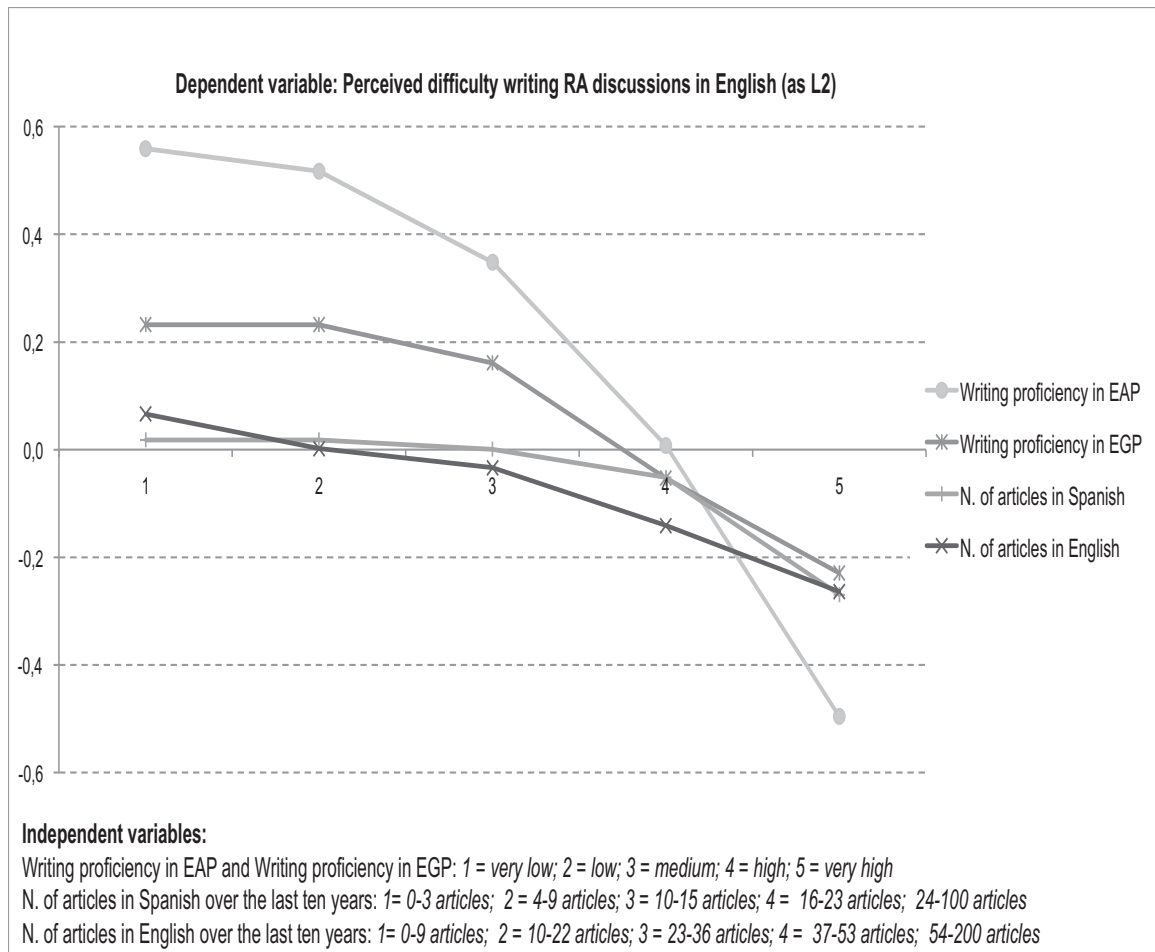


Figure 2. Effects of writing proficiency versus research publication experience on Spanish researchers' perceived difficulty writing RA discussions in English (as L2).

As shown in Figure 2, increases in value of the four independent variables are associated with decreases in the level of the dependent variable. However, relative to each other, Spanish researchers' perceived level of proficiency writing in EAP exerted the greatest negative influence ( $\beta = -.350$ ) on perceived difficulty writing RA discussions in English (as L2), followed by their perceived level of proficiency writing in EGP. However, neither of these effects becomes noticeable until informants report high or very high levels of proficiency in English (as L2) (values 4 and 5). Thus, the disadvantage that Spanish researchers perceive in the research publication world relative to native speakers of English (Ferguson, Pérez-Llantada & Plo, 2011) is justified. Importantly, the effect of self-reported level of proficiency writing in EAP is more noticeable and gradual than that of EGP.

Because our informants' average level of proficiency writing in EAP is 3.64, it might then be productive for them to attend specific EAP training sessions that allow them to improve their proficiency writing RAs in English and thus experience a notable decrease in their perceived difficulty.

As Figure 2 also shows, the number of articles published in English-medium journals does contribute significantly ( $\beta = -.087$ ), though to a lesser extent than proficiency writing in English (as L2). However, it is only when informants report having published at least 37 RAs as corresponding author in English-medium journals over the preceding ten years (values 4-5) that they experience on average a noticeable decrease in their perceived difficulty writing discussions in English. Since the number of RAs published in Spanish exerted an insignificant influence, it may be said that the type of publication experience that provides Spanish researchers with an additional understanding of disciplinary conventions, going beyond the benefits of a better command of written English (whether EAP or EGP) and general familiarity with disciplinary conventions, is publication experience in English-medium journals.

It is this additional understanding which might help them to lessen the potentially negative effects of transfer of certain L1 scientific writing rhetorical habits, such as their lower tendency to be critical. Because our informants have written on average 16.3 RAs for English-medium journals over the preceding ten years, their publication experience does not seem to be enough to achieve the benefits. This may also partly explain why they find it 8% more difficult to write RA discussions in English. Spanish researchers might therefore benefit from increased awareness of the existing differences in the rhetoric and style of successful RA Discussions across English- and Spanish-medium journals, as proposed in Moreno (2010).

## Conclusions

One major contribution of our survey study is that it has identified the discussion section as the most implicated in the increased difficulty perceived by Spanish researchers writing RAs in English (as L2) as opposed to Spanish (as L1) across all knowledge areas. Although these results are similar to those reported by Flowerdew (1999) on the basis of 26 interviews with Chinese researchers, they are more robust, given our more systematic data collection and rigorous analytical procedures and the considerably larger sample of

researchers under study. In our search for explanations, our innovative comparative approach has also made an important contribution to an ongoing debate in academic writing research by clarifying the relative impact of the level of writing proficiency in English (as L2) versus RA publication experience on Spanish researchers' increased difficulty writing RAs discussions in English (as L2).

Our findings suggest that the factor that most contributes to reducing Spanish researchers' perception of increased difficulty writing RA discussions in English is their increased level of proficiency writing in EAP. The effect of this factor is more noticeable and gradual than that of greater level of proficiency writing in EGP. These results, on the whole, clearly support Hanauer and Englander's (2011) conclusion that the level of proficiency in English (as L2) is a more influential factor than familiarity with the disciplinary conventions of scientific writing. However, as we have argued, our results are more robust, refined and specific. One clear pedagogical implication is that it would be more productive for Spanish researchers to attend EAP training sessions, with a special emphasis on writing RA discussions, than EGP courses.

We have also argued that Spanish researchers' lower level of proficiency in English (as L2) cannot be cited as the sole factor in the additional increase in their perception of the difficulty involved in writing RA discussions in English (as L2). Those who have more extensive publication experience in English-medium journals seem to have an additional understanding of disciplinary conventions in the RA genre in English-medium journals that goes beyond the benefits of a better command of written English (whether EAP or EGP) and, surprisingly, of increased familiarity with disciplinary conventions in the RA genre in Spanish-medium journals. Thus, based on Moreno's (2010) hypothesis about the likely transfer of Spanish researchers' tendency to be less critical toward their own and others' previous work in similar L1 research publication contexts, it is possible to suggest that increased publication experience in English may have helped Spanish researchers to offset the negative effects of transfer of this and other L1 rhetorical and stylistic features when writing RAs in English (as L2).

Further research will need to clarify whether transfer of such features does indeed occur, causing Spanish researchers with less publication experience in English to encounter unexpected WOEs in the process of RA publication in English-medium journals. If that were the case, EAP training sessions

specifically designed for Spanish researchers should raise their awareness of the identified differences as early in their research career as possible so that they do not need to wait until they have published such a large number of RAs in English to be able to reap the benefits. Lastly, our findings need to be treated with some caution as they are based on Spanish researchers' self-reported perceptions of difficulty rather than on direct observations of their WOE. Be that as it may, the way forward in designing future multiple case studies of the actual WOEs encountered by given profiles of Spanish researchers when writing RA discussions in English (as L2) is now much clearer.

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## Appendix: Questions from online questionnaire (originally written in Spanish)

Q25. Indicate how much difficulty you experience in writing the following sections of research articles or the documentation involved in their publication in Spanish and in English. Use the following scale: 1 = none; 2= a little; 3 = some; 4 = quite a lot; 5 = a lot

|   | In Spanish |   |   |   |   |     |  | In English |   |   |   |   |     |
|---|------------|---|---|---|---|-----|--|------------|---|---|---|---|-----|
|   | 1          | 2 | 3 | 4 | 5 | N/A |  | 1          | 2 | 3 | 4 | 5 | N/A |
| 1. The abstract   |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 2. The introduction   |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 3. The theoretical framework  |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 4. The materials and methods  |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 5. The results  |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 6. The discussion   |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 7. Other sections   |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 8. The conclusions  |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 9. The acknowledgements   |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 10. The letter accompanying the articles when it is sent to the journal |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 11. The response to peer reviewers' comments.                           |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 12. The correspondence with the editor during the evaluation process    |            |   |   |   |   |     |  |            |   |   |   |   |     |
| 13. Other: (Please specify) _____                                       |            |   |   |   |   |     |  |            |   |   |   |   |     |
| (Please specify) _____  |            |   |   |   |   |     |  |            |   |   |   |   |     |
| (Please specify) _____  |            |   |   |   |   |     |  |            |   |   |   |   |     |

Q9. What is your research field? Please indicate this using one or more of the UNESCO codes in the scroll-down menus. Choose the code or codes that best fits your research area.

Q10. What is your level of competence in the use of Spanish and English for general purposes? Please use the following scale: 1 = very low 2 = low 3 = medium 4 = high 5 = very high

|                |  | Spanish |   |   |   |   |  | English |   |   |   |   |
|----------------|--|---------|---|---|---|---|--|---------|---|---|---|---|
|                |  | 1       | 2 | 3 | 4 | 5 |  | 1       | 2 | 3 | 4 | 5 |
| 1. Listening   | e.g. Understanding TV and radio programmes                             |         |   |   |   |   |  |         |   |   |   |   |
| 2. Speaking    | e.g. Describing events, giving instructions                            |         |   |   |   |   |  |         |   |   |   |   |
| 3. Interacting | e.g. Discussing topics of general interest                             |         |   |   |   |   |  |         |   |   |   |   |
| 4. Reading     | e.g. Reading newspapers and popular science magazines                  |         |   |   |   |   |  |         |   |   |   |   |
| 5. Writing     | e.g. Writing short stories, personal letters and letters of complaint. |         |   |   |   |   |  |         |   |   |   |   |

Q11. What is your level of competence in the use of Spanish and English for academic purposes? Please use the following scale: 1 = very low 2 = low 3 = medium 4 = high 5 = very high

|                |   | Spanish |   |   |   |   |  | English |   |   |   |   |
|----------------|---|---------|---|---|---|---|--|---------|---|---|---|---|
|                |   | 1       | 2 | 3 | 4 | 5 |  | 1       | 2 | 3 | 4 | 5 |
| 1. Listening   | e.g. Understanding lectures                             |         |   |   |   |   |  |         |   |   |   |   |
| 2. Speaking    | e.g. Giving papers at conferences                       |         |   |   |   |   |  |         |   |   |   |   |
| 3. Interacting | e.g. Asking and responding to questions at a conference |         |   |   |   |   |  |         |   |   |   |   |
| 4. Reading     | e.g. Reading articles about my research field           |         |   |   |   |   |  |         |   |   |   |   |
| 5. Writing     | e.g. Writing research articles and book chapters        |         |   |   |   |   |  |         |   |   |   |   |
|                | e.g. Corresponding with editors and peer reviewers      |         |   |   |   |   |  |         |   |   |   |   |

Q12. Please give the number of scientific articles you have published as corresponding author in each language over the last ten years.

|                        | Number of articles |
|------------------------|--------------------|
| A. Spanish             |                    |
| B. English             |                    |
| C. Other languages     |                    |
| (please specify) _____ |                    |
| (please specify) _____ |                    |



#### **4. Artículo II: Why publish in English versus Spanish?: Towards a framework for the study of researchers' motivations**

López-Navarro, I., Moreno, A.I., Burgess, S., Sachdev, I. y Rey-Rocha, J. (2015). Why publish in English versus Spanish?: Towards a framework for the study of researchers' motivations. *Revista Española de Documentación Científica*, 38(1), e073

##### ***Publicar en inglés o en castellano: Un marco teórico para el estudio de las motivaciones de los investigadores***

##### **Resumen**

Este trabajo propone un marco teórico para el estudio comparativo de las motivaciones de los investigadores a la hora de publicar en inglés o en su lengua materna. Dicho marco tiene por objeto ofrecer una visión dinámica, multidimensional y multinivel de la motivación. Como resultado, pudimos clasificar las motivaciones de los investigadores a lo largo de un continuo atendiendo a las siguientes dimensiones: a) ámbito, b) tipo de motivación, c) tipo de regulación, d) causalidad percibida, e) control y f) resultado. Para testar este modelo se han utilizado datos procedentes de una encuesta on-line a gran escala realizada a 8.794 investigadores españoles afiliados a cuatro universidades (Universidad de León, Universidad de La Laguna, Universidad Jaume I, Universidad de Zaragoza) y un centro de investigación (Consejo Superior de Investigaciones Científicas), en la que se obtuvieron 1.717 respuestas válidas. Se utilizó el modelo para investigar los factores que motivan a los investigadores a la hora de publicar en revistas científicas en inglés y en castellano, así como el grado en que estas motivaciones son moldeadas por determinadas características individuales, especialmente el género y la experiencia investigadora y en publicación. Los resultados muestran un uso instrumental del inglés con fines académicos frente a una visión del empleo del castellano más fragmentada y basada en motivaciones sociales e ideológicas. Además, se comprobó que las variables individuales utilizadas apenas generan diferencias significativas respecto a la pauta motivacional, si bien la experiencia de publicación y el género afectaron a la intensidad de las puntuaciones. El marco teórico presentado es aún un modelo preliminar, abierto y dinámico cuyo desarrollo está condicionado a su aplicación en sucesivas investigaciones empíricas en esta u otras comunidades científicas. Del mismo modo, puede ser utilizado para el estudio de motivaciones académicas relacionadas con la divulgación científica o la comunicación pública de la ciencia, entre otras.

**Palabras clave:** Artículos científicos; escritura académica; estrategias de publicación; motivación.







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## ESTUDIOS / RESEARCH STUDIES

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### Why publish in English versus Spanish?: Towards a framework for the study of researchers' motivations

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**Abstract:** This paper proposes a framework for the comparative study of researchers' motivations for publishing either in English as an additional language or their first language. This framework seeks to present a view of motivation as dynamic, multidimensional, and multilevel. Empirical support is provided through the results of an on-line large-scale survey carried out among Spanish scholars. Our aim was to investigate which factors motivate them to publish their results in academic journals in either English or Spanish, as well as the extent to which these motivations are shaped by individual characteristics of researchers, particularly gender, seniority and publication experience. Results show an instrumental use of publication in English and fragmented social and ideological motivations for the use of Spanish.

**Keywords:** Research article; academic writing; publication strategy; researchers' motivation.

#### Publicar en inglés o en castellano: Un marco teórico para el estudio de las motivaciones de los investigadores

**Resumen:** Este trabajo propone un marco para el estudio comparativo de las motivaciones de los investigadores a la hora de publicar en inglés o en su lengua materna. Dicho marco tiene por objeto ofrecer una visión dinámica, multidimensional y multinivel de la motivación. Los resultados de este trabajo provienen de una encuesta on-line a gran escala realizada entre investigadores españoles. Nuestro principal objetivo es investigar los factores que motivan a los investigadores a la hora de publicar en revistas académicas, ya sea en inglés o en español, así como el grado en que estas motivaciones son moldeadas por determinadas características individuales, especialmente el género y la experiencia investigadora y en publicación. Los resultados muestran un uso instrumental del inglés con fines académicos frente a una visión del empleo del castellano más fragmentada y basada en motivaciones sociales e ideológicas.

**Palabras clave:** Artículos científicos; escritura académica; estrategias de publicación; motivación.

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## 1. INTRODUCTION

A large number of previous studies have reported the importance of English for the communication of scientific knowledge and have shown how researchers who do not have English as their first language are under pressure to publish their research findings in this language (see Curry and Lillis, 2004; Swales, 2004; Lillis and Curry, 2010). At the same time, many speakers of languages other than English defend the use of their first language in academic contexts, particularly in countries with strong languages used widely on a global scale (Petersen and Shaw, 2002; Swales, 2004; Flowerdew and Li, 2009).

A researcher's choice of language for the publication of their research depends not only on linguistic considerations (such as linguistic proficiency or difficulties with using English for academic purposes), nor does it only have linguistic implications (Hwang, 2005, 2013). It is also a response to the desire that research results should reach a wider international audience (Rey-Rocha and Martín-Sempere, 1999; Haarman and Holman, 2001; Gómez et al., 2006; Uzuner, 2008), to the growing internationalization of teaching and research in universities and research centres (Pérez-Llantada et al., 2011), and to the practice that many national Science and Technology (S&T) systems have of rewarding publication in English-medium scientific journals (Ferguson, 2006; Moreno, 2010; Osuna et al., 2011). As a result, areas such as science communication, scientific collaboration, scientific productivity, visibility and impact of research, and research assessment all come into play. They are all widely measured and evaluated through a number of S&T indicators used for science policy purposes and for the assessment of the research activity of scientists. Appropriate contextualization and interpretation of these S&T indicators cannot exclusively rely on crude figures and statistics. A detailed knowledge of researchers' publication patterns, their attitudes towards the use of English and other languages for academic purposes, and their motivations for using one or other of these languages is required. This information is essential for research assessment, well-informed decision-making and S&T policy implementation.

While there have been several attempts to characterize scientists' motivations and attitudes, there are a number of problems with these accounts. We provide a critical review of these in the next section. There has also been a lack of systematic data collection and of robust samples, shortcomings which we also seek to address in our methodology section. Finally, motivations and attitudes specifically in relation to language choice by researchers who use English as an additional language are issues that have not yet been directly addressed.

This study proposes a framework based on Self-Determination Theory (SDT) for the study of researchers' motivations for publishing either in English as an additional language (henceforth EAL) or their first language (henceforth L1). It aims to contribute to our empirical understanding of these motivations. Additionally, the framework has been used for the study of the main factors that motivate Spanish academics to publish the results of their research in either English or Spanish-medium journals. The study highlights the continuum of extrinsic to intrinsic motivations underlying researchers' publishing attitudes and behaviour in EAL as opposed to Spanish (as L1). We also investigate the extent to which these motivations are related to the individual characteristics of scientists, namely gender, seniority and publication experience.

The paper is structured as follows. First, we review the existing literature on motivation for scientific work. Secondly, we describe our proposal of a framework for the study of motivations for researchers' language choices for scientific publication purposes. Next, we apply the framework to the study of Spanish researchers' motivations to publish the results of their research in academic journals either in EAL or in Spanish. Finally, we discuss the main features of the motivational framework together with the main results of our study of Spanish researchers' motivations.

## 2. A REVIEW OF STUDIES OF MOTIVATION FOR SCIENTIFIC WORK

In this non-exhaustive review, we focus on three approaches that bring together current perspectives on academic motivation: the psychological perspective, the sociological perspective and the rational-economic perspective. Although each comes from a different intellectual tradition, we provide a cross-sectional analysis tracing the common thread running through the three perspectives. By doing this, we are able to identify the principal unresolved issues. Having determined where there is a need for more information, in the next section we suggest a framework that will allow for an analysis of motivation for academic publication purposes incorporating features from all three perspectives.

Psychological motivation theories have emerged from the distinction between intrinsic and extrinsic motivations (see Deci and Ryan, 2000 for a review). Extrinsically motivated behaviours are "the ones that the individual performs to receive some extrinsic reward (e.g., good grades) or to avoid punishment", while "with intrinsically motivated behaviours the rewards are internal (e.g., the joy of doing a particular activity or satisfying one's curiosity)" (Dörnyei, 1990). Many intrinsic and extrinsic motivational factors have been identified for researchers. Among the most important of

the extrinsic factors is financial reward (Levin and Stephan, 1991; Stephan, 1996). Intrinsic motivations include the satisfaction derived from carrying out research (Hagstrom, 1965), contributing to the advancement of knowledge, engaging in challenging and creative activities (Lam, 2011), and in creative puzzle-solving (Eiduson, 1962; Cotgrove, 1970). A characteristic feature of the scientific reward system is its multidimensional nature, comprising the three components that Stephan and Levin (1992) called the 'ribbon' (reputational/career rewards), the 'gold' (financial rewards) and the 'puzzle' (intrinsic satisfaction).

Despite the appeals of the psychological perspective, it is an approach that can be criticised for providing an excessively mechanistic explanation that lacks theoretical dynamism and for characterizing various types of input as intrinsic or extrinsic without fully taking into account the relationships between them (Ryan and Deci, 2000b). Although this approach has been useful for empirical research, it has often become bogged down in irreconcilable debates between those who promote the prevalence of intrinsic motivations (Hull, 1943; Herzberg et al., 1959; Deci, 1971; Lepper et al., 1973) versus those who see extrinsic motivations as predominating (Skinner, 1953; Opsahl and Dunnette, 1966; Lawler, 1971). Both sides have generally failed to formulate a theory that accounts adequately for these apparent contradictions. In addition, the failure to take into account the social and contextual factors that frame participants' decisions (Rowley, 1996), along with an excessive emphasis on extrinsic motivations as predictors in organizational psychology research, make it clear that the approach needs to be modified if the complexities underlying researchers' motivations are to be understood.

The sociological approach foregrounds the fact that most of the extrinsic motivations referred to in the literature – reputation, citations, money – are in fact interim steps towards obtaining resources within an institution that functions in accordance with "a set of cultural values and mores governing the activities termed scientific" (Merton, 1973). Within the sociological approach there are three main schools of thought which, while complementing one another, on many occasions, have approached organizational arrangements in science from three distinct explanatory paradigms, characterised as normative, cognitive and utilitarian.

The normative paradigm (Merton, 1973; Long and Fox, 1995; Scott, 2005) particularly emphasises the values that underpin the way in which the scientific community functions and how these factors influence researchers' behaviour. Merton's (1973) work on the normative structure of science has it that the development of science, like any other social institution, is supported by a set of

values. In the case of science, these values are of a technical and moral nature. Moral values such as 'Communalism', 'Universalism', 'Disinterestedness' and 'Organized scepticism' constitute the ethos that drives researchers in their work. In the traditional 'Mertonian' academic environment, recognition by peers (i.e. by the scientific community), mainly in the form of citations, constitutes the principal and fundamental form of extrinsic reward for researchers.

The assumptions underlying the Mertonian paradigm have come under attack from several quarters with criticisms being leveled at the notion that scientific behaviour is driven by altruistic factors, the claimed existence of a clear and unequivocal normative framework or the longstanding belief that there is a direct relationship between norms and action (Mulkay, 1969, 1980; Barnes and Dolby, 1970; Rothman, 1972; Fernández-Esquinas and Torres-Albero, 2009). At this point in our discussion we can draw parallels between the development of the psychological and sociological perspectives since both have led to a major shift in their respective disciplines, namely the calling into question of functionalism, and the loosening of the structuralist paradigm which had produced too narrow an interpretation of action in both social and individual domains.

The sociological approach, with its traditional grounding in macro and institutional perspectives, has thus seen itself obliged to look to the field of subjectivity in order to formulate new questions, the answers to which necessarily entail the inclusion of subjective elements such as beliefs, interests, values and even emotions (Thune, 2007). These elements cannot be understood as falling outside institutional dynamics, now that we have seen that the scientific community's norms and regulations also have their origins at the level of social interaction. This has meant that these norms and regulations are now regarded as having a degree of flexibility and as adapting themselves to the particular circumstances in which they arise while being essential components of uncertainty (Mulkay, 1980).

From the sociological perspective, we now turn to the approach we have termed 'rational-economic', since it draws on work in the economics of scientific knowledge (Polanyi, 1962; Radnitzky, 1987; Dasgupta and David, 1994; Hands, 2001), in which the production of scientific knowledge is viewed as a social process that can be analysed with the aid of conceptual tools drawn from economics (Zamora-Bonilla, 2012). In this approach, initially grounded in rational choice and game theory (Shi, 2001), scientists "try to attain the maximum possible merit with their stock of intellectual and material resources" to achieve their individual goals (Zamora-Bonilla, 2012).

Polanyi (1962), who was a pioneer in the use of this approach with his "Republic of Science", noted the parallels between the market and science, characterizing both as being based on self-coordination of independent initiatives aimed at achieving maximum benefit. There have, once again, been some criticisms of this approach as it sees scientific decision-making as rational and essentially constrained by scarcity of resources (Wible, 1998 cited in Zamora-Bonilla, 2012). Furthermore, despite a bid to include social factors in the analysis, the metaphor of the market has attracted the same accusations of internal contradictions levelled at classical economics, on which it draws in its efforts to argue for the existence of an "epistemic invisible hand" behind the process of scientific research. It has been pointed out, for example, that the existence of disciplinary monopolies runs counter to the notion of a free ideas market (Mirowski, 1996; Mirowski and Sent, 2002). The idea that the functions of science are underpinned by the market-based returns model has also been questioned (Gans and Stern, 2010).

Sociological and rational-economic approaches aimed to fill the gap in the earlier individualist conceptualizations and have made a major contribution to motivational studies of scientific production. However, unlike psychological perspectives, hypotheses derived from sociological and rational-economic approaches are yet to be tested empirically in a systematic manner.

Overall, the main theoretical and methodological shortcomings of previous approaches may be summarised as follows:

- (i) Little empirical testing and validation of measurement instruments: the most highly developed theoretical contributions have not been followed up by empirical testing (for a review, see Fernández-Esquinas and Torres-Albero, 2009; Zamora-Bonilla, 2012), while the earlier psychological perspectives have generally only validated their hypotheses at the individual level.
- (ii) Lack of a multilevel perspective: Following Ostroff and Bowen (2000) and Kozlowski and Klein (2000) on organizational theory, it would be desirable to integrate the macro level (normative systems, compensatory mechanisms, cultural context) and the micro level (attitudes, behaviours, perceptions) with intermediate positions between the two levels to produce a more complete and global perspective on the organizational system under study.
- (iii) The absence of dynamic and interactive explanations for researchers' preferences: the main contribution of the psychological perspective has been to distinguish between internal and external motivations. However,

despite its explanatory power, the approach thus far has been too static and little attention has been given to the relationship between these types of motivation and the processes that turn one type of motivation into the other.

In the next section, we present a framework that seeks to address the shortcomings discussed above and to provide a more satisfactory account of the motivations implicated in publication strategies.

### **3. DEVELOPING A FRAMEWORK FOR THE STUDY OF MOTIVATIONS FOR RESEARCHERS' LANGUAGE CHOICES FOR SCIENTIFIC PUBLICATION PURPOSES**

As we have sought to explain through our review of the three main approaches, despite their many differences, they share much common ground both in terms of their theoretical contributions and the various contradictions and impasses they confront. In this section, we present a framework based on SDT (Deci and Ryan, 1985, 2000, 2002; Ryan and Deci, 2000a; Gagne and Deci, 2005), one of the major theories of motivation in social psychology. We will now show how this approach addresses the three main shortcomings of the classical paradigms we described earlier by offering an understanding of motivation as a dynamic, multidimensional process, integrated at various levels. Furthermore, in the empirical domain, it is one of the approaches that can rely upon a larger body of research evidence to justify its hypotheses and validate its measurement instruments (Vallerand et al., 1992; Cokley, 2000; Fairchild et al., 2005). For this reason, it provides a particularly interesting and fruitful basis for the formulation of our framework.

SDT avoids the dichotomization of motivation as intrinsic and extrinsic in favour of a view where individuals' actions can be plotted along a motivational continuum from amotivation through extrinsic motivation to intrinsic motivation. Amotivation, the lack of intention to act because of lack of interest or because one does not see the activity as valuable, represents another of the important innovations provided by this theory. At the same time, SDT retains the concepts of extrinsic and intrinsic motivation but introduces a more nuanced explanation of how the two types of motivation work in practice. Firstly, the locus of motivation is seen in relation to the distinction between autonomous motivation and controlled motivation. Autonomous motivation involves "acting with a sense of volition and having the experience of choice", while controlled motivation involves "acting with a sense of pressure, a sense of having to engage in the actions". Thus, intrinsically motivated behaviour is "prototypically autonomous", while extrinsically motivated behaviour "can vary in the degree to which it is autonomous versus controlled" (Gagné and Deci, 2005).

Another central argument of SDT is that an extrinsically motivated behaviour can become autonomous, i.e. it can be "transformed into intrinsically motivated one as individuals internalize the values and behavioural regulation that underlies it" (Lam, 2011). The SDT controlled-to-autonomous continuum describes the degree to which an external regulation has been internalized. Internalization is "an active, natural process in which individuals attempt to transform socially sanctioned mores or requests into personally endorsed values and self-regulations" (Ryan et al., 1985, quoted in Deci and Ryan, 2000). It occurs when "people taking in values, attitudes, or regulatory structures, such that the external regulation of a behavior is transformed into an internal regulation and thus no longer requires the presence of an external contingency" (Gagné and Deci, 2005).

SDT identifies three distinct processes of internalization: introjection, identification and integration. Thus, extrinsic motivation is divided into four points along the continuum: external, introjected, identified and integrated regulation. *External regulation* refers to the least self-determined form of extrinsic motivation, involving actions for which the locus of initiation is external to the person, as in the case of rewards or threats. *Introjected regulation* involves externally imposed rules that the individual accepts as norms that pressure him or her to behave, while not accepting them as his or her own norms. *Identified regulation* occurs when people identify with the value of behaviour for their own self-selected goals and accept the regulatory process because they recognize its usefulness. The behaviour is thus more congruent with people's personal goals and identities. The most developmentally advanced form of extrinsic motivation is *integrated regulation*, which involves regulations that are fully assimilated with the individual's other values, needs, and identities. Integrated motivation is still considered extrinsic motivation but shares some qualities with intrinsic motivation (Deci et al., 1991; Gagné and Deci, 2005; Lam, 2011).

Associated with the different types of motivation, three outcome types can be identified: material, social and affective. Material outcomes are primarily related to extrinsic motivation, affective outcomes are closely related to intrinsic motivation, and social outcomes are related to the 'in-between' types of motivation such as introjection and identification (Lam, 2011).

Lam (2011) has recently reviewed the main characteristics and postulates of SDT with regard to academics' motivation. She underlines the emphasis of SDT on self-regulation in the motivational process seeing it as "particularly germane to the case of academics who enjoy considerable freedom in their work" and cites

Amabile et al. (1994) arguing that "some highly autonomous individuals [as most scientists are] may be strongly intrinsically interested in the activity and, at the same time, strongly motivated to acquire extrinsic rewards (e.g. recognition, careers and money) for that activity". At the same time, a researcher's motivation should be seen as a dynamic and multidimensional phenomenon (Viau, 2004).

Drawing on Deci and Ryan (2000) and on the existing literature on motivation, in this paper we propose a framework for the study of researchers' language choices for scientific publication purposes. After discussion with a sample of informants, we identified the main factors motivating researchers to publish in English or Spanish-medium journals (Table I). These factors are placed in the self-determination continuum of motivational factors according to: a) the sphere which is affected, either individual or collective; b) the type of motivation: amotivation, extrinsic or intrinsic; c) the type of regulation along the continuum between self-determined and controlled forms of motivation: external, introjected, identified, integrated and intrinsic regulation; d) the locus of causality, either impersonal, external or internal; and e) the three types of outcomes: affective, social and material (Figure 1).

Our framework brings together material, affective and social outcomes. It incorporates the recent broadening of intrinsic motivation to include a social, normative dimension, in addition to the traditional link to affective outcomes (Grant, 2008).

Many of the motivational factors we asked informants about are easily positioned along this continuum. This is the case of the desire to increase the possibility of receiving a bonus payment and, at the other end of the continuum, of the set of motivations related to self-confidence and need for achievement. The desire to meet the requirements for professional promotion represents a source of introjection, as does individuals' acceptance of the external norms ruling the reward system of science, where publication in mainstream international journals is one of the main, if not the principal, criteria for professional promotion in the public Research and Development system. Similarly, the desire for their work to be recognised and to get cited more frequently reflects researcher's identification and acceptance of research articles as the primary vehicle for obtaining recognition, and consequently of their acting in order to obtain this recognition. Seeking recognition can be considered as an external (though invisible) reward that depends on others (i.e. the scientific community), while getting citations could be seen as its visible counterpart. Both respond to the individual's desire to become fully integrated into their continually evolving academic community.

**Figure 1.** Motivations of scientists for writing research articles in English or Spanish, placed in the self-determination continuum of motivational factors

| Sphere                       | Collective         |                        |                                  |                                  |                                    | <i>JouExst</i>                   | <i>IntComm</i> |  |   |
|------------------------------|--------------------|------------------------|----------------------------------|----------------------------------|------------------------------------|----------------------------------|----------------|--|---|
|                              | Individual         |                        | <i>BonPaym</i>                   | <i>PrfProm</i>                   | <i>Citations</i><br><i>ResRegn</i> | <i>RspInv</i>                    | <i>LocComm</i> | Self-Confidence:<br><i>WrtAbil</i><br><i>ArtQual</i><br><i>PubExpr</i> | Need for Achievement:<br><i>StiChll</i><br><i>ItlDevl</i><br><i>WrtImpr</i> |
| Type of Motivation           | Amotivation        | Extrinsic motivation ← |                                  |                                  |                                    | → Intrinsic motivation           |                |  |   |
| Type of Regulation           | Non-regulation     | External regulation    | Introjected Regulation           | Identified Regulation            | Integrated Regulation              | Intrinsic Regulation             |                |  |   |
| Perceived Locus of Causality | Impersonal         | External               | Somewhat External                | Somewhat Internal                | Internal                           | Internal                         |                |  |   |
| Control                      | Lack of Motivation | Controlled Motivation  | Moderately Controlled Motivation | Moderately Autonomous Motivation | Autonomous Motivation              | Inherently Autonomous Motivation |                |  |   |
| Outcome                      |                    | Material               |                                  |                                  | Social                             |                                  | Affective      |  |   |

Source: based on Deci and Ryan (1985, 2000) and Ryan and Deci (2000a, b)

**Figure legend:**

Sphere:

- Individual: affect or fall within the individual scope.
- Collective: transcend the individual and affect or incumbent upon the collective sphere.

Type of motivation:

- Amotivation: having no intention to act because of lack of interest or not valuing the activity.
- Extrinsic: doing something for a separable outcome or external rewards.
- Intrinsic: doing something for its inherent pleasure and satisfaction.

Internalization process:

- External regulation: actions for which the locus of initiation is external to the person. Compliance, external rewards and punishments.

- Introjected regulation: fitting in or feeling worthy, accepting external norms. Self-control, ego-involvement, internal rewards and punishments.
- Identified regulation: acting appropriately, identifying and accepting regulatory processes. Personal importance, conscious valuing.
- Integrated regulation: regulations fully assimilated with the individual's values, needs and identities. Congruence, awareness, synthesis with self.

Outcome:

- Material outcomes: primarily related to extrinsic motivation.
- Social outcomes: related to the 'in-between' types of motivation.
- Affective outcomes: closely related to intrinsic motivation.

Motivational factors: See Table I.

**Table I.** Motivational factors

|                  |   |
|------------------|---|
| <b>StiChll</b>   | My desire for stimulating challenges  |
| <b>ItlDevl</b>   | My desire to develop intellectually (as a result of editors' and peer reviewers' comments)          |
| <b>WrtImpr</b>   | My desire to improve my writing ability in this language  |
| <b>WrtAbil</b>   | My assessment of my ability to write up the results of my research in this language                 |
| <b>ArtQual</b>   | My assessment of the quality of my article  |
| <b>PubExpr</b>   | My experience publishing in this language   |
| <b>IntComm</b>   | My desire to communicate the results of my research to the international scientific community       |
| <b>LocComm</b>   | My desire to communicate the results of my research to the local scientific community               |
| <b>JouExst</b>   | My desire for the continued existence of scientific journals in this language                       |
| <b>RspInv</b>    | My desire to respond to a request or invitation from an institution, association or publisher, etc. |
| <b>Citations</b> | My desire to get cited more frequently  |
| <b>ResRcgn</b>   | My desire for my research work to be recognised   |
| <b>PrfProm</b>   | My desire to meet the requirements for professional promotion                                       |
| <b>BonPaym</b>   | My desire to increase my chances of receiving a bonus payment                                       |

The desire to communicate to international or to local scientific communities can be considered as lying at the boundaries between extrinsic, integrated regulation, and intrinsic motivation. Initially, we opted for categorizing these motivations as intrinsic while acknowledging the existence of arguments for regarding them as extrinsic. Ultimately, we chose to categorise the local/universal interest of research as an extrinsic-type motivation on the grounds that communicating research in a given language may respond to the individual's desire to integrate into one community rather than another. In any case, it can thus be considered as an instrumental motive since it consists of a well-internalized extrinsic motive (integrated regulation) centred on the individual's future professional endeavours. It should, however, be noted that the desire to communicate to either an international or to a local scientific community also involves intrinsic and affective components.

The desire for the continued existence of scientific journals in a given language and the desire to respond to a request or invitation from an institution, association or publisher, etc. can be seen as a motivation echoing the Mertonian value of communalism. In so far as we consider these motivations as related to scientists' recognition of the usefulness of the existence of these journals and the fact that they consider responding to these invitations as appropriate conduct, they can be placed close to the 'Identified regulation' point on the continuum.

Finally, motivations placed at the 'intrinsic' extreme of the motivational continuum include six motivators, three of which fit into the 'self-confidence' category, encompassing the aspects of perceived competence (the assessment of my ability to write up the results of my research in this language), self-efficacy (my assessment of the quality of my article) and attributions about past experiences or causal attributions (my experience publishing in this language). The other three motivators are included within the 'need for achievement' component (the desire for stimulating challenges, the desire to develop intellectually and the desire to improve my writing ability in this language).

#### **4. APPLYING THE FRAMEWORK TO THE STUDY OF SPANISH RESEARCHERS' MOTIVATION**

We next describe an experimental application of the framework. We investigated the main factors that motivate Spanish researchers to publish the results of their research in academic journals either in EAL or in Spanish (as L1).

##### **4.1. Methodology**

The study was carried out through a survey of researchers from four Spanish universities and the Spanish Council for Scientific Research. This paper draws on data from the study by the

ENEIDA (Spanish team for Intercultural Studies on Academic Discourse) research team of the current needs, experiences and strategies of Spanish researchers with regard to the writing and publishing of research articles in English and Spanish-medium journals. The analysis is based on responses to a large-scale on-line survey carried out among Spanish scholars with doctorates who have received most of their secondary and pre-doctoral education in Spain and in Castilian Spanish, and who work at either a research-only institution (the Spanish Council for Scientific Research) or at one of four Spanish universities. The population of participants, the general aspects of the methodology used and the design, validation and implementation procedures of the ENEIDA survey are described in detail in Moreno et al. (2012, 2013). However, to facilitate comprehension of the present article, key methodological aspects of the study are summarized below with particular emphasis being given to those relating to researchers' motivations.

The ENEIDA instrument (Moreno et al., 2013) was designed drawing on previous literature (Cea D'Ancona, 2001; Cohen et al. 2007; De Vaus, 2002; see also Moreno et al., 2012), our existing knowledge, and information obtained from consultation with experts. In order to achieve adequate construct validity for the questions used in the survey, a two-step procedure based on respondent debriefing (qualitative approach) and a pre-test survey (quantitative approach) was employed. For the respondent debriefing (Hess and Singer, 1995; Martin, 2004), we conducted semi-structured face-to-face interviews with a sample of 24 informants with the aim of identifying or confirming relevant variables for inclusion in the questionnaire and to find the most appropriate register and language for communication with our informants in the subsequent survey. Afterwards, we tested the on-line questionnaire with a selected subsample of 200 informants, in order to trial the instrument both technically and in terms of interpretation of results. As a result of the double pre-test we redefined and reduced the number of items in the survey.

Both the interviews and the pre-test on-line survey involved a good cross-section which was representative of our population in terms of gender, seniority (junior and senior scientists), institution (CSIC and University) and disciplinary field (Natural and Exact Sciences, Technological Sciences, Social Sciences and Arts & Humanities).

The original Spanish version of the questionnaire was administered in late 2010 to a population of 8,794 academics. We received 1,717 responses (19.6% response rate). Of these, 1,454 (84.7%) met the L1 and educational

background criteria we had established. The size of the sample guarantees an error of less than 2% for a confidence level of 95%. Men and women responded at a similar rate (17.1% and 15.6% respectively) so both genders were adequately represented among respondents, reflecting the percentage distribution for the population. The response rate was higher among CSIC researchers (21.3%), who are thus over-represented in the sample with respect to university academics (response rate from 10.6% to 13% across the four universities).

We asked these informants to assess to what extent a series of factors influence their decision to publish in English or in Spanish when they decide to publish a research article in a scientific journal (Moreno et al., 2013). The series of factors on which we sought information through this question are those we plotted along the SDT continuum from extrinsic to intrinsic motivations (Figure 1).

Answers were provided on a five-point Likert scale (see Table II). For each motivational factor we estimated the position index (PI). The PI quantifies the position of the sample on an ordinal scale without having to take into account the number of categories that make it up. PI takes values between 0 and 1. It is null (PI = 0) when the sample is located in the lower end of the interval, and takes its maximum value (PI = 1) when all the elements of the sample are at the top. It allows for the representation of a motivational-profile graph for each independent variable, displaying their 'shape' and graphically showing similarities and differences among them. The way PI is formulated is reported in the Appendix.

Seniority was calculated as the time elapsed since individuals obtained their doctoral degree. The three 33.3-percentile groups of scientists considered in the present study were a) junior scientists, i.e., those who obtained their doctorate between 0 and 10 years previously; b) individuals in the middle percentile (doctorate obtained from 11 to 19 years previously), and c) senior scientists (doctorate obtained more than 19 years previously). The number of articles published as corresponding authors over the preceding ten years in English (as L2) or in Spanish has been used as a proxy for publication experience in either of the two languages.

Statistical analysis was performed with the SPSS statistical package for Windows (version 19.0). Means comparisons were performed with the Student's t-test adjusted using the Bonferroni correction. Significant differences are reported at  $p < 0.05$  in the two-sided test of equality for column means assuming equal variances (see Tables II to V).

## 4.2. Results

Table II shows mean ratings provided by informants for the factors that influence their decision to publish research articles in Spanish or in EAL, and Figure 2.a displays their motivational-profile graph for publication in English and in Spanish. We performed the Two-sample Hotelling's T-Square test in order to contrast differences in sample mean vectors. Results show significant differences between the vectors representing averages for all the motivations for publishing in English or in Spanish (Hotelling's trace=0.497  $p$ -value<0.001). In order to determine whether the means for this paired sample were systematically different, we applied the Student's t-test, adjusted using the Bonferroni correction. In Table II, values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means. Motivations for publishing in English were mainly related to utilitarian aspects such as communicating the results of research to the international scientific community, having research work recognized, and meeting the requirements for professional promotion. Opinions about the use of Spanish are somewhat fragmented and are linked mainly with ideological (defence of local issues, desire for the continued existence of scientific journals in Spanish) and social reasoning (responding to a request or invitation from an institution, association or publisher).

The general motivational profiles for publishing in English and in Spanish displayed in Figures 2a are nearly unchanged irrespective of gender, seniority and publication experience, with slight variations that affect the different scores given to some of the particular motivations. Male and female researchers follow a similar motivation pattern both when publishing in English and in Spanish, with the main differences being found in the higher scores by women on most of the items (Table III, Figures 2.b and 2.c). An exception observed in both languages is the desire to increase the chances of receiving a bonus payment, where men and women put equally low expectations either in English or in Spanish.

Seniority does not seem to influence the motivations of scientists to publish research articles in Spanish (Table IV, Figure 2.e), with the exception of the interest in using publication in this language for professional promotion, an interest which decreases as researchers become more senior. The use of EAL shows more differences (Table IV, Figure 2.d). Differences arose in both the extrinsic and the intrinsic extremes of the motivational continuum. With respect to extrinsic motivations, as in the case of Spanish, those who are at the beginning of their academic career are the most concerned about aspects of professional promotion when deciding to publish in EAL, meanwhile those who are distinguished by pursuing extra remuneration through their publications in English are senior researchers. Junior scholars are the most intrinsically motivated by need for achievement when choosing to publish in English.



**Table II.** When you decide to publish a research article in a scientific journal, to what extent do the following factors influence your decision to publish in Spanish or in English?

| Motivations <sup>a</sup> | English <sup>b</sup><br>(n=1284) | Spanish <sup>b</sup><br>(n=878) | Contrast <sup>c</sup> |
|--------------------------|----------------------------------|---------------------------------|-----------------------|
| StiChll                  | 3.3±1.5(4) a                     | 2.8±1.5(3) b                    | EN>SP                 |
| ItlDevl                  | 3.8±1.2(4) a                     | 2.6±1.4(3) b                    | EN>SP                 |
| WrtImpr                  | 2.6±1.5(2) a                     | 2.1±1.5(1) b                    | EN>SP                 |
| WrtAbil                  | 2.4±1.4(2) a                     | 2.7±1.6(3) b                    | SP>EN                 |
| ArtQual                  | 3.7±1.4(4) a                     | 2.9±1.5(3) b                    | EN>SP                 |
| PubExpr                  | 2.8±1.5(3) a                     | 2.5±1.5(2) b                    | EN>SP                 |
| IntComm                  | 4.7±0.7(5) a                     | 2.5±1.5(2) b                    | EN>SP                 |
| LocComm                  | 2.6±1.5(2) a                     | 3.9±1.4(4) b                    | SP>EN                 |
| JouExst                  | 2.0±1.3(1) a                     | 3.2±1.6(3) b                    | SP>EN                 |
| RspInvt                  | 3.1±1.4(3) a                     | 3.4±1.4(4) b                    | SP>EN                 |
| Citations                | 4.0±1.2(5) a                     | 2.2±1.3(2) b                    | EN>SP                 |
| ResRcgn                  | 4.5±0.9(5) a                     | 3.2±1.4(3) b                    | EN>SP                 |
| PrfProm                  | 4.2±1.1(5) a                     | 2.7±1.4(3) b                    | EN>SP                 |
| BonPaym                  | 2.6±1.5(2) a                     | 1.9±1.2(1) b                    | EN>SP                 |

<sup>a</sup> Legend: see Table I.

<sup>b</sup> Scale: 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot. Figures expressed as Mean±StdDev(Median)

<sup>c</sup> In order to determine whether the means for this paired sample were systematically different, we applied the Student's *t*-test, adjusted using the Bonferroni correction. Values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means.

**Table III.** Motivations to publish in English and in Spanish. Differences by gender

| Motivations <sup>a</sup> | English                      |                                |                       | Spanish                      |                                |                       |
|--------------------------|------------------------------|--------------------------------|-----------------------|------------------------------|--------------------------------|-----------------------|
|                          | Male <sup>b</sup><br>(n=925) | Female <sup>b</sup><br>(n=529) | Contrast <sup>c</sup> | Male <sup>b</sup><br>(n=925) | Female <sup>b</sup><br>(n=529) | Contrast <sup>c</sup> |
| StiChll                  | 3.3±1.5(3) a                 | 3.5±1.4(4) b                   | F>M                   | 2.7±1.5(3) a                 | 2.9±5(3) b                     | F>M                   |
| ItlDevl                  | 3.7±1.3(4) a                 | 4.0±1.1(4) b                   | F>M                   | 2.5±1.4(2) a                 | 2.9±5(3) b                     | F>M                   |
| WrtImpr                  | 2.5±1.5(2) a                 | 2.8±1.6(3) b                   | F>M                   | 2.1±1.4(1) a                 | 2.3±5(1.5) a                   | ---                   |
| WrtAbil                  | 2.4±1.4(2) a                 | 2.5±1.4(2) a                   | ---                   | 2.6±1.6(2) a                 | 2.9±5(3) b                     | F>M                   |
| ArtQual                  | 3.7±1.5(4) a                 | 3.8±1.4(4) a                   | ---                   | 2.8±1.5(3) a                 | 3.1±5(3) b                     | F>M                   |
| PubExpr                  | 2.8±1.5(3) a                 | 3.0±1.4(3) b                   | F>M                   | 2.5±1.5(2) a                 | 2.7±5(3) b                     | F>M                   |
| IntComm                  | 4.7±0.7(5) a                 | 4.7±0.7(5) a                   | ---                   | 2.4±1.5(2) a                 | 2.7±5(3) b                     | F>M                   |
| LocComm                  | 2.5±1.5(2) a                 | 2.8±1.5(3) b                   | F>M                   | 3.7±1.4(4) a                 | 4.1±5(5) b                     | F>M                   |
| JouExst                  | 1.9±1.3(1) a                 | 2.1±1.4(2) b                   | F>M                   | 3.1±1.6(3) a                 | 3.4±5(4) b                     | F>M                   |
| RspInvt                  | 3.0±1.4(3) a                 | 3.3±1.4(3) b                   | F>M                   | 3.2±1.4(3) a                 | 3.6±5(4) b                     | F>M                   |
| Citations                | 4.0±1.2(4) a                 | 4.2±1.1(5) b                   | F>M                   | 2.0±1.2(2) a                 | 2.5±5(2) b                     | F>M                   |
| ResRcgn                  | 4.4±0.9(5) a                 | 4.6±0.8(5) b                   | F>M                   | 3.1±1.5(3) a                 | 3.4±5(4) b                     | F>M                   |
| PrfProm                  | 4.1±1.2(5) a                 | 4.4±0.9(5) b                   | F>M                   | 2.5±1.4(2) a                 | 3.0±5(3) b                     | F>M                   |
| BonPaym                  | 2.6±1.5(2) a                 | 2.5±1.5(2) a                   | ---                   | 1.8±1.1(1) a                 | 2.0±5(1) a                     | ---                   |

<sup>a</sup> Legend: see Table I.

<sup>b</sup> Scale: 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot. Figures expressed as Mean±StdDev(Median)

<sup>c</sup> In order to determine whether the means for this paired sample were systematically different, we applied the Student's *t*-test, adjusted using the Bonferroni correction. Within each subtable (English, Spanish), values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means.

**Table IV.** Motivations to publish in English and in Spanish. Differences by seniority

| Motivations <sup>a</sup> | English   |   |  |                       | Spanish   |   |  |                       |
|--------------------------|---|---|--|-----------------------|---|---|--|-----------------------|
|                          | Seniority (three percentiles)                     |   |  |                       | Seniority (three percentiles)                     |   |  |                       |
|                          | Junior <sup>b</sup><br>( $< 11$ years)<br>(n=453) | Medium <sup>b</sup><br>(11-19 years)<br>(n=453) | Senior <sup>b</sup><br>( $>19$ years)<br>(n=548) | Contrast <sup>c</sup> | Junior <sup>b</sup><br>( $< 11$ years)<br>(n=453) | Medium <sup>b</sup><br>(11-19 years)<br>(n=453) | Senior <sup>b</sup><br>( $>19$ years)<br>(n=548) | Contrast <sup>c</sup> |
| StiChll                  | 3.5±1.4(4) a                                      | 3.3±1.5(4) a,b                                  | 3.3±1.5(3) b                                     | J>S                   | 2.9±1.4(3) a                                      | 2.8±1.5(3) a                                    | 2.7±1.5(3) a                                     | ---                   |
| ItlDevl                  | 4.0±1.2(4) a                                      | 3.8±1.2(4) a,b                                  | 3.7±1.3(4) b                                     | J>S                   | 2.7±1.4(3) a                                      | 2.7±1.5(3) a                                    | 2.6±1.4(2) a                                     | ---                   |
| WrtImpr                  | 2.9±1.5(3) a                                      | 2.3±1.4(2) b                                    | 2.6±1.5(2) c                                     | J>S>M                 | 2.2±1.4(2) a                                      | 2.1±1.4(1) a                                    | 2.2±1.5(1) a                                     | ---                   |
| WrtAbil                  | 2.6±1.4(3) a                                      | 2.3±1.4(2) b                                    | 2.5±1.5(2) a,b                                   | J>M                   | 2.8±1.5(3) a                                      | 2.6±1.6(2) a                                    | 2.7±1.6(2) a                                     | ---                   |
| ArtQual                  | 3.7±1.5(4) a,b                                    | 3.6±1.5(4) a                                    | 3.9±1.4(4) b                                     | S>M                   | 3.0±1.4(3) a                                      | 2.8±1.5(3) a                                    | 3.0±1.5(3) a                                     | ---                   |
| PubExpr                  | 3.0±1.4(3) a                                      | 2.7±1.5(3) a                                    | 2.8±1.5(3) a                                     | ---                   | 2.6±1.4(3) a                                      | 2.4±1.5(2) a                                    | 2.5±1.5(2) a                                     | ---                   |
| IntComm                  | 4.7±0.7(5) a                                      | 4.7±0.7(5) a                                    | 4.7±0.6(5) a                                     | ---                   | 2.6±1.4(2) a                                      | 2.4±1.5(2) a                                    | 2.6±1.5(2) a                                     | ---                   |
| LocComm                  | 2.6±1.5(2) a                                      | 2.6±1.5(2) a                                    | 2.5±1.5(2) a                                     | ---                   | 3.9±1.3(4) a                                      | 3.9±1.4(4.5) a                                  | 3.8±1.4(4) a                                     | ---                   |
| JouExst                  | 2.1±1.4(1) a                                      | 1.8±1.2(1) a                                    | 2.0±1.3(1) a                                     | ---                   | 3.2±1.5(3) a                                      | 3.1±1.6(3) a                                    | 3.2±1.6(3) a                                     | ---                   |
| RspInvt                  | 3.0±1.4(3) a                                      | 3.2±1.4(3) a                                    | 3.2±1.4(3) a                                     | ---                   | 3.2±1.3(3) a                                      | 3.5±1.3(4) a                                    | 3.5±1.5(4) a                                     | ---                   |
| Citations                | 4.1±1.2(5) a                                      | 4.1±1.2(5) a                                    | 4.0±1.2(5) a                                     | ---                   | 2.3±1.3(2) a                                      | 2.2±1.4(2) a                                    | 2.1±1.3(2) a                                     | ---                   |
| ResRcgn                  | 4.5±0.8(5) a                                      | 4.5±0.9(5) a                                    | 4.5±0.9(5) a                                     | ---                   | 3.2±1.3(3) a                                      | 3.2±1.4(3) a                                    | 3.1±1.5(3) a                                     | ---                   |
| PrfProm                  | 4.4±0.9(5) a                                      | 4.2±1.1(5) b                                    | 4.0±1.2(4) b                                     | J>(M,S)               | 3.0±1.4(3) a                                      | 2.7±1.5(3) a,b                                  | 2.4±1.4(2) b                                     | J>S                   |
| BonPaym                  | 2.4±1.5(2) a                                      | 2.6±1.5(2) a,b                                  | 2.7±1.5(2) b                                     | S>J                   | 2.0±1.2(1) a                                      | 2.0±1.3(1) a                                    | 1.8±1.1(1) a                                     | ---                   |

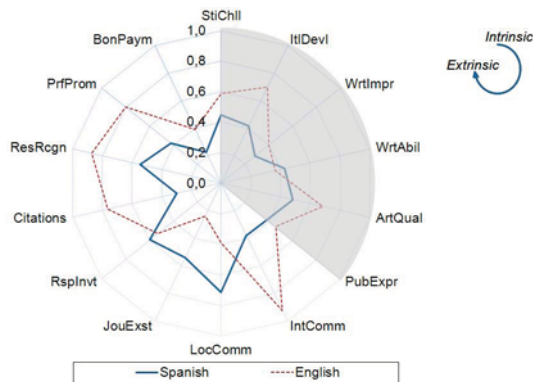
<sup>a</sup> Legend: see Table I.<sup>b</sup> Scale: 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot. Figures expressed as Mean±StdDev(Median)<sup>c</sup> In order to determine whether the means for this paired sample were systematically different, we applied the Student's t-test, adjusted using the Bonferroni correction. Within each subtable (English, Spanish), values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means.**Table V.** Motivations to publish in English and in Spanish. Differences by publication experience

| Motivations <sup>a</sup> | English  |  |  |                       | Spanish  |  |  |                       |
|--------------------------|--|--|--|-----------------------|--|--|--|-----------------------|
|                          | Publication experience: articles published in English as corresponding author over the preceding ten years (three percentiles) |  |  |                       | Publication experience: articles published in Spanish as corresponding author over the preceding ten years (three percentiles) |  |  |                       |
|                          | Low <sup>b</sup><br>(1-6)<br>(n=432)   | Medium <sup>b</sup><br>(7-18)<br>(n=439) | High <sup>b</sup><br>(19-200)<br>(n=413) | Contrast <sup>c</sup> | Low <sup>b</sup><br>(1-3)<br>(n=341)   | Medium <sup>b</sup><br>(4-10)<br>(n=267) | High <sup>b</sup><br>(11-100)<br>(n=270) | Contrast <sup>c</sup> |
| StiChll                  | 3.4±1.4(4) a   | 3.3±1.5(3) a                             | 3.4±1.5(4) a                             | ---                   | 2.3±1.4(2) a   | 3.0±1.4(3) b                             | 3.2±1.5(3) b                             | (M,H)>L               |
| ItlDevl                  | 3.7±1.2(4) a   | 3.8±1.3(4) a                             | 3.8±1.3(4) a                             | ---                   | 2.1±1.3(2) a   | 2.8±1.4(3) b                             | 3.1±1.4(3) b                             | (M,H)>L               |
| WrtImpr                  | 2.8±1.5(3) a   | 2.5±1.5(2) b                             | 2.5±1.5(2) b                             | L>(M,H)               | 1.7±1.2(1) a   | 2.2±1.5(1) b                             | 2.6±1.6(2) c                             | H>M>L                 |
| WrtAbil                  | 2.5±1.4(2) a   | 2.4±1.4(2) a                             | 2.4±1.5(2) a                             | ---                   | 2.2±1.4(1) a   | 2.8±1.6(3) b                             | 3.2±1.6(3) c                             | H>M>L                 |
| ArtQual                  | 3.7±1.4(4) a   | 3.7±1.5(4) a                             | 3.8±1.4(4) a                             | ---                   | 2.4±1.4(2) a   | 3.1±1.5(3) b                             | 3.5±1.4(4) c                             | H>M>L                 |
| PubExpr                  | 2.9±1.4(3) a   | 2.8±1.5(3) a                             | 2.8±1.6(3) a                             | ---                   | 2.0±1.3(1) a   | 2.7±1.5(3) b                             | 3.0±1.5(3) c                             | H>M>L                 |
| IntComm                  | 4.5±0.9(5) a   | 4.8±0.7(5) b                             | 4.9±0.4(5) b                             | (M,H)>L               | 1.9±1.2(1) a   | 2.6±1.5(2) b                             | 3.2±1.5(3) c                             | H>M>L                 |
| LocComm                  | 2.4±1.4(2) a   | 2.6±1.5(2) a,b                           | 2.7±1.6(2) b                             | H>L                   | 3.5±1.5(4) a   | 4.1±1.2(5) b                             | 4.1±1.3(5) b                             | (M,H)>L               |
| JouExst                  | 2.0±1.3(1) a   | 1.9±1.3(1) a                             | 2.0±1.3(1) a                             | ---                   | 2.8±1.6(3) a   | 3.3±1.5(3) b                             | 3.5±1.5(4) b                             | (M,H)>L               |
| RspInvt                  | 3.0±1.4(3) a   | 3.1±1.4(3) a                             | 3.3±1.4(3) b                             | H>(M,L)               | 3.2±1.5(3) a   | 3.4±1.3(3) a,b                           | 3.6±1.3(4) b                             | H>L                   |
| Citations                | 3.9±1.3(4) a   | 4.1±1.2(5) b                             | 4.2±1.1(5) b                             | (M,H)>L               | 1.8±1.2(1) a   | 2.3±1.3(2) b                             | 2.6±1.4(3) c                             | H>M>L                 |
| ResRcgn                  | 4.4±0.9(5) a   | 4.5±0.9(5) a,b                           | 4.6±0.8(5) b                             | H>L                   | 2.6±1.4(2) a   | 3.3±1.3(3) b                             | 3.7±1.3(4) c                             | H>M>L                 |
| PrfProm                  | 4.3±1.1(5) a   | 4.2±1.1(5) a                             | 4.1±1.2(5) a                             | ---                   | 2.2±1.3(2) a   | 2.8±1.4(3) b                             | 3.1±1.4(3) b                             | H>M>L                 |
| BonPaym                  | 2.6±1.5(2) a   | 2.5±1.5(2) a                             | 2.6±1.5(3) a                             | ---                   | 1.6±1(1) a   | 2.0±1.3(2) b                             | 2.1±1.2(2) b                             | (M,H)>L               |

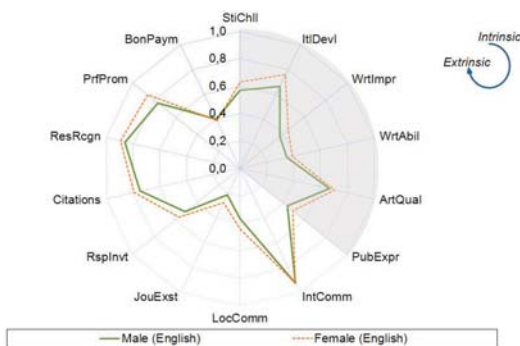
<sup>a</sup> Legend: see Table I.<sup>b</sup> Scale: 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot. Figures expressed as Mean±StdDev(Median)<sup>c</sup> In order to determine whether the means for this paired sample were systematically different, we applied the Student's t-test, adjusted using the Bonferroni correction. Within each subtable (English, Spanish), values in the same row not sharing the same subscript (a or b) are significantly different at  $p < 0.05$  in the two-sided test of equality for column means.

**Figure 2.** Graphical representation, through the Position Index, of motivations for publishing in English and in Spanish

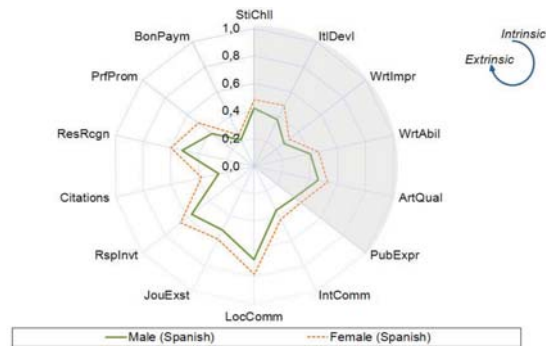
**Figure 2.a.** Total English vs. Spanish



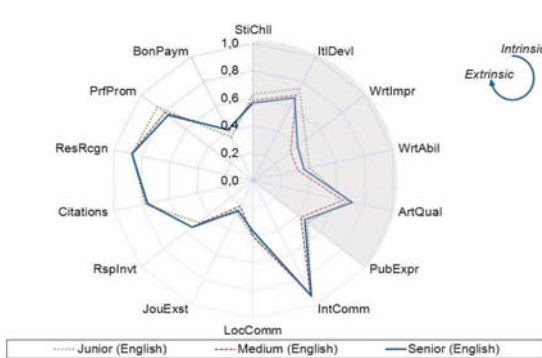
**Figure 2.b.** Motivations by gender. English



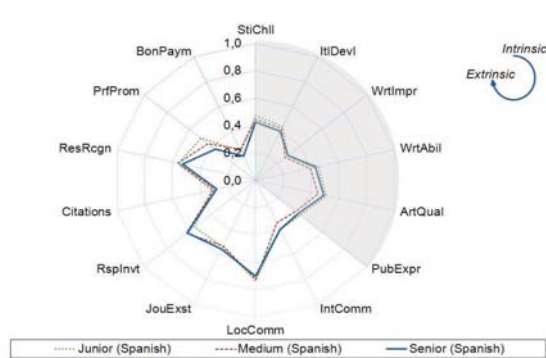
**Figure 2.c.** Motivations by gender. Spanish



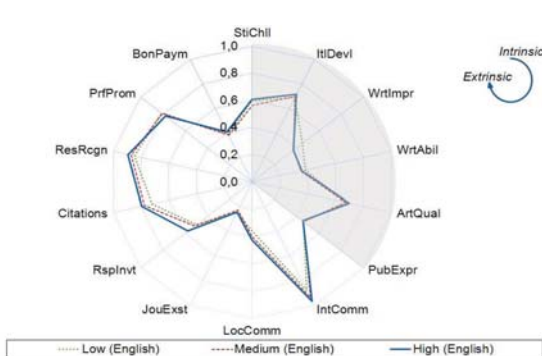
**Figure 2.d.** Motivations by seniority. English



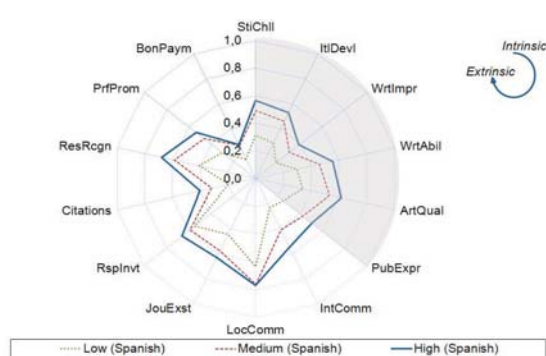
**Figure 2.e.** Motivations by seniority. Spanish



**Figure 2.f.** Motivations by publication experience. English



**Figure 2.g.** Motivations by publication experience. Spanish



The greater or less experience in the publication of articles in Spanish corresponds with a different intensity in the motivation to publish in this language in most of the items valued, so that in general the degree of experience and the intensity of motivation are linked, with both increasing in parallel (Table V), although the motivational profile is similarly shaped in both low-, medium and highly experienced authors (Figure 2.g). Less significant are the differences based on the experience of publishing in English (Table V, Figure 2.f). More experienced authors in English are more motivated to write in English in response to invitations, and are also more concerned with obtaining citations and recognition through English publication, though not with professional promotion, a motivation that is equally important for all scientists. More experienced authors are also more concerned with the scientific audience to whom they direct their research articles when choosing English as language of communication. On the other hand, when it comes to motivations related to proficiency, researchers with lower levels of experience are those who are more concerned particularly with the improvement of their writing skills in EAL.

## 5. DISCUSSION AND CONCLUSIONS

This study presents a motivation framework for the study of researchers' language choices for scientific publication purposes. This framework seeks to address the three main shortcomings identified in the classical paradigms. To this end, it presents a view of motivation as dynamic, multidimensional, and multilevel. The adoption of the SDT' controlled-to-autonomous continuum of motivational factors by Deci and Ryan (1985, 2000) allowed for an analysis that overcomes the problems inherent in the traditional dichotomy between intrinsic and extrinsic motivations, a dichotomy which we do not regard as appropriate in the context of our study. Applying this approach meant breaking with the conception of researchers' motivation as a fragmented phenomenon and allowed us to understand more complex links between motivations for the use of English for academic purposes while also revealing the contradictions and ambivalent preferences in the case of the use of Spanish.

The results presented here provide empirical evidence on how the behaviour of researchers when selecting English or Spanish for communicating their results through research articles is influenced, to varying degrees, by an ensemble of extrinsic and intrinsic motivations involving concerns for personal or professional benefit along with other, more altruistic considerations.

Spanish scientists' major motivations for publishing in EAL are in the range of the self-determined forms of extrinsic motivation, including the broad range of internalized motivation.

Motivations for publishing in English were mainly related to utilitarian aspects such as communicating the results of research to the international scientific community (integrated regulation) as well as to the maximization of non-economic benefits such as having research work recognized (identified regulation) and meeting the requirements for professional promotion (introjected regulation).

It has been argued that the dominance of English in international academic communication has its origins in the practice of many national S&T systems of providing greater rewards for English than those provided for national language publication, as is the case in the current Spanish system (Curry and Lillis, 2004; Ferguson, 2006; Moreno, 2010; Osuna et al., 2011), and in the growing internationalization of teaching and research in universities and research centres (Pérez-Llantada et al., 2001). As a consequence, the *sine qua non* of dissemination of research results to the international scientific community is publication in journals with international readerships, particularly in the so-called 'mainstream journals', which are primarily published in English. Researchers who do not have English as their first language are thus pressured to publish in English instead of their L1 (Rey-Rocha and Martín-Sempere, 1999; Curry and Lillis, 2004; Uzuner, 2008). Consistent with these arguments, the researchers in our sample share the desire to obtain more intellectual feedback, broader international diffusion, as well as more citations, recognition and possibilities of professional promotion through their use of English as a language of research publication instead of Spanish. Our results thus point to a high degree of internalization by Spanish scientists of the requirements of the regulatory process that governs research evaluation.

Opinions about the use of Spanish are somewhat fragmented and are linked mainly with ideological (defence of local issues, desire for the continued existence of scientific journals in Spanish) and social reasoning (to respond to a request or invitation from an institution, association or publisher), and thus mainly with integrated regulation of behaviour and consequently with a mixed affective-social outcome. Despite this dispersion, publication in Spanish is chiefly motivated by the most self-determined, integrated regulated, form of extrinsic motivation (communicating to the local scientific audience). From the salience of this item we can infer that there is a degree of concern among Spanish researchers that their results should reach the local community and not just those abroad even though they are in fact encouraged to privilege the international community by research evaluation practices.

As we have seen, motivation is a dynamic process of interactions between motivational factors. Thus the motivations themselves that drive researchers to behave as they do are important,

but the relationships between these motivations and the individual characteristics of researchers must also be taken into account. Identifying these relationships is cumbersome when it is a question of understanding the direction of some motivations. Overall, we found that the set of motivations of researchers to publish in EAL or in Spanish follow a similar pattern or profile regardless of gender, seniority, and publication experience. Thus, it can be concluded that the motivational profile remains virtually constant among Spanish researchers, with only some differences in the absolute values that different groups of individuals (on the basis of these individual characteristics) give to the different motivations. Overall, motivation to use EAL tends to be more homogeneous than motivation to publish in Spanish.

On the other hand, considering that motivation is not only a psychological process, the likely influence not only of individual characteristics, but of contextual factors, must be considered. In this sense, the existing literature has underlined the role of social networks in which individuals are embedded (Granovetter, 1973) and the influence of contextual factors on the different aspects of researchers' activity and knowledge dissemination practices (Swales and Leeder, 2012), provided that different disciplines have different traditions, different uses and modes, even different standards, affecting practices in the dissemination of knowledge (Petersen and Shaw, 2002). The next step in our research will be to analyse the extent to which researchers working in different disciplines are motivated differently to publish in EAL and in their L1.

In summary, in this paper we propose a framework for studying researchers' motivations for selecting a particular language for communicating their results through research articles. This is a preliminary, open, dynamic framework that is likely to evolve as it is put to use in more empirical research. Applying the framework to other scientific communities might identify valuable modifications and developments. Be that as it may, the openness of the framework provides the basis for its use in the study of academics' motivations for participating in other scientific activities such as public engagement, public communication of science and so on.

To conclude, some caveats on our study must be mentioned. Although we surveyed a broad range of researchers from all academic domains, we only surveyed Spanish informants from a public research institution and public universities. We did not, for example, survey researchers from the private research sector or the private higher education sector. Additional empirical work with more researchers and more varied types of researchers could further develop the framework. At the same time, the limitations inherent in the study should also be taken into account. The participants chose

whether or not to take part and do not therefore constitute a randomly selected sample. It may be that this has generated the typical bias in the estimators so prevalent in studies of this kind. Additionally, our research has concerned itself exclusively with one particular type of academic communication, namely the research article. This allowed for greater precision in terms of delimiting our field of study but it is also possible that by excluding other instances of academic publication (such as book chapters, reviews) we may have missed information on language choice in these other genres.

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#### Appendix. Formulation of the Position Index (PI)

The PI is formulated as follows (Silva, 1997; author's own translation into English):

Being  $P_i$  the proportion of individuals who choose the category  $i$  of the scale (in our case  $i$  can take integer values between 1 and 5), one can calculate the weighted score  $M$  in the following way:

$$M = \sum_{i=1}^k iP_i$$

And from that PI is defined as follows:

$$PI = (M-1)/(k-1)$$



## 5. Artículo III: Why do I publish research articles in English instead of my own language? Differences in Spanish researchers' motivations across scientific domains

López-Navarro, I., Moreno, A.I., Quintanilla, M.A. y Rey-Rocha, J. (2015). Why do I publish research articles in English instead of my own language? Differences in Spanish researchers' motivations across scientific domains. *Scientometrics*. DOI: 10.1007/s11192-015-1570-1

### *¿Por qué publicar artículos en inglés en lugar de hacerlo en mi lengua materna? Diferencias entre las motivaciones de los investigadores españoles en función del área científica*

#### **Resumen**

Numerosos estudios previos han constatado el incremento del uso del inglés como la lengua franca para fines académicos entre los investigadores no anglófonos. Sin embargo, a pesar de que efectivamente los datos confirman esta tendencia, se sabe poco aún acerca de las razones por las que los investigadores deciden publicar los resultados de su trabajo en inglés en lugar de hacerlo en su lengua materna. El objetivo de este estudio es determinar la influencia del área científica de los investigadores sobre su motivación para publicar en inglés. Los resultados proceden de una encuesta en línea a gran escala (n=1.717) realizada a investigadores españoles procedentes de cuatro universidades (Universidad de León, Universidad de La Laguna, Universidad Jaume I, Universidad de Zaragoza) y un centro de investigación (Consejo Superior de Investigaciones Científicas) y reflejan sus respuestas acerca de las dificultades, motivaciones, actitudes y estrategias de publicación tanto a la hora de escribir en inglés como en castellano. La experiencia en publicación de los investigadores como autores principales de artículos en inglés y en su lengua materna está fuertemente relacionada con su ámbito científico. Sin embargo, todos ellos expresaron un grado similar de motivación cuando escriben artículos de investigación en inglés independientemente de su área de conocimiento. Al mismo tiempo, se observa una estrecha asociación entre el uso del inglés y el deseo de que la investigación sea reconocida y recompensada adecuadamente. Nuestro estudio también muestra que la audiencia a la que los investigadores desean hacer llegar sus trabajos es un factor clave para entender la elección del idioma de publicación. Las implicaciones de este estudio se sitúan más allá del campo de la lingüística, siendo relevantes también para los estudios sobre productividad científica, visibilidad, calidad e impacto de la investigación, así como para el diseño de políticas de evaluación científica.

**Palabras clave:** estrategias de publicación, investigadores no anglófonos, motivación, área científica, escritura académica, artículo científico



# Why do I publish research articles in English instead of my own language? Differences in Spanish researchers' motivations across scientific domains

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**Abstract** Previous studies have reported the increased use of English as the “lingua franca” for academic purposes among non-Anglophone researchers. But despite data that confirm this trend, little is known about the reasons why researchers decide to publish their results in English rather than in their first language. The aim of this study is to determine the influence of researchers' scientific domain on their motivation to publish in English. The results are based on a large-scale survey of Spanish postdoctoral researchers at four different universities and one research centre, and reflect responses from 1717 researchers about their difficulties, motivations, attitudes and publication strategies. Researchers' publication experiences as corresponding authors of articles in English and in their first language are strongly related to their scientific domain. But surprisingly, Spanish researchers across all domains expressed a similar degree of motivation when they write research articles in English. They perceive a strong association between this language and the desire for their research to be recognized and rewarded. Our study also shows that the target scientific audience is a key factor in understanding the choice of publication language. The implications of our findings go beyond the field of linguistics and are relevant

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to studies of scientific productivity and visibility, the quality and impact of research, and research assessment policies.

**Keywords** Publication strategies · Non-Anglophone researchers · Researchers' motivation · Scientific domains · Academic writing · Research article

## Introduction

English holds a preeminent position as the “lingua franca” in international scientific communication (European Commission 2003; Ammon 2003; Swales 2004; Lillis and Curry 2010). Although “the majority of the world’s scholars do not possess English as their first language” (Flowerdew 2008: 77), the proportion of articles in this language authored by researchers whose first language is not English is increasing (Wood 2001; European Commission 2003; Swales 2004; Bordons and Gómez 2004; Benfield and Feak 2006; Flowerdew 2013). In this context, disparities and inequities in the distribution, audience and publishing practices in scientific journals are a matter of fact (Salager-Meyer 2008).

The implications of this situation were recently identified in several studies, which point in very different directions (see Uzuner 2008; Flowerdew 2013; Kuteeva and Mauranen 2014 for a review). Not surprisingly, the emphasis was initially on the consequences that seemed most obvious from the perspective of linguistics. The effect of gradual linguistic globalization for “smaller languages” which are affected by “standardising pressures in their semantic, textual, sociopragmatic and even lexicogrammatical construction” has already been noted by Gotti (2012: 60) and Gotti et al. (2002). Specifically, this “domain loss” (Preisler 2005; Ferguson 2007) results in the erosion and impoverishment of the scientific record in languages other than English (Ferguson 2013) and the exclusion of researchers who use English as an additional language (henceforth EAL) (Flowerdew 2013). A factor that contributes to this process of marginalization is rhetorical and stylistic transfer, i.e. the transfer of rhetorical and stylistic patterns of the individuals’ first language (henceforth L1) to their writing in a second language (Ammon 2000; De Swaan 2001; Curry and Lillis 2004; ElMalik and Nesi 2008; Giannoni 2008; Moreno 2008, 2011; Lillis and Curry 2010).<sup>1</sup> This transfer results in texts that may deviate from the “strict English-medium policies adopted by many academic publications and book series” (Gotti 2012: 60). Ultimately this “exclusionary” view may reduce the chances of publication success (Hanauer and Englander 2011) and create potential biases against submissions by non-native English speaking researchers (Uzuner 2008).

The debate is now ongoing in the field of the “surprisingly under-explored topic” of English for Research Publication Purposes (ERPP) (Kuteeva and Mauranen 2014: 1), with discussions centring around two important, related topics: the disadvantages of using English as an additional language for researchers whose first language is not English, and the factors that influence their choice of language for academic publication.

In addition to the challenges noted above with regard to linguistic and discursive issues, some experts have claimed that EAL researchers face unfair extra efforts in terms of time

<sup>1</sup> In the field of contrastive rhetoric, this concept is based on the assumption that language learners will transfer the rhetorical or stylistic features of their native language to the target language, causing interference in second language writing (Connor 1996; Davies 2003).

and economic resources (Ammon 2001; Uzuner 2008; Burgess 2014) when trying to publish in English-medium journals. As Flowerdew noted, “whether or not they suffer discrimination, EAL writers are certainly at a disadvantage to L1 writers” (2008: 78). EAL researchers often have greater difficulties complying with international publication requirements, and may encounter negative bias by journal editors (as exemplified in Flowerdew 2001; Li and Flowerdew 2007). Other authors such as Canagarajah (1996) and Salager-Meyer (2008, 2014) emphasize that non-discourse-related problems faced particularly by researchers in periphery countries (e.g. poor infrastructure, financial restrictions and outdated electronic libraries) can result in researchers remaining off network (Canagarajah 2002; Ferguson 2007).

These potential difficulties notwithstanding, it is well known that many non-Anglophone researchers reserve their best work for international mainstream journals published in English (Li 2014). This raises the question of what factors motivate the decision by researchers whose first language is not English to publish their research results in EAL rather than their L1.

In an attempt to further our understanding of these motivations, the aim in the present study is to analyse the extent to which researchers working in different scientific domains are motivated differently to publish in EAL and in their L1. More specifically, this paper examines the diversity of Spanish researchers’ personal motivations for deciding to publish research articles in English or in Spanish, how these motivations vary across scientific domains, and the influence of their scientific community (i.e. the scientific discipline or field) in shaping their motivations. Thus, this study seeks to help remedy some of the methodological limitations identified in previous analyses, such as the focus on only some scientific areas and the lack of quantitative data.

This article is structured as follows. The next section reviews previous theoretical and empirical contributions about EAL researchers’ motivations, including the framework we used in our previous work to study researchers’ different motivations for communicating their research results in their L1 or EAL. We also review the role of scientific domains in shaping their motivations. Next, we describe our research methods. In the following section we present the main results of the study, report the different motivational profiles associated with each scientific domain, and identify common dimensions that underlie the patterns of motivation we identified. Finally, we discuss the main results and implications of our study of Spanish researchers’ motivations.

## **Motivations involved in researchers’ language choices for research publication**

Despite the relevance of the language of publication and the implications of researchers’ choices for measures of scientific production, the motivations for choosing to publish in a particular language are a subject that has not yet been well studied. However, in recent years a number of studies have highlighted non-Anglophone researchers’ different motivations for publishing in EAL or L1. Positive attitudes and opinions toward the use of EAL for research publication purposes rely on and are justified by utility, scope, impact and visibility criteria (Petersen and Shaw 2002; Duszak and Lewkowicz 2008; Flowerdew and Li 2009; Li 2014; McGrath 2014). English, as the lingua franca of science, is the language most able to transcend national boundaries and enhance research impact. Moreover, publications in international mainstream journals have the additional value of fulfilling one

of the most important requirements for research assessment. Currently, publication in the so-called mainstream journals (published mainly in English) is the main criteria used by most evaluation agencies to assess research productivity and performance, both in Anglophone and non-Anglophone countries (Gibbs 1995; Wood 2001; Jiménez-Contreras et al. 2003; Osuna et al. 2011; Lam 2011; Salager-Meyer 2014). However, opting for publication in English means not only optimizing the returns derived from communication (Van Raan 1997; Bordons and Gómez 2004; Ferguson 2007) but also having to compete for a place in a select minority of crowded journals, to the detriment of local communication (Hamel 2007; Burgess 2014).

Despite the pragmatic approach to publishing that many non-Anglophone researchers have adopted, their responses when interviewed about the uses of English also reflect negative attitudes related mainly to the particular problems non-Anglophone researchers experience with the writing and submission process for research publication (see Uzuner 2008 for a review). Pressures to follow the rules of academic publishing (“publish or perish” ideology) have recently been reported by Salager-Meyer (2014), Li (2014) and Gentil and Séror (2014) among others, and McGrath (2014) has questioned whether the choice of language in which to publish research results really is a “choice” or not. In this connection, Flowerdew (2008) use the term “stigma” to refer to the feeling among many “EAL writers who have difficulty with producing written English at an acceptable level” (2008: 79). Other reasons that may lead researchers to publish in their L1 are related to responsibility, ideology and policy concerns, i.e. the decline of local journals, the loss of scientific vocabulary in languages other than English, the increasing marginalization of local issues and the diminishing dissemination of research findings in local contexts (Duszak and Lewkowicz 2008; Pérez-Llantada et al. 2011; Li 2014; Bocanegra-Valle 2014).

Surprisingly, this variety of attitudes and motivations toward writing in either EAL or L1 is seen consistently across geopolitical contexts, as reported in a number of recent country-specific studies in Italy (Giannoni 2008), Poland (Duszak and Lewkowicz 2008), China (Li and Flowerdew 2009), Portugal (Bennett 2010), Spain (Ferguson et al. 2011; Burgess 2014), Canada (Gentil and Séror 2014), Germany (Gnutzmann and Rabe 2014) and Sweden (McGrath 2014). Despite the wide range of views, two important insights and one caveat emerge from these studies.

Firstly, there is widespread “qualified acceptance” (Pérez-Llantada et al. 2011: 22) or even “resignation” (Ferguson et al. 2011: 54) among researchers regarding the dominance of English, irrespective of whether they hold a positive or negative attitude toward this language of publication. Secondly, positive and negative attitudes sometimes coexist within the same discourse, leading to ambivalence regarding researchers’ motivations (Tardy 2004; Duszak and Lewkowicz 2008; Bocanegra-Valle 2014; Muresan and Pérez-Llantada 2014). The relevance of these contributions thus lies in that they have alerted scholars to the complexity and multidimensionality of this topic.

However, despite its relevance, little is known about the motivations of researchers for whom English is not their first language but who use it as an additional language to communicate the results of their research. Moreover, the complex manner in which different motivations operate and interact has yet to be investigated. One potential problem is that the findings of previous studies have not been compared and contrasted in depth, due to (among other factors) methodological limitations in systematic data collection and sample size (notwithstanding some exceptions such as Flowerdew 1999; Duszak and Lewkowicz 2008; Ferguson et al. 2011). The mainly qualitative approaches used thus far

have provided interesting descriptive findings, which are certainly suggestive but insufficient to identify deeper causal or explicative relations. A further limitation of qualitative studies is that they shed little light on the roles of different motivations in shaping researchers' attitudes and choices between EAL and L1, and fail to identify which variables have the greatest influence on these attitudes and motivations. The methodology used in this study constitutes an important contribution in this sense, with a larger-than-usual sample size and the use of a quantitative approach to enhance our understanding of the relationships between variables.

Another important caveat regarding studies done to date on researchers' motivations lies in the lack of a well-developed theoretical framework for constructing research instruments. Given the need for a more complex and carefully validated framework, in a previous study (López-Navarro et al. 2015) we discussed a proposal based on Self Determination Theory, one of the main theories of motivation in social psychology (Deci and Ryan 1985, 2000; Deci and Ryan 2002; Ryan and Deci 2000; Gagné and Deci 2005) which has recently begun to be applied to the study of researchers' motivations (Amabile et al. 1994; Lam 2011). This framework places researchers' motivations to publish research articles in EAL or their L1 on a continuum of self-determination according to: (a) the individual or collective nature of the sphere involved; (b) the type of motivation, i.e. amotivation, extrinsic or intrinsic; (c) the type of regulation along the continuum between self-determined and controlled forms of motivation, i.e. external, introjected, identified, integrated and intrinsic regulation; (d) the locus of causality, i.e. impersonal, external or internal; and (e) three types of outcomes: affective, social and material. The framework offers the advantage of overcoming the main theoretical and methodological shortcomings of earlier studies of researchers' motivations by considering motivation as a dynamic, multidimensional process integrated at various levels, as recommended by earlier authors who have used this approach (Ferguson et al. 2011; Gotti 2012). Our survey was designed with this theoretical framework in mind, and validated in a robust sample (Moreno et al. 2013; López-Navarro et al. 2015).

Aside from these limitations, in the last few years a speculative discussion has begun with some interesting empirical contributions regarding the influence of different variables on the decision to publish in EAL or L1. The early stages of this discussion focused on linguistic aspects such as the level of researchers' English language proficiency. But lately a significant group of authors has claimed that the issues related to the use of English for academic publication go beyond the artificial native versus non-native dichotomy (Swales 2004; Ferguson et al. 2011; Flowerdew 2013; Kuteeva and Mauranen 2014), although empirical contributions have not always confirmed this claim (Coates et al. 2002; Man et al. 2004). What seems increasingly evident is that other social determinants exist that impact the language choices of multilingual scholars, e.g. publication experience (López-Navarro et al. 2015), professional expertise and academic seniority (Flowerdew 2013), issues of social and cultural identity (ElMalik and Nesi 2008; Flowerdew 2008; Swales and Leeder 2012), linguistic loyalty (Duszak and Lewkowicz 2008) and location in the centre versus the periphery (Salager-Meyer 2008; Burgess 2014). Among these determinants, disciplinary practices within and across national boundaries emerge in recent studies as one of the most decisive variables that impact on researchers' motivations and publication practices (Petersen and Shaw 2002; Ferguson 2007; Duszak and Lewkowicz 2008; Kuteeva and Mauranen 2014).

## Influence of the scientific domain

There is ample evidence of how contextual features (such as team characteristics, organizational setting, research field, etc.) influence different aspects of scientist's work and performance. We will not review here the existing literature and main findings on this topic, but refer the reader to reviews by Long and McGinnis (1981), Smith et al. (1994), Cohen and Bailey (1997), Dundar and Lewis (1998), Carayol and Matt (2004), Smeby and Try (2005), Rey-Rocha et al. (2006), Martín-Sempere et al. (2008) and Huang et al. (2011).

Many studies have emphasized how individuals' behaviour is shaped and constrained by the social networks in which they are embedded (Granovetter 1973; Granovetter 1985).<sup>2</sup> The choice of language for academic publication is also shaped by this embeddedness and influenced by these social and contextual features. In this connection, Swales and Leeder (2012: 137) note that belonging to a particular scientific field involves "apprenticeship and acculturation to a disciplinary community where, behind the textual surface, the largely unwritten 'rules of the game' as well as defensible levels of knowledge claims need to be apprehended and acted upon". These authors recall the words of Hyland (2009: 88), who notes that research articles are "sites of disciplinary engagement". In this sense, researchers have different value orientations<sup>3</sup> depending on the scientific domain they work in, and that affect their knowledge dissemination practices. Scientific communities from different fields or disciplines may have distinct academic cultures with different values, attitudes and experiences, which may be more or less endo- or exocentric, more or less internationalized and anglicized, and more or less 'anglophone' or 'local-language-oriented' (Petersen and Shaw 2002; Kuteeva and Airey 2013). These features give rise to different patterns of activity, different language-of-publication patterns, and different writing genres, production processes and time scales (Swales 1998; Rey-Rocha et al. 1999; Gnutzmann and Rabe 2014). As a result, different scientific disciplines or fields can be identified as different 'discourse communities'<sup>4</sup> based on their different use of the languages of reading and writing and their patterns of relationship between international and local communities when the language of the latter differs from that of the former (Petersen and Shaw 2002).

These considerations about the scientific domain as a socially embedded community lead us to consistently link our framework for investigating researchers' motivations with the influence of their scientific domain. As pointed out by Lam (2011: 1355), Self Determination Theory posits that "individuals' motives for behaviour and their responses to different kinds of rewards are influenced by the degree of congruence between their personal values and those underlying the activity", thus "individuals can be extrinsically or

<sup>2</sup> "The argument of embeddedness" (Granovetter 1985: 481) states that behaviours and institutions are constrained by ongoing social relations.

<sup>3</sup> Webster's Dictionary (<http://www.webster-dictionary.org>) defines 'value orientation' as "principles of right and wrong that are accepted by an individual or a social group". According to McCarty and Hattwick (1992: 34), "cultural value orientations represent the basic and core beliefs of a culture; these basic beliefs deal with human's relationships with one another and with their world".

<sup>4</sup> The concept of 'discourse community' is widely used in the literature on multilingual researchers' international publication practices. Swales (1990: 29) uses this notion to describe a group of individuals defined by six characteristics: "common goals, participatory mechanisms, information exchange, community-specific genres, a highly specialized terminology and a high general level of expertise".



intrinsically motivated to different degrees in their pursuit of an activity depending on how far they have internalized the values and regulatory structures associated with it”.

In addition to the literature about the cultural features of research fields, we also have ample empirical evidence for the existence of differences between fields. With regard to academic publication, we can thus assume that differences across disciplines do exist. Bibliometric studies have long noted that although there is a general trend toward ‘anglosaxonization’, differences can be identified among both research fields and disciplines (Petersen and Shaw 2002; Ammon 2003; Swales 2004; Fergusson 2007; Kronegger et al. 2011). There is a certain consensus that a relationship exists between the audiences being addressed, the scope of the research and the discipline (Frame and Carpenter 1979; Sanz et al. 1995; Rey-Rocha and Martín-Sempere 1999; Ferguson 2007). More specifically, research on basic aspects of nature is viewed as being most likely to be of interest to an international readership, whereas research conducted in Social Sciences and Humanities is generally more locally oriented. It is assumed that researchers working in the former domains “share the same knowledge, scientific interests and concerns all over the world”, whereas in Social Sciences and Humanities, “cultural, linguistic and historical features play an important role” (Bordons and Gómez 2004: 190). Research publishing in these latter two domains is also influenced by an additional ethical dimension, “in that there is a duty to make research accessible to the communities studied as far as possible” (McGrath 2014: 13). Therefore the target audience based on the type of knowledge generated is likely to be one of the drivers of the choice of language and more generally the publishing strategy used by the authors. In this connection, several studies have justified the bibliometric relevance other languages still have in specific “local and culture-encumbered” scientific domains (Ferguson 2007: 17) in the Humanities and Social Sciences (Swales 1990; Petersen and Shaw 2002; Ferguson 2007; Flowerdew and Li 2009; Burgess et al. 2014).

From a linguistic viewpoint, differences have been found among scientific domains in relation to the use of specific rhetorical and discursive conventions (Fagan and Burgess 2002; Swales 2004; Hyland and Bondi 2006; Gotti 2012) and particular argumentation strategies (Hyland 2009, 2013; Maci 2012; Gnutzmann and Rabe 2014). However, less empirical evidence is available for the relationships between different scientific domains and attitudes toward the use of English as an additional language. These relationships are only occasionally taken into consideration and frequently occupy a secondary position in the research (Flowerdew 1999). In some studies published to date, the results are merely descriptive, both in studies that used qualitative (McGrath 2014; Pérez-Llantada et al. 2011; Gnutzmann and Rabe 2014; Li and Flowerdew 2009; Kuteeva and Airey 2013) and quantitative methodologies (Duszak and Lewkowicz 2008; Bolton and Kuteeva 2012; Anderson 2013). However, these valuable results highlight the influence of disciplinary cultures on the writing and publishing process (Gnutzmann and Rabe 2014), on social practices (Anderson 2013) and social needs (Vázquez and Giner 2008), and even on the perception of language competence for research publication purposes (Petersen and Shaw 2002). An exception worth noting to the general trend in such research is a report by Ferguson et al. (2011), whose findings show a non-significant association between attitudes and scientific domain. Despite these contrasting results—or perhaps because of them—and the methodological limitations of previous work notwithstanding, some authors have called for further research on this topic (Gnutzmann and Rabe 2014; Kuteeva and Mauranen 2014; Duszak and Lewkowicz 2008).

## Methods

This paper draws on data from a study by the ENEIDA (Spanish Team for Intercultural Studies on Academic Discourse) research team of the current needs, experiences and strategies of Spanish researchers with regard to writing and publishing research articles in English- and Spanish-medium journals. Our analysis is based on responses to a large-scale on-line survey of Spanish researchers with doctorates who received most of their secondary and pre-doctoral education in Spain and in Castilian Spanish, and who work at either a research-only institution (affiliated with the Spanish Council for Scientific Research) or at one of four Spanish universities. In addition, respondents had to have served as corresponding author on at least one research article, either in L1 or in EAL.

The population of participants, the general aspects of the methodology and the design, validation and implementation procedures of the survey were described in detail by Moreno et al. (2012, 2013). A full version of the ENEIDA Questionnaire is available at Moreno et al. (2013). To facilitate comprehension of the present article, key methodological aspects of the study are summarized below. We also offer further details of our methodology for the analysis reported here.

After face-to-face interviews with a selected sample of 24 informants and a pre-test of the questionnaire, we carried out an on-line questionnaire survey in late 2010 by e-mailing the web-based questionnaire to 8794 academics. We received 1717 responses (19.6 % response rate). Of these, 1454 (84.7 %) met our L1 and educational background criteria. Both genders were adequately represented among respondents, reflecting the percentage distribution of women and men in the population. The response rate was higher among Spanish Council for Scientific Research surveyees (21.3 %), who were thus over-represented in our sample with respect to university academics. The response rates from the four participating universities ranged from 10.6 to 13 %.

We asked informants about the number of research articles they had published as corresponding author in English and in Spanish during the previous 10 years (survey question 12). Our informants were the corresponding authors, who, we assumed, were responsible for writing and submitting the article. We further assumed that responsibility for this role was an indicator of the writers' publication experience and their likely familiarity with the writing conventions in their discipline, both in Castilian Spanish and in English writing cultures. This item provided information about the language they used most frequently to write their manuscripts.

We asked informants to assess how motivated they feel when they write up the results of their research for journals published in Spanish or in English (survey question 20). We posed the question using a seven-point semantic differential scale ranging from 3 (very motivated) to -3 (very unmotivated). We also asked participants to indicate to what extent fourteen different motivations influenced their decision to publish in English or Spanish (survey question 13). The motivations for which we sought information through this item are shown in Table 1. They were described previously and plotted along the continuum from extrinsic to intrinsic (López-Navarro et al. 2015). The respondents provided their answers on a five-point Likert scale ranging from 1 (not at all) to 5 (a lot).

We estimated the position index (PI) for each of the fourteen motivations. The footnote to Fig. 1 provides a description of the PI and how it was plotted. The formula used to estimate PI is reported in Appendix 1.

To compare the distribution of average scores for different motivations, we generated a response profile for each domain that comprised the distribution of responses to each item, and plotted the distances between scientific domain profiles in a plane with Proximity

**Table 1** Motivations

| <i>Intrinsic motivations</i> |   |
|------------------------------|---|
| StiChll                      | My desire for stimulating challenges  |
| ItlDevl                      | My desire to develop intellectually (as a result of editors' and peer reviewers' comments)          |
| WrtImpr                      | My desire to improve my writing ability in this language  |
| WrtAbil                      | My assessment of my ability to write up the results of my research in this language                 |
| ArtQual                      | My assessment of the quality of my article  |
| PubExpr                      | My experience publishing in this language   |
| <i>Extrinsic motivations</i> |   |
| IntComm                      | My desire to communicate the results of my research to the international scientific community       |
| LocComm                      | My desire to communicate the results of my research to the local community                          |
| JouExst                      | My desire for the continued existence of scientific journals in this language                       |
| RspInv                       | My desire to respond to a request or invitation from an institution, association or publisher, etc. |
| Citations                    | My desire to get cited more frequently  |
| ResRcgn                      | My desire for my research work to be recognized   |
| PrfProm                      | My desire to meet the requirements for professional promotion                                       |
| BonPaym                      | My desire to increase my chances of receiving a bonus payment                                       |

Scaling (PROXSCAL). A detailed description of how these distances are calculated is provided in Appendix 2.

Finally, in order to identify common dimensions underlying different motivations for publishing in English or Spanish, we performed factor analysis with principal component extraction for all fourteen motivations. This process included varimax rotation with Kaiser normalization. The result was a set of orthogonal (i.e. uncorrelated) factors formed by highly correlated variables. We conducted factor analyses separately for motivations to publish in English or Spanish; orthogonally rotated factors were considered constructs of motivation. To assess the internal consistency of the two multi-item factors, we calculated Cronbach's alpha. One-way ANOVA was used to examine the variation of motivational factors across the four broad scientific domains to which we assigned our informants.

Scientific domain is viewed here as an explanatory variable. We asked surveyees to provide the UNESCO codes that best described their research field. These codes represent scientific subdisciplines (six-digit codes), disciplines (four digits) and fields (two digits) of the UNESCO International Standard Nomenclature for Fields of Science and Technology (UNESCO 1988). For the purposes of this paper, we grouped these codes into four broad domains: Natural and Exact Sciences (NE), Technological Sciences (TS), Social Sciences (SS) and Arts and Humanities (AH). We assigned each participant to a single domain, as described in Appendix 3, according to the thematic profile indicated by the UNESCO codes chosen. Of the 1454 respondents, 1417 could be assigned to a single, univocal scientific domain (Table 2).

We used SPSS software for Windows (version 19.0) for all statistical analyses.

## Results

As expected, researchers' experiences as the corresponding author of articles in EAL and in their L1 varied across the four scientific domains (Table 3). Broad similarities were apparent between NE and TS researchers, on one hand, and between SS and AH

**Table 2** Sample composition by scientific domain

|                                 | <i>n</i> | Percentage | Valid percentage |
|---------------------------------|----------|------------|------------------|
| Natural and Exact Sciences (NE) | 817      | 47.6       | 56.2             |
| Technological Sciences (TS)     | 245      | 14.3       | 16.9             |
| Social Sciences (SS)            | 237      | 13.8       | 16.3             |
| Arts and Humanities (AH)        | 118      | 6.9        | 8.1              |
| Not classified <sup>a</sup>     | 37       | 2.2        | 2.5              |
| Total                           | 1454     | 84.7       | 100              |
| No response <sup>b</sup>        | 263      | 15.3       |                  |
| Total                           | 1717     | 100        |                  |

<sup>a</sup> The participants in this category selected UNESCO codes from three or more domains, and could not be allocated to a specific domain

<sup>b</sup> Individuals excluded from the analysis either because Castilian Spanish was not one of their first languages, or because they did not receive most of their predoctoral education and training in Spain and in this language

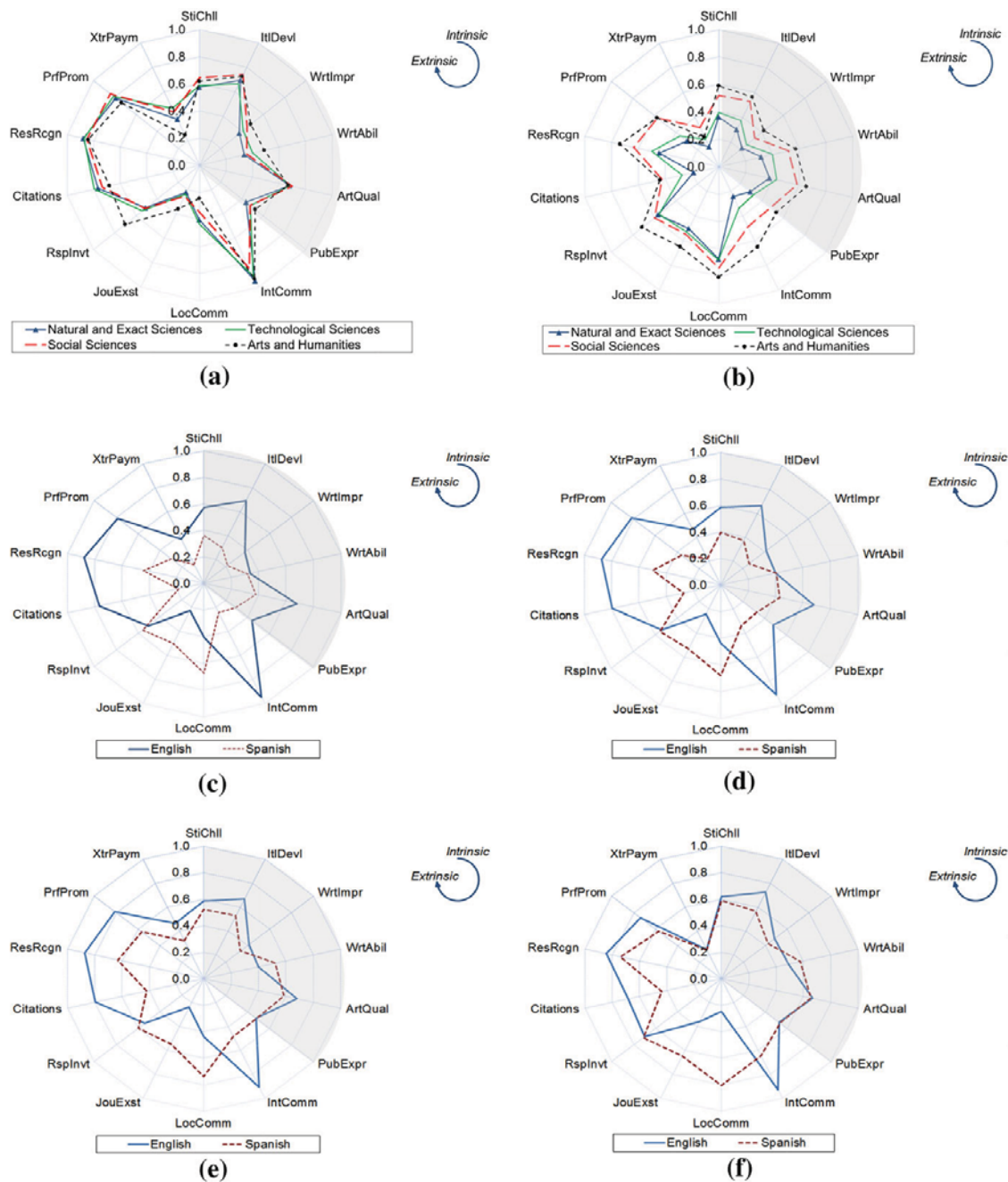
**Table 3** Researchers who published journal articles as corresponding author in English or Spanish during the previous 10 years, by scientific domain

| Domain                          | <i>n</i> | % of researches that published in <sup>a</sup> |         |      |      |       | Average number of articles in            |                       |
|---------------------------------|----------|--|---------|------|------|-------|--|-----------------------|
|                                 |          | English  | Spanish | Both | None | Total | English                                  | Spanish               |
|                                 |          |  |         |      |      |       | Mean ± standard deviation (range) median |                       |
| Natural and Exact Sciences (NE) | 817      | 50.2   | 1.8     | 44.9 | 3.1  | 100   | 20.6 ± 25.8 (0–200) 12                   | 3.0 ± 6.6 (0–75) 0    |
| Technological Sciences (TS)     | 245      | 48.2   | 1.6     | 47.8 | 2.4  | 100   | 19.9 ± 24.2 (0–200) 11                   | 2.6 ± 5.6 (0–50) 0    |
| Social Sciences (SS)            | 237      | 3.0  | 30.4    | 65.8 | .8   | 100   | 4.8 ± 7.1 (0–47) 2                       | 13.5 ± 14.7 (0–100) 9 |
| Arts and Humanities (AH)        | 118      | 2.5  | 34.7    | 62.7 | .0   | 100   | 3.9 ± 5.9 (0–34) 2                       | 18.8 ± 15.9 (0–81) 20 |

<sup>a</sup>  $\chi^2 = 428.3$ ; *p* value = .000

researchers on the other. During the previous 10 years, 95 % of NE researchers and 96 % of TS researchers published at least one article as corresponding author in English, whereas 65 % of AH and 69 % of SS researchers reported submitting at least one manuscript as corresponding author. NE and TS researchers tended to publish exclusively in English or in both languages. In contrast, most SS and AH researchers tended to publish in both languages or only in Spanish. Furthermore, NE and TS researchers published a significantly higher average number of research articles in English than their SS and AH colleagues.

Despite the different publication patterns noted above, researchers in all scientific domains felt equally motivated on average when they write research articles in English (from fairly to very motivated) (Table 4). However, AH researchers felt significantly more motivated when writing in Spanish (from fairly to very motivated) than SS (a little to fairly motivated), and these latter in turn felt more motivated than their TS and NE counterparts



**Fig. 1** Graphs of the Position Index of motivations for publishing in English or in Spanish. **a** All scientific domains, English. **b** All scientific domains, Spanish. **c** Natural and Exact Sciences, English versus Spanish. **d** Technological Sciences, English versus Spanish. **e** Social Sciences, English versus Spanish. **f** Arts and Humanities, English versus Spanish. Motivations: see Table 1. Position Index (PI): The PI, which can take any value from 0 to 1 inclusive, quantifies the position of the sample on an ordinal scale without having to take into account the number of categories in the scale. The value of the index is null ( $PI = 0$ ) when the sample is located at the lower end of the range, and is maximal ( $PI = 1$ ) when all the elements of the sample are at the top. This index makes it possible to plot a motivational profile graph for each scientific domain, which illustrates the ‘shape’ of each domain as well as similarities and differences among domains. The formula used to estimate PI is reported in Appendix 1. Shaded sectors include intrinsic motivations

(neutral to a little). The only researchers who felt equally motivated when writing in either language were those in the AH domain, whereas the rest of our informants reported feeling significantly more motivated when writing in English.

**Table 4** How do you feel when you write up the results of your research for publication in journals in Spanish or in English?<sup>a</sup>

|  | Natural and Exact Sciences (NE) |                    | Technological Sciences (TS) |                    | Social Sciences (SS) |                    | Arts and Humanities (AH) |                             | Across-domain differences |
|--|---------------------------------|--------------------|-----------------------------|--------------------|----------------------|--------------------|--------------------------|-----------------------------|---------------------------|
|  | Spanish<br>n = 382              | English<br>n = 235 | Spanish<br>n = 121          | English<br>n = 228 | Spanish<br>n = 163   | English<br>n = 115 | Spanish<br>n = 77        |                             |                           |
|  | .6 ± 1.8                        | 2.1 ± 1.2 (*)      | .7 ± 1.9                    | 2.1 ± 1.4 (*)      | 1.8 ± 1.3            | 2.3 ± 1.1          | 2.3 ± 1.1                | Spanish: AH > SS > (TS, NE) |                           |

Mean values were compared with Student's *t* test with Bonferroni correction. Significant differences are reported at  $p < .05$  in the two-sided test of equality for column means, assuming equal variances

*Intra-domain differences:* (\*) = English > Spanish

<sup>a</sup> Scale (semantic differential): 3 = very motivated; 2 = fairly motivated; 1 = a little motivated, 0 = neutral; -1 = a little unmotivated; -2 = fairly unmotivated; -3 = very unmotivated. Figures are expressed as the mean ± standard deviation

In the following sections we will analyse the different motivations behind the decision to publish research articles in English as opposed to Spanish. Table 5 summarizes the descriptive statistics for how researchers in different scientific domains rated each of the motivations to publish research articles in English- or Spanish-medium journals. Differences in the motivations for writing in English vs. Spanish were evident within each domain, as well as across domains. Figure 1 illustrates the ‘motivational profile’ of each domain by plotting the position index of the weighted rates for each motivation. Figure 2 summarizes the results of PROXCAL analysis by locating each of the four domains in a plane and showing the distances between them.

As these tables and figures show, the three main motivations for publishing in English were the same for researchers in all scientific domains. They published in this language mainly because they wished (i) to communicate the results of their research to the international scientific community, (ii) to have their research work recognized, and (iii) to meet the requirements for professional promotion.

In all domains, the main motivation to publish research articles in Spanish was the desire to communicate research results to the local scientific community. This was the only motivation that was scored highly (around 4, quite a lot) by all respondents, although significant differences were found between NE and AH researchers. Researchers in the latter domain also chose to publish in Spanish driven largely by a desire to respond to requests or invitations to publish from an institution, association or publisher. They were significantly more motivated by this reason than the rest of researchers, regardless of whether they chose to publish in Spanish or in English. AH researchers also saw the Spanish language as an important way to communicate to international scientific audiences and seek recognition. Thus, when they considered their articles to be good enough, they were as motivated to publish them in Spanish as in English.

Discourse about their motivations to publish research articles in English was quite homogeneous among respondents. The motivational profile for publishing in English as represented by the position index was similar (Fig. 1a), with the most evident differences for some motivations appearing between AH and the other three domains. As shown, researchers in all domains concurred that using English rather than Spanish was associated with greater intellectual feedback, broader international diffusion and more citations, recognition and possibilities for professional promotion. In this connection, extrinsic-individual motivations had more influence on the decision to publish in English than in Spanish. The only exception were AH researchers, for whom the desire to increase the chances of receiving a bonus payment was an equally weak drive for publishing in either language. The responses about motivations to publish in Spanish were more heterogeneous (Fig. 1b). The NE and TS domains were close together in the graph, whereas the SS and AH domains were further apart and indicated a generally higher degree of motivation for practically every item.

The results of the PROXSCAL analysis summarized in Fig. 2 provide a picture of the general motivational profile for each domain and language. Comparison of the ‘response profiles’ shows that the motivation to publish in English clearly separated NE and TS from AH in the second dimension, with SS somewhere in between. Regarding the motivations to write in Spanish, NE and TS also appeared close together, with SS slightly apart in the first dimension and AH clearly separate in both dimensions. The graph also shows larger differences between motivations to publish in English or in Spanish among NE researchers, followed by TS and SS, whereas for AH researchers, the motivations to publish in either language were more similar (see also Fig. 1c–f).

**Table 5** When you decide to publish a research article in a scientific journal, to what extent do the following factors influence your decision to publish in Spanish or in English?<sup>a</sup>

| Motivations <sup>b</sup>     | Natural and Exact Sciences (NE) |                           | Technological Sciences (TS) |                           | Social Sciences (SS)      |                           | Arts and Humanities (AH) |                           | Across-domain differences  |
|------------------------------|---------------------------------|---------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|--|
|                              | English<br><i>n</i> = 777       | Spanish<br><i>n</i> = 382 | English<br><i>n</i> = 235   | Spanish<br><i>n</i> = 121 | English<br><i>n</i> = 163 | Spanish<br><i>n</i> = 228 | English<br><i>n</i> = 77 | Spanish<br><i>n</i> = 115 |  |
| <i>Intrinsic motivations</i> |                                 |                           |                             |                           |                           |                           |                          |                           |  |
| StiChll                      | 3.3 ± 1.5 (*)                   | 2.4 ± 1.5                 | 3.4 ± 1.3 (*)               | 2.7 ± 1.5                 | 3.5 ± 1.5 (*)             | 3.1 ± 1.4                 | 3.5 ± 1.6                | 3.4 ± 1.5                 | Spanish: (AH, SS) > NE; AH > TS  |
| ItlDevl                      | 3.8 ± 1.3 (*)                   | 2.2 ± 1.3                 | 3.7 ± 1.3 (*)               | 2.5 ± 1.4                 | 3.9 ± 1.2 (*)             | 3.1 ± 1.3                 | 3.9 ± 1.2 (*)            | 3.3 ± 1.4                 | Spanish: (AH, SS) > (NE, TS)   |
| WrtImpr                      | 2.5 ± 1.5 (*)                   | 1.9 ± 1.3                 | 2.8 ± 1.5 (*)               | 2.3 ± 1.4                 | 2.8 ± 1.5 (*)             | 2.4 ± 1.4                 | 3.0 ± 1.6                | 2.7 ± 1.7                 | Spanish: (AH, SS) > NE   |
| WrtAbil                      | 2.3 ± 1.4                       | 2.3 ± 1.5                 | 2.7 ± 1.4                   | 2.8 ± 1.6                 | 2.4 ± 1.4                 | 3.1 ± 1.5 (**)            | 3.1 ± 1.5                | 3.3 ± 1.7                 | English: (AH, TS) > NE; AH > SS<br>Spanish: SS > NE                    |
| ArtQual                      | 3.7 ± 1.5 (*)                   | 2.5 ± 1.5                 | 3.8 ± 1.4 (*)               | 2.9 ± 1.5                 | 3.8 ± 1.4                 | 3.4 ± 1.4                 | 3.7 ± 1.5                | 3.6 ± 1.5                 | Spanish: (AH, SS) > NE; AH > TS  |
| PubExpr                      | 2.7 ± 1.5 (*)                   | 2.2 ± 1.4                 | 3.0 ± 1.5 (*)               | 2.4 ± 1.4                 | 2.9 ± 1.4                 | 3.0 ± 1.5                 | 3.1 ± 1.4                | 3.2 ± 1.5                 | Spanish: (AH, SS) > NE; AH > TS  |
| <i>Extrinsic motivations</i> |                                 |                           |                             |                           |                           |                           |                          |                           |  |
| IntComm                      | 4.8 ± .6 (*)                    | 2.0 ± 1.3                 | 4.6 ± .7 (*)                | 2.5 ± 1.4                 | 4.4 ± 1.0 (*)             | 3.0 ± 1.4                 | 4.8 ± .6 (*)             | 3.7 ± 1.3                 | English: NE > (TS, SS); AH > SS<br>Spanish: AH > (SS, TS, NE); SS > NE |
| LocComm                      | 2.6 ± 1.5                       | 3.7 ± 1.5 (**)            | 2.6 ± 1.4                   | 3.9 ± 1.4 (**)            | 2.4 ± 1.4                 | 4.0 ± 1.2 (**)            | 2.0 ± 1.2                | 4.3 ± 1.2 (**)            | English: NE > AH<br>Spanish: AH > NE                                   |
| JouJuxt                      | 1.9 ± 1.3                       | 3.0 ± 1.6 (**)            | 2.0 ± 1.2                   | 3.4 ± 1.5 (**)            | 2.0 ± 1.3                 | 3.2 ± 1.5 (**)            | 2.4 ± 1.6                | 3.6 ± 1.5 (**)            | English: AH > NE<br>Spanish: AH > NE                                   |



**Table 5** continued

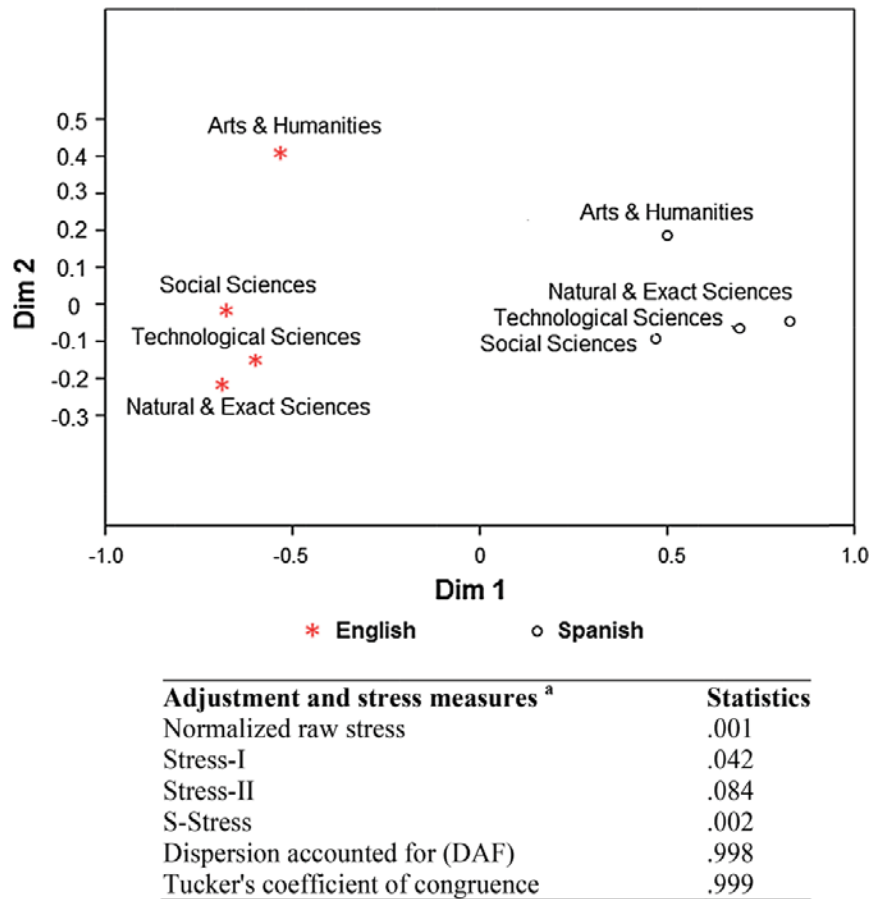
| Motivations <sup>b</sup> | Natural and Exact Sciences (NE) |                           | Technological Sciences (TS) |                           | Social Sciences (SS)      |                           | Arts and Humanities (AH) |                           | Across-domain differences                                |
|--------------------------|---------------------------------|---------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|--|
|                          | English<br><i>n</i> = 777       | Spanish<br><i>n</i> = 382 | English<br><i>n</i> = 235   | Spanish<br><i>n</i> = 121 | English<br><i>n</i> = 163 | Spanish<br><i>n</i> = 228 | English<br><i>n</i> = 77 | Spanish<br><i>n</i> = 115 |  |
| RspInvt                  | 3.0 ± 1.4                       | 3.2 ± 1.4 (**)            | 3.1 ± 1.3                   | 3.0 ± 1.4                 | 3.1 ± 1.5                 | 3.4 ± 1.3 (**)            | 3.9 ± 1.4                | 3.8 ± 1.3                 | English: AH > (TS, SS, NE)<br>Spanish: AH > (SS, NE, TS) |
| Citations                | 4.1 ± 1.2 (*)                   | 1.7 ± 1.2                 | 4.3 ± 1.1 (*)               | 2.2 ± 1.3                 | 3.9 ± 1.3 (*)             | 2.7 ± 1.3                 | 3.7 ± 1.3 (*)            | 2.8 ± 1.3                 | English: TS > AH<br>Spanish: AH > TS > NE;<br>SS > NE    |
| ResRcgn                  | 4.5 ± .9 (*)                    | 2.7 ± 1.5                 | 4.5 ± .8 (*)                | 3.1 ± 1.4                 | 4.4 ± .9 (*)              | 3.5 ± 1.3                 | 4.4 ± .9 (*)             | 4.0 ± 1.2                 | Spanish: AH > (SS, TS, NE); SS > NE                      |
| PrfProm                  | 4.2 ± 1.1 (*)                   | 2.2 ± 1.3                 | 4.4 ± 1.1 (*)               | 2.5 ± 1.4                 | 4.4 ± 1.0 (*)             | 3.3 ± 1.4                 | 4.0 ± 1.1 (*)            | 3.3 ± 1.4                 | Spanish: (AH, SS) > (TS, NE)                             |
| BonPaym                  | 2.5 ± 1.5 (*)                   | 1.6 ± 1.0                 | 2.9 ± 1.5 (*)               | 2.0 ± 1.2                 | 2.7 ± 1.6 (*)             | 2.3 ± 1.3                 | 1.9 ± 1.4                | 2.0 ± 1.2                 | English: (TS, SS, NE) > AH<br>Spanish: SS > NE           |

Means were compared Student's *t* test with adjustment by Bonferroni correction. Significant differences are reported at *p* < .05 in the two-sided test of equality for column means, assuming equal variances

*Intra-domain differences:* (\*) = English > Spanish, (\*\*) = Spanish > English

<sup>a</sup> Scale: 1 = not at all; 2 = a little; 3 = to and average extent; 4 = quite a lot; 5 = a lot. Figures are expressed as the mean ± standard deviation

<sup>b</sup> Legend: see Table 1



**Fig. 2** PROXSCAL analysis of motivations for publishing in English or in Spanish. <sup>a</sup> Values suggest a good fit of the model. ‘Stress’ measures model adjustment, ranging from zero when there is no relation to 1 when distances are exactly proportional. Good fit is indicated by low values of S-stress (<.15) and values close to 1 for dispersion accounted for (DAF) and Tucker’s coefficient of congruence

To identify the common dimensions underlying motivations to publish in English or Spanish, we used factor analysis. This method made it possible to collapse the information on motivations into a range of factors, and had the further advantage of allowing us to analyse the relationships between the various elements of the multidimensional, dynamic phenomenon of motivation.

**Motivations to publish in English**

In the factor analysis of motivations for publishing in English (Table 6), a default eigenvalue cut-off of one was initially used, but this generated three factors, one of which was not easily interpretable. A five-factor solution was subsequently used for the data, which resulted in a much clearer factor structure. This analysis explained 66.7 % of the variance (see Appendix 4, Table 10), and revealed two distinct motivations: the desire to communicate results to the local community, and the desire to respond to a commission or invitation from an institution, association or publisher. Each of these motivations was identifiable as a different single-item factor with the highest extraction values among all motivations: 91 % for communicating results to the local community and 84.1 % for responding to an invitation (Appendix 4, Table 11). The remaining motivations resolved as three multi-item factors.

**Table 6** Descriptive statistics and the factor analysis results for motivations to publish in English

| Rotated component matrix <sup>a</sup> |                                 |  |               |                              |                   |
|---------------------------------------|---------------------------------|--|---------------|------------------------------|-------------------|
| Motivations <sup>d</sup>              | Components <sup>b,c</sup>       |  |               |                              |                   |
|                                       | F1<br>Professional<br>expertise | F2<br>International communication<br>and recognition | F3<br>Rewards | F4<br>Local<br>communication | F5<br>Invitations |
| WrtImpr                               | .83                             |  |               |                              |                   |
| WrtAbil                               | .82                             |  |               |                              |                   |
| PubExpr                               | .80                             |  |               |                              |                   |
| ArtQual                               | .66                             |  |               |                              |                   |
| JouExst                               | .63                             |  |               |                              |                   |
| StiChll                               | .57                             |  |               |                              |                   |
| IntComm                               |                                 | .83  |               |                              |                   |
| ResRcgn                               |                                 | .68  |               |                              |                   |
| PrfProm                               |                                 |  | .84           |                              |                   |
| BonPaym                               |                                 |  | .67           |                              |                   |
| Citations                             |                                 |  | .61           |                              |                   |
| LocComm                               |                                 |  |               | .93                          |                   |
| RspInvt                               |                                 |  |               |                              | .87               |
| ItlDevl                               |                                 |  |               |                              |                   |

<sup>a</sup> Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 6 iterations

<sup>b</sup> Only factorial loads >.5 are shown

<sup>c</sup> Appendix 4 summarizes the factorial analysis model, the variance accounted for by each variable, and correlations among variables

<sup>d</sup> Legend: see Table 1

The central theme of factor 1 focused on motivations related to professional expertise in writing research articles. Most of the items that made up this factor were concerned with linguistic competence and the capacity to produce quality research articles, reflecting the need for achievement and self-confidence. Thus factor 1 reflected the need for individual intrinsic satisfaction, e.g. the satisfaction obtained from puzzle-solving as proposed by Lam (2011). A high score on this factor reflected authors’ self-confidence with regard to their experience of publishing in English, and their ability to write in this language; it also indicated a desire to enhance this ability. A high score on factor 1 also reflected the author’s self-confidence with regard to the quality of a manuscript. An additional item that made a smaller contribution to this factor concerned the social and affective dimension related to the continued existence of scientific journals in this language.

Factor 2 centred on the desire to communicate research results to the international scientific community. The two items grouped in this factor indicated a desire for research to be internationally disseminated and recognized—two motivations related with social outcomes that have been internalized through the research assessment system. This factor was thus concerned with international transcendence, visibility and recognition. The relationships between these two items and their inclusion in the same factor indicated that

researchers identified recognition for research work as being linked to communication to the international scientific community, regardless of the language used for communication—as explained below, it was also linked in the factor analysis of motivations to publish in Spanish.

Factor 3 focused on motivations related with the reward system of science, as represented by the main explicit rewards obtained by researchers for publishing in English-medium journals. This factor comprised three items reflecting the Mertonian paradigm of competence through recognition by peers. All three were instrumental, extrinsic motivations that included the so called ‘ribbon’ and ‘gold’ rewards (Merton 1973; Lam 2011).

The desire to develop intellectually as a result of editors’ and peer reviewers’ comments had the lowest extraction value (.45) and was thus the least clearly explained motivation (see Appendix 4, Table 11). Consequently it did not fit neatly into any of the factors. Omitting this motivation, however, did not significantly modify the results of factor analysis.

### Motivations to publish in Spanish

To examine the motivations to publish in Spanish, we used a five-factor solution for the data (Table 7). The results explained 75 % of the variance (see Appendix 4, Table 10).

**Table 7** Descriptive statistics and the factor analysis results for motivations to publish in Spanish

| Rotated component matrix <sup>a</sup> |                              |   |                       |                           |                   |
|---------------------------------------|------------------------------|---|-----------------------|---------------------------|-------------------|
| Motivations <sup>d</sup>              | Components <sup>b,c</sup>    |   |                       |                           |                   |
|                                       | F1<br>Professional expertise | F2<br>International communication, recognition, and noneconomic rewards | F3<br>Economic reward | F4<br>Local communication | F5<br>Invitations |
| WrtAbil                               | .80                          |   |                       |                           |                   |
| WrtImpr                               | .77                          |   |                       |                           |                   |
| PubExpr                               | .75                          |   |                       |                           |                   |
| ArtQual                               | .61                          | .55   |                       |                           |                   |
| JouExst                               | .61                          |   |                       |                           |                   |
| ResRcgn                               |                              | .77   |                       |                           |                   |
| IntComm                               |                              | .75   |                       |                           |                   |
| ItlDevl                               |                              | .74   |                       |                           |                   |
| PrfProm                               |                              | .68   |                       |                           |                   |
| Citations                             |                              | .66   |                       |                           |                   |
| StiChll                               |                              | .59   |                       |                           |                   |
| BonPaym                               |                              |   | .87                   |                           |                   |
| LocComm                               |                              |   |                       | .93                       |                   |
| RspInvt                               |                              |   |                       |                           | .97               |

<sup>a</sup> Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 6 iterations

<sup>b</sup> Only factorial loads >.5 are shown

<sup>c</sup> Appendix 4 summarizes the factorial analysis model, the variance accounted for by each variable, and correlations among variables

<sup>d</sup> Legend: see Table 1

Two multi-item factors were identified, and three variables remained separate as distinct, single-item factors: the desire to respond to a request or invitation from an institution, association or publisher; the desire to communicate the results to the local community; and the desire to increase the chances of receiving a bonus payment. These are the variables that were explained best, with extraction values of 98.6, 91.0 and 87.7 % respectively (see Appendix 4, Table 11).

Factor 1 was composed mainly of motivations related to linguistic and academic skills and competences associated with the linguistic proficiency and academic expertise needed to produce high-quality articles. It comprised the same items as factor 1 in the analysis of motivations to publish in English, with the exception of the desire for stimulating challenges.

Factor 2 focused on international communication, recognition and nonfinancial rewards. It brought together motivations that contributed separately to factors 2 and 3 in the analysis of motivations to publish in English (excluding financial reward, which resolved as a separate single-item factor). Consequently, factor 2 included intrinsic motivations related with the need for achievement through intellectual development and stimulating challenges on one hand, and extrinsic motivations related with the reward system of science on the other. Extrinsic motivations included some of the implicit and explicit rewards obtained by researchers as a result of publishing in Spanish journals, and thus subsumed the whole range of internalization processes (i.e. international communication, recognition and citations, and professional promotion).

Publication in Spanish-language journals as a consequence of researchers' self-assessment of the quality of their articles saturated both in factor 1 (professional expertise) and factor 2 (international communication, recognition and noneconomic rewards). This suggests that what respondents who publish in Spanish for this reason mean by 'quality' is, on one hand, externally attributed or recognized quality, which is related to the external benefits obtained for publishing in Spanish (factor 2), and on the other hand, self-perceived quality related to one's capacity and experience writing in this language, and with the more affect-related desire for the continued existence of scientific journals in this language (factor 1).

## Differences between scientific domains

The main question this study set out to answer is whether researchers from different scientific domains, who are thus likely to have different value orientations, differed in their motivations for publishing research articles in English- or Spanish-medium scientific journals. In this section we use one-way ANOVA to examine variations in the motivational factors identified above across the four scientific domains. Table 8 shows the results of ANOVA with Bonferroni post hoc comparison, based on factor scores. The overall results of ANOVA showed significant variation in mean scores for all the motivating factors to publish in English across all four scientific domains.

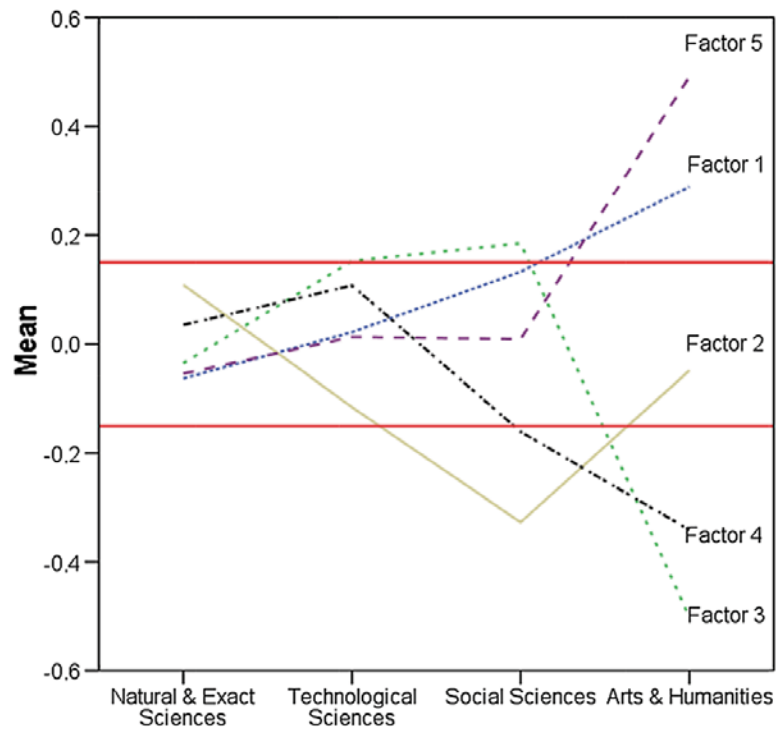
Figures 3 and 4 compare plots of the motivational profiles of researchers in different domains. The mean scores for each factor are shown by domain, together with 95 % confidence intervals. Values that were within the confidence interval can be considered unlikely to be significantly different (with a probability of 95 %).

Turning to variations across domains in the factors that motivated researchers to publish in English, those factors that discriminated most clearly among scientific domains ( $p < .001$ ) involved motivations related with international communication and recognition (F2), rewards (F3) and responding to invitations (F5). Professional expertise and accepting

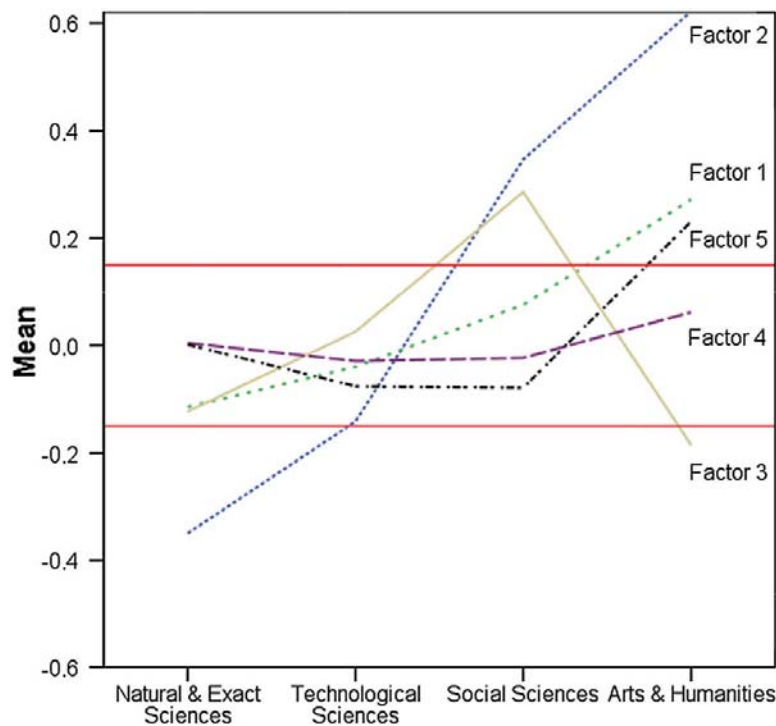
**Table 8** ANOVA of factors that motivated research article publication in English or Spanish

| Motivating factors  | ANOVA       |         | Mean (standard deviation)       |                             |                      |                          | Bonferroni comparisons <sup>a</sup><br>Mean difference (I–J) |            |            |               |               |               |
|---|-------------|---------|---------------------------------|-----------------------------|----------------------|--------------------------|--|------------|------------|---------------|---------------|---------------|
|   | F statistic | p value | Natural and Exact Sciences (NE) | Technological Sciences (TS) | Social Sciences (SS) | Arts and Humanities (AH) | NE (I) (J)   | TS (I) (J) | SS (I) (J) | NE (I) AH (J) | TS (I) AH (J) | SS (I) AH (J) |
| <i>English</i>  |             |         |                                 |                             |                      |                          |  |            |            |               |               |               |
| F1: Professional expertise  | 4.2         | .006**  | -.06 (1.02)                     | .02 (.96)                   | .13 (.92)            | .29 (1.03)               | -.08   | -.19       | -.35*      | -.11          | -.27          | -.16          |
| F2: International communication and recognition                       | 10.2        | .000*** | .11 (.91)                       | -.12 (.94)                  | -.33 (1.33)          | -.05 (1.02)              | .22*   | .43***     | .16        | .21           | -.07          | -.28          |
| F3: Rewards   | 10.7        | .000*** | -.04 (.99)                      | .15 (1.02)                  | .18 (.93)            | -.50 (.96)               | -.19   | -.22       | .47***     | -.03          | .65***        | .69***        |
| F4: Local communication   | 5.6         | .001**  | .03 (1.03)                      | .11 (.92)                   | -.16 (.95)           | -.34 (.87)               | -.07   | .19        | .37*       | .27           | .45**         | -.18          |
| F5: Invitations   | 7.1         | .000*** | -.05 (1.0)                      | .01 (.93)                   | .01 (1.09)           | .49 (.93)                | -.07   | -.06       | -.54***    | .00           | -.048**       | -.48**        |
| <i>Spanish</i>  |             |         |                                 |                             |                      |                          |  |            |            |               |               |               |
| F1: Professional expertise  | 5.1         | .002**  | -.11 (.93)                      | -.04 (.98)                  | .08 (1.02)           | .27 (1.15)               | -.07   | -.19       | -.39**     | -.11          | -.31          | -.20          |
| F2: International communication, recognition, and noneconomic rewards | 46.9        | .000*** | -.35 (.9)                       | -.14 (.92)                  | .35 (.98)            | .62 (.92)                | -.21   | -.70***    | -.97***    | -.49***       | -.76***       | -.27          |
| F3: Economic reward   | 9.8         | .000*** | -.12 (.86)                      | .03 (.91)                   | .29 (1.16)           | -.19 (1.06)              | -.15   | -.41       | .06        | -.26          | .21           | .47***        |
| F4: Local communication   | .2          | .880    | .00 (1.09)                      | -.03 (.96)                  | -.02 (.92)           | .06 (.90)                | .33  | .03        | -.06       | -.00          | -.09          | -.08          |
| F5: Invitations   | 2.8         | .041*   | .00 (1.04)                      | -.08 (.98)                  | -.08 (.97)           | .23 (.91)                | .08  | .08        | -.23       | .00           | -.31          | -.31*         |

<sup>a</sup> Significant differences: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$



**Fig. 3** Averages of factors that motivated publication in English, by scientific domain. Factors (see also Tables 6, 8): F1 Professional expertise; F2 International communication and recognition; F3 Rewards; F4 Local communication



**Fig. 4** Averages of factors that motivated publication in Spanish, by scientific domain. Factors (see also Tables 7, 8): F1 Professional expertise; F2 International communication, recognition, and noneconomic rewards; F3 Economic reward; F4 Local communication; F5 Invitations

invitations or requests (F1 and F5) were significantly more important for researchers in AH, whereas rewards and communicating research to the local scientific audience (F3 and F4) were significantly less important for these researchers. Secondly, international communication and recognition (F2) was significantly more important for researchers in NE, who differed from TS and SS researchers only in this factor. In contrast, NE researchers were driven more strongly by the international visibility and recognition provided by publication in English. NE researchers were clearly different from AH researchers (all factors except F2): the former were significantly more motivated by rewards and communication to the local audience (F3 and F4), and less motivated by their self-assessed professional competence and the desire to accept invitations or requests (F1 and F5). It should be noted that there were no significant differences between TS and SS researchers in any of the factors. But surprisingly, SS differed more clearly from AH (in both rewards and responding to invitations or commissions, F3 and F5) than from NE (in international communication and recognition only, F2).

In summary, our findings for motivations to publish in English showed that among NE researchers, the average values for all factors were within the confidence interval, so that none of these factors was significantly associated with belonging to this scientific domain, even though the strongest motivators were identified as international communication and recognition. The same was found for TS researchers. In contrast, SS researchers were characterized by their high level of motivation by rewards (F3), and their low level of motivation by recognition and international communication (F2) or local communication (F4, at the lower limit of the confidence interval). Finally, belonging to the AH domain was characterized by a strong association with factors 1, 3, 4 and 5: these researchers were more strongly motivated than average to write in English in response to invitations and requests (F5) and by motivations related with a high level of professional expertise (F1), and significantly less motivated to use English to seek rewards (F3) or to reach local audiences (F4).

Regarding motivations to publish in Spanish, our results showed significant variation in the mean scores for all motivating factors except factor 4 (local communication). The factors that best discriminated among scientific domains ( $p < .001$ ) were those that involved motivations related with international communication and recognition (F2) and with rewards (F2 and F3). Factor 2 was significantly more important for AH and SS researchers, who were much more motivated than their TS and NE counterparts by recognition, international communication and noneconomic rewards as a result of publishing the results of their research in Spanish. It should be noted that NE and TS researchers did not differ in any factor. A final observation is that AH researchers differed from their SS colleagues in that the former were significantly more motivated by factor 2 and significantly less by factor 3. The importance of local communication (F4) did not differ among scientific domains. The strength of professional expertise (F1) as a motivator differed only between NE and AH researchers.

In summary, with regard to publication in Spanish, NE researchers were characterized by their low motivation to publish in this language in order to address an international audience or obtain recognition and noneconomic rewards (F2). This was also the least important factor for TS researchers (although once again their scores were at the lower limit of the confidence interval). In contrast, factor 2 was a strong motivation for SS and AH researchers. The latter were also characterized by being strongly motivated by professional expertise (F1) and invitations (F5) and significantly less motivated than average by the prospect of economic rewards (F3). SS researchers, on the other hand, were



characterized by being mainly motivated by factor 3 as well as by international communication, recognition and noneconomic rewards (F2).

As shown above, communication to the international scientific community and obtaining recognition were grouped in the same factor both in English (F2) and in Spanish (F2), which indicated that recognition of research work was identified by researchers as being linked to communication to the international scientific community regardless of the language used. We could hypothesize that these motivations will be linked to English in some scientific domains and to Spanish in others. In fact, factor 2 in the factor analysis of motivations to publish in English was linked mainly to the NE domain, which indicated that these researchers believed that the use of English to communicate to the international scientific community is related to obtaining recognition (significantly more than TS and SS, but surprisingly, not more than AH). In contrast, the use of Spanish was associated with the SS and AH domains, indicating the importance of Spanish in these scientific domains as the language used to communicate to the international community and obtain recognition.

## Discussion

The goal of the research reported here was to examine the diversity of Spanish researchers' motivations for deciding to publish research articles in English or in Spanish, and how these vary across scientific domains according to the influence of the discipline-related scientific community to which they belong.

Our approach to this study assumed that academic writing features, communicative skills and discourse practices would vary across disciplines, and acknowledged a degree of correlation, as noted by Becher (1994: 153), between “the nature of knowledge domains and the nature of the associated disciplinary cultures”. Earlier research, grounded on the seminal work by Granovetter (1973, 1985), who emphasized that individuals' behaviour is shaped and constrained by the social networks in which they are embedded, reported that the choice of language for academic publication is also shaped by this embeddedness, and is influenced by social and contextual features. In particular, researchers' behaviour may be influenced by their specific scientific domain (Hyland 2009; Swales and Leeder 2012), because scientific communities from different fields or disciplines may have distinct academic cultures with different values, attitudes and experiences (Swales 1998; Rey-Rocha et al. 1999; Petersen and Shaw 2002; Kuteeva and Airey 2013; Gnutzmann and Rabe 2014).

### Different publication patterns across scientific domains

It is widely claimed that publication patterns are strongly related to scientific domain. The particular relevance of English as the “lingua franca” in scientific communication has been noted in research domains dealing with basic aspects of nature, which presumably are most likely to be of interest to an international readership. In contrast, languages other than English are considered more relevant in some more locally oriented disciplines that are more strongly influenced by an additional cultural dimension, particularly in the Social Sciences and Humanities (Swales 1990; Bordons and Gómez 2004; Ferguson 2007; Flowerdew and Li 2009; McGrath 2014; Burgess et al. 2014).

This claim, which has been made in previous studies (Petersen and Shaw 2002; Duszak and Lewkowicz 2008; Mauranen et al. 2010; Anderson 2013; McGrath 2014; Gnutzmann and Rabe 2014), is supported by the findings we obtained in a comparatively large sample, using a more systematic method of data collection and more rigorous analytical procedures. For the particular sample here studied, publishing research articles in English is most important for researchers in NE and TS, both in terms of the proportion of individuals who choose this language and the average number of papers they produce. Nevertheless, researchers in all domains expressed a similar degree of motivation when they write research articles in English. A focus on publication in Spanish was required to find differences between NE and TS researchers versus their SS and particularly their AH counterparts. One of the most notable findings of this study is that AH researchers expressed a similar degree of motivation when they write their manuscripts for publication in English- or Spanish-medium journals. However, in the light of our results, this motivation appears to reflect intention rather than actual practice, since AH researchers continue to publish their work mostly in their first language. In contrast, the motivations of NE and TS researchers do not play an important role in their decision to publish in Spanish, since few of them publish research articles in their L1. Moreover, they feel little motivation to do so.

### **Attitude toward English for publication purposes: willingness versus resignation**

Our survey results show a generally favourable attitude towards the use of English for academic publication purposes, with patterns that were mostly consistent across different scientific domains. In addition, motivations to publish in English usually scored higher than motivations to publish in Spanish, whereas the patterns of motivations to publish in Spanish were generally characterized by lower and more heterogeneous scores. We are uncertain as to how this finding should be interpreted. Some authors associate this willingness to use English with resignation regarding the need to use EAL (Ferguson et al. 2011) whereas others point to a more willing acceptance of the use of EAL for publication purposes (Pérez-Llantada et al. 2011; Muresan and Pérez-Llantada 2014). In any case, it should be kept in mind that the loss of agency and control over the decision to publish in EAL or L1 might conflict with the significant degree of autonomy and decision-making freedom enjoyed by members of research communities we studied.

To appreciate the implications of our findings, it is important to recall that for the potential author, the choice of language is not only “one aspect of the complex process of research communication and identity construction” (Duszak and Lewkowicz 2008: 115) but is also a matter of policy, because the choice of language of publication is strongly related to institutionally-mandated measures of scientific productivity, visibility, impact and quality of the research. The preponderance of English in international academic communication is grounded, in part, on the policy of many national science and technology systems to reward English more than national-language publication, as the Spanish system does (Jiménez-Contreras et al. 2003; Rodríguez-Navarro 2009; Osuna et al. 2011; López Piñeiro and Hicks 2014). Another reason for the preponderance of English is the growing internationalization of teaching and research at universities and research centres (Preisler 2005; Pérez-Llantada et al. 2011; Kirkpatrick 2012). In consonance with these arguments, researchers in our sample, regardless the differences in publication patterns between scientific domains, use English rather than Spanish to obtain more intellectual feedback and broader international diffusion, as well as more citations, more recognition and better chances for professional promotion. This may reflect their internalization of assessment

systems that, as other authors have pointed out, generate specific adaptive and instrumental attitudes and practices (Preisler 2005; Dahler-Larsen 2011; Gotti 2012; López Piñeiro and Hicks 2014). It is worth stressing here that when research evaluation policies favour publication in mainstream journals and overemphasize the impact factor, the result may be researchers' loss of agency not only with regard to language but also in relation to their choice of research topics. This may, in turn, have the undesirable effect of narrowing research agendas by obliging researchers to work in areas more likely to interest "international" readers, to the detriment of research topics of greater relevance in the researchers' own country (Lillis and Curry 2010; López Piñeiro and Hicks 2014).

The patterns of motivation that influence the choice of language in the researchers we studied are consistent with previous research in very different regions that nonetheless share similarities in their research policies and national performance-based research funding systems (see Hicks 2012 for a review). As in Spain, these systems are highly influenced by a reliance on mainstream journal-based metrics and the so-called "publish or perish" assumption. Examples of these national contexts have been described thus far for China (Flowerdew and Li 2009), Hong Kong (Li and Flowerdew 2009), Poland (Duszak and Lewkowicz 2008), Germany (Gnutzmann and Rabe 2014) and Romania (Muresan and Pérez-Llantada 2014), and even in countries that have implemented linguistic policies to preserve local languages, e.g., Sweden (McGrath 2014) and Canada (Gentil and Séror 2014). Thus, the globalization not only of research communication, but of research assessment as well, can be considered a strong determinant of researchers' motivations that underlie their decision to publish in EAL or their L1 regardless of the geopolitical context.

### **Ideological and social reasoning behind the use of Spanish**

However, there is also "evidence of cultural resistance in the textual strategies" (Gotti 2012: 61) and "negative attitudes towards this policy" (Flowerdew and Li 2009), particularly in the Humanities and Social Sciences. Researchers whom Preisler (2005) describes as 'the concerned' are believed to comprise "a small but influential minority whose views on the influence of English are more critical" (2005: 238). Their motivation may derive from "reaching a large audience through domestic publication" (Flowerdew and Li 2009: 13). Despite their motivation to publish in English in order to satisfy evaluation criteria, some researchers are concerned about the loss of scientific vocabulary and the deterioration of the national language code in some of its functional domains (such as higher education and scientific or scholarly research), the increasing marginalization of local issues, the diminishing dissemination of research findings in local contexts, and the decline of local journals (Preisler 2005; Duszak and Lewkowicz 2008; Pérez-Llantada et al. 2011; Li 2014; Bocanegra-Valle 2014).

In this connection, the opinions of the researchers we surveyed about their use of Spanish are somewhat diverse, albeit related mainly through ideological (defence of local issues, desire for the continued existence of scientific journals in Spanish, etc.) and social reasoning (responding to a commission or invitation from an institution, association or publisher). Thus far, arguments in support of publishing research in Spanish have been offered mainly within the context of the integrated regulation of behaviour,<sup>5</sup> and apparently aim to achieve a mixture of affective and social outcomes. Perhaps unsurprisingly, the motivations researchers report for choosing Spanish as the language of publication reflect

<sup>5</sup> 'Integrated regulation' is the most developmentally advanced form of extrinsic motivation. It involves regulations that are fully assimilated within the individual's other values, needs, and identities.

larger differences across domains. Firstly, differences in the motivations that were given high or low scores by researchers in each scientific domain reflected significant differences between AH and SS researchers compared to NE and TS researchers. These differences were clearest in most of the intrinsic motivations related to their self-assessed ability to write in Spanish and the intellectual challenge this entails, as well as in the emotional and social implications of choosing this language. With regard to extrinsic motivations, AH researchers once again stand out as scoring these items significantly more highly than the rest of the respondents. This domain-related difference is probably due to the traditionally intensive relationships between members of the Spanish AH science community and their counterparts in Latin American countries. Such relationships, based on the shared use of the Spanish language, generate an important source of returns and prestige for researchers in this scientific domain.

### **The functional split of languages**

On the other hand, we found that extrinsic-individual motivations have a greater influence on decisions to publish in EAL rather than the researchers' L1. In other words, researchers, regardless of their scientific domain, are more likely to report external-individual motivations or reward motivations in connection with publication in English. In this regard, AH researchers stood out among the four domains compared here: their desire for increased rewards is a less influential drive for publishing in English than in the rest of the scientific domains. In addition, the importance of professional networks for AH researchers is reflected in the significantly higher scores they gave to the desire to respond to an invitation from an institution, association or publisher.

Despite these differences across scientific domains, a common dimension is apparent. For all researchers the choice between an international or local scientific audience is a major motivation that influences their decision to publish in an English- or Spanish-medium journal. Researchers' main motivations for choosing one language or the other have to do with their intention to adapt their message to the community they wish to address.

If we consider the desire to communicate with the international scientific community as a reflection of the main criterion used to evaluate research performance and excellence (and thus as a way to obtain recognition from the international scientific community), our results are consistent with the Mertonian view of science (Merton 1973). In this regard it is important to recall that according to Merton, researchers are motivated mainly by the recognition and prestige awarded by peers, and that other forms of extrinsic reward such as career advancement, salary increases and access to research funds may ensue from these main motivators. Therefore, in a utilitarian view of publication in English, researchers may opt for this language in order to obtain further rewards such as recognition and prestige. Publishing in English can lead to increased resources for further research as well as opportunities for promotion and career development.

Our results lend support to earlier findings in favour of the so-called "functional split of languages found elsewhere in the world in non-Anglophone settings" (Flowerdew and Li 2009: 14). Thus, despite being a common practice in non-Anglophone countries, several authors (Bordons and Gómez 2004; Preisler 2005; Flowerdew and Li 2009) agree that the use of a researcher's L1 for the local audience and English publication for the international readership represents an intermediate stance that does not penalize the use of either language. In this scenario, however, measures are needed to protect this fragile balance and avoid impoverishing knowledge production through the demise of local topics, the disappearance of local journals and the lack of outlets for knowledge dissemination in the L1,

among other factors. In this connection, Ferguson (2013) has noted the potential importance of language policy proposals for higher education, as implemented (for example) at the University of Oslo. This policy distinguishes four areas of language use—research, teaching, dissemination of research and administration—each with specific recommendations regarding the preferred language. Other proposals to overcome the burden faced by non-Anglophone researchers immersed in diglossic contexts are to urge Anglo-American journal editors and reviewers to show greater tolerance for the linguistic peculiarities of non-native writers (Ammon 2000), and to improve the quality standards of local journals (Wagner and Wong 2012; Salager-Meyer 2014). Finally, given the important role of research assessment policies, the potential of alternative measures (e.g. Altmetrics) to diminish the disproportionate influence of impact factor is worth investigating.

### **Limitations**

Some caveats regarding the data and results of this study merit consideration. Our results and conclusions concern the particular sample we studied. Although they provide a new approach to the subject as well as relevant data, they should not be considered predictive, nor can they be generalized to the experiences of other researchers whose first language is not English. Attempts to understand the implications of our findings for researchers who work in other contexts and in other countries, including those whose L1 is Spanish, should be undertaken with due caution. Our results must be interpreted within the framework of the research context of Spanish public universities and research institutions, where academics are highly autonomous and enjoy considerable freedom in their research. Nor should our results be extrapolated to different organizational settings where researchers may need to adapt to existing structures, hierarchies and dynamics. Nevertheless, it is worth remembering that the autonomy enjoyed by Spanish researchers at public institutions may be conditioned by external elements related, for instance, with the evaluation and reward system imposed on these researchers by the increasingly widespread influence of evaluation agencies and research policies.

### **Implications**

The choice of language used to communicate research results has become a matter of linguistic, policy and even economic concern. First, our study has implications for applied linguistics and pedagogy because it sheds some light on non-Anglophone researchers' perceived difficulties in writing research articles for publication in English-medium journals. These difficulties have led to increased calls for training in English for Academic Purposes, accredited language services and professional guidance during the writing process in order to ease the acquisition of specific rhetorical and stylistic features of research articles in English (Moreno et al. 2012; Muresan and Pérez-Llantada 2014; Li 2014). However, unless research institutions provide this type of training and editorial support for their researchers, the burden of English will remain a challenge for many research groups because of the limited economic resources at their disposal. Currently in Spain, very few universities and research institutions provide such services for free, so research groups are left to face the cost of external editorial assistance essentially as an additional out-of-pocket expense. This situation may increase inequities in publishing opportunities between large, well-funded groups and small, under-funded groups. Training and editorial services provided by institutions may help not only to reduce the centre-periphery gap (Salager-Meyer 2008) but also to avoid the unfair burden on small groups with limited economic

resources—a limitation not necessarily related with the quality of their research. Finally, it should be remembered that discipline-specific needs are a key factor to consider in designing effective pedagogical resources and editorial assistance (Dudley-Evans and St John 1998: 51). Moreover, researchers' motivations to publish in EAL or in their L1 are related not only with their proficiency in English for Academic Purposes but also with their knowledge of the rhetorical and discourse conventions that characterize their particular academic discipline.

Secondly, our findings have implications for science policy since the choice of language is also related to scientific productivity and visibility, the quality and impact of research, and research assessment policies. These implications are particularly evident in current debates about research assessment criteria. As Kuteeva and Mauranen (2014: 3) state, “the field of assessment and ranking has rapidly found itself amidst heavy turbulence, which may give the linguistic issues a good shake-up along the way”. The future of non-Anglophone languages in academic fields will largely depend on how this debate is settled by policy makers and the scientific community. Prolonged efforts to defend the current research evaluation system may contribute to the persistence of what Tardy (2004: 249) described as a “self-perpetuating cycle in which English becomes increasingly important” as the language of science, at the expense of national languages. But if non-English-speaking countries make changes in their research assessment policies to give greater prominence to knowledge communication in national languages or to increase the rewards for research on local topics, English and national languages for academic purposes may come to coexist in a fairer, more balanced fashion. In fact, as pointed out by Uzuner (2008: 251), the “limited participation of multilingual scholars in global scholarship will impoverish knowledge production”. Thus, promoting multilingualism is a way to favour the existence of different scientific contents, different ways of reporting science, and ultimately a more pluralistic body of science that better reflects the (desirable) heterogeneity of schools of thought, methodologies and analytical approaches. To achieve this aim, some biliterate and multiliterate environments (such as the Nordic countries and Canada) have designed linguistic policies that pursue parallel language use in academic fields (McGrath 2014; Gentil and Séror 2014). However, these efforts have not been as effective as hoped, precisely because of the influence of current research assessment and reward systems. Researchers in this bipolar policy context receive contradictory messages. On the one hand, some linguistic policies favour the parallel use of English along with the national language, and encourage researchers to use their mother tongue to communicate their results. On the other hand, the evaluation criteria used to assess research perpetuate “the performative pressure from journal ranking lists” (Li 2014: 45). This pressure often leads researchers to make the pragmatic decision to publish their results in international indexed journals so as not to jeopardize their professional career. In light of this situation, achieving a truly multilingual academy will require, in the first place, a global solution to the research assessment debate. An additional way to support multilingualism in the academy would be a common linguistic policy in the European Union aimed at achieving global consensus on the importance of preserving national languages as legitimate media for science research communication.

## Future research

As we hypothesized in the introduction, what influences researchers' motivations and their motivational dynamics is the conjunction of their attitudes, beliefs and habits, together with the rules, social uses, communication standards, customs, practices and roles of the research community within their scientific domain. Further research will be needed to

improve our understanding of these scientific communities and the elements that are likely to influence their members' publication habits, patterns and motivations. Some of these elements, considered here in our survey and in previous reports, are seniority, gender, publication experience (López-Navarro et al. 2015), the perceived difficulty of writing different sections of research articles, and L1 researchers' level of proficiency in the use of English for academic purposes (Moreno et al. 2012). Other elements that remain unexplored and should be investigated include (but are not limited to) (a) the use of local languages in scientific dissemination activities, (b) the relationship between choosing EAL for publication purposes and national or international collaboration, (c) attitudes and motivations for using EAL and L1 in the Latin American research context (uncharted territory on this topic), and (d) interactions between different research assessment policies and publication practices.

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### Appendix 1: formulation of the position index (PI)

The PI is formulated as follows (Silva 1997; author's translation into English):

Let  $P_i$  be the proportion of individuals who choose the category  $i$  of the scale (in our case  $i$  can take integer values between 1 and 5). The weighted score  $M$  is calculated as follows:

$$M = \sum_{i=1}^k iP_i$$

Accordingly, PI is defined as follows:

$$PI = \frac{M - 1}{k - 1}$$

### Appendix 2: PROXSCAL procedure for calculating distances among scientific domains

PROXSCAL (proximity scaling) uses multidimensional scaling to find the structure in a set of proximity measures between objects such that the distances between points in the space match the given (dis)similarities as closely as possible (Meulman and Heiser 2010).

Distances are calculated as follows: given the table of averages for the variables (in our case, the ratings of different motivations for publishing in English and Spanish), in each of the groups (in our case each of the domains and languages), a distance matrix was constructed such that cell  $ij$  corresponds to the distance between the averages of groups  $ij$ .

Starting with a table such as the one below (see, for example, Table 5).

|        | Natural and Exact Sciences (NE) | Technological Sciences (TS) | Social Sciences (SS)    | Arts and Humanities (AH) |
|--------|---------------------------------|-----------------------------|-------------------------|--------------------------|
| Item 1 | Average NE <sub>1</sub>         | Average TS <sub>1</sub>     | Average SS <sub>1</sub> | Average AH <sub>1</sub>  |
| Item 2 | Average NE <sub>2</sub>         | Average TS <sub>2</sub>     | Average SS <sub>2</sub> | Average AH <sub>2</sub>  |
| Item n | Average NE <sub>n</sub>         | Average TS <sub>n</sub>     | Average SS <sub>n</sub> | Average AH <sub>n</sub>  |

we converted the information to a matrix with the following structure:

|    | NE             | TS             | SS             | AH             |
|----|----------------|----------------|----------------|----------------|
| NE |                | X <sub>1</sub> | Y <sub>1</sub> | Z <sub>1</sub> |
| TS | X <sub>2</sub> |                | Y <sub>2</sub> | Z <sub>2</sub> |
| SS | X <sub>3</sub> | Y <sub>3</sub> |                | Z <sub>3</sub> |
| AH | X <sub>4</sub> | Y <sub>4</sub> | Z <sub>4</sub> |                |

where each of the values from X<sub>1</sub> to Z<sub>4</sub> are the Euclidean distances, calculated as follows for each domain in each language:

$$X_1 = \left[ (\text{Average NE}_1 - \text{Average TS}_1)^2 + (\text{Average NE}_2 - \text{Average TS}_2)^2 + \dots + (\text{Average NE}_n - \text{Average TS}_n)^2 \right]^{1/2}$$

To make distances between English and Spanish comparable, averages were homogenized through ranks, due to the differences in size among the subsamples (i.e. the number of informants who reported having published in English and in Spanish, and who were therefore asked to assess their motivations for publishing in one language or another). This made it possible to represent assessments of the motivations for publishing in either language in the same plane in a PROXSCAL graph.

### Appendix 3: procedure for the allocation of respondents to a specific scientific domain

The procedure is based on the following assumptions: (a) Researchers belonging to a specific domain have a profile determined by the presence or absence of particular UNESCO codes; (b) Researchers working simultaneously in two scientific areas do not necessarily work 50 % in each; instead they work mainly to a single domain. To resolve draws (i.e. respondents belonging to more than one domain), we developed a model based on the UNESCO codes to predict which domain each researcher belongs to. We started with those who selected UNESCO codes in both Natural and Exact Sciences and in Technological Sciences. Taking into consideration the different UNESCO codes selected by individuals in NE only or in TS only, we developed a model to predict the domain that best fit each respondent’s profile. A logistic regression model was used to estimate the coefficients of the model, using only sample units that belonged to a single domain.



**Table 9** Classification table<sup>a</sup>

| Observed Step 1                    | Predicted                          |     |           |
|------------------------------------|------------------------------------|-----|-----------|
|                                    | Domain: Natural and Exact Sciences |     |           |
|                                    | 0                                  | 1   | % correct |
| Domain: Natural and Exact Sciences |                                    |     |           |
| 0                                  | 111                                | 0   | 100.0     |
| 1                                  | 4                                  | 780 | 99.5      |
| Global percentage                  |                                    |     | 99.6      |

<sup>a</sup> The cut-off value was .500

$$P(Y = \text{Domain1}/\text{Unesco}_{11} \dots \text{Unesco}_{99}) = 1 / (1 + e^{-\sum b_i * \text{Unesco}_i})$$

To estimate the parameters and evaluate the predictive model we used only the sample with no draws and then applied this model to the rest of the sample (i.e. researchers with codes belonging to more than one domain). We used only UNESCO codes with  $\sigma > 0$ . To resolve the logical problems of multiple correlations between the codes, the data matrix was reduced by factor analysis without rotation, as this technique ensures orthogonality of the factors. The predictive capacity of this model is shown in Table 9. The model correctly classified 99.6 % of cases, thus showing optimal predictive capacity.

### Appendix 4: factorial analyses: model summary

See Tables 10, 11, 12, 13 and 14.

**Table 10** Total variance explained

| Component <sup>a</sup> | English             |               |              | Extraction Sums of squared loadings Total | Spanish             |               |              | Extraction Sums of squared loadings Total |
|------------------------|---------------------|---------------|--------------|---|---------------------|---------------|--------------|---|
|                        | Initial eigenvalues |               |              |   | Initial eigenvalues |               |              |   |
|                        | Total               | % of variance | Cumulative % |   | Total               | % of variance | Cumulative % |   |
| 1                      | 4.7                 | 33.4          | 33.4         | 4.7                                       | 6.8                 | 48.7          | 48.7         | 6.8                                       |
| 2                      | 1.6                 | 11.6          | 45.0         | 1.6                                       | 1.1                 | 7.8           | 56.5         | 1.1                                       |
| 3                      | 1.2                 | 8.9           | 53.9         | 1.2                                       | 1.0                 | 7.4           | 63.9         | 1.0                                       |
| 4                      | .97                 | 6.9           | 60.9         | .97                                       | .88                 | 6.3           | 70.1         | .88                                       |
| 5                      | .82                 | 5.8           | 66.7         | .82                                       | .69                 | 4.9           | 75.1         | .69                                       |
| 6                      | .75                 | 5.3           | 72.1         |   | .54                 | 3.9           | 78.9         |   |
| 7                      | .70                 | 5.0           | 77.1         |   | .52                 | 3.7           | 82.6         |   |
| 8                      | .58                 | 4.1           | 81.2         |   | .43                 | 3.0           | 85.7         |   |
| 9                      | .56                 | 4.0           | 85.2         |   | .41                 | 2.9           | 88.6         |   |
| 10                     | .51                 | 3.6           | 88.8         |   | .39                 | 2.8           | 91.4         |   |
| 11                     | .45                 | 3.2           | 92.0         |   | .35                 | 2.5           | 93.9         |   |
| 12                     | .43                 | 3.1           | 95.1         |   | .30                 | 2.1           | 96.1         |   |
| 13                     | .38                 | 2.7           | 97.9         |   | .28                 | 2.0           | 98.1         |   |
| 14                     | .30                 | 2.1           | 100.0        |   | .27                 | 1.9           | 100.0        |   |

<sup>a</sup> Extraction method: principal component analysis

**Table 11** Communalities

|  | Motivations <sup>a</sup> | Initial | Extraction <sup>b</sup> |         |
|--|--------------------------|---------|-------------------------|---------|
|  |                          |         | English                 | Spanish |
|  | IntComm                  | 1       | .73                     | .70     |
|  | LocComm                  | 1       | .91                     | .91     |
|  | Citations                | 1       | .61                     | .70     |
|  | ItlDevl                  | 1       | .45                     | .70     |
|  | PrfProm                  | 1       | .74                     | .75     |
|  | BonPaym                  | 1       | .64                     | .88     |
|  | ResRcgn                  | 1       | .63                     | .75     |
|  | RspInvt                  | 1       | .84                     | .99     |
|  | StiChll                  | 1       | .54                     | .63     |
|  | JouExst                  | 1       | .59                     | .62     |
|  | WrtAbil                  | 1       | .71                     | .73     |
|  | ArtQual                  | 1       | .56                     | .69     |
|  | PubExpr                  | 1       | .67                     | .72     |
|  | WrtImpr                  | 1       | .72                     | .75     |

<sup>a</sup> Legend: see Table 1

<sup>b</sup> Extraction method: principal component analysis. The extraction of a variable indicates the proportion of variance accounted for by each factor extracted

**Table 12** Kaiser–Meyer–Olkin and Bartlett’s test

|  | English | Spanish |
|--|---------|---------|
| Kaiser–Meyer–Olkin measure of sampling adequacy <sup>a</sup> | .87     | .94     |
| Bartlett’s test of sphericity <sup>b</sup>                   |         |         |
| Approx. chi squared  | 5285.1  | 6081.8  |
| df.  | 91      | 91      |
| Sig.   | .000    | .000    |

<sup>a</sup> The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy tests whether partial correlations between variables are sufficiently small. The KMO statistic ranges from 0 to 1. It measures sampling adequacy, which should be >.5 for a satisfactory factor analysis

<sup>b</sup> Bartlett’s test of sphericity tests the null hypothesis that the correlation matrix is an identity matrix. Here, the test shows that in both cases (English and Spanish) there were significant correlations between variables, so the factor model is informative

**Table 13** Correlation matrix for motivations to publish in English<sup>a,b</sup>

| Motivations <sup>c</sup> | 1                  | 2                | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14 |
|--------------------------|--------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 1. IntComm               | 1                  |                  |     |     |     |     |     |     |     |     |     |     |     |    |
| 2. LocComm               | .17                | 1                |     |     |     |     |     |     |     |     |     |     |     |    |
| 3. Citations             | .26                | .13              | 1   |     |     |     |     |     |     |     |     |     |     |    |
| 4. ItlDevl               | .25                | .20              | .38 | 1   |     |     |     |     |     |     |     |     |     |    |
| 5. PrfProm               | .03 <sup>#</sup>   | .09 <sup>*</sup> | .45 | .28 | 1   |     |     |     |     |     |     |     |     |    |
| 6. BonPaym               | -.06 <sup>**</sup> | .12              | .24 | .16 | .38 | 1   |     |     |     |     |     |     |     |    |
| 7. ResRcgn               | .39                | .11              | .38 | .28 | .36 | .16 | 1   |     |     |     |     |     |     |    |
| 8. RspInvnt              | .13                | .16              | .24 | .29 | .19 | .26 | .26 | 1   |     |     |     |     |     |    |
| 9. StiChll               | .17                | .16              | .20 | .43 | .23 | .24 | .24 | .36 | 1   |     |     |     |     |    |
| 10. JouExst              | .09 <sup>*</sup>   | .25              | .20 | .33 | .17 | .27 | .17 | .35 | .37 | 1   |     |     |     |    |
| 11. WrtAbil              | .12                | .18              | .20 | .36 | .19 | .23 | .18 | .32 | .47 | .56 | 1   |     |     |    |
| 12. ArtQual              | .20                | .12              | .19 | .32 | .20 | .19 | .28 | .21 | .41 | .31 | .43 | 1   |     |    |
| 13. PubExpr              | .16                | .18              | .21 | .32 | .19 | .19 | .18 | .29 | .40 | .50 | .59 | .48 | 1   |    |
| 14. WrtImpr              | .09                | .18              | .18 | .38 | .19 | .21 | .15 | .29 | .49 | .52 | .69 | .42 | .61 | 1  |

<sup>a</sup> Sig. (unilateral): all correlations are significant at the .001 level, except \* (.01) \*\* (.05) and # (Not significant)

<sup>b</sup> Determinant = .015. Determinants close to zero indicate that the variables are linearly related, which means that factor analysis is a relevant technique to analyse these variables

<sup>c</sup> Legend: see Table 1

**Table 14** Correlation matrix for motivations to publish in Spanish<sup>a,b</sup>

| Motivations <sup>c</sup> | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14 |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 1. IntComm               | 1   |     |     |     |     |     |     |     |     |     |     |     |     |    |
| 2. LocComm               | .18 | 1   |     |     |     |     |     |     |     |     |     |     |     |    |
| 3. Citations             | .58 | .24 | 1   |     |     |     |     |     |     |     |     |     |     |    |
| 4. ItlDevl               | .57 | .32 | .64 | 1   |     |     |     |     |     |     |     |     |     |    |
| 5. PrfProm               | .54 | .26 | .66 | .60 | 1   |     |     |     |     |     |     |     |     |    |
| 6. BonPaym               | .36 | .15 | .51 | .42 | .54 | 1   |     |     |     |     |     |     |     |    |
| 7. ResRcgn               | .56 | .39 | .56 | .61 | .66 | .38 | 1   |     |     |     |     |     |     |    |
| 8. RspInv                | .15 | .20 | .22 | .23 | .22 | .21 | .24 | 1   |     |     |     |     |     |    |
| 9. StiChll               | .54 | .29 | .48 | .61 | .55 | .44 | .61 | .26 | 1   |     |     |     |     |    |
| 10. JouExst              | .37 | .38 | .37 | .42 | .34 | .27 | .40 | .22 | .47 | 1   |     |     |     |    |
| 11. WrtAbil              | .47 | .28 | .43 | .47 | .43 | .34 | .41 | .17 | .50 | .48 | 1   |     |     |    |
| 12. ArtQual              | .56 | .23 | .50 | .57 | .52 | .39 | .57 | .20 | .60 | .49 | .58 | 1   |     |    |
| 13. PubExpr              | .49 | .28 | .50 | .50 | .49 | .41 | .50 | .20 | .54 | .48 | .64 | .63 | 1   |    |
| 14. WrtImpr              | .48 | .21 | .47 | .46 | .47 | .43 | .42 | .23 | .55 | .46 | .64 | .55 | .66 | 1  |

<sup>a</sup> Sig. (unilateral): all correlations are significant at the .001 level

<sup>b</sup> Determinant = .001

<sup>c</sup> Legend: see Table 1

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## 6. Conclusiones finales

Los objetivos de la presente tesis doctoral se enmarcan dentro del debate actual acerca del uso del inglés como lengua franca en el ámbito científico y las diferentes actitudes que ante este hecho adoptan los investigadores no anglófonos. Los resultados, basados en una muestra de 1.717 investigadores de distintas áreas, aportan nueva información para entender el escenario nacional a través del análisis de las dificultades y motivaciones a la hora de escribir artículos de investigación, desde una perspectiva comparada español-inglés. A través de estos dos elementos clave, se definen los principales rasgos relacionados con las distintas actitudes de los investigadores no anglófonos hacia el uso del inglés y de su lengua materna con fines de publicación, así como sus posibles implicaciones de tipo pedagógico, político y económico. Las siguientes secciones resumen las conclusiones de esta investigación de manera integrada.

### **La desventaja no sólo existe sino que es medible**

Tal y como plantea la primera de nuestras hipótesis, los investigadores españoles perciben una dificultad añadida a la hora de elaborar y publicar artículos en inglés, con respecto a cuando lo hacen en su lengua materna. Los resultados de este estudio confirman los indicios aportados por investigaciones cualitativas previas en las que investigadores no anglófonos de diferentes partes del mundo afirman sentirse en desventaja cuando escriben en inglés con respecto a cuándo lo hacen en su lengua materna (ver Uzuner, 2008 para una revisión; Pérez-Llantada et al., 2011; Li, 2014; Gnutzman y Rabe, 2014). Pero, además, también cuantifican el valor de esa diferencia o dificultad añadida. En este sentido, nuestros datos respaldan y confirman los aportados por Hanauer y Englander (2011), quienes situaban esta diferencia alrededor del 24% en una muestra compuesta por investigadores mexicanos. Sin embargo, nuestra investigación ha ido más allá en la búsqueda por tratar de determinar en qué consiste exactamente esta dificultad percibida a través de la detección de los apartados considerados de mayor complejidad y de las variables que intervienen en dicha percepción. De este modo, ahora sabemos que los apartados que representan mayor esfuerzo para los investigadores españoles cuando escriben en castellano son los mismos que cuando lo hacen en inglés. Sin embargo, como era esperable, en este último caso la dificultad percibida a la hora de redactar cada uno de ellos es significativamente mayor que en el caso de hacerlo en castellano.

### **¿Por qué lo llaman «dificultad» cuando quieren decir «discusión»?**

A medida que hemos ido conociendo las especificidades en torno a la dificultad percibida por los investigadores a la hora de escribir y publicar artículos de investigación en castellano y en inglés, la hipótesis de que ésta pueda deberse a una mera cuestión de competencia en el manejo del idioma se ha ido desdibujando y plagando de matices. Uno de los indicios más concluyentes para descartar dicha premisa lo constituye el hecho de que el grado de dificultad percibida por los científicos experimenta grandes variaciones en

función de las distintas secciones del artículo, independientemente del nivel de inglés del investigador. De este modo, apartados como las conclusiones, la introducción o el marco teórico representan un mayor desafío para los investigadores no anglófonos que otras secciones como la metodología. No obstante, la discusión es, sin duda, el reto más arduo para los investigadores españoles -su redacción en inglés supone un 29% de dificultad añadida con respecto a su redacción en castellano-, resultado que respalda los datos preliminares aportados por Flowerdew (1999) y St. John (1987) a partir de sendos estudios sobre dos pequeñas muestras de investigadores chinos y españoles, respectivamente.

Sin embargo, tal como se plantea en la segunda hipótesis de este trabajo, en esta desigualdad es esperable que operen factores que van más allá de la mera competencia lingüística ya que, a priori, ésta debería afectar a la redacción de todas las secciones por igual. En este sentido, es posible suponer que, dada la similar naturaleza de los apartados que representan un mayor desafío -introducción, marco teórico y sobre todo discusión-, en esta percepción operen también factores de tipo discursivo. Y es que la discusión es probablemente el apartado de mayor complejidad epistémica de un artículo, ya que en él se expresan argumentos más elaborados en los que el autor debe poner en marcha una serie de movimientos retóricos que tienen que ver con la persuasión, la capacidad crítica e interpretativa, el autopoicionamiento y la síntesis, entre otros (Flowerdew, 1999; Swales y Feak, 2004). Es también una de las secciones más abiertas, en el sentido de que dichos movimientos retóricos están menos estandarizados que en otras partes del texto (Holmes, 1997, 2000) lo cual deja más espacio a la creatividad discursiva pero también a la inseguridad del autor.

El hecho de que nuestros resultados muestren que, además de la discusión, apartados de similares características discursivas, como la introducción, sean los que presentan mayor dificultad, avala nuestra hipótesis. No en vano, algunos autores han señalado los parecidos en el tipo de estructura retórica que existen entre ellos (Swales, 1990; Berkenkotter y Huckin, 1995). Del mismo modo, se aprecia una correlación entre las secciones susceptibles de ser redactadas con fórmulas más estandarizadas -métodos, agradecimientos, correspondencia con el editor- y un menor nivel de dificultad percibida. Este hallazgo contrasta con la desigual atención que se ha prestado desde el punto de vista del análisis textual a la discusión, un apartado que tradicionalmente ha ocupado una posición secundaria frente a los estudios sobre la introducción. A pesar de que, según nuestros resultados, esta última también supone un alto grado de dificultad para los investigadores no anglófonos, lo hace en menor medida. Desde aquí nos hacemos eco, por tanto, de las llamadas de atención sobre la necesidad de dedicar más atención a los análisis sobre la discusión y cómo se enfrentan a ella los autores no anglófonos (Holmes, 1997; Peacock, 2002).

### **Experiencia en publicación vs. nivel de competencia lingüística**

Los resultados de nuestro trabajo han permitido, además, contribuir al debate acerca del tipo de variables más influyentes en las actitudes de los investigadores no anglófonos hacia la escritura en inglés. De este modo, se ha determinado la influencia en el

grado de dificultad percibida de dos variables que representan las principales hipótesis barajadas en uno de los debates académicos más populares dentro de este área: la experiencia en publicación y el nivel de competencia en el segundo idioma. Nuestros hallazgos han aportado nuevos datos encaminados a esclarecer esta controversia, matizando los posicionamientos encontrados detrás de cada una de las variables. De manera específica, podemos concluir que mejorar la competencia en el uso específico del inglés para fines académicos es la variable que más influye en la disminución de la dificultad percibida por los investigadores en la escritura de la discusión, muy por delante de la experiencia en publicación, medida a través del número de artículos de investigación publicados como autor principal. Este hallazgo atenuaría la importancia concedida tradicionalmente a la familiaridad con las convenciones disciplinarias de la escritura académica como principal fuente de conflicto para los investigadores no anglófonos (Swales, 2004). Sin embargo, es importante tener en cuenta que el descenso más notable en la dificultad percibida se produce únicamente cuando el científico alcanza un notablemente alto grado de competencia lingüística en el uso del inglés académico (sólo a partir del nivel 4 en una escala de 5). Este hecho podría tener relación con la sensación de desventaja -o estigma (Flowerdew, 2008)- que acompaña a los investigadores no anglófonos durante buena parte de su carrera profesional, ya que se requiere de una estrategia formativa a largo plazo para poder sobreponerse a ella. No obstante, la comunidad académica estudiada reporta un nivel intermedio de competencia percibida en el uso del inglés para fines académicos (3,64 en promedio) por lo que, de manera general, los investigadores españoles se encuentran muy cerca de poder atenuar esta percepción de inferioridad.

Estos resultados dan pie, además, al cuestionamiento de las estrategias formativas de la comunidad científica española. En vista de que las competencias que han resultado jugar un papel fundamental en la disminución de la sensación de desventaja no son aquellas en las que los investigadores se declaran efectivamente más capaces, sería recomendable impulsar nuevos diseños y herramientas específicas conforme a los resultados obtenidos. En concreto, los hallazgos de este estudio demuestran que aumentar la competencia específica en el uso del inglés para fines académicos es más importante que el dominio del inglés general, mientras que nuestra muestra de encuestados declara mejores niveles de competencia en el segundo que en el primero.

No obstante, más allá de factores relacionados con las competencias lingüísticas propias de la comunicación científica, nuestros resultados reconocen la influencia de elementos como la cultura y los procesos de socialización en los que están inmersos los investigadores a la hora de escribir artículos en un segundo idioma.

### **Las necesidades especiales de formación de las Ciencias Sociales**

En este sentido, el área científica resulta una variable fundamental para comprender qué investigadores salen peor parados de este proceso de «anglosajonización» de la ciencia ya que, invariablemente, aquellos que pertenecen al área de las Ciencias Sociales son los que muestran niveles significativamente superiores de dificultad percibida a la hora de redactar todas las apartados de un artículo. Constituyen, por tanto, de acuerdo con nuestros

resultados, una comunidad con necesidades de formación específicas para la escritura de artículos de investigación, por diversos motivos. En primer lugar, porque las convenciones de redacción de dichos artículos y, en particular, de muchos de sus apartados, responden a una tradición que tiene más que ver con las Ciencias Naturales y Experimentales que con su propio área (Holmes, 1997). De hecho, los niveles de dificultad percibidos por los encuestados pertenecientes a estas áreas están estrechamente relacionados, siguiendo una pauta común con valores significativamente inferiores a los de aquellos que pertenecen al área de las Ciencias Sociales. En segundo lugar, el grado de estandarización de las estrategias retóricas de estos últimos es más bajo que el de sus colegas de otras áreas, haciendo que la producción de sus textos sea más compleja y creativa (Holmes, 1997). Por último, la creciente presión por publicar en revistas internacionales -en un primer momento circunscrita al área de las Ciencias Naturales y Experimentales- se está instalando con fuerza también en las Ciencias Sociales, un área donde muchos de sus investigadores estaban acostumbrados a publicar mayoritariamente en su lengua materna y donde, por tanto, las dificultades afloran con mayor intensidad que en otras áreas cuyas pautas de publicación llevan años completamente internacionalizadas (ver Figura 2 en la Introducción).

### **La hipótesis de la transferencia retórica: entre lo lingüístico y lo cultural**

Sin embargo, existen suficientes indicios para afirmar que la dificultad percibida por los investigadores no anglófonos a la hora de redactar algunos apartados específicos del artículo no responde únicamente a las convenciones propias de la disciplina académica -pues la discusión es el apartado que mayor esfuerzo representa para los investigadores de todas las áreas- o al grado de competencia en el uso del idioma -ya que existen grandes variaciones entre los distintos apartados-.

Buena parte de los análisis textuales de corte comparado que se han llevado a cabo sobre los distintos apartados de los artículos dan cuenta de que aquellos más complicados para los autores no anglófonos -introducción y sobre todo discusión- son especialmente proclives a las interferencias causadas por la transferencia retórica (Burgess et al., 2006; Mur Dueñas, 2007; Moreno, 2010). A este respecto, Moreno y Suarez (2008) destacan la ausencia de ciertas convenciones retóricas, típicamente anglosajonas, en la escritura académica de investigadores españoles. En particular, la insuficiente capacidad crítica para evaluar la literatura existente en su campo, contrastar los resultados con estudios previos o posicionar adecuadamente la contribución del estudio (Moreno, 2010). Este trasvase de rasgos culturales de la lengua materna a la escritura en una segunda lengua tiene que ver con las prácticas retóricas en las que los investigadores han sido socializados en la comunidad académica nacional, en la mayor parte de los casos de una manera implícita. Esto hace especialmente complicado detectar las particularidades retóricas locales, de modo que la transferencia se suele producir de manera inconsciente independientemente del grado de competencia en la segunda lengua (Vassileva, 1997) generando importantes obstáculos a la hora de publicar en revistas internacionales. A modo de profecía

autocumplida, este hecho desembocaría a su vez en un aumento de la dificultad percibida así como en una disminución de las posibilidades reales de publicar en inglés (Wood, 2001).

La posibilidad de aplicar la hipótesis de la transferencia retórica a los resultados de este trabajo nos permite examinarlos bajo la perspectiva del fenómeno de hibridación de los discursos académicos en inglés fruto de la proyección de las distintas identidades nacionales (Pérez-Llantada, 2014). En este sentido resulta desaconsejable, a la luz de los numerosos análisis realizados hasta la fecha, seguir hablando de una única variedad del inglés para fines académicos -afín a la estricta norma anglosajona- sino de la existencia de numerosas variantes en función de las peculiaridades de las distintas comunidades científicas locales (Ammon, 2013), entre las cuales la española sería una de ellas. Las implicaciones que conlleva el reconocimiento de este hecho apuntan a la necesidad de aplicar un marco retórico más permisivo que tienda a la pluralidad en lugar de a la estandarización, con el fin de no penalizar el trasvase de rasgos culturales de los investigadores no anglófonos. De este modo, sería recomendable una taxonomización de las distintas variantes (Pérez-Llantada, 2014) a fin de proteger la diversidad retórica en el discurso académico, y en última instancia, la diversidad cultural en general (Mauranen, 1993). No obstante, el papel de los llamados «gatekeepers» -editores, revisores- es fundamental para lograr este reconocimiento, ya que en última instancia son ellos los que tienen un papel crucial a la hora de legitimar estas variedades del inglés resultantes de los procesos de «glocalización» (Pérez-Llantada, 2014) a través de la despenalización de su uso en la evaluación de artículos científicos.

### **Motivaciones de los investigadores para elegir la lengua de publicación**

Junto con la percepción de las dificultades que experimentan al escribir en una segunda lengua, las motivaciones de los investigadores no anglófonos a la hora de elegir la lengua de publicación de sus trabajos constituyen dos de los elementos esenciales para entender su actitud general hacia el uso del inglés para fines académicos.

El marco teórico diseñado en este estudio nos ha permitido estudiar comparativamente las motivaciones de los investigadores a la hora de publicar en inglés y en su lengua materna, estableciendo relaciones entre ellas, detectando dimensiones comunes y explorando la naturaleza de sus diferencias. Esta perspectiva favorece el entendimiento del fenómeno motivacional como un proceso complejo y dinámico en el que subyacen opiniones fragmentadas, permitiendo así que hayan aflorado durante la investigación las contradicciones y ambivalencias típicas de nuestro objeto de estudio (Duszak y Lewkowicz, 2008; Bocanegra-Valle, 2014; Muresan y Pérez-Llantada, 2014).

Los datos obtenidos corroboran la tercera de las hipótesis planteadas en esta tesis doctoral, mostrando que las motivaciones que conducen a la elección de publicar en castellano o en inglés son completamente diferentes. Este hecho había sido apuntado anteriormente en algunos estudios realizados en otros países no anglófonos -Polonia (Duszak y Lewkowicz, 2008), China (Li y Flowerdew, 2009), Portugal (Bennett, 2010) y Alemania (Gnutzmann y Rabe, 2014), entre otros- así como en España (Burgess y Fagan,

2006; Fernandez Polo y Cal Valera, 2009; Ferguson et al., 2011). El presente estudio permite no sólo validar estos indicios sino hacerlo por primera vez con evidencia empírica basada en una muestra de gran tamaño en la que se han incluido todas las áreas de conocimiento y cuya selección ha seguido un procedimiento riguroso (Moreno et al., 2013).

Los estímulos para publicar en inglés se sitúan, por lo general, en el rango de las motivaciones extrínsecas y están relacionadas con aspectos utilitaristas y pragmáticos - especialmente con la maximización de beneficios no económicos como el reconocimiento y la promoción profesional así como la consecución de un mayor número de citas-. Además, existe entre los investigadores que se decantan por esta opción una preocupación fundamental por alcanzar una mayor audiencia a través de la difusión de sus resultados a un público internacional. La única motivación intrínseca relevante para nuestra muestra a la hora de publicar en inglés fue la búsqueda de un mayor desarrollo intelectual a través de los comentarios de editores y revisores, cuyo juicio está especialmente valorado en el plano internacional.

Frente al tipo de factores asociados a la publicación de artículos en inglés - reconocimiento profesional, alcance internacional y desarrollo intelectual- las motivaciones que conducen a los investigadores españoles a elegir su lengua materna son más heterogéneas y tienen un origen más altruista que no está basado únicamente en el reconocimiento profesional. De este modo, están relacionadas fundamentalmente con cuestiones culturales, sociales e ideológicas que apuntan, por ejemplo, a su preocupación por la falta de divulgación a nivel local y por la supervivencia de revistas científicas en español. Por último, dan buena cuenta también de la importancia que para los investigadores españoles tiene su comunidad científica local y nacional, ya que las invitaciones de colaboración de sus redes profesionales son una razón importante para elegir el castellano como lengua de publicación. Sin embargo, esta motivación no actúa con la misma intensidad en el caso del inglés, lo que podría indicar una menor internacionalización de las redes profesionales de los investigadores españoles.

### **Las motivaciones de los investigadores españoles a través de variables individuales y contextuales**

A fin de contrastar la cuarta hipótesis de esta tesis doctoral, se ha llevado a cabo un análisis encaminado a medir la influencia de variables individuales y contextuales en la conformación de los distintos perfiles motivacionales. De manera general, encontramos que las motivaciones de los investigadores para publicar tanto en su lengua materna como en inglés siguen una pauta similar en la que apenas influyen las variables individuales de género, experiencia profesional y experiencia en publicación. La mayor parte de las variaciones detectadas en relación con estas variables fueron debidas únicamente a la diferente intensidad con que los académicos puntuaban las distintas motivaciones, sin que afloraran nuevos perfiles motivacionales en función de ninguna de ellas. En concreto, las mujeres y el personal investigador con menos años de experiencia profesional se muestran significativamente más motivados que el resto de cohortes a la hora de escribir tanto en inglés como en castellano, a pesar de que las razones más importantes que les conducen a

ello son las mismas en todos los subgrupos. Por otra parte, cabe destacar que los investigadores con un mayor número de artículos publicados adquieren un posicionamiento más sólido a la hora de defender los motivos por los que publican en su lengua materna. En el caso de la influencia de la variable género, nuestra investigación aporta datos pioneros, ya que no se han identificado estudios previos acerca de su eventual influencia en las motivaciones de los investigadores a la hora de elegir su lengua de publicación. No siendo así el caso de la experiencia profesional, variable sobre la que se ha discutido ampliamente en la literatura existente. De cualquier modo, estos resultados ponen en cuestión la importancia que autores como Swales (2004) otorgaron a la clasificación *junior* vs. *senior* para entender las distintas actitudes hacia la escritura académica en un segundo idioma y se acercan más a la propuesta de Duszak y Lewkowicz (2008) en la que se reconoce la influencia de esta variable, si bien se advierte de que no responde a una distribución lineal, al encontrarse mediatizada por otros factores.

Por otra parte, en la literatura previa existen suficientes indicios que advierten sobre la necesidad de tener en cuenta, además de las características individuales de los investigadores, determinados factores contextuales (Swales y Leeder, 2012) así como las redes sociales en las que éstos se insertan (Granoveter, 1973) con el fin de explicar sus actitudes y estrategias de comunicación científica. En concreto, cada una de las disciplinas académicas tiene diferentes tradiciones, usos y convenciones que pueden afectar a sus prácticas de difusión del conocimiento (Petersen y Shaw, 2002).

Apoiados en esta hipótesis, se ha comprobado que en nuestra muestra existen, efectivamente, variaciones respecto a la lengua en la que se publican los resultados de su investigación en función del área científica. Sin embargo, estas diferencias se atenúan notablemente en el caso de las motivaciones para publicar en inglés, mientras que se acrecientan en el caso del castellano. Mención aparte requieren los investigadores pertenecientes al área de las Artes y Humanidades, que se desmarcan de la pauta general mostrando un deseo por publicar en la lengua materna significativamente superior al del resto de investigadores y que cuando escriben en inglés lo hacen guiados por un razonamiento muy distinto al de sus colegas de otras áreas, en las que adquieren más importancia las motivaciones intrínsecas y de presión social -a través de invitaciones sugeridas por sus colegas, por ejemplo-. En el resto de áreas científicas las motivaciones para publicar en inglés siguen una pauta prácticamente homogénea, lo cual podría apuntar a una eficaz asimilación de los criterios de evaluación independientemente de las particularidades propias de cada disciplina. Especialmente en las Ciencias Naturales y Exactas y en las Ciencias Tecnológicas, donde se corrobora la estrategia apuntada en algunos trabajos previos en los que los investigadores no anglófonos admitían practicar la estrategia de reservar sus trabajos de mayor calidad para ser publicados en inglés (Li, 2014). De ahí que, en general, donde estos criterios de evaluación ejercen menor presión para publicar en revistas internacionales -como en el caso de algunas disciplinas de las Artes y Humanidades, para las que las agencias de evaluación españolas contemplan criterios particulares-, pierdan relevancia las motivaciones relacionadas con el reconocimiento profesional.

## **Actitudes hacia el uso del inglés y del castellano con fines académicos**

En conclusión, nuestro estudio muestra una actitud general positiva hacia el uso del inglés para la publicación científica, con pautas de motivación muy consistentes que se articulan independientemente de variables individuales y contextuales. Se trata de motivaciones fuertemente arraigadas en los investigadores españoles, que en términos de intensidad puntúan siempre por encima de aquellas referidas a las del uso del castellano. Este hecho se encuentra muy relacionado con los hallazgos a los que han llegado otras investigaciones previas que han asociado esta buena disposición hacia el uso del inglés con un cierto sentimiento de resignación debido a la presión que existe para publicar en revistas internacionales (Ferguson et al., 2011), mientras otros apuntan a una aceptación voluntaria por parte de los investigadores no anglófonos (Pérez-Llantada et al., 2011; Muresan y Pérez-Llantada, 2014). En cualquier caso, es necesario tener en cuenta que una posible pérdida de agencia y control sobre la decisión de la lengua de publicación podría estar ocasionando un conflicto en la identidad profesional entre los miembros de la comunidad científica española, los cuales han disfrutado tradicionalmente de un significativo grado de autonomía y libertad de decisión.

Para apreciar las implicaciones de nuestros resultados es importante señalar que la elección de la lengua en la que se publica no es sólo uno de los aspectos fundamentales del complejo proceso de comunicación científica y construcción de la identidad profesional (Duszak y Lewkowicz, 2008) sino también una cuestión de naturaleza política, ya que la elección de la lengua está estrechamente relacionada con el sistema normativo institucional a través de la evaluación de aspectos como la producción científica, la visibilidad, el impacto y la calidad de la investigación. La preponderancia del inglés en la comunicación científica internacional está sustentada, en parte, en el diseño de las políticas de multitud de sistemas nacionales de ciencia y tecnología que recompensan las publicaciones en inglés en mayor medida que las escritas en la lengua local, como es el caso de España (Jiménez-Contreras et al., 2003; Rodríguez-Navarro, 2009; Osuna et al., 2011; López-Piñeiro y Hicks, 2014; Burgess, 2014; Fernández Esquinas, 2015). Este hecho está íntimamente relacionado con la creciente internacionalización de la enseñanza y la investigación en las universidades y centros de investigación (Preisler, 2005; Pérez-Llantada et al., 2011; Kirkpatrick, 2012).

En consonancia con estos argumentos, los investigadores de nuestra muestra, más allá de diferencias en sus pautas y volumen de publicación, usan el inglés para obtener un mayor reconocimiento profesional y una difusión más amplia de sus trabajos en función de la generación de nuevas actitudes instrumentales de adaptación a los criterios de evaluación científica. Sin embargo, es necesario tener en cuenta que allí donde las agencias de evaluación sobredimensionan la consideración de la publicación en revistas internacionales y el uso de indicadores como el factor de impacto, el resultado puede redundar en una pérdida de agencia de los investigadores no anglófonos, no sólo en relación al lenguaje sino también en relación a su capacidad de elección de líneas de investigación y objetos de estudio. Este hecho puede conllevar, a su vez, efectos no deseados a través del constreñimiento de las agendas de investigación, obligando a los investigadores a ceñirse al estudio de aquellos temas más proclives a suscitar el interés de los lectores internacionales,



en detrimento de líneas de investigación de mayor relevancia en el ámbito nacional o local (Lillis y Curry, 2010; López-Piñeiro y Hicks, 2014).

No obstante, existe también evidencia de una cierta resistencia cultural en las estrategias de publicación de los investigadores no anglófonos (Gotti, 2012:61), incluso de actitudes negativas hacia el uso del inglés derivadas de la presión por publicar en revistas internacionales (Flowerdew y Li, 2009), particularmente detectadas en Humanidades y Ciencias Sociales. Parte de estos investigadores, a quienes Preisler (2005) describe como «los comprometidos», conforman una pequeña pero influyente minoría cuya visión sobre la preeminencia del inglés es más crítica. A pesar de que publican en inglés para satisfacer los criterios de evaluación, su principal interés es la difusión de sus trabajos en la comunidad local, por lo que se muestran preocupados por la pérdida de vocabulario científico y el deterioro de los códigos lingüísticos en ámbitos como la educación universitaria y la investigación en su lengua materna, la creciente marginación de temas de investigación locales o nacionales o el declive de revistas escritas en su lengua materna (Preisler, 2005; Duszak y Lewkowicz, 2008; Uzuner, 2008; Pérez-Llantada et al., 2011; Li, 2014; Bocanegra-Valle, 2014). No en vano, aquellas áreas que tienen por objeto aspectos básicos de la naturaleza son más susceptibles de tener audiencias internacionales debido a la universalidad de sus objetos de estudio, mientras que el conocimiento producido por las Ciencias Sociales y Humanas posee un carácter más local y suele estar sujeto a particularidades culturales (Duszak, 1994; Ferguson, 2007; Bordons y Gómez, 2004) que limitan su potencial interés internacional (Uzuner, 2008).

### **La división funcional de las lenguas**

Nuestros resultados aportan solidez a lo que se ha denominado «división funcional de las lenguas» detectada en diversas partes del mundo no anglófono (Flowerdew y Li, 2009:14). Algunos autores (Bordons y Gómez, 2004; Preisler, 2005; Flowerdew y Li, 2009) proponen reservar el uso de la lengua materna para la audiencia local y el inglés para los lectores internacionales, tratando de encontrar así un punto intermedio que no penalice el uso de ninguna lengua. No obstante, las soluciones no parecen sencillas. En este caso resulta importante tener en cuenta que, entre los investigadores no anglófonos, la detección de estrategias de publicación basadas en el desvío de sus trabajos de mayor relevancia y calidad hacia las revistas internacionales, no parece favorecer un supuesto escenario de equidad. Para que este fuera posible serían necesarias medidas encaminadas a proteger este frágil balance lingüístico y evitar el empobrecimiento de la producción de conocimiento en castellano debido al desprestigio o la desaparición de revistas locales.

En relación con este tema, Ferguson (2013) ha llamado la atención sobre la potencial importancia de las propuestas de política lingüística en el ámbito de la educación universitaria, como las implementadas en la universidad de Oslo, donde se distinguen hasta cuatro áreas de uso -investigación, enseñanza, comunicación científica y administración- con recomendaciones específicas en relación a las lenguas preferentes para cada una de ellas. O las medidas encaminadas al uso paralelo del inglés y la lengua local dentro del ámbito académico puestas en marcha en Suecia y Canadá (McGrath, 2014; Gentil y Séror,

2014). Sin embargo, este esfuerzo no ha sido siempre tan efectivo como sería deseable debido a la influencia del actual modelo de evaluación de la investigación y los sistemas de recompensas institucionales, los cuales han terminado imponiendo sus criterios más allá de las políticas lingüísticas. En este contexto bipolar los investigadores han recibido mensajes contradictorios. Por una parte, estas políticas animaron a los científicos a usar su lengua materna -en paralelo con el inglés- para comunicar los resultados de sus trabajos; pero por otra, los criterios de evaluación que medían la calidad de su investigación perpetuaban la presión por publicar en revistas incluidas en las bases de datos internacionales de referencia. Este hecho ha dado como resultado que en algunas ocasiones los investigadores adopten una decisión pragmática al respecto y continúen publicando sus trabajos en estas últimas revistas para no ver perjudicada su carrera profesional y la difusión internacional de sus trabajos (Mc Grath, 2014; Gentil y Séror, 2014).

Otras propuestas para evitar la desventaja a la que se enfrentan los investigadores no anglófonos inmersos en contextos diglósicos son, por ejemplo, reclamar a los editores y revisores anglófonos una mayor tolerancia hacia el uso de las particularidades lingüísticas de los escritores no nativos (Ammon, 2000, 2013; Pérez- Llantada, 2014), así como mejorar los estándares de calidad de las revistas locales (Wagner y Wong, 2012; Salager-Meyer, 2014). Finalmente, dada la importancia del papel que juegan los criterios de evaluación científica en asuntos tan relevantes como la distribución de recursos, merece la pena alentar la investigación y el estudio de sistemas de medida alternativos (Altmetrics Manifiesto, 2011) o multidimensionales (Rafols et al., 2012) que se complementen con instrumentos cualitativos (Council of Canadian Academies, 2012; Martín, Nightingale y Rafols, 2014). En definitiva, diseñar nuevos criterios cuya aplicación conduzca a una disminución de la desproporcionada influencia de indicadores cuantitativos como el factor de impacto en los sistemas de evaluación. Dicha petición ha sido apoyada por numerosos miembros de la comunidad científica a través de distintos medios, como la Declaración de San Francisco sobre Evaluación de la Investigación (DORA, 2012) y el Manifiesto de Leiden sobre Indicadores de Investigación (Hicks et al., 2015).

## **Implicaciones**

La elección de la lengua utilizada para comunicar los resultados de una investigación puede tener implicaciones de tipo pedagógico, político y económico.

En primer lugar, los resultados de nuestro estudio relacionados con las dificultades percibidas por los investigadores no anglófonos a la hora de escribir artículos en inglés presentan importantes consecuencias pedagógicas dentro del ámbito de la lingüística aplicada. Dichas dificultades han conducido al aumento de la demanda de formación especializada en inglés para fines académicos, de servicios de idiomas acreditados y de asesoramiento profesional durante el proceso de escritura para facilitar la adquisición de las convenciones retóricas y estilísticas específicas de los artículos científicos en inglés (Muresan y Pérez-Llantada, 2014; Li, 2014). Sin embargo, a menos que sean los propios centros de investigación y universidades los que provean de este tipo de formación y asesoramiento editorial a su personal, la desventaja en el uso del inglés para fines

académicos seguirá siendo un escollo para la mayoría de los grupos de investigación, debido al notable coste de estos servicios en comparación con los limitados recursos económicos a su disposición. Si los grupos deben hacer frente al coste de la asistencia editorial externa mediante sus propios fondos, a modo de gasto adicional, esta situación puede además acrecentar las desigualdades entre los grupos grandes y solventes y los pequeños y escasamente financiados. De hecho, en un reciente trabajo sobre el contexto español, Burgess et al. (2014) indican que una de las razones por las que en última instancia algunos investigadores deciden descartar la opción de publicar en inglés -descuidando así su conexión con el «centro»- se debe precisamente a los costes económicos asociados a los servicios profesionales de traducción y revisión y a la escasez de financiación para sufragarlos. Finalmente, debemos recordar que, en cuanto a las necesidades de formación relativas al inglés para fines académicos, atender a aspectos clave como la disciplina científica o la complejidad específica de algunos apartados del artículo -discusión, introducción y respuesta a los revisores- puede ser de gran ayuda tanto en el diseño de nuevos recursos pedagógicos como en la mejora de los servicios de asesoramiento editorial. Una mayor eficiencia en ambos campos puede contribuir a reducir de manera significativa el nivel de dificultad percibida por parte de los investigadores españoles.

En segundo lugar, nuestros resultados tienen implicaciones estrechamente relacionadas con la política científica, en tanto en cuanto la elección de la lengua está necesariamente relacionada con aspectos como la productividad científica, la visibilidad, la calidad y el impacto de la investigación. Estas implicaciones son particularmente evidentes en el complejo debate en torno a los criterios de evaluación científica, un territorio especialmente abonado para discusiones polémicas cuya resolución condicionará a buen seguro el futuro de las lenguas no anglófonas en el ámbito científico (Kuteeva y Mauranen, 2014). En este sentido, es posible que, en el caso de que las posiciones de agentes políticos y comunidad científica se enconen en la defensa del actual modelo de evaluación, este hecho pueda contribuir a perpetuar de manera definitiva lo que Tardy (2004:249) calificó como un «círculo vicioso», en el que el inglés cobra cada vez mayor importancia como lengua de comunicación de la ciencia a expensas de otras lenguas. Sin embargo, en un escenario en el que los países no anglófonos hicieran una revisión exhaustiva de sus políticas de evaluación científica para dar mayor prominencia a la difusión del conocimiento en lenguas locales o aumentar el incentivo para el estudio de cuestiones locales estratégicas, el inglés podría llegar a coexistir de una manera más justa y equilibrada con otras lenguas en su uso para fines académicos. De hecho, teniendo en cuenta que la comunidad académica es esencialmente multilingüe, limitar la participación de investigadores no anglófonos sólo podría redundar en el empobrecimiento de la producción de conocimiento. Mientras que, por su parte, promover el multilingüismo significa favorecer la existencia de diferentes contenidos científicos, diferentes maneras de narrarlos y, en definitiva, de una mejor manera de hacer ciencia en la medida en que ésta es capaz de reflejar la (deseable) heterogeneidad de sus hablantes.



## 7. Recomendaciones en clave de política científica

A la luz de los resultados obtenidos en esta investigación, se proponen a continuación una serie de recomendaciones enfocadas al ámbito de la política científica:

- 1) Dada la constatación empírica de una sensación de desventaja entre los investigadores españoles a la hora de escribir artículos científicos en inglés, se hace especialmente aconsejable que universidades y centros de investigación adopten un papel más relevante en la formación y asesoramiento profesional de su personal académico. En concreto a través de:

- 1.1 La optimización de las herramientas formativas puestas a disposición de los investigadores, que podrían mejorar sustancialmente a través de diseños más concretos y personalizados basados en tres aspectos clave:

- a) Formación específica para el área de las Ciencias Sociales, ya que este grupo es el que mayor dificultad percibe a la hora de enfrentarse a la escritura de artículos científicos en inglés;
- b) Diseño de cursos enfocados al inglés para fines académicos, en lugar de cursos generales de inglés;
- c) Adecuación de la formación en base a los apartados de los artículos científicos que representan un mayor dificultad para los investigadores españoles, con la posibilidad de diseñar talleres monográficos dedicados a aquellos apartados especialmente problemáticos como la discusión o la introducción.

- 1.2 La creación, o el refuerzo en su caso, de unidades de asesoramiento editorial en las universidades y centros de investigación, de tal forma que el personal investigador de ambos organismos tenga acceso a servicios de traducción y revisión de manuscritos sin que suponga un coste extra en la financiación de sus grupos.

- 2) Contribuir al debate nacional e internacional sobre los actuales criterios empleados en la evaluación científica, con el fin de impulsar acuerdos para lograr una mejor representación de la esencia multilingüe de la comunidad científica internacional. En este sentido, los aspectos clave de este debate que deberían guiar las demandas de los países no anglófonos como España son: a) incentivar el uso de las lenguas locales para la divulgación científica, b) impulsar en todas las áreas de conocimiento -especialmente en las Ciencias Sociales y Humanas- la mejora de los estándares de calidad de sus revistas, c) favorecer las políticas editoriales multilingües, d) incentivar el estudio de temas locales y nacionales estratégicos para el desarrollo económico y social, e) diversificar los criterios de evaluación evitando el sobredimensionamiento del factor de impacto y las evaluaciones meramente cuantitativas en favor de las demandas de sistemas de medida alternativos o multidimensionales que se complementen con instrumentos cualitativos.

- 3) Auspiciar un debate a escala europea con el fin de establecer una política lingüística común dirigida a lograr un consenso sobre la importancia de preservar las lenguas nacionales como instrumentos legítimos para la comunicación científica. Del mismo modo que ha sucedido con recientes preocupaciones relacionadas, por ejemplo, con el acceso a la información científica (movimiento Open Access) o los sistemas de evaluación (Declaración de San Francisco y Manifiesto de Leiden), es de esperar que, si la comunidad científica internacional crea el clima de discusión propicio, pueda recogerse la preocupación por la pérdida de visibilidad de las lenguas nacionales en la agenda de futuros programas europeos de investigación.
- 4) Incentivar las investigaciones encaminadas a recoger corpus lingüísticos que reflejen las diferentes particularidades del inglés híbrido utilizado por las diferentes comunidades nacionales de investigadores no anglófonos, con el fin de legitimar su uso en el ámbito científico y ayudar a los revisores a diferenciar entre problemas reales de comunicación debidos a un uso incorrecto del lenguaje y desvíos de la norma anglosajona que no deben ser penalizados en la medida en que no afectan a la comprensión del mensaje.
- 5) Incentivar la presencia de investigadores no anglófonos en los comités editoriales de las revistas científicas, así como entre sus revisores, con el fin de promover una mayor heterogeneidad en términos culturales y lingüísticos que redunde en una mayor tolerancia hacia las distintas particularidades híbridas del inglés para fines académicos. Asimismo, se recomienda tanto a editores como a revisores promover y practicar una mayor tolerancia a la hora de juzgar aspectos lingüísticos y estilísticos de los manuscritos enviados por investigadores no anglófonos.
- 6) Evitar acentuar la condición de país semiperiférico que mantiene España en términos lingüísticos y geopolíticos. La falta de financiación endémica del Sistema Nacional de Ciencia y Tecnología -agravada por el reciente contexto de crisis- podría contribuir a aumentar la brecha centro-periferia a través de la disminución de recursos puestos a disposición del personal investigador. Una política científica multilingüe que abogue por el mantenimiento del castellano como lengua científica así como por nuestra participación en la comunidad científica internacional a través de la publicación en sus distintos idiomas necesita, además de nuevas propuestas, recursos para poder llevarse a cabo.

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## **Anexo metodológico**

Moreno, A. I., Burgess, S., Sachdev, I., López-Navarro, I. y Rey-Rocha, J. (2013). The ENEIDA questionnaire: publication experiences in scientific journals in English and Spanish. Disponible en <http://eneida.unileon.es/eneidaquestionnaire.php>







Spanish Team for Intercultural  
Studies of Academic Discourse

**ENEIDA**

**The ENEIDA Questionnaire:  
Publication Experiences  
in Scientific Journals in English and Spanish**

**Cuestionario ENEIDA:  
Experiencias de Publicación  
en Revistas Científicas en Inglés y en Castellano**



Equipo Nacional de Estudios Interculturales  
sobre el Discurso Académico

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## The ENEIDA Questionnaire: Publication Experiences in Scientific Journals in English and Spanish

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## THE ENEIDA QUESTIONNAIRE

### INTRODUCTION

In recent decades, there has been a growing move towards publication in English-medium journals among multilingual researchers, and a growing demand for materials (Swales and Feak, 2004) and courses in skills relevant to publishing in English for Research Publication Purposes (ERPP) (Moreno, 2011a). Research into academic writing has also flourished worldwide (Swales, 2004), and cross-cultural and intercultural studies of academic discourse across various languages and English have become an area of increasing interest (Moreno, 2010). Despite this, little is known about the training needs vis-à-vis ERPP of writers for whom English is an Additional Language (EAL) (see Cal Varela, Fernández Polo & Rodríguez Juiz, 2005a, 2005b) and how teaching resources might best address their needs (Swales, 2002).

The ENEIDA project set out to partly fill this gap by focusing on a neglected population of EAL writers: Spanish researchers. Its overall aim was «to collect data from multiple interrelated sources so as to pave the way for investigating Spanish researchers' writing difficulties publishing in English-medium international journals from intercultural and cross-cultural perspectives and for carrying out needs analyses of homogeneous groups of Spanish researchers vis-à-vis training in ERPP before designing ERPP courses/resources» (Moreno, 2011b). The project is titled «Rhetorical strategies to get published in international scientific journals from a Spanish-English intercultural perspective (I)» and was conceived as a three-phase project to be carried out by a multidisciplinary team of researchers (Moreno, 2011b).

Phase 1 of the ENEIDA project specifically sought «to create a database of Spanish researchers' difficulties writing research articles for publication purposes in English and in Spanish (including relevant variables affecting writing and learning to write in both languages) and their training needs: the ENEIDA Database» (Moreno, 2011b) by means of a large-scale online survey. In the present document we provide an account of the questionnaire that was designed as the main instrument used in the ENEIDA survey of a population of «Spanish-speaking postdoctoral researchers who have received most of their secondary and pre-doctoral education in Spain and in Spanish» (see Moreno et al., 2012: 163).

### AIMS OF THE ENEIDA SURVEY

The major aim of the ENEIDA survey was to gather information in order to gain a better understanding of the current perceived difficulties and training needs vis-à-vis ERPP of research staff at the five Spanish institutions participating in the project (one research-only institution and four universities in Spain). This involved taking into account relevant variables that might affect writing and learning to write in ERPP, such as the researcher's first language, age, gender, disciplinary field, research qualifications, type of institution where the researcher is employed, competence in English and Spanish for general and research publication purposes, as well as previous publication experience, motivations, attitudes, feelings, and strategies with regard to the writing and publishing of research articles in English-medium scientific journals (see Moreno et al., 2011a).

The survey also aimed to provide a context for future studies of Spanish-English intercultural rhetoric for research publication purposes. This involved asking the participants parallel questions in relation to their experience with writing and publishing research articles in Spanish-medium scientific journals. A further aim of the survey was to locate researchers at the five institutions involved in the project who might be interested in receiving ERPP training and in participating in subsequent phases of the project (see Moreno et al., 2011b).

To collect these data, we designed the ENEIDA questionnaire, a written version of which we provide in Appendixes 1 (English) and 2 (Spanish).

## DESIGN AND VALIDATION METHOD OF THE ENEIDA QUESTIONNAIRE

The questionnaire was designed drawing on previous literature (Cea D'Ancona, 2001; Cohen et al. 2007; De Vaus, 2002; see also Moreno et al., 2011a), our existing knowledge, and information obtained from consultation with experts (see Acknowledgements). In order to achieve adequate construct validity for the items in the questionnaire, a two-step procedure based on respondent debriefing (qualitative approach) and a pre-test survey (quantitative approach) were used. Both the interviews and the pre-test online survey involved a good cross-section which was representative of our population in terms of gender, seniority (junior and senior researchers), institution (CSIC and university) and knowledge area (Natural and Exact Sciences, Technological Sciences, Social Sciences and Arts & Humanities).

For respondent debriefing, we conducted semi-structured face-to-face interviews (1.5 hours long) with a sample of 24 informants to identify or confirm relevant variables for inclusion in the subsequent survey, and to determine the most appropriate register and language for communication with our prospective informants. Then our questionnaire was converted into an online format with the Limeserver application and hosted on a server with password-controlled access. A covering letter was drafted to announce the survey; the letter explained who we are and our project aims, and requested the recipients' cooperation in completing the online questionnaire. Both documents were written originally in Spanish so that they could be read in the L1 of our potential informants.

Phase-1 ENEIDA team members whose institutions participated in the survey were also invited to provide feedback on both documents. After minor revision, the pre-test survey was implemented with the online original version of the questionnaire (i.e. in Spanish) in a selected subsample of 200 informants. These were chosen on the basis of adequate representation criteria in order to trial the instrument technically and to check the clarity of the items, instructions, explanations for excluding participants and layout.

Further details about how the questionnaire was designed are available in Moreno et al. (2011a). A pre-online version of the questionnaire in its original version (i.e. in Spanish) is provided in Appendix 2 below. A translation into English is provided in Appendix 1 for the sake of international readers; inclusion of this Appendix should not be taken to imply that it can readily be used in other contexts without appropriate adaptation.

## QUESTIONNAIRE STRUCTURE

The questionnaire comprises 37 items divided into the following blocks:

1. Personal, professional, demographic, academic and language background;
2. Self-reported level of competence in the use of Spanish (as L1) and English (as L2);
3. Motivations, feelings, views, attitudes toward publishing in English versus Spanish, and preferred academic journals;
4. Past experience and difficulties with publishing research articles;
5. Current strategies for writing research articles for English-medium journals; and
6. Learning strategies for research article writing in these two languages, as well as future needs for ERPP training.

The questionnaire items can be classified into various types (Cea D'Ancona 2001; Cohen et al., 2007; De Vaus 2002) according to:

- Response format:
  - Closed questions: *a*) numerical rating scales (Likert scale, items 10, 11, 13, 17, 18, 19, 21, 24, 25, 27, 29, 30 and 33-37); *b*) semantic differential format (items 20, 22 and 23); *c*) binary choice

formats: nominal dichotomous questions (items 2, 3 and 4), and *d*) multiple choice formats: nominal single answer (items 1, 7, 8, 28 and 31), nominal multiple answer (items 9 and 32), and choice between ordered attitude statements (item 16).

- Open-ended questions: *a*) numerical (items 5, 6, 12 and 26), and *b*) non-numerical (items 14 and 15).
- Non-numerical open-ended questions were also included at the end of closed questions that were considered most engaging (see below) or might invite further comments.
- A non-committal response was included in item 31 to allow for a «don't know» or «no opinion» response.
- Content: *a*) questions about background variables with a potential influence (items 1-12 and 26); *b*) motivations (items 13 and 17); *c*) opinions (items 14, 15, 19, 22, 23 and 37); *d*) intentions (items 16, 21 and 31); *e*) feelings (item 20); *f*) publication experiences (items 12 and 24); *g*) writing difficulties (items 18 and 25); *h*) writing strategies (items 27 and 28); *i*) writing effort and satisfaction (29); *j*) past learning strategies (item 30), and *k*) type of training required (items 32-37).
- Special role: *a*) specific identification questions (items 1-12 and 26); *b*) filters (items 1, 2, 3, 12, 16, 17, 18, 31 and 33), and *c*) engaging questions (e.g., items 19, 20, 21, 22, 23 and 29).

More information about the design of items 9, 10, 12 and 25 is available in Moreno et al. (2012).

## INITIAL IMPLEMENTATION OF THE ENEIDA SURVEY

The original Spanish version of the questionnaire was administered for the first time in Spain to a population of staff with doctorates ( $n = 8794$ ) as a covering letter sent by e-mail followed by two reminders (closing date: 15th December 2010). Details about this initial implementation and descriptive data for most variables are available in Moreno et al. (2011b).

## DISCUSSION

The ENEIDA questionnaire was designed to gather quantifiable data that could be used to establish, in the context of a number of influencing factors, currently perceived difficulties with writing research for publication purposes in English and in Spanish and training needs vis-à-vis ERPP in a sample of research staff members at the five Spanish institutions participating in the ENEIDA project. Together with earlier surveys by Flowerdew (1999), Burgess and Fagan (2006), Duszak and Lewkowicz (2008), Ferguson et al. (2011) and Hanauer and Englander (2011), ours is thus one of the few that tackles the issues of perceived difficulties of EAL researchers in writing for research publication purposes and the disadvantages that writers perceive. However, the design of our survey, along with a number of features, enhance its potential validity and reliability. For instance, like the survey reported by Hanauer and Englander (2011), our instrument makes it possible to explore all the issues from a comparative L1-L2 perspective, thus helping to yield more meaningful results. Furthermore, our use of more refined dependent variables and a much larger number of influencing factors than in previous surveys will help elucidate the factors affecting Spanish researchers' perceived difficulties with writing for research publication purposes in English-medium journals. Nevertheless, our study shares the limitations of all confidential surveys, and the findings will need to be interpreted with due caution.

The information obtained with the ENEIDA questionnaire, the main tool developed and implemented in Phase 1 of the project, is stored in the ENEIDA database (Moreno, 2011b) is being used in a variety of studies, primarily in Applied Linguistics. For instance, various ENEIDA members are performing analyses and comparisons of the specific training needs vis-à-vis ERPP of homogenous groups of researchers in specific disciplinary areas (ENEIDA, in preparation). Some of these results have been used as evidence to support proposals for courses in Writing in English for Publication Purposes to be taught at the institutions involved in the project (e.g., Feak & Moreno, 2013). Results from this database are also being

used to inform the design of multiple-case studies of Spanish researchers' difficulties with writing for research publication purposes (in preparation). Members of ENEIDA are using data from the ENEIDA database to carry out in-depth analyses of the effects of specific factors on ERPP writing by Spanish post-doctoral researchers. For example, Moreno et al. (2012) studied the relative impact of proficiency in English versus publication experience on Spanish researchers' perceived difficulty in writing research articles in English.

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## BIODATA

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## NOTES

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## APPENDIX 1: THE ENEIDA QUESTIONNAIRE (translated from the original version in Spanish)



### **What is the purpose of the questionnaire?**

To better understand current needs and strategies of research staff at the five Spanish institutions involved in the project with regard to the writing and publishing of research articles in scientific journals.

### **What areas do the questions cover?**

Competence in the use of Castilian Spanish and English, researchers' reasons for publishing in either of the two languages, their experiences of publishing in scientific journals and the strategies they use, the training in the writing of research articles they have received in the past, and their wishes in terms of any further training they might receive in the future.

### **To whom is the questionnaire addressed?**

Research staff with doctorates who have received most of their pre-doctoral training and education (secondary and tertiary) in Spain.

### **What is our ultimate goal in this research project?**

To carry out research directed toward the development of computer applications, workshops or seminars on skills for publishing in English in the international scientific journals that are of particular relevance to our informants.

For queries with regard to the objectives of the project, please contact:

Ana I. Moreno (Project Principal Investigator)

Tel. 987 29 10 95

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For queries on completing the questionnaire contact:

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Approximate time it will take to complete the questionnaire: 30 minutes.

We would like to thank you for giving up your time to complete the questionnaire.

We wish to remind you that any personal information will be treated entirely in accordance with *Ley Orgánica* 15/1999, 13 December, regarding the Protection of Personal Information (Official Bulletin of State [*Boletín Oficial de Estado*, BOE] no. 298, 14 December) and the regulations regarding the application of this law, enacted through *Real Decreto* 1720/2007, 21 December (BOE no. 17, 9 January). Any information obtained through the questionnaire will be treated in confidence and the anonymity of all participants will be preserved in any future publications of the results.

### Notes

1. All sections of the text in **red** are instructions that are not visible to the respondents.
2. Text in **green** at the beginning of each block (1-6) of questions (for example, 1. Personal and Professional Information, 2. Competence in the Use of Castilian Spanish and English, etc.) indicates which of the participants should answer these questions regardless of whether the filters determine that the respondent should skip any items. The word «ALL» at the beginning of a block of questions indicates that all participants should respond regardless of whether they skipped any previous items, unless they have completed the questionnaire and received the sign-off and thank-you message.

## 1. PERSONAL AND PROFESSIONAL INFORMATION (ALL)

### 1. What is/are your mother tongue(s)?

Choose the option which fits best.

- Castilian Spanish.
- English.
- Bilingual Castilian Spanish-English.
- Bilingual Castilian Spanish-another language (please specify): \_\_\_\_\_.
- Bilingual English-another language (please specify): \_\_\_\_\_.
- Other languages.

#### **Filters:**

- *Those answering «Castilian Spanish», «Bilingual Castilian Spanish-English» or «Bilingual Castilian Spanish-another language» continue with the questionnaire.*
- *Those answering «English», «Bilingual English-another language» or «Other languages» do not continue and see the following message:*

The current project is concerned with the publication experiences of research personnel who have Castilian Spanish as one of their mother tongues<sup>1</sup>. Since this is not your particular case, you do not need continue responding to the questionnaire.

THANK-YOU FOR TAKING PART.

#### ADDITIONAL INFORMATION

The current questionnaire forms part of a project involving a series of intercultural studies of academic discourse in Spanish (Castilian) and English. We hope that our results will be of special relevance to researchers who normally use Castilian Spanish in academic contexts but who also need to publish their findings in English. The methodology we use in our analysis includes the comparison of academic texts written for publication purposes in English and Spanish: Castilian Spanish as a first language and English both as a first and as a foreign language. For the purposes of research design, it was necessary to control for a number of variables that might affect the findings in relation to the use of English as a foreign language, such as the informants' mother tongue and the educational context in which they received their training, among others.

The contexts in which we aim to apply our research findings and the fact that certain linguistic situations could not be covered required us to limit the study population to those Spanish PhD

<sup>1</sup> Although strictly speaking one can only have one mother tongue, we feel it is appropriate to provide this information in these terms in order to take bilingual respondents into account.

holders who have Castilian Spanish as one-of their mother tongues and who have received a large part of their pre-doctoral training in Spain and in Castilian Spanish. The reasons for excluding other PhD holders who do not meet these conditions are basically: 1) we did not wish these individuals to complete the questionnaire if their responses could not be taken into account, and 2) we did not wish them to respond to questions of no relevance to them.

However, your responses on the first few items are of value in contextualizing the research and may provide a starting point for other research groups concerned with these particular linguistic situations. If you feel that the findings of our study may be of relevance to you, please provide us with an email address. We will be glad to send you our results when they become available.

Thank-you again for your willingness to take part and your interest in our project.

Please feel free to suggest any improvements.

**2. Where did you receive most of your pre-doctoral (secondary and tertiary) education and training?**

*Choose one of the options below.*

- Spain.
- Another country/Other countries:  
 (Please specify) \_\_\_\_\_.  
 (Please specify) \_\_\_\_\_.

**3. Was most of your pre-doctoral (secondary and tertiary) education and training received in Spanish?**

*Choose one of the options below.*

- Yes.
- No.

**Filter:**

- *If the response is not Q. 2 = «Spain» and Q. 3 = «Yes», the participant answers no further questions and sees the following message:*

The current questionnaire forms part of a project involving a series of intercultural studies of academic discourse in Spanish (Castilian) and English. We hope that our results will be of special relevance to researchers who normally use Castilian Spanish in academic contexts but who also need to publish their findings in English. The methodology we use in our analysis includes the comparison of academic texts written for publication purposes in English and Spanish: Castilian Spanish as a first language and English both as a first and as a foreign language. For the purposes of research design, it was necessary to control for a number of variables that might affect the findings in relation to the use of English as a foreign language, such as the informants' mother tongue and the educational context in which they received their training, among others.

The contexts in which we aim to apply our research findings and the fact that certain linguistic situations could not be covered required us to limit the study population to those Spanish PhD holders who have Castilian Spanish as one of their mother tongues and who have received a large part of their pre-doctoral training in Spain and in Castilian Spanish. The reasons for excluding other PhD holders who do not meet these conditions are basically: 1) we did not wish these individuals to complete the questionnaire if their responses could not be taken into account, and 2) we did not wish them to respond to questions of no relevance to them.

However, your responses on the first few items are of value in contextualizing the research and may provide a starting point for other research groups concerned with these particular linguistic situations. If you feel that the findings of our study may be of relevance to you, please provide us with an email address. We will be glad to send you our results when they become available.

Thank-you again for your willingness to take part and your interest in our project.

Please feel free to suggest any improvements.

**4. Gender:**

*Choose one of the options below.*

- Female.
- Male.

**5. Year of birth:** \_\_\_\_\_

**6. Year in which you completed your PhD:** \_\_\_\_\_

**7. Employing institution:** \_\_\_\_\_

*Scroll-down menu with the following options: CSIC, Universidad de La Laguna, Universidad de León, Universidad de Zaragoza, Universitat Jaume I*

**8. Professional category:** \_\_\_\_\_

Scroll-down menus with the following according to whether the response to Q. 6 is the name of a university or the CSIC:

**a) CSIC (the Spanish Council for Scientific Research)**

*Profesor de Investigación (Research Professor).*

*Investigador Científico (Research Scientist).*

*Científico titular (Tenured Scientist).*

*Investigador Titular de OPI (Tenured Scientist with a Public Research Body).*

*Investigador Doctor Contratado (Non-tenured PhD-holding Researcher).*

*Other (please specify):* \_\_\_\_\_

**b) University**

*Catedrático de Universidad (Full Professor – University).*

*Profesor Titular de Universidad (Tenured Lecturer-University).*

*Catedrático de Escuela Universitaria (Full Professor-University School).*

*Profesor Titular de Escuela Universitaria (Tenured Lecturer – University School).*

*Profesor Contratado Doctor (Non-tenured PhD-holding Lecturer).*

*Profesor Colaborador (Lecturer).*

*Profesor Asociado (Adjunct Lecturer).*

*Profesor Ayudante Doctor (Assistant PhD-holding lecturer).*

*Profesor Ayudante (Assistant Lecturer).*

*Profesor Colaborador Doctor (PhD-holding Lecturer).*

*Profesor Ayudante de Facultad (Assistant Lecturer – University).*

*Profesor Ayudante de Escuela Universitaria (Assistant Lecturer – University School).*

*Profesor Visitante (Visiting Professor).*

*Titulado Superior Investigador (Researcher with a higher degree).*

*Titulado Superior (Higher Degree Holder).*

*Titulado Grado Medio (Intermediate Degree Holder).*

*Técnico Especialista de Laboratorio/Oficio (Laboratory/Administrative Specialist Technician).*

*Other (please specify):* \_\_\_\_\_

**9. a) What is your research field?**

Please indicate this using one or more of the UNESCO codes in the scroll-down menu. Choose the code or codes that best fit your research area.

**Instructions:**

Click on the text box below to open the scroll-down menu.

*Progressive scroll-down menu (six-digit UNESCO codes)*

*Present the progressive scroll-down menu which shows two-, four- and six-digit UNESCO codes, respectively.*

- b) If you know your UNESCO code or have difficulty with the scroll-down menu in question 9, please type your code into the box below. If you wish, you may consult the list of codes here [[pdf. file with codes](#)].**

**Instructions:**

Type in your six-digit UNESCO code (type in as many digits as you need to accurately describe your research area). Separate the codes with a comma.

## 2. COMPETENCE IN THE USE OF SPANISH AND ENGLISH (ALL)

### 10. What is your level of competence in the use of Spanish and English for general purposes?

Please use the following scale:  
 1 = very low; 2 = low; 3 = medium; 4 = high; 5 = very high

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Listening.<br><i>E.g.: Understanding TV and radio programmes.</i>                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Speaking.<br><i>E.g.: Describing events, giving instructions.</i>                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Spoken interaction.<br><i>E.g.: Discussing topics of general interest.</i>                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reading.<br><i>E.g.: Reading newspapers and popular science magazines.</i>                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Writing.<br><i>E.g.: Writing short stories, personal letters and letters of complaint.</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 11. What is your level of competence in the use of Spanish and English for academic purposes?

Please use the following scale:  
 1 = very low; 2 = low; 3 = medium; 4 = high; 5 = very high

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Listening.<br><i>E.g.: Understanding lectures.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Speaking.<br><i>E.g.: Giving papers at conferences.</i>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Spoken interaction.<br><i>E.g.: Asking and responding to questions at a conference.</i>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reading.<br><i>E.g.: Reading articles about my research field.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Writing.<br><i>E.g.: Writing research articles and book chapters.<br/>E.g.: Corresponding with editors and peer reviewers.</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



### 3. LINGUISTIC OPTIONS WHEN PUBLISHING RESEARCH ARTICLES (ALL)

12. Please indicate how many scientific articles you have published as corresponding author in each language over the last ten years.

|   | NUMBER OF ARTICLES |
|---|--------------------|
| A) Spanish  |                    |
| B) English  |                    |
| C) Other languages:<br>(Please specify) _____<br>(Please specify) _____<br>(Please specify) _____ |                    |

*Respondents must provide a number for A and B. If they do not and then try to continue to the next question, the following message appears:*

*«If you wish to continue to the next question you must indicate the number of research articles you have published in Spanish and English. If you have no publishing experience in one or both of these languages, indicate this by typing a zero in the box.»*

*Filter: (the filter is not affected by the presence or absence of a response to C or by the number of articles reported in these boxes.)*

- If a respondent answers  $A = 0$  and  $B = 0$ , they answer no further questions and the following message appears:*

*«The current project principally concerns research personnel publishing research articles in scientific journals in Castilian Spanish and English. Because you have not published research articles in either of these languages, it is not necessary for you to answer the remaining questions. THANK YOU FOR TAKING PART. Please feel free to suggest any improvements.»*

- If  $A > 0$  and  $B > 0$ , the respondent goes to the next item in this block and continues to Q. 26. Questions 16, 17 and 18 are skipped.*
- If  $A > 0$  and  $B = 0$  or vice versa, respondents complete the rest of the block except as directed according to the filter in Q. 16, which affects only Q. 17 and Q. 18, and all respondents go to Q. 19. N.B.: In questions 13, 14, 15, 16, 20, 24 and 25 the options «in Castilian Spanish» and «in English» appear depending on the value entered for Q. 12. If  $A = 0$ , only the English column appears without the column for Castilian Spanish, and vice versa. In the rest of the questions (Q. 19, Q. 21, Q. 22, Q. 23 and Q. 26) all respondents are asked to provide answers for both columns regardless of the values they entered for Q. 12).*

**13.** When you decide to publish a research article in a scientific journal, to what extent do the following factors influence your decision to publish in Spanish or in English?

*Please use the following scale:*  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot

|   | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| My desire to communicate the results of my research to the international scientific community.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to communicate the results of my research to the local community.                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to get cited more frequently.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to develop intellectually (as a result of editors' and peer reviewers' comments).         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to meet the requirements for professional promotion.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to increase my chances of receiving a bonus payment.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire for my research work to be recognised.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to respond to a request or invitation from an institution, association or publisher, etc. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire for stimulating challenges.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire for the continued existence of scientific journals in this language.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My assessment of my ability to write up the results of my research in this language.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My assessment of the quality of my article.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My experience publishing in this language.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My desire to improve my writing ability in this language.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other motives:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- 14.** Please provide the titles of up to four scientific journals you regard as most suitable for the publication of your research in English.

*Leave this question blank if you know of no such journals.*

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.

- 15.** Please provide the titles of up to four scientific journals you regard as most suitable for the publication of your research in Spanish.

*Leave this question blank if you know of no such journals.*

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.

- 16.** Have you ever considered publishing research articles as the corresponding author in Spanish or in English?

*(This question is only for those who indicate that they have published either in English or in Spanish but not in both languages in response to Q. 12).*

No, I've never considered it.

*Filter: Respondents go to Q. 17, skip Q. 18 and continue from Q. 19 to the end of Block 4.*

Yes, I've considered it but decided against it.

*Filter: Respondents go to Q. 17, skip Q. 18 and continue from Q. 19 to the end of Block 4.*

Yes, I've tried but I haven't been successful so far.

*Filter: Respondents go to Q. 18 and continue to the end of Block 4.*

Other:

*Filter: Respondents go to Q. 19 and continue to the end of Block 4.*

(Please specify) \_\_\_\_\_.

(Please specify) \_\_\_\_\_.

(Please specify) \_\_\_\_\_.

**Comments**

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**17.** To what extent have the following factors led you, as corresponding author, not to consider or to decide against publishing research articles in journals in Spanish or in English?

Please use the following scale:  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot;  
 N/A = not applicable to my situation

*Filter:*

- Regardless of the answers provided, respondents go to Q. 19 and continue to the end of block 4.

|   | SPANISH               |                       |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| There are no prestigious journals in my field in this language.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| There is already another person in my group who is responsible for writing the articles.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I think my writing ability in this language is below the standard the journals require.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I do not think I know enough about the writing conventions expected by these journals to report my research.<br><i>For example, putting my research into a wider context, clearly expressing my contribution to the field, making sure my conclusions fit my objectives, etc.</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I don't think these journals will consider my results sufficiently interesting.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It would take up too much of my time.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It would be too much of an effort for me.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It would not offer me the benefits I seek.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It does not seem to me to be a stimulating task.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have difficulty finding translators familiar with my research field.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| I have difficulty finding authors' editors familiar with my research field.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Translations involve increased costs for which I do not have funding.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Authors' editing involves increased costs for which I do not have funding.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other factors:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**18.** To what extent have the following factors prevented you as corresponding author from publishing research articles in journals in Spanish or in English?

*Please use the following scale:*  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot;  
 N/A = not applicable to my situation

*Filter:*

- *Regardless of the answers provided, respondents go to Q. 19 and continue to the end of block 4.*

|  | SPANISH               |                       |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| Not writing on a topic that fits the content of the journal to which I submitted the article.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not offering results of sufficient interest to the readers of the journal.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Presumed flaws in certain areas of the content of the research.<br>(E.g., design, methods, use of statistical tests, etc.).  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not following the writing conventions expected by the journal when reporting my research.<br>(E.g., putting my research into a wider context, clearly expressing my contribution to field, making sure my conclusions fit my objectives etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Features of my writing in Spanish.<br>(E.g., overly-complicated ideas or paragraphs; grammatical, stylistic or vocabulary errors).<br><i>(This applies only to those who have not yet succeeded in publishing in Castilian Spanish: Q. 12 (Castilian Spanish) = 0 and Q. 16 = Yes, I have tried but I haven't been successful so far.)</i>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Features of my writing in English.<br>(E.g., excessively long phrases, overly-complicated ideas or paragraphs, grammatical, stylistic or vocabulary errors).<br><i>This applies only to those who have not yet succeeded in publishing in English: Q. 12 (English = 0 and Q. 16 = Yes, I have tried but I haven't been successful so far.)</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Not following the journal's instructions for authors regarding manuscript style.<br>(E.g., word limits, format of tables, figures, pages, citations, bibliography, vocabulary, etc.).  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other:<br>(Please specify) _____<br>(Please specify) _____<br>(Please specify) _____   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**19.** To what extent do you think that Spanish researchers in your field should publish their research results in Spanish or in English?

Please use the following scale:  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot

| SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Comments

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**20.** How do you feel when you write up the results of your research for publication in journals in Castilian Spanish or in English?

*Tick the box that most closely corresponds to your feelings according to the scale.*

| SPANISH              |                       |                       |                       |                       |                       |                       |                         |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| VERY                 | FAIRLY                | A LITTLE              | NEUTRAL               | A LITTLE              | FAIRLY                | VERY                  |                         |
| Motivated            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unmotivated             |
| Sure of myself       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unsure of myself        |
| Capable              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Limited                 |
| Loyal to my language | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Disloyal to my language |
| Free to act          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Forced to act           |

| ENGLISH              |                       |                       |                       |                       |                       |                       |                         |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| VERY                 | FAIRLY                | A LITTLE              | NEUTRAL               | A LITTLE              | FAIRLY                | VERY                  |                         |
| Motivated            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unmotivated             |
| Sure of myself       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unsure of myself        |
| Capable              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Limited                 |
| Loyal to my language | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Disloyal to my language |
| Free to act          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Forced to act           |

Comments

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**21. How likely is it that you will write your next article for publication in a scientific journal in Spanish or English?**

*Please use the following scale:*  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot

| SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Comments**

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**22. To what extent do you feel that publishing the results of research in your field in Spanish or English helps or hinders the following?**

| PUBLISHING IN SPANISH...  |                       |                       |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| HELPS   | A LOT                 | QUITE A LOT           | A LITTLE              | NEUTRAL               | A LITTLE              | QUITE A LOT           | HINDERS               |
| Communicating the results of Spanish research internationally.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The participation of Spanish researchers in international networks. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The survival of scientific journals in this language.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The quality of Spanish research.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Improved writing practices for research articles in this language.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The visibility of Spanish research.                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The application of the results of Spanish research.                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The advancement of global scientific knowledge in my field.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Research on topics of international concern.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Research on topics of local concern.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The productivity of Spanish researchers.                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The development of academic language in Spanish.                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|   | PUBLISHING IN ENGLISH... |                       |                       |                       |                       |                       |                       |                       |         |
|---|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
|   | HHELPS                   | A LOT                 | QUITE A LOT           | A LITTLE              | NEUTRAL               | A LITTLE              | QUITE A LOT           | A LOT                 | HINDERS |
| Communicating the results of Spanish research internationally.      |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The participation of Spanish researchers in international networks. |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The survival of scientific journals in this language.               |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The quality of Spanish research.                                    |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| Improved writing practices for research articles in this language.  |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The visibility of Spanish research.                                 |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The application of the results of Spanish research.                 |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The advancement of global scientific knowledge in my field.         |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| Research on topics of international concern.                        |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| Research on topics of local concern.                                |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The productivity of Spanish researchers.                            |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |
| The development of academic language in Spanish.                    |                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |         |

**Comments**

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**23.** How do you think having Spanish as a mother tongue has affected the way in which your manuscripts are evaluated by scientific journals in Spanish or in English?

Only for those who chose «Castilian Spanish» in Q. 1:

- If Q. 12 = Castilian Spanish > 0 and Q. 16 (Consider publishing in English) = «No, I've never considered it» or «I've considered it but have then decided against it» then the «In journals in Spanish» option appears.
- If Q. 12 = Castilian Spanish > 0 and Q. 16 (Consider publishing in English) = «Yes, I've never considered it, but I haven't been successful so far» then the «In journals in Spanish» and «In journals in English» options both appear.
- If Q. 12 = English > 0 and Q. 16 (Consider publishing in Castilian Spanish) = «No, I've never considered it» or «I've considered it but have then decided against it» then the «In journals in English» option appears.
- If Q. 12 = English > 0 and Q. 16 (Consider publishing in Castilian Spanish) = «Yes, I've never considered it, but I haven't been successful so far» then the «In journals in Spanish» and «In journals in English» options both appear.

|  |  | IN JOURNALS IN SPANISH |                       |                       |                       |                       |                       |                       |  |  |
|--|--|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
|  |  | VERY                   | QUITE                 | A LITTLE              | NEUTRAL               | A LITTLE              | QUITE                 | VERY                  |  |  |
| In general the evaluation of my manuscripts has been IMPARTIAL |  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | In general the evaluation of my manuscripts has been PARTIAL |  |
|  | In general I have felt that I was being treated FAVOURABLY | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | In general I have felt that I was being treated UNFAVOURABLY |  |

|  |  | IN JOURNALS IN ENGLISH |                       |                       |                       |                       |                       |                       |  |  |
|--|--|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
|  |  | VERY                   | QUITE                 | A LITTLE              | NEUTRAL               | A LITTLE              | QUITE                 | VERY                  |  |  |
| In general the evaluation of my manuscripts has been IMPARTIAL |  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | In general the evaluation of my manuscripts has been PARTIAL |  |
|  | In general I have felt that I was being treated FAVOURABLY | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | In general I have felt that I was being treated UNFAVOURABLY |  |

**Comments**

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## 4. EXPERIENCE WITH PUBLISHING RESEARCH ARTICLES (ALL)

24. Please think about the articles that you have submitted to scientific journals as corresponding author over the last ten years. How often have the following occurred?

Please use the following scale:  
 1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = very often

|   | JOURNALS IN SPANISH   |                       |                       |                       |                       | JOURNALS IN ENGLISH   |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| My articles <b>have been accepted</b> with <b>hardly any changes</b> .  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My articles <b>have been accepted provided that I:</b>  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Make changes to the content of the study.<br>(E.g., design, methods, use of statistical tests, etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| More closely reflect the writing conventions expected by the journal in which I have chosen to report my research.<br>(E.g., putting my research into a wider theoretical context, appropriately reviewing the literature, clearly expressing my contribution to the field, making sure my conclusions fit my objectives, etc.).    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Revise some features of the writing.<br>(E.g., sentence length, complicated ideas or paragraphs, grammatical, stylistic or vocabulary errors, etc.).  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Follow the journal's instructions for style more closely.<br>(E.g., tables, figures, page layout, fonts, etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My articles <b>have been rejected</b> initially because of:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Presumed flaws in certain areas of the content of the research.<br>(E.g., design, methods, use of statistical tests, etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My not having reflected the writing conventions expected by the journal in which I have chosen to report my research.<br>(E.g., putting my research into a wider theoretical context, appropriately reviewing the literature, clearly expressing my contribution to the field, making sure my conclusions fit my objectives, etc.). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Features of the writing.<br>(E.g., sentence length, complicated ideas or paragraphs, grammatical, stylistic or vocabulary errors, etc.).  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My not having followed the journal's instructions for style.<br>(E.g., tables, figures, page layout, fonts, etc.).  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other problems:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**25.** Indicate how much difficulty you experience in writing the following sections of research articles or the documentation involved in their publication in Spanish and in English.

*Please use the following scale:*  
 1 = none; 2 = a little; 3 = an average amount; 4 = quite a lot; 5 = a lot;  
 N/A = not applicable to the type of articles I write

|   | IN SPANISH            |                       |                       |                       |                       |                       | IN ENGLISH            |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| The abstract.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The introduction.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The theoretical background or conceptual framework.                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The materials and methods.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The results.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The discussion.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other sections.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The conclusions.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The acknowledgements.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The cover letter that accompanies the articles when it is submitted to the journal. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The response to peer reviewers' comments.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The correspondence with the editor during the evaluation process.                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**26.** Have you been a peer reviewer for a scientific journal in the last ten years?  
 (Please indicate how many journals you have reviewed for).

| SPANISH | ENGLISH |
|---------|---------|
|         |         |

## 5. CURRENT WRITING STRATEGIES FOR PUBLICATION IN SCIENTIFIC JOURNALS IN ENGLISH

*(Only those who indicated English > 0 in Q. 12)*

**From this point on, we will be focussing entirely on your experience with articles written in English.**

- 27.** How familiar are you with the following before you submit an article to a scientific journal in English as corresponding author?

*Please use the following scale:*

*1 = not at all; 2 = a little; 3 = to an average extent; 4 = fairly; 5 = a lot*

|  | 1                     | 2                     | 3                     | 4                     | 5                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| The topics and scope of the journal.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The writing conventions expected by the journal.<br>(E.g., putting my research into a wider theoretical context, appropriately reviewing the literature, clearly expressing my contribution to the field, making sure my conclusions fit my objectives, etc.). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The features of academic writing specific to the journal.<br>(E.g., typical sentence length, ways of expressing ideas clearly, appropriate style, how to organize paragraphs, grammar and vocabulary, etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The journal's instructions for style.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The editorial process the journal follows.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- 28.** Which of the following writing strategies have you used most frequently in the case of the articles you have published as corresponding author?

Choose one of the following options.

**I write in English and...**

- submit it without any further revision.

**I write in English and then...**

- a native speaker of English who is familiar with my research field edits my paper.  
 a native speaker of English who is not familiar with my research field edits my paper.  
 a non-native speaker of English who is familiar with my research field edits my paper.  
 a non-native speaker of English who is not familiar with my research field edits my paper.

**I write partly in English and partly in Spanish and then...**

- a native speaker of English who is familiar with my research field translates whatever is necessary.
- a native speaker of English who is not familiar with my research field translates whatever is necessary.
- a non-native speaker of English who is familiar with my research field translates whatever is necessary.
- a non-native speaker of English who is not familiar with my research field translates whatever is necessary.

**I write in Spanish and then...**

- a native speaker of English who is familiar with my research field translates my paper.
- a native speaker of English who is not familiar with my research field translates my paper.
- a non-native speaker of English who is familiar with my research field translates my paper.
- a non-native speaker of English who is very familiar with my research field translates my paper.

**Other:**

(Please specify) \_\_\_\_\_  
 (Please specify) \_\_\_\_\_  
 (Please specify) \_\_\_\_\_

**29. Please indicate how much effort you usually have to put into this strategy and how satisfied you are with the outcome.**

*Please use the following scale:  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot*

|                     |                       |                       |                       |                       |                       |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <b>Effort</b>       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <b>Satisfaction</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Comments**

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## 6. TRAINING IN RESEARCH ARTICLE WRITING (ALL)

30. To what extent have the following strategies helped you learn to write research articles in Spanish and in English?

Please use the following scale:

1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot;  
N/A = not applicable to my learning experience

|   | SPANISH               |                       |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| Doing graduate courses that teach research article writing.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving advice on my writing from my master's thesis, doctoral thesis or post-doc supervisor.       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Attending practical workshops or seminars on academic writing.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Consulting manuals and other sources on how to write research articles.                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Actually writing.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Paying attention to the way others write.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving comments from editors and peer reviewers about my texts.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving comments from authors' editors about my texts.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving comments from translators about my texts.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving suggestions about the way I write from members of my research group.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving suggestions about the way I write from colleagues who are not members of my research group. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Looking up words and expressions on the Internet.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Receiving advice while on research visits abroad.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**31.** Do you plan to continue your training in the writing of research articles in order to submit them to scientific journals in Spanish and in English?

- | Spanish                                       | English                                       |
|---|---|
| <input type="radio"/> Yes.                    | <input type="radio"/> Yes.                    |
| <input type="radio"/> No.                     | <input type="radio"/> No.                     |
| <input type="radio"/> Perhaps.                | <input type="radio"/> Perhaps.                |
| <input type="radio"/> Don't know/No response. | <input type="radio"/> Don't know/No response. |

**Filter:**

- Those who respond «yes» or «perhaps» for Castilian Spanish alone will only see the column for Castilian Spanish in subsequent items in the rest of the questionnaire.
- Those who respond «yes» or «perhaps» for English alone will only see the column for English in subsequent items in the rest of the questionnaire.
- Those who respond «yes» or «perhaps» for both Castilian Spanish and English will see both columns in subsequent items in the rest of the questionnaire.
- Those who respond «no» or «don't know/no response» for both English and Castilian Spanish will see the final sign-off and thank-you message on the last page.

**32.** This training in how to write research articles should familiarize you with...

Select all options that you feel are appropriate.

|   | SPANISH               | ENGLISH               |
|---|-----------------------|-----------------------|
| Academic writing for publishing purposes in general.  | <input type="radio"/> | <input type="radio"/> |
| Academic writing for publishing purposes in fields related to my research.                        | <input type="radio"/> | <input type="radio"/> |
| Academic writing for the journals in which I intend to publish.                                   | <input type="radio"/> | <input type="radio"/> |
| Any aspect of academic writing.   | <input type="radio"/> | <input type="radio"/> |
| The problems that Spanish authors typically have when writing research articles.                  | <input type="radio"/> | <input type="radio"/> |
| How to write each section of a research article (abstract, introduction, methods, results, etc.). | <input type="radio"/> | <input type="radio"/> |
| The most efficient order in which the different sections should be written.                       | <input type="radio"/> | <input type="radio"/> |
| Others:   |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> |

**33.** Based on your current interests, how much emphasis do you think should be placed on different areas of this training?

*Please use the following scale:*  
 1 = none; 2 = a little; 3 = an average amount; 4 = quite a lot; 5 = a lot

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| A better understanding of the review process in scientific journals: the role of the editor, the peer reviewers, etc.                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A better understanding of <i>what</i> is usually reported about the research in scientific journals.                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Learning how to better «tell my research story» in accordance with the journal’s discourse and writing conventions.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A better understanding of the similarities and differences in research writing for publication in Spanish versus international journals. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other areas:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

*Filter:*

- If learning how to better “tell my research story” is scored between 2 and 5, respondents go to the next question. If it is scored 1, they skip to Q. 35.



**34.** With regard to how to «tell your research story», how much emphasis do you think should be placed in training sessions on the following aspects of research article writing in Spanish and in English?

*Please use the following scale:*  
 1 = none; 2 = a little; 3 = an average amount; 4 = quite a lot; 5 = a lot

|   | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Strategies to express the relevance of my contribution to the field more clearly.                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ways to appropriately review the literature.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ways to clearly express my interpretation of the results of my study.                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Strategies to organize my ideas logically and coherently.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ways to express my claims with the appropriate degree of confidence and certainty.                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Strategies to ensure text flow so that readers will readily understand my reasoning.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ways to clearly link different parts of the article (ideas, paragraphs, sections).                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ways to write in an appropriate academic style for my discipline (e.g. personal versus impersonal). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Structures for expressing my ideas clearly and accurately.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Structures for expressing my ideas with correct grammar.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The specific terminology in my field.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Vocabulary used in academic texts in general.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Others:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**35.** Based on your current interests, how much emphasis should be placed on the following kinds of publications in training sessions?

*Please use the following scale:*  
 1 = none; 2 = a little; 3 = an average amount; 4 = quite a lot; 5 = a lot

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Empirical articles (experimental, descriptive, analytical, comparative, case studies, survey-based). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Review articles (state of the question).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Theoretical-methodological articles.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Book reviews.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Others:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**36.** To what extent do you consider the following options appropriate ways to receive training?

*Please use the following scale:*  
 1 = not at all; 2 = a little; 3 = to an average extent; 4 = quite a lot; 5 = a lot

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Textbooks with practical exercises on various aspects of research article writing. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Computer-based interactive help with research article writing.                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Theoretically-oriented courses on research article writing.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Practically-oriented workshops on research article writing.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Translation and authors' editing services.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Theoretically-oriented books on research article writing.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Others:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**37.** Finally, how important do you think it is for people who provide training to have each of the following types of professional experience?

*Please use the following scale:  
1 = not at all; 2 = a little; 3 = an average amount; 4 = quite a lot; 5 = a lot*

|  | SPANISH               |                       |                       |                       |                       | ENGLISH               |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Research experience in fields related to mine.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experience with publishing in scientific journals.     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Research experience with academic texts.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experience in the teaching of academic writing.        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experience as an authors' editor of research articles. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experience as a translator of research articles.       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Others:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Please specify) _____.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Please specify) _____.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**END. PUBLICATION EXPERIENCES IN SCIENTIFIC JOURNALS  
IN ENGLISH AND SPANISH**

**You have now completed the questionnaire. Thank-you very much for your participation.**

*If you are interested in receiving information on the results of the survey please tick the box:*

Yes, I would like to receive further information.

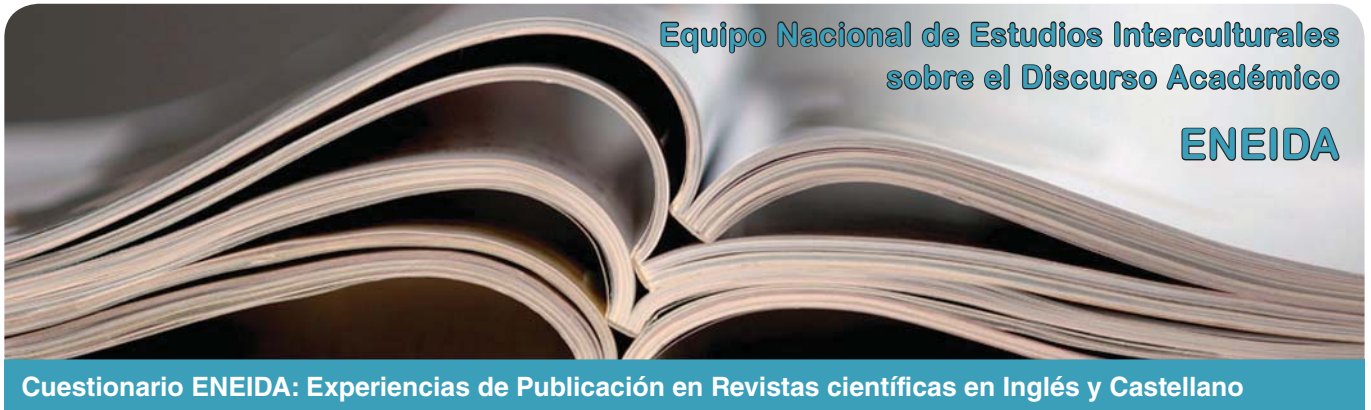
**Once we have completed our analysis of the survey results, we plan to develop IT applications and training workshops to develop skills for publishing research articles in international English-medium scientific journals.**

*If you would like to receive information on how to take part in the second phase of our study, please tick the box.*

Yes, I would like to receive information on how to take part in the second phase.

**MANY THANKS FOR YOUR INTEREST AND PARTICIPATION IN OUR STUDY.**

## APPENDIX 2: CUESTIONARIO ENEIDA (original version)



### ¿Cuál es el objetivo del cuestionario?

Conocer mejor las necesidades y estrategias actuales de redacción y publicación de artículos de investigación en revistas científicas en inglés y en castellano por parte del personal investigador.

### ¿Sobre qué tema versarán las preguntas?

Sobre sus competencias en el uso del castellano y del inglés, sus motivos para publicar en una u otra lengua, sus experiencias y estrategias de publicación en revistas científicas, su formación previa en escritura de artículos de investigación y sus posibles deseos de formación futura.

### ¿A quién va dirigido?

Al personal investigador doctor que haya recibido la mayor parte de su formación predoctoral (enseñanza secundaria y universitaria) en España.

### ¿Cuál es el objetivo último de nuestro proyecto?

Orientar nuestra investigación con el fin de desarrollar aplicaciones informáticas y talleres o seminarios sobre destrezas de publicación en revistas científicas internacionales en inglés especialmente relevantes para nuestros informantes.

Si necesita cualquier aclaración respecto a los objetivos del proyecto, puede ponerse en contacto con:

**Ana I. Moreno (Investigadora Principal del proyecto)**

Tel. 987 29 10 95

ana.moreno@unileon.es

Si tiene cualquier duda al cumplimentar el cuestionario, puede ponerse en contacto con:

**Irene López Navarro o Jesús Rey Rocha**

Tel. 916022804 - 2884

cchs\_eneida@cchs.csic.es

**Tiempo aproximado de realización: 30 minutos.**

Le agradecemos muy sinceramente su colaboración al dedicar su tiempo a completar este cuestionario.

Le recordamos que el tratamiento de los datos personales se hará en cumplimiento de la Ley Orgánica 15/1999 de 13 de diciembre de Protección de Datos de Carácter Personal (BOE n.º 298, de 14 de diciembre) y el Reglamento de desarrollo de dicha Ley, aprobado por Real Decreto 1720/2007, de 21 de diciembre (BOE n.º 17, de 19 de enero). Los datos resultantes de la encuesta serán tratados confidencialmente y la publicación de los resultados se realizará de forma agregada.

**Notas:**

- 1) Todo lo que aparece en rojo son instrucciones que el encuestado no va a ver.
- 2) Al inicio de cada bloque (1-6) de preguntas (por ejemplo, 1. Datos personales y profesionales, 2. Competencia del uso del castellano y del inglés, etc.) se indica en «verde» qué encuestados han de comenzar, al margen de que luego se establezcan filtros dentro del mismo. Cuando se indica «**TODOS**», se entiende que son todos los encuestados, independientemente de los filtros del bloque anterior salvo que se hayan salido del cuestionario con un mensaje de despedida, que entonces no se reincorporan ya más.

## 1. DATOS PERSONALES Y PROFESIONALES (Todos)

### 1. Por favor, indíquenos cuál es su lengua materna.

Marque la opción que mejor describa su caso.

- Castellano.
- Inglés.
- Bilingüe castellano-inglés.
- Bilingüe castellano-otra lengua (especificar): \_\_\_\_\_.
- Bilingüe inglés-otra lengua.
- Otras lenguas.

#### Filtros:

- Si contesta «Castellano», «Bilingüe castellano-inglés» o «Bilingüe castellano-otra lengua», sigue el cuestionario.
- Si contesta «Inglés», «Bilingüe inglés-otra lengua» o «Otras lenguas», no sigue, y aparece el mensaje:

El presente proyecto centra su interés en las experiencias de publicación del personal investigador que tenga el castellano al menos como una de sus lenguas maternas<sup>1</sup>. Dado que éste no es su caso, no es necesario que continúe respondiendo el cuestionario.

LE AGRADECEMOS SU COLABORACIÓN.

### INFORMACIÓN ADICIONAL

La presente encuesta está enmarcada dentro de un proyecto en el que se realizan estudios interculturales sobre el discurso académico en español (castellano) y en inglés. Esperamos que nuestros resultados sean especialmente relevantes para investigadores que usen habitualmente el castellano en entornos académicos pero que necesiten también publicar los resultados de su investigación en inglés. Nuestra metodología de análisis incluye la comparación de textos académicos redactados en estas dos lenguas para fines de publicación: el castellano como primera lengua y el inglés como primera lengua y como lengua extranjera. Por requisitos del diseño de la investigación necesitamos controlar una serie de variables que podrían afectar a los resultados sobre el uso del inglés académico como lengua extranjera, como son la lengua materna y el sistema educativo en el que se ha recibido la formación, entre otras.

Dados los contextos de aplicación a los que se pretenden transferir los resultados de nuestra línea de investigación y la imposibilidad de abordar otras posibles situaciones lingüísticas en

<sup>1</sup> Aunque estrictamente lengua materna no hay más que una, consideramos pertinente formular nuestra nota de esta manera para referirnos a las situaciones de bilingüismo.

el marco de nuestro proyecto y de esta encuesta, hemos acotado la población del estudio a aquellos doctores españoles que tengan el castellano como una de sus lenguas maternas y que hayan recibido una gran parte de su formación predoctoral en España y en castellano. Los motivos de excluir de la encuesta a otros posibles doctores que no cumplan estos requisitos son fundamentalmente dos: 1) evitarles rellenar la encuesta a sabiendas de que sus resultados no podrán ser tenidos en cuenta, y 2) evitarles el tener que responder preguntas que podrían ser irrelevantes para ellos.

En cualquier caso, su respuesta a las primeras preguntas también será muy valiosa a la hora de contextualizar nuestra investigación y podría dar lugar a que otros grupos de investigación se ocuparan de las situaciones lingüísticas identificadas. Si, de todos modos, usted piensa que los resultados de nuestra investigación también pueden ser relevantes para usted, y nos facilita una dirección de correo-e, le enviaremos gustosos nuestros resultados cuando estén disponibles.

Muchas gracias de nuevo por sus deseos de colaboración y su interés en nuestro proyecto.

Si desea indicarnos alguna mejora...

**2. ¿En qué país recibió usted la mayor parte de su formación predoctoral (enseñanza secundaria y universitaria)?**

*Seleccione una de las siguientes opciones.*

- España.
- Otro/s país/es:  
(Especificar) \_\_\_\_\_.  
(Especificar) \_\_\_\_\_.

**3. ¿Ha recibido usted una gran parte de su formación predoctoral (enseñanza secundaria y universitaria) en castellano?**

*Seleccione una de las siguientes opciones.*

- Sí.
- No.

**Filtro:**

- Si no contesta P. 2 = «España» y P. 3 = «Sí», finaliza el cuestionario, y aparece el siguiente mensaje:

El presente proyecto centra su interés en las experiencias de publicación del personal investigador que haya recibido la mayor parte de su formación predoctoral en España y una gran parte de dicha formación en castellano. Dado que éste no es su caso, no es necesario que continúe respondiendo el cuestionario.

LE AGRADECEMOS SU COLABORACIÓN

### INFORMACIÓN ADICIONAL

La presente encuesta está enmarcada dentro de un proyecto en el que se realizan estudios interculturales sobre el discurso académico en español (castellano) y en inglés. Esperamos que nuestros resultados sean especialmente relevantes para investigadores que usen habitualmente el castellano en entornos académicos pero que necesiten también publicar los resultados de su investigación en inglés. Nuestra metodología de análisis incluye la comparación de textos académicos redactados en estas dos lenguas para fines de publicación: el castellano como primera lengua y el inglés como primera lengua y como lengua extranjera. Por requisitos del diseño de la investigación necesitamos controlar una serie de variables que podrían afectar a los resultados sobre el uso del inglés académico como lengua extranjera, como son la lengua materna y el sistema educativo en el que se ha recibido la formación, entre otras. Dados los contextos de aplicación a los que se pretenden transferir los resultados de nuestra línea de investigación y la imposibilidad de abordar otras posibles situaciones lingüísticas en el marco de nuestro proyecto y de esta encuesta, hemos acotado la población del estudio a aquellos doctores españoles que tengan el castellano como una de sus lenguas maternas y que hayan recibido una gran parte de su formación predoctoral en España y en castellano. Los motivos de excluir de la encuesta a otros posibles doctores que no cumplan estos requisitos son fundamentalmente dos: 1) evitarles rellenar la encuesta a sabiendas de que sus resultados no podrán ser tenidos en cuenta, y 2) evitarles el tener que responder preguntas que podrían ser irrelevantes para ellos. En cualquier caso, su respuesta a las primeras preguntas también será muy valiosa a la hora de contextualizar nuestra investigación y podría dar lugar a que otros grupos de investigación se ocuparan de las situaciones lingüísticas identificadas. Si, de todos modos, usted piensa que los resultados de nuestra investigación también pueden ser relevantes para usted, y nos facilita una dirección de correo-e, le enviaremos gustosos nuestros resultados cuando estén disponibles. Muchas gracias de nuevo por sus deseos de colaboración y su interés en nuestro proyecto.

Si desea indicarnos alguna mejora...

4. **Género** (seleccione una de las siguientes opciones):

- Mujer.
- Hombre.

5. **Año de nacimiento:** \_\_\_\_\_



6. Año de obtención del título de doctorado: \_\_\_\_\_

7. Organismo en el que trabaja (seleccione una de las siguientes opciones):

*Desplegable con los valores: CSIC, Universidad de La Laguna, Universidad de León, Universidad de Zaragoza, Universidad Jaume I.*

8. Categoría profesional (seleccione una de las siguientes opciones)

*Desplegable (según haya contestado Universidad o CSIC en P. 6, aparecerán dos desplegables distintos).*

**a) CSIC**

*Profesor de Investigación.*

*Investigador Científico.*

*Científico Titular.*

*Investigador Titular de OPI.*

*Investigador Doctor Contratado.*

*Otros (especificar): \_\_\_\_\_.*

**b) Universidad**

*Catedrático de Universidad.*

*Profesor Titular de Universidad.*

*Catedrático de Escuela Universitaria.*

*Profesor Titular de Escuela Universitaria.*

*Profesor Contratado Doctor.*

*Profesor Colaborador.*

*Profesor Asociado.*

*Profesor Ayudante Doctor.*

*Profesor Ayudante.*

*Profesor Colaborador Doctor.*

*Profesor Ayudante de Facultad.*

*Profesor Ayudante de Escuela Universitaria.*

*Profesor Visitante.*

*Titulado superior investigador.*

*Titulado superior.*

*Titulado grado medio.*

*Técnico especialista de laboratorio/oficio.*

*Otros (especificar): \_\_\_\_\_.*

9. a) **¿Cuál es su campo de investigación?** Identifíquelo mediante uno o varios de los códigos UNESCO que se muestran en los menús desplegables. Elija el código o códigos que mejor encajen en su investigación.

**Instrucciones:**

Pulse en el cuadro de texto inferior para que se inicie el menú desplegable.

*Desplegable progresivo (código UNESCO de seis dígitos).*

*Presentar desplegable progresivo en el que se van abriendo los códigos UNESCO de dos, cuatro y seis dígitos, respectivamente.*

- b) Si conoce su(s) código(s) UNESCO o ha experimentado algún problema a la hora de utilizar el menú de la pregunta anterior puede introducirlos manualmente en el siguiente cuadro. Si lo desea, puede consultarlos en el siguiente [archivo pdf con los códigos UNESCO](#).

**Instrucciones:**

Introduzca sus códigos UNESCO de seis dígitos (tantos como necesite para describir adecuadamente manualmente su área de investigación) separados por una coma.

## 2. COMPETENCIA EN EL USO DEL CASTELLANO Y DEL INGLÉS (Todos)

### 10. ¿Cuál es su grado de competencia en el uso del castellano y del inglés para fines generales?

Por favor, valore según la siguiente escala:  
 1 = muy bajo; 2 = bajo; 3 = medio; 4 = alto; 5 = muy alto

|  | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Comprensión oral.<br><i>Ej.: Entender programas de radio, documentales de TV.</i>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Expresión oral.<br><i>Ej.: Narrar sucesos, dar instrucciones.</i>                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Interacción oral.<br><i>Ej.: Debatir sobre temas de interés general.</i>                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Comprensión lectora.<br><i>Ej.: Leer periódicos, revistas de divulgación científica.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Expresión escrita.<br><i>Ej.: Escribir relatos breves, correspondencia, reclamaciones.</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 11. ¿Cuál es su grado de competencia en el uso del castellano y del inglés para fines académicos?

Por favor, valore según la siguiente escala:  
 1 = muy bajo; 2 = bajo; 3 = medio; 4 = alto; 5 = muy alto

|   | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Comprensión oral.<br><i>Ej.: Entender conferencias.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Expresión oral.<br><i>Ej.: Presentar comunicaciones en congresos.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Interacción oral.<br><i>Ej.: Formular y responder preguntas en un congreso.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Comprensión lectora.<br><i>Ej.: Leer artículos sobre mi tema de investigación.</i>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Expresión escrita.<br><i>Ej.: Escribir artículos de investigación o capítulos de libros.<br/>Ej.: Mantener correspondencia con editores y evaluadores (referees).</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 3. OPCIONES LINGÜÍSTICAS PARA PUBLICAR ARTÍCULOS DE INVESTIGACIÓN (Todos)

12. De los artículos que ha publicado usted en revistas científicas como autor principal (co-responding author) en los últimos 10 años, señale cuántos ha publicado en cada lengua.

|                      | N.º DE ARTÍCULOS |
|----------------------|------------------|
| A) Castellano.       |                  |
| B) Inglés.           |                  |
| C) Otras lenguas:    |                  |
| (Especificar) _____. |                  |
| (Especificar) _____. |                  |
| (Especificar) _____. |                  |

*Obligar a que en A y B se ponga algún valor, de tal manera que si se quiere pasar a la siguiente pregunta y se ha dejado alguno de estos dos campos vacíos, aparezca el mensaje: «Para pasar a la siguiente pregunta debe usted indicar el número de artículos publicados en inglés y en castellano. Si en alguno de los casos carece de experiencia de publicación indíquelo con un cero».*

*Filtro: (lo que marquen en la opción C no influye en el filtro, tanto si especifican algo como si no).*

- Si  $A=0$  y  $B=0$  entonces finaliza la encuesta y aparece este mensaje: «El presente proyecto centra su atención en las experiencias de publicación del personal investigador en revistas científicas en castellano y en inglés. Dado que usted no ha publicado ningún artículo en estos idiomas, no necesita continuar respondiendo el cuestionario. LE AGRADECEMOS SU COLABORACIÓN. Si desea indicarnos alguna mejora...».*
- Si  $A > 0$  y  $B > 0$  entonces siguen el resto del bloque normalmente hasta llegar a P. 26 saltándose P. 16 y, según el filtro de esta pregunta, P. 17 y/o P. 18.*
- Si  $A > 0$  y  $B = 0$ , o viceversa, entonces siguen el resto del bloque normalmente (salvo filtro en P. 16 que sólo influye a P. 17 y 18, luego vuelven a contestar todos en P. 19). Atención: en las preguntas 13, 14, 15, 16, 20, 24 y 25 las opciones «en castellano» y «en inglés» aparecerán en función del valor que hayan marcado en P. 12 de tal manera que si  $A = 0$  no aparecerá la columna de castellano, sólo la de inglés y viceversa. En el resto (P. 19, 21, 22, 23 y 26) deberán contestar a las dos columnas independientemente de los valores que hayan marcado en P. 12.*

**13.** Cuando usted decide publicar un artículo de investigación en una revista científica ¿en qué medida influyen los siguientes motivos sobre su decisión de publicarlo en castellano? ¿Y en inglés?

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho

|  | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Mi deseo de comunicar los resultados de mi investigación a la comunidad científica internacional.                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de comunicar los resultados de mi investigación a mi comunidad científica local.                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de obtener un mayor número de citas.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de progresar intelectualmente (p. ej., a través de los comentarios de los editores y evaluadores (referees)). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de cumplir los requisitos para promocionarme profesionalmente.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de aumentar mis posibilidades de conseguir una retribución económica añadida.                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de que mi labor investigadora sea reconocida.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de responder a un encargo/invitación de una institución, asociación, editorial, etc.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de afrontar retos estimulantes.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de que existan revistas científicas en esta lengua.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi valoración de mi capacidad de escribir los resultados de mi investigación en esta lengua.                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi valoración de la calidad de mi artículo.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mis experiencias anteriores de publicación en esta lengua.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mi deseo de mejorar mi capacidad de expresión en esta lengua.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros motivos:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- 14.** Por favor, cite el título de hasta cuatro de las revistas científicas más adecuadas para publicar su investigación en inglés.

*Dejar en blanco si no conoce ninguna.*

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.

- 15.** Por favor, cite el título de hasta cuatro de las revistas científicas más adecuadas para publicar su investigación en castellano.

*Dejar en blanco si no conoce ninguna.*

1. \_\_\_\_\_.
2. \_\_\_\_\_.
3. \_\_\_\_\_.
4. \_\_\_\_\_.

- 16.** ¿Se ha planteado en alguna ocasión publicar artículos de investigación como autor principal (*corresponding author*) en castellano? ¿Y en inglés?

*Solo para los que han publicado o bien en inglés o bien en castellano pero no en las dos lenguas (ver filtro en P. 12)*

**No, nunca me lo he planteado.**

*Filtro: pasan a P. 17 se saltan P. 18 y continúan normalmente a partir de P. 19 hasta el final del bloque 4.*

**Sí, me lo he planteado, pero lo he descartado.**

*Filtro: pasan a P. 17, se saltan P. 18 y continúan normalmente a partir de P. 19 hasta el final del bloque 4*

**Sí, lo he intentado, pero no lo he conseguido todavía.**

*Filtro: pasan a P. 18 y continúan normalmente hasta el final del bloque 4.*

**Otros:**

*Filtro: pasan a P. 19 y continúan normalmente hasta el final del bloque 4.*

(Especificar) \_\_\_\_\_.

(Especificar) \_\_\_\_\_.

(Especificar) \_\_\_\_\_.

**Comentarios**

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**17.** ¿En qué grado los siguientes motivos le han llevado a no plantearse o a descartar publicar artículos de investigación como autor principal (*corresponding author*) en revistas en castellano? ¿Y en inglés?

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho;  
 N/A = no aplicable a mi situación

**Filtro:**

- Después de esta pregunta, marquen lo que marquen, pasan a P. 19 y continúan normalmente hasta el final del bloque 4.

|   | CASTELLANO            |                       |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| No existen revistas de prestigio en mi campo en esta lengua.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ya hay alguien en mi grupo que tiene la responsabilidad de redactar los artículos.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Considero que mi capacidad de redacción en esta lengua es inferior al requerido por las revistas.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Considero que no estoy suficientemente familiarizado/a con las convenciones discursivas esperadas por las revistas para informar de mi investigación.<br><i>Ej.: situar mi investigación en un contexto más amplio, expresar claramente la contribución de mi investigación, ajustar las conclusiones a los objetivos, etc.</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Creo que estas revistas no consideran suficientemente interesantes mis resultados.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me supondría demasiado tiempo.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me supondría demasiado esfuerzo.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No me reportaría los beneficios que persigo.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| No me parece estimulante.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Encuentro difícil localizar traductores que conozcan mi campo de investigación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Encuentro difícil localizar revisores que conozcan mi campo de investigación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Las traducciones generan gastos añadidos para los cuales no dispongo de financiación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Las revisiones generan gastos añadidos para los cuales no dispongo de financiación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros motivos:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**18.** ¿En qué grado considera usted que los siguientes motivos le han impedido publicar artículos de investigación como autor principal o (*corresponding author*) en castellano? ¿Y en inglés?

Por favor, valore según la siguiente escala:  
 1 = ninguna; 2 = poca; 3 = intermedia; 4 = bastante; 5 = mucha;  
 N/A = no aplicable a mi situación

**Filtro:**

- Después de esta pregunta, marquen lo que marquen, pasan a P. 19 y continúan normalmente hasta el final del bloque 4.

|  | CASTELLANO            |                       |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| Por no ajustarme a la temática de las revistas a las que lo he enviado.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por no ofrecer resultados interesantes para los lectores de la revista.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por supuestas deficiencias en aspectos del contenido de la investigación.<br><i>Ej.: diseño, métodos, uso de pruebas estadísticas, etc.</i>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por no seguir las convenciones discursivas esperadas por la revista para informar de la investigación.<br><i>Ej.: situar mi investigación en un contexto más amplio, expresar claramente la contribución de mi investigación, ajustar las conclusiones a los objetivos, etc.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por aspectos de la redacción en castellano.<br><i>Ej.: ideas o párrafos enrevesados, errores gramaticales, de estilo, de vocabulario, etc.</i><br><i>(Aplicable sólo a quienes no han conseguido todavía publicar en castellano: P. 12(castellano) = 0 y P. 16= Sí, lo he intentado, pero no lo he conseguido todavía).</i>                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por aspectos de la redacción en inglés.<br><i>Ej.: frases excesivamente largas, ideas o párrafos enrevesados, errores gramaticales, de estilo, de vocabulario, etc.</i><br><i>(Aplicable sólo a quienes no han conseguido todavía publicar en inglés: P. 12 (inglés) = 0 y P. 16 = Sí, lo he intentado, pero no lo he conseguido todavía).</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por no ajustarme a las normas de estilo de la revista.<br><i>Ej: límites sobre número de palabras, formatos de las tablas, figuras, páginas, citas, la bibliografía, las fuentes, etc.</i>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:<br>(Especificar) _____<br>(Especificar) _____<br>(Especificar) _____  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



**19.** ¿Hasta qué punto cree usted que es deseable que los investigadores españoles de su campo científico publiquen los resultados de su investigación en castellano? ¿Y en inglés?

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho

**Grado de deseabilidad**

| CASTELLANO            |                       |                       |                       |                       | INGLES                |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Comentarios**

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**20.** ¿Cómo se siente usted al escribir los resultados de su investigación para ser publicados en una revista en castellano? ¿Y en inglés?

Marque la casilla que más se acerque a su estado de ánimo según la siguiente escala.

| CASTELLANO       |                       |                       |                       |                       |                       |                       |                     |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| MUY              | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUY                   |                     |
| Motivado         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desmotivado         |
| Seguro           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Inseguro            |
| Capacitado       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Limitado            |
| Leal a mi lengua | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desleal a mi lengua |
| Libre            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Forzado             |

| INGLÉS           |                       |                       |                       |                       |                       |                       |                     |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|
| MUY              | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUY                   |                     |
| Motivado         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desmotivado         |
| Seguro           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Inseguro            |
| Capacitado       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Limitado            |
| Leal a mi lengua | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Desleal a mi lengua |
| Libre            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Forzado             |

**Comentarios**

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**21.** ¿Cuál es la probabilidad de que usted escriba su próximo artículo para ser publicado en castellano y/o en inglés en una revista científica?

Por favor, valore según la siguiente escala:  
 1 = ninguna; 2 = poca; 3 = alguna; 4 = bastante; 5 = mucha

**Grado de probabilidad**

| CASTELLANO            |                       |                       |                       |                       | INGLES                |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Comentarios**

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**22.** ¿Hasta qué punto considera que publicar en castellano/inglés los resultados de la investigación en su campo favorece o dificulta los siguientes aspectos?

|          |   | PUBLICAR EN CASTELLANO... |                       |                       |                       |                       |                       |                       |           |  |
|----------|---|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--|
|          |   | MUCHO                     | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUCHO                 |           |  |
| FAVORECE |   |                           |                       |                       |                       |                       |                       |                       | DIFICULTA |  |
|          | La comunicación de la investigación española en foros internacionales.                | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La participación de los investigadores españoles en redes internacionales.            | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La pervivencia de las revistas científicas en esta lengua.                            | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La calidad de la investigación española.  | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La mejora de las prácticas de escritura de artículos de investigación en esta lengua. | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La visibilidad de la investigación española.  | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La aplicabilidad de los resultados de la investigación española.                      | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | El avance del conocimiento científico global en su campo.                             | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La investigación de temas de interés internacional.                                   | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La investigación de temas de interés local.   | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | La productividad de los investigadores españoles.                                     | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |
|          | El desarrollo del lenguaje académico en castellano.                                   | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |  |

|   | PUBLICAR EN INGLÉS... |                       |                       |                       |                       |                       |                       |                       |           |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
|   | FAVORECE              | MUCHO                 | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUCHO                 | DIFICULTA |
| La comunicación de la investigación española en foros internacionales.                |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La participación de los investigadores españoles en redes internacionales.            |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La pervivencia de las revistas científicas en esta lengua.                            |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La calidad de la investigación española.  |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La mejora de las prácticas de escritura de artículos de investigación en esta lengua. |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La visibilidad de la investigación española.  |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La aplicabilidad de los resultados de la investigación española.                      |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| El avance del conocimiento científico global en su campo.                             |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La investigación de temas de interés internacional.                                   |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La investigación de temas de interés local.   |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| La productividad de los investigadores españoles.                                     |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |
| El desarrollo del lenguaje académico en castellano.                                   |                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |           |

**Comentarios**

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**23.** ¿Cómo piensa usted que tener el castellano como lengua materna ha afectado al modo en que sus manuscritos han sido evaluados por las revistas científicas en castellano? ¿Y en inglés?

*Sólo para los que han marcado «Castellano» en P. 1:*

- Si P. 12-Castellano > 0 y P. 16 (Plantearse publicar en inglés) = «No, nunca me lo he planteado» o «Me lo he planteado, pero lo he descartado», entonces aparece la opción «En revistas en castellano»
- Si P. 12-Castellano > 0 y P. 16 (Plantearse publicar en inglés) = «Sí, lo he intentado, pero no lo he conseguido todavía», entonces aparecen las dos opciones «En revistas en castellano» y «En revistas en inglés»
- Si P. 12-Inglés > 0 y P. 16 (Plantearse publicar en castellano) = «No, nunca me lo he planteado» o «Me lo he planteado, pero lo he descartado», entonces aparece la opción «En revistas en inglés»
- Si P. 12-Inglés > 0 y P. 16 (Plantearse publicar en castellano) = «Sí, lo he intentado, pero no lo he conseguido todavía», entonces aparecen las dos opciones «En revistas en castellano» y «En revistas en inglés»

|  |  | EN REVISTAS EN CASTELLANO |                       |                       |                       |                       |                       |                       |  |  |
|--|--|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
|  |  | MUY                       | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUY                   |  |  |
| En general, mis manuscritos han sido evaluados de manera IMPARCIAL |  | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | En general, mis manuscritos han sido evaluados de manera PARCIAL |  |
|  | En general, me he sentido FAVORECIDO/A | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | En general, me he sentido PERJUDICADO/A                          |  |

|  |  | EN REVISTAS EN INGLÉS |                       |                       |                       |                       |                       |                       |  |  |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
|  |  | MUY                   | BASTANTE              | POCO                  | NADA                  | POCO                  | BASTANTE              | MUY                   |  |  |
| En general, mis manuscritos han sido evaluados de manera IMPARCIAL |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | En general, mis manuscritos han sido evaluados de manera PARCIAL |  |
|  | En general, me he sentido FAVORECIDO/A | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | En general, me he sentido PERJUDICADO/A                          |  |

**Comentarios**

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## 4. EXPERIENCIAS EN LA PUBLICACIÓN DE ARTÍCULOS DE INVESTIGACIÓN (Todos)

24. Piense ahora en los artículos que usted ha enviado a revistas científicas **como autor principal** (*corresponding author*) en los últimos 10 años. ¿Con qué frecuencia se han producido las siguientes situaciones?

Por favor, valore según la siguiente escala:  
 1 = ninguna; 2 = poca; 3 = alguna; 4 = bastante; 5 = mucha

|   | REVISTAS EN CASTELLANO |                       |                       |                       |                       | REVISTAS EN INGLÉS    |                       |                       |                       |                       |
|---|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                      | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Me han <b>aceptado</b> los artículos <b>sin apenas cambios</b> .  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me han <b>aceptado</b> los artículos <b>a condición de que...</b>   |                        |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Revisara algún aspecto del contenido de la investigación.<br>(Ej.: diseño, métodos, uso de pruebas estadísticas, etc.).   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me ajustara mejor a las convenciones discursivas esperadas por la revista para informar de la investigación.<br>(Ej.: situar mi investigación en un contexto teórico más amplio, realizar una revisión adecuada de la bibliografía, expresar claramente la contribución de mi investigación, ajustar las conclusiones a los objetivos, etc.). | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Revisara aspectos de la redacción.<br>(Ej.: longitud de las frases, ideas o párrafos enrevesados, errores gramaticales, de estilo, de vocabulario, etc.).   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me ajustara mejor a las normas de estilo de la revista.<br>(Ej.: tablas, figuras, formatos de página, fuentes, etc.).   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Me han <b>rechazado</b> inicialmente los artículos:   |                        |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Por supuestas deficiencias en aspectos del contenido de la investigación.<br>(Ej.: diseño, métodos, uso de pruebas estadísticas, etc.).   | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por no seguir las convenciones discursivas esperadas por la revista para informar de la investigación.<br>(Ej.: situar mi investigación en un contexto teórico más amplio, realizar una revisión adecuada de la bibliografía, expresar claramente la contribución de mi investigación, ajustar las conclusiones a los objetivos, etc.).       | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por aspectos de la redacción.<br>(Ej.: longitud de las frases, ideas o párrafos enrevesados, errores gramaticales, de estilo, de vocabulario, etc.).  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Por no ajustarme a las normas de estilo de la revista.<br>(Ej.: tablas, figuras, formatos de página, fuentes, etc.).  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otras situaciones:  |                        |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**25.** Indique el grado de dificultad que supone para usted escribir los siguientes apartados o documentos relacionados con la publicación de artículos de investigación en castellano y en inglés.

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho;  
 N/A = no aplicable al tipo de artículos que escribo

|   | EN CASTELLANO         |                       |                       |                       |                       |                       | EN INGLÉS             |                       |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| El resumen o <i>abstract</i> .  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| La introducción.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Los fundamentos teóricos o marco conceptual.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Los materiales y métodos.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Los resultados.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| La discusión.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| El desarrollo de otro tipo de apartados.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Las conclusiones.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Los agradecimientos.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| La carta de presentación que acompaña al artículo para enviarlo a evaluación.     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| El informe en respuesta a los comentarios de los evaluadores ( <i>referees</i> ). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| La correspondencia con el editor durante el proceso de evaluación.                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**26.** ¿Ha sido usted evaluador (*referee*) para alguna revista científica en los últimos diez años?  
 Por favor, indique para cuántas revistas distintas.

| CASTELLANO | INGLÉS |
|------------|--------|
|            |        |

## 5. ESTRATEGIAS ACTUALES DE REDACCIÓN PARA PUBLICAR EN REVISTAS CIENTÍFICAS EN INGLÉS

(Sólo los que en P. 12 han marcado Inglés > 0)

A partir de ahora nos centraremos únicamente en su experiencia con artículos redactados en inglés.

27. Antes de enviar un artículo a una revista científica en inglés como autor principal (*corresponding author*), ¿hasta qué punto está usted familiarizado con los siguientes aspectos?

Por favor, valore según la siguiente escala:

1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho

|   | 1                     | 2                     | 3                     | 4                     | 5                     |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| La temática de la revista.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Las convenciones discursivas propias de la revista.<br>(Ej.: modo de situar mi investigación en un contexto teórico más amplio, de realizar una revisión adecuada de la bibliografía, de expresar claramente la contribución de mi investigación, de ajustar las conclusiones a los objetivos, etc.). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Los rasgos de la redacción académica propios de la revista.<br>(Ej.: longitud típica de las frases, modo de expresar las ideas con claridad y corrección de estilo, modo de organizar los párrafos, aspectos gramaticales, de vocabulario, etc.).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Las normas de estilo de la revista.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| El proceso editorial seguido por la revista.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

28. Con respecto a aquellos artículos publicados en inglés como autor principal (*corresponding author*) ¿cuál de las siguientes estrategias de redacción utiliza usted más habitualmente? Seleccione una de las siguientes opciones.

Lo redacto directamente en inglés y...

- lo remito sin ninguna revisión posterior.

Lo redacto directamente en inglés y...

- me lo revisa un hablante nativo del inglés que conoce bien mi campo de investigación.  
 me lo revisa un hablante nativo del inglés que no conoce bien mi campo de investigación.  
 me lo revisa un hablante no nativo del inglés que conoce bien mi campo de investigación.  
 me lo revisa un hablante no nativo del inglés que no conoce bien mi campo de investigación.

**Lo redacto parcialmente en inglés y en castellano y...**

- me traduce lo necesario un hablante nativo del inglés que conoce bien mi campo de investigación.
- me traduce lo necesario un hablante nativo del inglés que no conoce bien mi campo de investigación.
- me traduce lo necesario un hablante no nativo que conoce bien mi campo de investigación.
- me traduce lo necesario un hablante no nativo que no conoce bien mi campo de investigación.

**Lo redacto en castellano y...**

- me lo traduce un hablante nativo del inglés que conoce bien mi campo de investigación.
- me lo traduce un hablante nativo del inglés que no conoce bien mi campo de investigación.
- me lo traduce un hablante no nativo del inglés que conoce bien mi campo de investigación.
- me lo traduce un hablante no nativo del inglés que no conoce bien mi campo de investigación.

**Otros:**

(Especificar) \_\_\_\_\_.

(Especificar) \_\_\_\_\_.

(Especificar) \_\_\_\_\_.

- 29.** Por favor, indique el grado de esfuerzo que le suele suponer dicha estrategia y su nivel de satisfacción con la misma, según la siguiente escala:

*Por favor, valore según la siguiente escala:  
1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho*

|                     | 1                     | 2                     | 3                     | 4                     | 5                     |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Esfuerzo</b>     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Satisfacción</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Comentarios**


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## 6. FORMACIÓN EN LA ESCRITURA DE ARTÍCULOS DE INVESTIGACIÓN (Todos)

30. ¿En qué grado le han ayudado las siguientes estrategias a aprender a escribir artículos de investigación en castellano? ¿Y en inglés?

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho;  
 N/A = No aplicable a mi experiencia de aprendizaje

|  | CASTELLANO            |                       |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   | 1                     | 2                     | 3                     | 4                     | 5                     | N/A                   |
| A través de cursos de doctorado que se han ocupado de enseñar a escribir artículos de investigación.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de las orientaciones del director/a de mi tesina, tesis o trabajo posdoctoral sobre mi forma de escribir. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Realizando talleres prácticos/seminarios prácticos sobre escritura académica.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Consultando manuales u otros textos sobre cómo escribir artículos de investigación.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Con la propia práctica de escribir.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fijándome en la forma de escribir de otros autores.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de los comentarios de los editores y/o evaluadores ( <i>referees</i> ), sobre mis textos.                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de los comentarios de los revisores de mis textos.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de los comentarios de los traductores de mis textos.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de las aportaciones de miembros de mi grupo de investigación sobre mi forma de escribir.                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de a las aportaciones de otros colegas ajenos a mi grupo de investigación.                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Buscando palabras o expresiones en Internet.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A través de las orientaciones recibidas en estancias de investigación en el extranjero.                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**31.** ¿Tiene usted previsto continuar su formación sobre cómo escribir artículos de investigación para enviar a revistas científicas en castellano? ¿Y en inglés?

- | Spanish                      | English                      |
|------------------------------|------------------------------|
| <input type="radio"/> Sí.    | <input type="radio"/> Sí.    |
| <input type="radio"/> No.    | <input type="radio"/> No.    |
| <input type="radio"/> Quizá. | <input type="radio"/> Quizá. |
| <input type="radio"/> NS/NC. | <input type="radio"/> NS/NC. |

**Filtro:**

- Los que respondan «Sí» o «Quizá» sólo en castellano verán sólo la columna sobre castellano en las siguientes preguntas hasta el final del cuestionario.
- Los que respondan «Sí» o «Quizá» sólo en inglés verán sólo la columna sobre inglés en las siguientes preguntas hasta el final del cuestionario.
- Los que respondan «Sí» o «Quizá» en castellano y en inglés verán ambas columnas en las siguientes preguntas hasta el final del cuestionario.
- Los que respondan «NO», «NS/NC» en inglés y en castellano, irán directamente al mensaje final de agradecimiento (ver última página).

**32.** Dicha formación sobre cómo escribir artículos de investigación debería familiarizarme con...

Seleccione la(s) opción(es) que le parezcan más adecuada/s.

|  | CASTELLANO            | INGLÉS                |
|--|-----------------------|-----------------------|
| La escritura académica para fines de publicación en general.   | <input type="radio"/> | <input type="radio"/> |
| La escritura académica para fines de publicación en campos afines a mi investigación.  | <input type="radio"/> | <input type="radio"/> |
| La escritura académica en las revistas en las que tengo intención de publicar.   | <input type="radio"/> | <input type="radio"/> |
| Cualquier aspecto relacionado con la escritura académica.  | <input type="radio"/> | <input type="radio"/> |
| Los problemas típicos de los autores españoles al escribir artículos de investigación.   | <input type="radio"/> | <input type="radio"/> |
| El modo de redactar cada uno de los apartados del artículo de investigación (abstract, introducción, metodología, resultados, etc.). | <input type="radio"/> | <input type="radio"/> |
| El orden de redacción de los diferentes apartados que pueda ser más eficiente.   | <input type="radio"/> | <input type="radio"/> |
| Otros:   |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> |

**33.** De acuerdo con sus intereses actuales, ¿qué grado de atención cree que deberían recibir los siguientes aspectos de dicha formación.

Por favor, valore según la siguiente escala:  
 1 = ninguno; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho

|  | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Comprender mejor el proceso de revisión de las revistas científicas: el papel del editor, los revisores...   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Comprender mejor «qué» se suele contar sobre una investigación en una revista científica.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Mejorar «cómo» contar mi investigación de acuerdo con las convenciones discursivas y de redacción académica de dichas revistas.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Comprender mejor las diferencias y similitudes existentes entre la forma de escribir artículos de investigación para publicar en revistas españolas y en revistas internacionales. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros aspectos:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Filtro:**

- Si en «mejorar el cómo contar mi investigación» marcan los valores 2-5, pasan a pregunta siguiente. Si sólo marcan 1, saltan a la 35.

**34.** Por lo que se refiere a «cómo» contar una investigación, ¿qué grado de atención cree que deberían recibir los siguientes aspectos de la escritura de un artículo de investigación en castellano? ¿Y en inglés?

*Por favor, valore según la siguiente escala:  
1 = ninguna; 2 = poca; 3 = algo; 4 = bastante; 5 = mucha*

|  | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Estrategias para expresar más claramente la relevancia de mi contribución a mi disciplina.             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Modos de realizar una revisión adecuada de la bibliografía.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Maneras de expresar claramente la interpretación de mis resultados.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Estrategias para organizar mis ideas de forma lógica y coherente.                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Formas de expresar mis afirmaciones con el grado de confianza o seguridad adecuado.                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Estrategias para facilitar una lectura fluida de mis argumentaciones.                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Formas de conectar claramente las diferentes partes del artículo (ideas, párrafos, apartados).         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Formas de redactar en un estilo académico apropiado a mi disciplina (por ej. personal vs. impersonal). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Estructuras para expresar mis ideas con claridad y precisión.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Estructuras para expresar mis ideas con corrección gramatical.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Terminología propia de mi campo.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Vocabulario propio de los textos académicos en general.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**35.** De acuerdo con sus intereses actuales, ¿qué grado de atención deberían recibir cada uno de los siguientes tipos de publicaciones en dicha formación?

*Por favor, valore según la siguiente escala:  
1 = ninguno; 2 = poca; 3 = algo; 4 = bastante; 5 = mucho*

|   | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|   | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Artículos empíricos (experimentales, descriptivos, analíticos, comparativos, estudios de caso, de encuestas). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Artículos de revisión (estados de la cuestión).   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Artículos teórico-metodológicos.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Reseñas / Recensiones de libros académicos.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**36.** ¿En qué medida le parecen adecuadas las siguientes vías para recibir dicha formación?

*Por favor, valore según la siguiente escala:  
1 = nada; 2 = poca; 3 = algo; 4 = bastante; 5 = mucho*

|  | CASTELLANO            |                       |                       |                       |                       | INGLÉS                |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Manuales prácticos con ejercicios sobre diferentes aspectos de la escritura de artículos de investigación. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Aplicaciones informáticas interactivas de asistencia a la escritura de artículos de investigación.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cursos teóricos sobre escritura de artículos de investigación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Talleres prácticos sobre escritura de artículos de investigación.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Servicios de traducción/revisión.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Libros teóricos sobre escritura de artículos de investigación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**37.** Por último, ¿en qué medida sería importante que las personas que proporcionen dicha formación tuvieran el siguiente tipo de experiencia profesional?

Por favor, valore según la siguiente escala:  
 1 = nada; 2 = poco; 3 = algo; 4 = bastante; 5 = mucho

|  | EN CASTELLANO         |                       |                       |                       |                       | EN INGLÉS             |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 1                     | 2                     | 3                     | 4                     | 5                     | 1                     | 2                     | 3                     | 4                     | 5                     |
| Experiencia en investigación en campos afines al mío.    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experiencia en publicación en revistas científicas.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experiencia en investigación sobre textos académicos.    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experiencia docente sobre escritura académica.           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experiencia en revisión de artículos de investigación.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Experiencia en traducción de artículos de investigación. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Otros:   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| (Especificar) _____.                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| (Especificar) _____.                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**FINAL. EXPERIENCIAS DE PUBLICACIÓN EN REVISTAS CIENTÍFICAS EN INGLÉS Y EN CASTELLANO**

Ha finalizado el cuestionario. Muchas gracias por su colaboración.

Si usted está interesado en recibir información sobre los resultados de esta encuesta, por favor, marque la siguiente casilla:

Sí, deseo recibir información.

Una vez analizados dichos resultados, el proyecto pretende desarrollar aplicaciones informáticas y talleres de formación sobre destrezas de publicación de artículos en revistas científicas internacionales en inglés.

Si usted desea recibir información sobre cómo participar en la segunda fase, por favor, marque la siguiente casilla:

Sí, estoy interesado en recibir información sobre cómo participar.

**MUCHÍSIMAS GRACIAS POR SU INTERÉS Y SU COLABORACIÓN**







