

Institution: The University of Edinburgh
Unit of Assessment: 28B Linguistics
Title of case study: Bilingualism Matters
<p>1. Summary of the impact</p> <p><i>Bilingualism Matters</i> (BM) was set up as a proactive public engagement programme by Prof. Antonella Sorace in order to make the results of her research, showing the benefits of bilingualism, accessible and useful to the general public. <i>BM</i> offers advice and information particularly on early bilingualism; it combats misconceptions about bilingualism, especially regarding cognitive development in children. It has made current research accessible, practically usable and of benefit to different sections of society, including children, parents, educationalists, health professionals, businesses and policy makers. In consequence, it has changed public attitudes, and helped shape education policy both in the UK and elsewhere in Europe.</p>
<p>2. Underpinning research</p> <p>Changing patterns of migration and mobility have dramatically increased the number of multilingual families in the UK and Europe, yet bilingualism is still surrounded by misconceptions or ignorance. Research on language and cognition in bilingual speakers over the last decade, involving interdisciplinary collaboration among different fields, has opened up broader perspectives on the bilingual brain. Sorace (professor) founded Edinburgh's Developmental Linguistics research group in 2001 and, together with Ota (reader, arrived 1999) Filiaci (postgraduate; researcher, arrived 2001), Bak (lecturer, arrived 2006) Della Sala (professor, arrived 2004) and several internationally known external researchers, has made a substantial and internationally-recognised contribution to the study of bilingualism at all ages.</p> <p>A combination of funded international projects and PhDs have led to a unified model of bilingualism. Edinburgh is one of the few places globally where research is carried out on simultaneous acquisition of two languages from birth, consecutive bilingualism in children, adult second language (L2) learning, and first language (L1) attrition in a comprehensive framework. Researchers here have contributed important results on the role played over the lifespan by factors such as age of first exposure to a second language, quality and quantity of input received, and degree of similarity between the two languages (e.g. grants 6 and 7 overleaf). Further, Edinburgh is unique in bringing together two traditionally separate strands of research—from linguistics and cognitive psychology—in exploring the interaction of language and general cognition for the development and use of particular language structures (e.g. grant 2). Recent relevant projects have included: language and processing in school-age children; simultaneous vs. consecutive early bilingualism; effects of L2 learning by children and parents together; effects of bilingualism on general cognition at different ages of exposure to L2; implications of enhanced cognitive control in early and late bilinguals; relationship between early bilingualism and cognitive ageing.</p> <p>While bilinguals on average tend to have smaller vocabularies and slower lexical access than monolinguals, Sorace's group has demonstrated that older bilingual children, exposed to two languages from birth, achieve similar levels of grammatical development in both languages as monolinguals (Sorace & Serratrice 2009; Sorace et al. 2009), at the same time showing processing inefficiency in particular language areas. Their recent research comparing simultaneous and successive bilingualism in childhood indicates selective differences for some aspects of language depending on whether L2 exposure happens before or after age 4 (Unsworth et al. 2012); this points to the importance and effectiveness of early L2 learning in pre-school years and motivates efforts to influence attitudes and policies regarding bilingualism. This body of findings motivated the establishment of <i>Bilingualism Matters</i> and, together with the researchers' first-hand knowledge of the broader research background, forms the basis for the dissemination and awareness-raising activities in the community by Sorace and the other members of the <i>BM</i> team.</p>
<p>3. References to the research</p> <p>Sorace, A. (2011). Pinning down the concept of "interface" in bilingualism. <i>Linguistic Approaches to Bilingualism</i> 1: 1-33. (DOI: 10.1075/lab.1.1.01sor) Output returned for REF.</p> <p>Sorace, A. and F. Filiaci, (2006). Anaphora resolution in near-native speakers of Italian. <i>Second</i></p>

Language Research 22.3: 339-368. (DOI: [10.1191/0267658306sr2710a](https://doi.org/10.1191/0267658306sr2710a))

Sorace, A. and L. Serratrice. (2009). Internal and external interfaces in bilingual language development: Beyond structural overlap. *International Journal of Bilingualism* 13: 195-210. (DOI: [10.1177/1367006909339810](https://doi.org/10.1177/1367006909339810))

Sorace, A., L. Serratrice, F. Filiaci and M. Baldo (2009). Discourse conditions on subject pronoun realization: Testing the linguistic intuitions of older bilingual children. *Lingua* 119: 460-477. (DOI: [10.1016/j.lingua.2008.09.008](https://doi.org/10.1016/j.lingua.2008.09.008)) Output returned for REF.

Treccani, B., E. Argyri, A. Sorace and S. Della Sala. (2009). Spatial negative priming in bilingualism. *Psychonomic Bulletin & Review* 16: 320-327. (DOI: [10.3758/PBR.16.2.320](https://doi.org/10.3758/PBR.16.2.320)) Output returned for REF.

Unsworth, S., F. Argyri, L. Cornips, A. Hulk, A. Sorace and I. Tsimpli (2012). On the role of age of onset and input in early child bilingualism in Greek and Dutch. *Applied Psycholinguistics*. (DOI: [10.1017/S0142716412000574](https://doi.org/10.1017/S0142716412000574))

Numerous **grants** awarded to Sorace and collaborators from 2000 on provide evidence of the quality of the underpinning research. These include, but are not limited to, the following, all held by Sorace and collaborators within and beyond the UK:

(1) *First language attrition meets second language learning: interaction of linguistic and executive control factors in late bilinguals* (with F. Keller and T. Bak: ESRC 2011-14, £418K), (2) *School and family together for the integration of immigrant children*, partner with 4 countries, EACEA Lifelong Learning 2012-15, £67K, (3) *Let's become a bilingual family* (partner with 4 countries, EACEA Lifelong Learning 2010-12, £42K), (4) *Bilingualism and cognition retrospective analysis* (with M. Macleod, T. Bak, R. Collacott, G. Davies: SOILLSE: 2011), (5) *Bilingualism and dementia in the Western Isles* (with T. Bak, S. Della Sala and G. Davies: RSE Research Liaison grant, 2010, £800), (6) *Understanding language comprehension in bilingual children* (with L. Serratrice: Leverhulme Trust 2009-10), (7) *Early child bilingualism* (with A. Hulk, L. Cornips, S. Unsworth, and I. Tsimpli: NWO bilateral UK-Netherlands project 2008-10, €100,000).

4. Details of the impact

Sorace established *Bilingualism Matters (BM)* in 2008 as a public engagement project to use the results of the research in which she was engaged, together with other relevant results and her expertise and standing accrued as a researcher, to combat negative public perceptions of bilingualism. The goal of *BM* is to change attitudes toward multilingualism in all sectors of society by providing research-based information in an engaging way. Working towards this challenging goal, *BM's* outreach has had a significant and wide-reaching impact, changing attitudes in individuals and strongly influencing educationalists, health professionals and policy-makers, within and beyond the UK [5.STA]. *BM* crucially draws on the research described above, but also on the researchers' knowledge of the whole field; Sorace's reputation as a research leader has given her the credibility to engage convincingly with the public, from parents to policymakers.

BM has grown rapidly in the UK and across Europe, with events, consultations with stakeholders, responses to 800+ requests for advice in this period and substantial media coverage in British and European national newspapers, radio, and television [5.MED]. Individuals have confirmed the effect of *BM* events on their knowledge of and attitudes to bilingualism. A questionnaire sent out in 2012 to 90 individuals representing a wide range of organisations that had hosted a *BM* event achieved a 70% response rate. 89% of respondents "learnt things about bilingualism [they] did not know before", 91% "discussed bilingualism with colleagues as a result", 87% had become "more aware [...] bilingualism is a resource", most "changed the way [they] relate to bilingual children and families", 73% sought information on bilingualism, 80% visited the website [5.QUE].

In what follows we break down the range of impact according to the targeted constituencies:

Families and teachers

Sorace and others involved in *BM* have given over 60 talks to teachers, parents, children, community groups and cultural institutions, which have raised awareness of the benefits of bilingualism among local monolingual and immigrant parents. After a talk to 150 students from 5 Scottish schools, one Head of Modern Languages commented "Having some solid evidence to support the hunch that the learning of languages is a good thing can only help the cause of those seeking to promote the learning and teaching of languages [...] The existence of *BM* and its

promotion of the research it undertakes seems to me essential" [5.STA]. In 2010 Sorace was invited to Brussels by the European Commission to give advice on setting up the *Piccolingo* campaign promoting multilingualism. Later that year, *BM* organised two events in Edinburgh with the City of Edinburgh Council, SCILT (Scotland's National Centre for Languages), Edinburgh Beltane, and consulates [5.DOW]. Sorace led the Scottish partnership in an EU-funded Lifelong Learning project that supported children learning a language with their parents; a follow-up project recently funded by the EU for three years will take the message to schools and immigrant families.

As part of the University's global strategy, *BM* and "Edinburgh City of Learning" also trialled second language learning for pre-school and primary children in 9 schools, extending their reach to early second language learners from monolingual families. Sending students into schools changed those students' attitudes too. The whole project was evaluated very positively by HMIE [5.ECL] and a new project run by *BM* in collaboration with official agencies is specifically focused on introducing Chinese to first year primary school children. According to the convenor of the Scotland China Education Network (one of the partners) "*BM* [...] makes accessible to practitioners in schools the importance of early language exposure and learning and the underpinning research. This is what we all hope for from the collaboration between universities and schools [...] of which *BM* is a shining model" [5.STA].

Health professionals

If bilingual families are to be encouraged to bring up bilingual children, it is crucial that they are not discouraged by contrary advice from health professionals such as paediatricians and speech & language therapists, who are often unaware of the latest research results on bilingualism. In Scotland, *BM* has provided specific CPD training for speech therapists (Murray Royal Hospital, Perth, 2009) and the Scottish Childminding Association (2010), and for paediatricians, midwives and other health professionals at the hospital of Palmanova del Friuli, Italy (2013). Numbers of participants at each event ranged from 20 to 70.

Policy makers and influential organisations

Members of *BM* have organised over 100 information seminars for organisations including the European Central Bank, Council of Europe, European Commission, and ESRC. These have communicated the benefits of bilingualism for businesses and the economy. Sorace has also been consulted extensively by the Scottish Government. The Chair of the Scottish Government's Working Group on Languages recognised the influence of Sorace's input to the group's recommendations, now being implemented in the Scottish Government's "1+2" plan to introduce two languages in primary schools: "We were greatly impressed by [your work on bilingualism and early language learning], which, together with your own research and other related research which you pointed us towards, greatly informed the thinking and work of the group." [5.EER; 5.STA]. Partnerships in Scotland between *BM* and the English as an Additional Language (EAL) Service of Edinburgh council, and Children in Scotland, have influenced public policy on language learning, reinforcing the message that the home languages of immigrant families should be treated as a rich resource; *BM* seminars are often integrated in EAL and Children in Scotland's regular provision for staff in-service training and parent workshops [5.EAL].

Employers

A successful event with the RSA at the Scottish Parliament, targeting the private sector, led to a high-profile event jointly organised by the *Financial Times* and *BM* in London in February 2013, reported in an extended article on 14 March 2013 [5.FTI]. Attendees, including high-ranking personnel from Shell, HSBC, Deloitte, Deutsche Bank and McKinsey, reported afterwards on the new insights that they had gained ("presentation and discussions on multilingualism were thought provoking; particularly in the part this plays in developing people, including leaders, with more agile brains, rather than simply an ability to speak particular languages"; "From my point of view it could not have been more interesting, helpful and topical. As I explained, I am determined to find a way of embedding language-learning in the development of young people" [5.STA].

Regional and global language communities:

BM reaches across Europe via a network of six branches, created with other people—proof that *BM* is a model that inspires. Branches operate in Tromsø, Norway; Western Isles, Scotland; Thessaloniki, Greece; Trento, Sardinia and Siena, Italy. A seventh branch opens in Reading in

December 2013. Six more are planned for 2014 as a result of the EU/FP7 AThEME grant. As acknowledged publicly on their websites, *BM* was also the acknowledged source of inspiration for the Cambridge Bilingualism Network and the Ulster Centre for Multilingualism. Branches coordinate with *BM* to provide advice to local communities, including supporting bilingualism with regional minority languages.

Working together with Bòrd na Gàidhlig, *BM* has influenced Gaelic policy in Scotland by providing the impetus for the Curriculum of Excellence for Gaelic, a central component of the government's Gaelic plan; the official report stresses the importance of *BM* and Sorace's work on bilingualism in several places ("The research on the attainment of [Gaelic Medium Education] pupils and the work of Prof. Antonella Sorace, University of Edinburgh, with local authorities, are fundamental to the continuing growth of GME and the message of the benefits of bilingualism", and cites her extensively [5.GRE]; the Director of Education, Culture and Sport at the Highland Council also recognised the impact of the research ("The research carried out on bilingualism by the University of Edinburgh has been enormously helpful for the Highland Council in supporting [a] strong and positive message about the benefits of bilingualism through [GME]" [5.STA]).

Sorace's presentations of her research results, together with the work of the local branch of *BM*, has also led to notable changes in Sardinian language policy (e.g. the setting up of training courses for Sardinian teachers as preparation for the introduction of Sardinian as a medium of instruction in bilingual schools) [5.COR].

Increasingly, having become aware of the relevance of the results of the primary research, institutions are commissioning *BM* to carry out further research on their language communities (e.g. Regione Sardegna; Scotland China Education Network), a very welcome development.

5. Sources to corroborate the impact

Individuals who can provide corroboration of claims made in this impact case study:

- 5.COR Impact in Sardinia: Director of Sardinian Language & Culture Service, Sardinian Regional Government
- 5.DOW Importance of the events in Edinburgh, and *BM*'s contribution: Quality Improvement Officer, Edinburgh City Council, Early Years
- 5.EAL Impact on English as an Additional Language (EAL) Service: Acting Head Teacher, EAL Service, City of Edinburgh Council

Other sources of corroboration:

- 5.ECL Impact of the "Edinburgh City of Learning": HMIE report on the whole project
Copy available from the University of Edinburgh.
- 5.EER Scope of Sorace's input to the European and External Relations (EER) committee of the Scottish Parliament, 24 January 2014:
 - a. Copy of official transcript of the session available from the University of Edinburgh;
 - b. EER Report on Foreign Language Learning in Primary Schools (June 2013):
copy of the official report available from the University of Edinburgh.
- 5.FTI Coverage of *BM*'s presentations to business leaders: *Financial Times* articles:
 - a. Initial article: <http://www.ft.com/cms/s/0/b578c4f0-ec3a-11df-9e11-00144feab49a.html>, archived as <http://tinyurl.com/ntscvo5>
 - b. Extended article covering *FT* roundtable: <http://www.ft.com/cms/s/0/3fd31c1a-85b6-11e2-bed4-00144feabdc0.html#axzz2NRGxtfOM>, archived as <http://tinyurl.com/oz9dzdp>
- 5.GRE Report of the Curriculum for Excellence Gaelic Excellence Group:
Copy of the official report available from the University of Edinburgh
- 5.MED Media coverage for *BM*: See links from the media page of the *Bilingualism Matters* website: <http://www.bilingualism-matters.org.uk/category/media>
archived as <http://tinyurl.com/o6hu7co>
- 5.QUE User responses to *BM*-organised events in Edinburgh:
Full details of questionnaire and responses available from the University of Edinburgh.
- 5.STA Impact of *BM* on participants in events, educationalists and policy-makers:
Statements from individuals available from the University of Edinburgh.