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Conducting Interdisciplinary Research in Modern Languages: Towards 'Common Ground' and 'Integration'

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This article explores interdisciplinary working in Modern Languages, drawing on recent theoretical reflection on interdisciplinarity and in particular on the notions of 'integration' and 'common ground'. It is based on the experience of interdisciplinary working in a large project entitled 'Multilingualism. Empowering Individuals, Transforming Societies' (MEITS), one of the Open World Research Initiative projects, led by Wendy Ayres-Bennett (Principal Investigator) and funded by the Arts and Humanities Research Council. After a discussion of interdisciplinary theory and a brief outline of the project and its research questions, the core of the paper explores the process of interdisciplinary research. This involves consideration of how a large research team, with disciplinary perspectives that range from entirely qualitative to strongly quantitative, can approach core concepts in a way that seeks common ground and attempts to build an integrated response to the project's overarching research questions. The article includes discussion of challenges and tensions as well as benefits.

Tweetable abstract: In a new article on interdisciplinary research in Modern Languages, Janice Carruthers and Linda Fisher use interdisciplinary theory to consider how one OWRI project (MEITS) approached 'common ground' and 'integration'.

1. Introduction

In the anglophone world in particular, Modern Languages is a subject area at a crucial moment in its development. Within the academy, there is much discussion about the nature and status of the discipline of Modern Languages, driven in part, but not entirely, by current difficulties at many universities in student recruitment to degrees in languages. In this context, questions such as the following arise: How can the discipline of Modern Languages be defined in Higher Education? What sort of curriculum should it have? To what extent does it incorporate elements from disciplines such as film, creative arts, visual arts, linguistics, education, history and politics? How do languages relate to fields such as digital humanities or medical

humanities? Through which language(s) should teaching take place? Which languages and cultures should be taught? If we opt for an inclusive definition of Modern Languages, how do the different areas cohere within a Modern Languages degree programme? In most university language departments, these debates take place in a highly constrained funding context which can impact powerfully on the responses to such questions.

Current intensive reflection on the discipline's multifaceted undergraduate offering is mirrored, since teaching is research-led, by interrogation of the nature of its research fields. The point is often made that research in Modern Languages is highly multidisciplinary, involving language, linguistics, literature, popular culture, history, politics, visual cultures, digital cultures and so on. Definitions of 'Language Sciences' tend to be even broader, including psychology, education and of course linguistics. While it is increasingly recognised that many global grand challenges, be they around human migration, social cohesion, individual, local and national identity, or health and wellbeing, need to be tackled from an interdisciplinary perspective (Lyall & Fletcher 2013), languages' role in offering solutions remains rather unexplored. This may be because, while the discipline embraces many different research fields, there is in fact relatively little research that explores how these might cohere in answering its own broader questions, let alone wider global challenges. What is clear though, as we discuss below, is that Modern Languages as a discipline is rarely mentioned in the theoretical literature as a field of study that could contribute to interdisciplinarity work. This seems remarkable and all the more reason to explore the ways in which languages can make a visible and significant contribution.

This article therefore considers how, and the extent to which, a Modern Languages-based interdisciplinary project, working with an overarching set of common research questions, can develop new ways of researching that will ultimately create innovative responses that are holistic and greater than the sum of the disciplinary parts. It offers an exploration and interrogation, within a theoretical framework, of the conceptual and practical experience of interdisciplinary research with its centre of gravity in Modern Languages. The article opens by establishing a working definition of interdisciplinarity and engages with some of the theoretical approaches that have shaped recent discussions, concentrating on the notions of 'common ground' and 'integration' (section 2). Since the focus for the paper is the interdisciplinary working of a team of researchers on a large project, section 3 gives a brief overview of the disciplinary configuration within the programme (including its multi-strand structure), followed by the team's working methods in relation to interdisciplinarity and the rationale for the areas on which this paper will focus in sections 4, 5 and 6. Emphasis will be on the process of interdisciplinary working, not on the findings arising from collaboration. As such, although the practice-oriented parts of our discussion necessarily involve a very specific project, with a particular set of research questions, the theoretical concepts that are applied in approaching interdisciplinarity and the working methodologies adopted could, it is hoped, be adapted for other projects that are centred in Modern Languages but have very different research questions.

The research questions guiding this paper are as follows:

1. How can we conceptualise and theorise interdisciplinarity for research in Modern Languages? What models might we draw on?
2. How can we apply key interdisciplinary concepts to the practical realities of a large project?
3. What are the challenges and benefits of interdisciplinary working in Modern Languages?

2. Theorising Interdisciplinarity

2.1. Applying a theoretical underpinning to interdisciplinary research in Modern Languages

Much has been written about the differences between interdisciplinarity, multidisciplinary and transdisciplinarity. As Repko and Szostak put it, ‘multidisciplinarity refers to the placing side by side of insights from two or more disciplines’ (2017: 23); ‘transdisciplinarity involves the integration also of insights generated outside the academy, a team approach to research, the active involvement of non-academic participants in research design, and a “case study” approach’ (2017: 25); while ‘interdisciplinarity studies a complex problem (including mega ones) by drawing on disciplinary insights (and sometimes stakeholder views) and integrating them’ (2017: 26–7; see also Newell 2013).¹ The project under discussion here, i.e. MEITS (Multilingualism: Empowering Individuals, Transforming Societies), is both interdisciplinary and transdisciplinary, the latter relating to the way in which the project co-creates research with its non-academic partners (government departments, grassroots organisations, schools, community groups etc.). However, this paper focuses exclusively on interdisciplinarity. All of these terms assume the existence of ‘disciplines’, often defined in ways similar to Widdowson’s (2018: 137): ‘academic disciplines are defined and distinguished by specific theoretical concepts and methodological principles which constitute an authorised version of knowledge.’ Our working definition of Modern Languages is a broad one, close to that adopted by Swaffar (1999) – in other words, a discipline that includes language, literature, culture and linguistics. When we consider a definition of a ‘discipline’ such as Widdowson’s and a definition of Modern Languages such as Swaffar’s, it becomes obvious that Modern Languages’ perceived inherent multidisciplinary nature is both a strength and a weakness, an opportunity and a challenge. In practice, it is not straightforward to talk about common ‘specific theoretical concepts and methodological principles’ as Widdowson’s definition does, since areas such as language teaching, linguistics and literary-cultural research (including visual, digital, popular cultures etc.) in fact draw on a large variety of epistemologies, theoretical concepts and methodological approaches. As Repko and Szostak note, in any interdisciplinary project, not only the disciplines but also some of the sub-disciplines will have their own ‘phenomena, epistemology, assumptions, concepts, theories, and methods’ (2017: xxiii). Moreover, Modern Languages, with its complex multidisciplinary structure, is not unique. It is worth bearing in mind that much has also been written about the interdisciplinary nature of Applied Linguistics, some of which addresses its relationship to Modern Languages (see, for example, the 2018 AILA special issue on transdisciplinarity).² This relationship is on the one hand close (language teaching is by definition connected to second language acquisition) and on the other also highly problematic, not just in methodological but also structural terms in many institutions, where Modern Linguists and Applied Linguists often have few or no research links (Warner 2018).

Drawing on the research by scholars such as Repko, Szostak and Newell, this paper will utilise two specific concepts from theoretical discussions of interdisciplinarity: those of ‘integration’ and ‘common ground’ (section 2.2). Discussion of their application in MEITS will involve interrogating the process of interdisciplinary working, including its challenges and

¹ Note that there are at least two different definitions of ‘transdisciplinarity’ in the literature. One, as with Repko and Szostak’s, involves co-creation of research with non-academic partners; the other aims to transcend disciplinarity within the academy and is therefore closer to other definitions of inter- and multidisciplinary (see the discussion in Perrin & Kramersch 2018).

² AILA (*Association Internationale de Linguistique Appliquée* or International Association of Applied Linguistics) is one of the main international associations in the field of Applied Linguistics.

limitations as well as its benefits. For example, one of the main challenges is to achieve the transformative goal of integration while at the same time ensuring what Repko and Szostak call 'disciplinary adequacy' (2017: 147), such that the findings of the research are considered sufficiently robust within the terms of the different disciplines involved. If there are researchers in literary studies and cognitive neuroscientists on the same team, as there are in MEITS as we shall see, how can positivist and interpretivist viewpoints be reconciled and the results of their endeavours integrated 'when those results presuppose incompatible methodological, epistemological and ontological positions'? (Holland 2014: 14). As Holland points out, the problem of integrating knowledge through interdisciplinary research is a problem of knowledge and of knowledge production.

2.2. The concepts of 'integration' and 'common ground'

'Integration' is defined by Repko and Szostak (2017: 221) as 'the cognitive process of critically evaluating disciplinary insights and creating common ground among them to construct a more comprehensive understanding'. This integration assumes that 'concepts, assumptions, or theories are modified in order to reconcile insights regarding the same problem from two or more disciplines' (2017: 18–19). There is an understanding that there may be limits to how far this process can be stretched and, indeed, a number of potentially major stumbling blocks have been highlighted (2017: 222–4), including the following: disciplinary fragmentation (we are not just dealing with disciplines in many instances but with a host of sub-disciplines); epistemological barriers (incommensurable concepts that are so qualitatively distinct that the gaps are unbreachable); conflicting perspectives and ideologies (both within and between disciplines); and the variety of possible results (a plurality of understandings is achieved rather than an integrated understanding). However, for many contemporary theorists of interdisciplinarity (e.g. Repko, Szostak, Newell), there is enough evidence, not least from cognitive psychology, to suggest that a high degree of integration is achievable: 'researchers should strive for the greatest degree of integration possible given the problem under study and the disciplinary insights at their disposal' (Repko & Szostak 2017: 19).

The concept of 'common ground' is implicit in the notion of integration (Repko & Szostak 2017: 18; Sven Arvidson 2014) and has emerged from research in cognitive psychology (Clark 1996; Bromme 2000). Repko (2012: 56–7) defines common ground as 'the shared basis that exists between conflicting disciplinary insights or theories and makes integration possible', highlighting the important link between common ground and integration. Integrationists also acknowledge that projects embracing 'wide interdisciplinarity' (i.e. disciplines whose epistemologies are far apart) can pose more substantial problems in terms of establishing common ground than 'narrow interdisciplinarity' (where epistemologies are more closely linked: Repko & Szostak 2017: 272–3). The theoretical literature on 'common ground' emphasises a number of 'techniques' that can be applied to concepts or ideas where there are significant differences between the collaborating disciplines, notably redefinition, extension, transformation and organisation (Sven Arvidson 2014; Repko & Szostak 2017). We shall return to some of these techniques below.

3. Interdisciplinarity and the MEITS Project

In order to discuss the application of concepts such as 'common ground' and 'integration' to specific areas within MEITS, in this section we give a brief outline of the project and its structure relative to Modern Languages and to interdisciplinarity.

3.1. Conception and structure of the project

The research project underpinning this paper has its centre of gravity in Modern Languages. MEITS (www.meits.org) is a large project with over thirty researchers from four universities

(Cambridge, Queen’s University Belfast, Nottingham and Edinburgh) and six research fields: literary-cultural studies, history of ideas, sociolinguistics, education, second language acquisition and cognitive neuroscience.

The Principal Investigator’s priority in assembling the team was to invite researchers in Modern Languages and other disciplines with the capacity to contribute to the ‘grand challenge’ of this research project, i.e. demonstrating the value of speaking more than one language, particularly in the current UK context where Modern Languages in Higher Education and language learning in schools are going through a period of crisis. The early stages of conception and structuring of the project could be said, therefore, to map loosely onto the ‘Research Map’ drawn up by Repko and Szostak (2017: 113ff.), in the sense that discussion was guided by questions such as:

- What is the purpose of the research?
- What disciplines are potentially relevant?
- What are the key perspectives of each discipline?
- What are the fundamental assumptions underpinning each discipline?

It is important to articulate from the outset – especially in light of the strand names in **Figure 1** – the reasons why we consider the project’s centre of gravity to be firmly positioned in Modern Languages and how the disciplines outside Modern Languages relate to this. First, three of the six strands (1, 2 and 3) involve the Principal Investigator and Co-Investigators who are (or have been) firmly embedded in Modern Languages units in the UK Higher Education system, both in terms of research and teaching. Indeed, all have held leadership roles in those units, either as head of a language department (French, German, Irish, Slavonic, Spanish) or as head of a school of (or including) Modern Languages. The diversity of their specialisms in literary-cultural studies, history of ideas and sociolinguistics is a reflection of university units that demonstrate a ‘broad church’ conception of Modern Languages which, in our view, is essential for the future health of the discipline, particularly in terms of attracting students from diverse educational backgrounds. Second, in the strands that are rooted in disciplines other than Modern Languages, two (strand 4 [Education] and strand 5 [Applied Linguistics]) have language learning at their core and one (strand 6 [Cognition]) focuses on the health benefits of language learning and being bi- or multilingual. They thus share a common goal of promoting the value of languages. Furthermore, although strand 4 is situated in the discipline of Education, researchers who work in the field of ‘Modern Languages

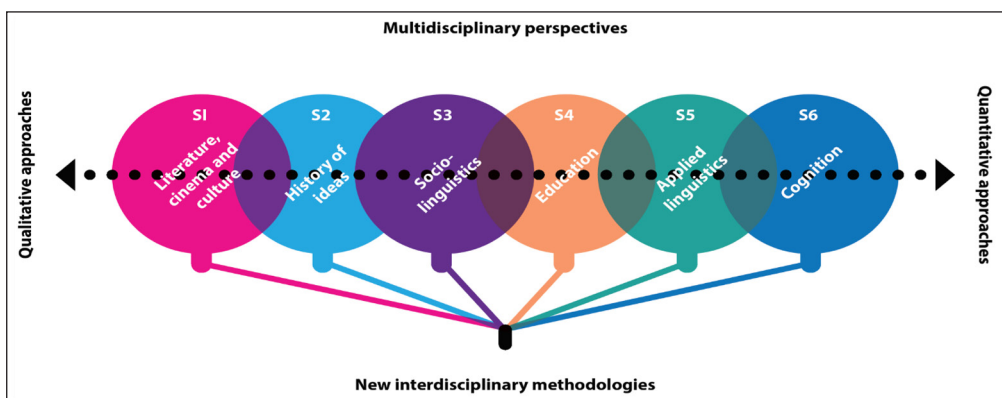


Figure 1: The Six Research Strands of MEITS.

Education' always have an academic background at degree level in Modern Languages (they are Modern Linguists who have specialised in education, not the other way around), and crucially, they have a vital role to play in the educational theory and practice that will inspire the next generation of Modern Languages students. In short, in this large interdisciplinary project there is a conscious balance of disciplines that are brought together to respond to a grand challenge: a clear critical mass of researchers across three strands are firmly situated in Modern Languages, while researchers on the other three strands work in disciplines other than Modern Languages but share a common belief in the benefits of learning languages for individuals and for society.

3.2. Project-wide research questions

In order to maximise the possibility of an 'integrated' response to the 'grand challenge', a series of overarching research questions frame the entire project. In deciding on these questions as a team, it was important that they made sense from a disciplinary perspective for each strand, but equally they were designed to benefit from interdisciplinary insights, with strands contributing in different ways to particular questions:

- a. What is the relationship between the multilingual individual and the multilingual society?** What does it mean to be multilingual in a monolingual/multilingual society? Or monolingual in a multilingual society?
- b. What are the opportunities and challenges presented by multilingualism?** How might multilingualism benefit individuals, enhance communities, enrich cultures and foster social cohesion? To what extent might multilingualism disadvantage individuals, dilute culture, divide communities or fragment societies?
- c. What is the relationship between multilingualism, diversity and identity?** How does this play out at the individual, local, regional, national and international level?
- d. What is the relationship between multilingualism and language learning?** Who can/should learn additional languages, and in what contexts? How do age and other factors affect motivation, achievement and wellbeing?
- e. How can we influence attitudes towards multilingualism?** How can we change the attitudes of individuals and societies and inform language policy?
- f. How can we re-energise Modern Languages research?** Can we reinvigorate the discipline by broadening its scope and developing new interdisciplinary methodologies?

Integration is vital in order to answer these questions. Each strand has its own research questions but strand-level findings also feed into an interdisciplinary integrated response to the project-wide research questions.

3.3. Working methods

In order to take forward the concepts of 'common ground' and 'integration', the process of interrogating different disciplinary epistemologies, terminologies and methodologies would be crucial. The project Management Group, consisting of the Principal Investigator and all the Co-Investigators (13) decided, therefore, that 'interdisciplinary working' would constitute a key substantial session (90 minutes to two hours) at our research team meetings (2 or 3 per year), heeding the warnings of Lyall and Fletcher (2013: 2) who note that 'interdisciplinary research does not occur automatically, even when public funding encourages it. It is not a simple case of aggregating several disciplines into one research project. Extra effort is needed to achieve the promise of synergy and to form a genuinely cohesive team which combines expertise from several specialisms.'

In total, the research team devoted seven substantial sessions to sharing, problematising and taking forward the issues. These discussions were led by the authors of this paper, with input at every stage from the Principal Investigator and all the team members. As will be clear, much further interaction has taken place outside the research team meetings, either by email, webcam communication (e.g. Skype), or through workshops on particular issues or on emerging cross-strand areas of new research interest. The primary focus of these project-level discussions was the process of interdisciplinary working, including: how to establish common ground; how to handle problematic issues; how (and whether) methodologies can be influenced by interdisciplinary working; and how (and whether) a new integrated understanding can be developed in response to the project's research questions and central challenge. This paper incorporates the input of all members of the research team and the material at the authors' disposal includes: recorded discussions on a range of specific issues from whole-team meetings; detailed materials from cross-strand working (including workshops and training sessions); multiple whole-team emails following up on particular aspects of discussions; and individual emails following up on specific issues.

3.4. Key areas for discussion: epistemological and methodological considerations

A number of concepts are central to the project in the sense that they are important components of the research questions in several strands and are integral to the project-level research questions. In some cases, these are overarching concepts such as 'identity' (central to strands 1, 3 and 4; important for 2 and 6), 'motivation' (central to strands 4 and 5; important for 2, 3 and 6), 'proficiency' (central to strand 5; important for 2, 4 and 6) or 'standard' (central to strand 2; important for 1, 3, 4 and 5). In other cases, we are dealing with complex constructs such as gender and socioeconomic status, where definitions and understandings impact on both theory and methodology across the project.

Sections 4 and 5 below explore the concept of 'identity' (4) and the question of terminology/definitions in relation to categories such as 'gender' and 'socioeconomic status' (5), as debate around these typified the communication, collaboration and tensions encountered in the process of interdisciplinary working. Identity is a core concept in five of the six project-level research questions, not only in terms of how individuals (speakers, writers, narrators, characters etc.) position themselves or are positioned (culturally, nationally, regionally, multi- or monolingually etc.), but also with respect to how different languages are framed and how identity relates to questions of language policy. Section 5 addresses the question of cross-strand terminology because issues of definitions and classifications with respect to concepts such as gender and socioeconomic status are crucial for any attempt to integrate findings across the different strands. In each case, we analyse how the team approached key theoretical issues together, and how these discussions impacted methodological decisions. Section 6, in response to the final research question above on the emerging benefits of interdisciplinary working, gives a short account of the development of innovative methodology between two of the strands with traditionally very different approaches. In all cases, in the light of theoretical discussion around interdisciplinarity above (2.2), the concepts of 'integration' and 'common ground' will be kept to the fore and the question of handling possible conflicts will be touched upon.

4. 'Identity': Epistemological Common Ground and Methodological Outworkings

4.1. Working definitions and 'common ground'

As can be seen from the overarching research questions, several different dimensions of identity come into play, including national identity, regional identity, community/group identity, cultural identity, political identity, monolingual/multilingual identity. These identities are

often interrelated. For example, questions of national identity are linked both to regional identity and to community identity in contexts where there are particularly strong regional identities (e.g. Catalonia: strand 1); in post-conflict contexts where identity is contested (e.g. Northern Ireland: strand 3); in historically and politically complex areas (eastern Ukraine: strand 1; Luxembourg: strand 2); and for many members of immigrant communities, including families in the UK (strands 4 and 6) and elsewhere (France: strand 3). Political and cultural identities are linked in complex ways to national, regional and community identities. For instance, Catalonia, eastern Ukraine and Northern Ireland illustrate well the intersection between political, cultural, regional and national identities, while immigrant communities are often multilingual, multicultural sites, where people of different generations and different social groups have different identifications in terms of their relationship to the English language and to their community language(s). Writers and speakers in these contexts may have differing perceptions of the extent to which they might be monolingual or multilingual. Indeed, in the case of China, there is a major challenge in how to translate the very notion of 'multilingual' to the Chinese context, where many non-mutually intelligible varieties spoken by Han Chinese are nevertheless generally considered 'dialects', so that individual and societal understandings of categories such as 'multilingual' versus 'monolingual' (within which we might have a repertoire of varieties) are quite different to those in other parts of the world.

Because of the complexity of the identity construct, we agreed it would be essential to examine how identity was theorised and operationalised within the team, before addressing any 'redefinition' (Repko & Szostak 2017) that might be necessary for finding common ground. The researchers in strand 1, for example, who work on literary texts, film and other forms of visual cultures in Catalonia and eastern Ukraine, are engaged in close textual analysis informed by several theoretical influences, including gender theory and poststructuralism. They emphasise identity as a fluid, social positioning of self and other, as constituted in language. For these researchers, the materiality and metaphoricity of language means that all definition is provisional and inadequate. Strand 2's research deals with both fluid and fixed conceptualisations of identity. In its work on historical sources for language standardisation in China, strand 2 has taken a discourse analysis approach to the construction of more or less fixed, idealised and even ideologised identities in discourse. As in strand 3, strand 2 has also examined the ways in which language practice and language attitudes help express, and reflect, different aspects of complex and fluid identities (e.g. national, regional, urban and ethnic identities in China). It is important to keep in mind, too, that adopting a largely contemporary conceptualisation of multilingual identity poses different challenges when looking at historical data. Both theoretically and methodologically, this requires a different approach to identity, taking into account the specific sociolinguistic space of the period under investigation. Strand 3's sociolinguistic work on France and Ireland involves both categories of identification and individual identities. Speakers position their identity in relation to a complex mix of factors, with political, cultural, regional and national dimensions in play. Strand 4's focus is on the extent to which school learners identify themselves as multilingual, European and/or global, and how this relates to school attainment, motivation and attitudes. As is the case for strands 2 and 3, this arguably involves some 'essentialisation', in the sense that identity and identification have to be captured and categorised at discrete moments, though with the possibility of change in multilingual identity development over time (for a fuller discussion see Fisher et al. 2018). For strand 5, identity is much less central, while for 6, identity was not flagged initially, but its importance grew as the project progressed, so that aspects of identification were increasingly being considered, as discussed in section 6 below.

The common ground that our research team discussions established was thus viewing identity as both individual and societal, dynamic and negotiated, multifaceted and in a continuous process of construction and reconstruction. So, for the most part, several strands were able

to cluster around a broadly poststructuralist perspective on identity, drawing on Anderson (2016) and Giddens (1991), where identity is seen as dynamic, multiple, socially constructed and historically situated. This is perhaps unsurprising given that this has become the 'default epistemological stance' (Block 2006: 34) for identity researchers in the languages area. To an extent, therefore, there was a coherent 'ontology of integration' (Holland 2014: 8) here, which was often impossible to separate from the epistemological outworkings of the traditions in which the strands sit. Strand 1's work emerges from a postmodern tradition, stressing the insufficiencies of categorisations and questioning the very need for a sharp divide between empirical and theoretical approaches to identity. Strands 2, 3 and 4 also conceptualise identity and identifications as having poststructural aspects, that is, there is recognition of the fluidity of identity. However, their research does not fit neatly within a poststructural epistemology, given aspects of their disciplinary traditions, requiring their work to consider sociolinguistic/sociocultural variables and their categorisation – however much these might be contested or dynamic. For example, the complexity for the researchers in strand 2 who are working on China has been in the space between self-identification and labels such as 'ethnic' or 'national' identities used both by state authorities and by linguistics as a discipline. The mechanism by which a person in China is assigned a specific ethnicity by the state does not necessarily match any self-identification (the opposite scenario from Northern Ireland, where individuals choose between British and Irish for their national identity). In short, given that different strands were occupying a broadly similar ontological space, there was arguably enough common ground to justify some future integration of results.

4.2. Methodological outworkings

While there was some common ground in the conceptualisation of identity, different strands naturally operationalised their research differently. The tension here was around how each strand could produce research of sufficient robustness to satisfy the demands of its own tradition and yet allow for the possibility of integrating findings. The first step towards this was to understand how the various strands were conducting their research and how they were seeking to develop their own methodologies, an example of which is presented here.

Strand 4 (Education) is a sub-discipline that is in itself interdisciplinary, insofar as 'the focus of language education is not simply language; it is a confluence of language, culture, intercultural capabilities, learners, learning, teachers, pedagogy, curriculum, policy etc.' (Liddicoat 2018: 16). This necessitates a variety of research methods, as research questions can straddle a wide range of topics. In this case, strand 4 researchers' multi-theoretical conceptualisation of identity also required a methodology that embraced quantitative and qualitative approaches in order to understand participants' identifications of themselves in relation to complex constructs such as 'multilingualism' or 'nationality' or indeed 'European-ness'. The issue of 'essentialisation' of identity (i.e. how to capture identity with larger cohorts in a measurable way for quantitative research), while still acknowledging complexity and individuality, became central to the work of this strand and others researching aspects of identity, notably strand 3. Considering how they could best capture a large cohort of adolescents' identifications of themselves as 'multilingual' or 'monolingual' over several points in time, the strand 4 team decided that an interval-based Likert approach, where participants are presented with a statement such as 'I consider myself multilingual' and must then choose a category (e.g. strongly agree; agree; neither agree or disagree; disagree; strongly disagree), was too blunt an instrument and did not allow for enough nuance in response because of the small number of categories.

Drawing on research in other social sciences and particularly in clinical medicine, they decided to use a 'Visual Analogue Scales', where students put a cross on a continuous 100 mm straight line, with labels such as 'monolingual' and 'multilingual' as end-points of the orientation, and with space for students to give reasons for their cross placement.

Monolingual _____ Multilingual

Lending itself better to longitudinal testing for change (where subtle shifts can be measured along the line between 0 and 100 mm), this also served as a good prompt for in-depth participant interviews, where the participants were asked to speak about why they put their cross where they did.

Inter-strand discussions of similar methodological difficulties subsequently led to developments in other strands' work with identity. Strand 3, alongside the use of classic 'quantitative' sociolinguistic variables such as age, gender and so forth (see the discussion below in 5), also wished to capture speakers' perceptions of their identity along several complex axes (national, political, regional, cultural etc.) for the purposes of qualitative analysis. Following group discussions of strand 4's choice of the scalar method of capturing speaker identity outlined above, strand 3 decided to move away from the types of categorical distinctions that are more widely used in quantitative sociolinguistics and adopted a scalar approach when discussing with speakers questions around, for example, their identity as French or from one of the immigrant communities in France; as British or Irish; or as a speaker of 'new' or 'traditional' Breton.³ For instance, speakers from multi-ethnic communities in Paris and Marseille were not asked to self-identify according to binary categories such as 'Algerian', 'French' but along scalar lines such as:

Completely French _____ Not at all French

Similarly, Breton speakers were asked to self-identify on a scale from 'completely Breton – not at all Breton' and 'completely French – not at all French'.

Through sharing our thinking on identity and in particular on the potential 'essentialisation' of identity in our work, researchers in strands 3 and 4 were practising the epistemological self-reflexivity promoted by Klein (1996) as vital for researchers engaged in interdisciplinary working. Arriving at a way of working that better reflected their epistemological take on identity as potentially fluid was particularly valuable for both strands 3 and 4, where the identities in question are problematic because they are often politically or culturally sensitive (e.g. identifying as British or Irish in Northern Ireland; identifying as Pakistani or British in Britain).

Identity is thus a concept where, despite the multiple dimensions at play in the MEITS project, common ground was found. While there were no particularly strong instrumental implications for some researchers (for example, those working on literature and cinema in strand 1 who would never find themselves 'measuring' identity), discussions around our conceptualisation of the identity construct enabled others to find both epistemological and methodological common ground. For researchers in strands 3 and 4, the scalar approach therefore emerged from interdisciplinary working, meaning that there is a stronger prospect of better integration of findings. It is a good example of 'perspective-taking' (Repko & Szostak 2017: 15), that is, the discussion and analysis of common issues from a different perspective, thus throwing light on our own working and bringing about change. Certainly, the process of sharing and listening catalysed a review of the epistemological assumptions and methodological traditions inherent in our approaches to identity in our strand work, and it is here that the 'critical' aspect of the interdisciplinary work in MEITS lies. In the terminology of Repko and Szostak, our handling of the concept of identity thus involved definition and then 'extension' – in other words, 'extending a theory, or the assumptions underlying a theory, so that it includes elements identified by other authors' (Szostak 2013: 58).

³ 'New' Breton is associated with young, urban speakers who have learnt Breton as a second language. 'Traditional' Breton is associated with native speakers of the language who are often rural (sometimes elderly) and usually speak one of the dialectal varieties of Breton (see Jones 1995).

5. Gender and Socioeconomic Status: Common Ground, Compromise or Conflicting Perspectives?

The second example of interdisciplinary working considers tensions in the area of knowledge production arising from the differing epistemologies of the strands. For strands 2–6, a number of different types of data were gathered about speakers, central to answering several whole-project research questions, in particular: (c) What is the relationship between multilingualism, diversity and identity? *How does this play out at the individual, local, regional, national and international levels?*; and (d) What is the relationship between multilingualism and language learning? *Who can/should learn additional languages, and in what contexts? How do age and other factors affect motivation, achievement and wellbeing?* Trying to achieve an integrated response required us to ask a fundamental question: how can we best ensure that categories within our data and metadata such as age, gender or socioeconomic status are understood in ways that are compatible and/or comparable? As with identity, issues of both knowledge and knowledge production are implicated.

The team decided to address this issue at one of our early meetings, when the strands conducting empirical work were preparing their schedules for questionnaires and interviews. In order to start with a clearer picture of the range of metadata strands were working with, we sent a template to be completed before the meeting, asking each strand to consider the information required about speakers (the *knowledge*), rather than the questions that researchers intended to ask in order to get that information (the *means of production*). Face-to-face discussion at the research team meetings could then focus on clarification as to the epistemological assumptions behind certain practices, as well as the means of knowledge production.

The categories that emerged included: age; gender; language background and exposure (current and past); language background and exposure of other members of family/household; residence/location (current and past); job/profession (current and past); education level (for those who have left formal education); job/profession of parents/carers; education level of parents/carers. Not all speaker information metadata were equally important for the different strands. In some cases, particular categories were key (e.g. age in strand 5; age and gender in strand 6; language background/exposure in strands 2, 4 and 5). In other cases, certain information simply provided important background, but was not something that formed part of any quantitative analysis (e.g. job/profession in strands 2 and 3; current and past residence in strand 5). We were aware that each strand had its own research objectives as well as constraints, such as the age or literacy levels of participants (strand 6 is working with autistic children and elderly participants; strands 4 and 5 with school pupils), or the conditions of the fieldwork (e.g. interviews in a politically sensitive context in strand 3; practical limitations due to timetabling and availability of school pupils in strands 4 and 5).

The team discussed all speaker variable categories to see if we could find some common way of progressing on each to improve potential comparability and thus integration of findings. Common ground was achieved fairly easily on age, as most strands treated it as a continuous variable. Current and past residence (i.e. noting region and country of residence of speakers at different points in their past) proved straightforward for most strands apart from strand 5 which, for reasons of cultural sensitivity around urban migration in China, did not wish to explore past residence and therefore preferred not to try to gather metadata in this area. Current and past language usage/exposure required a good deal of debate to find a common approach that would suit the research needs of the individual strands; we agreed to ask which languages the speaker uses or is *regularly* exposed to now, or has been in the past, and the nature of that usage/exposure for each language (e.g. language(s) spoken most frequently at home, languages learned in a formal context, language(s) spoken at work).

Data were gathered in each of these areas by several strands, with strands gathering further information in specific areas if it was useful for them.

Gender was a category that generated some tension in the search for integration of knowledge-production methods, having at its heart issues that arose first in our discussion of identity and which led, as one Co-investigator put it, to 'a thorough questioning of empirical assumptions'. Initially, strands operating within an experimental science paradigm, such as strand 6, planned to use gender as a binary (male/female) categorical variable – not in any ideological sense, but simply as many prior studies had empirically documented male/female differences (e.g. for language disorders). Having fewer categories was also felt to increase the statistical power to detect significant differences. Other strands (e.g. 3 and 4) for which identity is a central construct, were keen to move away from this binary and offer at least a third category. For many researchers across strands containing a quantitative dimension (at least 3, 4, 5 and 6), it was obvious from early on in the discussion that while a binary gender categorisation felt inappropriate, it was something that had become embedded in their discipline over many years. The literary-cultural researchers in strand 1, while not gathering speaker variable data (as there is no empirical work), contributed most to our gender identity debate, raising issues to do with the statistical 'inconsequentiality' for certain human subjects (for example, the transgender community) inherent in traditional binary categorisations. Following whole-team discussion of the issues raised by strand 1, for whom gender theory is central, the relevant members of the team reached a compromise position that would allow each strand with empirical data to achieve 'disciplinary adequacy' (Repko & Szostak 2017: 147) while generating comparable speaker data with respect to gender. The cognitive linguists became convinced that three options – 'male', 'female' and 'other' – would still enable them to generate the statistical data they needed to achieve disciplinary adequacy, while allowing participants more flexibility than a binary categorisation. The wider team, while acknowledging the lack of specificity of the 'other' category in relation to current discourse around gender and the risk that it might make some participants feel 'othered', nonetheless accepted this three-way categorisation as a means of offering participants a way of rejecting a binary choice. Led by the non-empirical literary-cultural researchers in strand 1 and their critical theorising of gender, our common ground practice for the empirical strands whose research had a quantitative dimension was thus in practice a workable compromise.

For other concepts, and after extensive discussion, we concluded that attempting to find common ground through some across-the-board measurement would be unproductive, given the different reasons motivating each strand's approach. One example concerns the gathering of information that might allow us to draw conclusions about socioeconomic status (SES). This is a notoriously thorny problem for researchers working in several of the disciplines in the project, notably linguistics, education and cognitive science. There is, in fact, no consensus on how to measure SES (see Diemer et al. 2013; Milroy & Gordon 2003) and factors assessed in various models in the literature include income, address, education, blue-collar versus white-collar status and wealth indicators such as holidays, home ownership and so forth (Milroy & Gordon 2003). Given the breadth of measures available for measuring SES and the problematic nature of almost any method, and considering the fact that none of our project-level research questions centres on socioeconomic status (and thus the reduced need for comparability), we opted to leave the choice of measurement tool open to the different strands, as appropriate for their research questions and their participants. Many of the proxies that are generally used to measure SES were adopted; strands 2 and 3, for instance, gathered information on participants' jobs. For strands 4, 5 and 6, all of which had participants under 18 years of age, measuring SES is even more complicated. Svedberg, Nygren and

Staland-Nyman (2016) note that measures involving adolescents often give a partial picture; these individuals frequently do not know how to report their parents' jobs, giving the place they work rather than their role, and so it could be more reliable to combine a number of different measures. Strands were free to use more than one measurement, although there were also practical considerations, as adding extra items can make questionnaires too burdensome to complete and process. In the end, strand 4 asked about parental education, as did strand 5 which also asked about parents' jobs, while strand 6 asked about wealth indicators such as cars and holidays related to an FAS (family affluence scale).

As these examples show, where knowledge production was concerned, the route to common ground was not without tensions and, as a result of inter-strand negotiation, these were resolved in different ways: in some cases, no integrated approach was achieved (e.g. on socio-economic status), while in other cases, a negotiated 'compromise' was reached that all strands could accept (e.g. gender).

6. Cross-Strand Working and Interdisciplinary Influence

In some instances, the sessions on interdisciplinarity led organically to specific cross-strand partnerships, which in turn led to significant changes in approach. For example, strands 3 (sociolinguistics) and 6 (neuroscience) have collaborated in developing new methodologies for data collection. Two workshops on fieldwork and data collection methodologies complemented the larger whole-project discussions, and one of these involved the researchers in strands 3 and 6 only, as strand 6 was interested in exploring some specific features of sociolinguistic fieldwork methodology. In particular, strand 6 wished to incorporate focus groups into their data collection and since these are used widely in strand 3's work in France and Ireland, training sessions were developed between strands 3 and 6 in the area of focus group and interview-based fieldwork. As a result of this collaboration, strand 6 now incorporates a strong qualitative dimension in its methodology, which had previously been entirely quantitative.

One aspect of strand 6's work focuses on assessing quality of life and cognitive skills in healthy adults and patients with early onset dementia before and after the intervention of a language-learning course. These cognitive skills are measured by well-established discipline-specific cognitive tests. Through incorporating focus groups and interviews developed as a result of collaboration with strand 3, researchers in strand 6 were able to gather qualitative data from patients and carers on the benefits of learning a language that go beyond the measurable quantitative ones. The cross-disciplinary discussions were, in the words of one of the strand 6 researchers, 'eye-opening', leading to the recognition that 'different methodologies can tackle different aspects of our research to fit different purposes more appropriately'. Focus groups and interviews were incorporated into the neuroscience fieldwork to gather participants' opinions, feedback and user experience about language courses taken by patients, carers and dementia centre managers. The cross-strand collaboration also included use of data analysis software and, here again, qualitative tools such as NVivo were subsequently adapted to analyse the focus group and interview data in strand 6. The overall result of this collaboration is that strand 6 now uses a combination of discipline-specific quantitative methods (such as cognitive tests) alongside qualitative methods (such as focus groups and interviews) in tackling the multiple factors at work in the context of elderly patients with early onset dementia. Researchers from both strands are co-authoring an output (Bak, Vega-Mendoza & Dunlevy in preparation) that demonstrates and discusses the transformational effect of this interdisciplinary collaboration on methodology and the ways in which it has facilitated what Repko and Szostak (2017: 323) call a 'more comprehensive understanding' of the benefits of language learning for those with early onset dementia.

7. Conclusions and Implications

We began by reflecting on the diversity inherent in Modern Languages teaching and research. As a discipline, Modern Languages can certainly be characterised as multidisciplinary in many ways but perhaps less obviously as interdisciplinary in the sense understood by theorists of interdisciplinarity. Drawing on theoretical concepts that are central to research on interdisciplinarity, this article has attempted to interrogate both the benefits and the challenges of interdisciplinarity working as exemplified in a large interdisciplinary project whose centre of gravity is in Modern Languages. As might be clear from the preceding analysis, the move from multidisciplinary to interdisciplinarity is not straightforward in a context where each of the six strands – three positioned within a broad definition of Modern Languages and three in other disciplines – sits within its own epistemic and methodological traditions. As Lyall and Fletcher (2013) suggest, moving forward requires much structured discussion and negotiation.

Drawing primarily on Repko and Szostak (2017) and Newell (2013), we have explored here the possibility of establishing common ground that would help build an integrated interdisciplinary response to our grand challenge and our research questions. In certain areas (notably 'identity'), this led to what interdisciplinarians refer to as an 'extension' of the concept and a shift in methodological approaches as part of an attempt to match such theorisation with instrumental practice (e.g. in this case, the use of visual analogue scales). In other instances (such as the category of 'gender'), the team was able to agree methodological 'compromises' that would facilitate integration. Elsewhere, alternative methods have been deployed to complement existing ones (e.g. the qualitative sociolinguistic dimension that has been embedded in the neuroscience strand), although thus far, it is important to note that the methodological influence of the qualitative on the quantitative has been greater than the reverse. In other areas, the team has had to acknowledge that common ground cannot be found or that methodological imperatives at strand level or in relation to disciplinary adequacy risk being compromised (this is particularly clear in the case of discussion of socioeconomic status). In all cases, interdisciplinary working has involved listening, practising reflexivity, resolving tensions and learning from each other.

A sense of 'critical interdisciplinarity' has emerged across the project. Like all research projects, MEITS has its own distinctive disciplinary and interdisciplinary configuration as outlined in section 3. Clearly, other interdisciplinary projects will have different configurations and different research questions. This paper has not sought to suggest that 'one size fits all' in terms of how certain theoretical concepts such as 'common ground' and 'integration' might be applied. Rather, the authors, as members of a large interdisciplinary team, have attempted to apply and to problematise the application of these theoretical concepts in relation to key constructs in MEITS. It is hoped that other interdisciplinary Modern Languages-centred projects with different interdisciplinary configurations could build on elements of our approach in order to create what Repko and Szostak (2017: 323) term 'a more comprehensive understanding' in response to their own research questions. Importantly, this might also see Modern Languages included more widely in larger interdisciplinary projects, thereby foregrounding their potential role in responding to contemporary global challenges.

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