L2 motivation research 2005–2014: Understanding a publication surge and a changing landscape

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ABSTRACT

The study of L2 motivation has seen an unprecedented boom during the past decade, with the number of published studies in the area far exceeding not only the amount of work done in other domains of language learner characteristics but, in fact, most strands within the whole of SLA research. This study examines the origins and nature of this extraordinary surge by reviewing a large dataset of journal articles and book chapters published between 2005 and 2014 (N = 416) in terms of the broad quantitative patterns they display with respect to theoretical and research methodological trends. The results (a) provide insights on the changing landscape of the field and (b) allow for projections to be made about the directions in which the field is headed.

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1. Introduction

The pursuit by researchers to better understand L2 motivation has traditionally been the most developed area in the study of the psychology of the language learner. Indeed, in their recent book-length overview of individual differences, Dörnyei and Ryan (2015) noted that over the past decade, “[o]f all the constructs covered in this book, motivation is the one that has been subject to the most thorough theoretical overhaul” (p. 72). During their analysis of these developments, the authors also observed an unprecedented surge in the number of publications relating to L2 motivation from 2005 to 2014. Based on a preliminary analysis derived from a dataset containing over 200 published works, they not only identified some intriguing features of this boom, but also established that the publication trajectory was still on a significant incline, thereby confirming the unique status of the domain.

The current paper revisits Dörnyei and Ryan’s preliminary study by making the selection of the relevant papers and book chapters on L2 motivation more systematic, with the aim for comprehensiveness, or as close to it as possible, within the sampling frame. We were surprised to see that our final dataset (N = 416) doubled Dörnyei and Ryan’s original article pool, which allowed for a range of quantitative analyses of the patterns the studies displayed with respect to their underlying theoretical and research methodological trends. As a result, the findings help to outline the main features of a fascinating landscape shift that has been taking place in the study of L2 motivation with direct implications for the broader field of SLA. Furthermore, because of the longitudinal dataset that spans a whole decade, the results also allow for projections to be made about certain directions in which the field may take in the coming years.

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Although we provide a brief overview of milestones in the development of L2 motivation theory and research (see Section 1.1), a point to be emphasised at this juncture is that this paper does not set out to be a detailed review of what language learning motivation involves or how the understanding of the construct has evolved over the years. There are several publications that offer comprehensive overviews of this sort (e.g., Csizér & Magid, 2014; Dörnyei & Ryan, 2015; Dörnyei & Ushioda, 2011; Lamb, in press; Ushioda, 2013). Rather, the focus in the following discussion will be on exploring the unparallelled publication surge that has taken place during the last ten years and the various trends and patterns that certain key quantitative (and in some cases quantified) descriptors of the published studies reflect. Simply put, this paper is intended to provide an empirical understanding of the observed landscape shift by investigating the salient features of the methodological and theoretical trends found in our dataset concerning the past decade.

1.1. Major milestones and stages in L2 motivation research

Standard accounts of the development of L2 motivation theory and research tend to identify three core historical phases (Dörnyei, 2005; Dörnyei & Ryan, 2015; Dörnyei & Ushioda, 2011): an initial stage continuing into the early 1990s that was very much based on a social psychological perspective; a period of realignment, broadly speaking the 1990s, during which the field moved away from its social psychological origins to show a greater interest in concepts being developed in contemporary cognitive and educational psychology; finally, and roughly equivalent to the twenty-first century, a period in which scholarly interest has focused on contextual and dynamic aspects of learner motivation. Such broad historical brushstrokes can be valuable when outlining the big picture but these descriptions can also be lacking in vital details: periods overlap and theories are not simply replaced in the consecutive stages but are built on and modified, thereby causing subtle interactions.

According to the broad, three-phase outline, all of the research covered by the current study falls under the third stage, that is, under the umbrella of a broadly conceived socio-dynamic approach. However, consistent with the above qualification the reality we find is far more nuanced, with certain previous theories and research methodological approaches having lasting effects. Therefore, a primary interest of this paper lies in the interplay between the various theories and approaches within the post-2005 timeframe, with a special emphasis on examining (a) to what extent the main tenets of the social psychological period (namely, the dichotomy of integrative and instrumental motivation) are still featured in the current research agenda, (b) how the highly influential notions imported from cognitive and educational psychology during the 1990s (such as self-determination, attributions, and self-efficacy) fit in this shifting landscape, (c) how new theoretical concepts related to the L2 self have become established, and (d) how the evolution of research paradigms has been reflected in changes within the prevailing research practices.

The year 2005 was chosen as the starting point for our study because this was the year in which the currently dominant model of learner motivation, the L2 Motivational Self System (L2MSS; Dörnyei, 2005), was first proposed. Therefore, this starting date offered a useful landmark for observing the impact of the L2MSS on the overall research trajectory of the field, allowing us to observe how the new approach accommodated or perhaps side-lined other initiatives. While considering the evolution of the field over the past decade, we were also interested in the emergence of new ideas (e.g. the application of a complex dynamics systems approach) and how they established themselves on the research agenda. It is our belief that a broad overview such as the publication pattern analysis offered in this study is a worthwhile enterprise because as the field continues to expand — and we will illustrate the scale of this expansion numerically later in the paper — it becomes increasingly difficult for researchers to keep abreast of the changes. Analysing the anatomy of the extraordinary research surge in the area over the past decade may also be of interest beyond the immediate field of L2 motivation research, by offering lessons concerning the overall development of the field of SLA.

2. Methodology

2.1. Generating the article pool

A collection of papers — both empirical and conceptual — from databases and anthology chapters published between 2005 and 2014 was used to construct the dataset for this study. First, several keyword searches were conducted involving permutations of relevant terms such as ‘motivation’, ‘language learning’ and ‘attitudes’. This search procedure was conducted in four databases: Linguistics and Language Behavior Abstracts (LLBA), Education Resource Information Center (ERIC), MLA International Bibliography (MLA), and PsychINFO, and new search parameters were added until we reached the point of saturation (i.e. new searches produced largely duplications only). Only publications focussing specifically on L2 motivation and written in English for an established journal were considered; that is, articles in working papers and university-specific publications were excluded even if they were available on the internet.

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3 The keyword searches were restricted to only the title of the articles and included target word combinations such as a) ‘language’ and ‘learning’ and/or ‘learner’ and ‘motivation’ and/or ‘motivating’, b) ‘L2 motivational self system’, c) ‘language’ and ‘learner’ and/or ‘learning’ and ‘vision’, and d) ‘language’ and ‘learning’ and/or ‘learner’ and ‘attitude’.
Second, we added to this article pool relevant chapters from seven motivation-specific anthologies published over the past decade (Apple, Da Silva, & Fellner, 2013; Csizér & Magid, 2014; Dörnyei, MacIntyre, & Henry, 2014; Dörnyei & Ushioda, 2009; Lasagabaster, Doiz, & Sierra, 2014; Murray, Gao, & Lamb, 2011; Ushioda, 2013). Once the initial article pool has been collated, all three authors performed a critical screening process and whittled the initial collection down to a final consensus of 416 pieces of work (313 from the journals and 103 from the anthologies; the complete list is available in the Supplementary data.

The substantial, and frankly, surprising, total figure of 416 publications in our final dataset suggests a fairly comprehensive coverage because it drew on the resources of all the primary databases in our field as well as all the motivation-specific edited volumes published by international publishers since 2005 — indeed, it is difficult to imagine a paper with a prominent motivational focus not being included in any of the search results. However, we do not claim that this is an all-inclusive collection; most importantly, we decided to exclude from it chapters from handbooks, encyclopaedias, conference proceedings, and anthologies that had a broader scope beyond L2 motivation because motivation chapters in such edited volumes tend to provide general overviews of the field rather than being representative of research proper. In spite of this restriction, as well as any other unintended sampling omission, we believe that the article pool provides a representative sample of the relevant research output during the observed period.

2.2. Categorisation of the data

Information from all 416 publications were coded in a detailed spreadsheet based on the following main properties:

- The source of the paper: anthology chapter or journal article, with the latter further divided into subcategories (see below).
- The type and focus of the paper: empirical or conceptual, and whether its objectives were to understand motivation as a theoretical construct or to apply practical motivational techniques.
- The theoretical paradigm, that is, the motivation theory that guided the paper (see below for more details).
- In empirical studies, the demographics of the participants: the nationality and education level of the participants, as well as the geographical location where the study was conducted.
- In empirical studies, the target language of the learning behaviour under investigation.
- In empirical studies, the type of research methodology employed: quantitative, qualitative, mixed methods, and innovative approaches (the latter including a range of novel procedures, both qualitative and quantitative, such as Q methodology, idiodynamics or retrodictive qualitative modelling).

These properties served as the basis of a macro perspective so as to provide broad temporal patterns and trends. Following that, further sub-categories were devised to conduct fine-tuned analyses and these will be described when we present the results. Although most of the broad categories are self-explanatory, two require further clarification: the article sources and the theoretical concepts that were chosen for this study.

Article sources: Due to the comprehensive nature of the four databases, the results from our search were composed of published works from as many as 123 journals. In order to make this astonishing figure more manageable for analysis, the periodicals were further divided into five clusters:

- Group 1 — The five journals that traditionally have the highest profile and generally the highest impact factors in the field of SLA: Applied Linguistics, Language Learning, Modern Language Journal, Studies in Second Language Acquisition, and TESOL Quarterly.
- Group 2 — International, peer-reviewed applied linguistics research journals published by established publishers or associations (e.g. System, Language Teaching Research).
- Group 3 — Applied linguistics journals published in English-speaking countries but with a more localised focus (e.g. Canadian Journal of Applied Linguistics, RELC Journal).
- Group 4 — Applied linguistics journals published in non-English speaking countries (e.g. JALT Journal).
- Group 5 — Journals that are traditionally not associated with the field of applied linguistics (e.g. Journal of Language and Social Psychology).

Theoretical concepts: For this study, we selected seven theoretical concepts as rubrics for categorisation:

- Gardner’s (1985) socio-educational theory of second language acquisition, best known for the concepts of Integrative and Instrumental motivation (hence Integrative/Instrumental);
- Dörnyei’s (2009) L2 Motivational Self System (L2MSS);
- Bandura’s (1977, 1997) Self-Efficacy theory;
- Deci and Ryan’s (1985) Self-Determination theory (SDT);
- Weiner’s (1976, 2010) Attribution theory;
- MacIntyre, Dörnyei, Clément and Noels’ (1998) Willingness to Communicate in an L2 (WTC);
- Motivational Dynamics utilising Complex Dynamic Systems Theory (CDST; e.g. Dörnyei, MacIntyre, et al., 2014).
The often intricate research designs that were employed in the papers to address the multi-faceted nature of L2 motivation also warranted an additional category, ‘More than one concept’, to accommodate studies that drew on multiple theoretical paradigms.

2.3. Analysis of the data

All the data were entered into a data file using the statistical software SPSS (Version 22) and for the non-numeric variables (e.g. theoretical basis) coding frameworks were prepared to quantify the information. Because the main purpose of the study was to illuminate the ongoing research boom, the primary method of analysis involved descriptive statistics, accompanied by various forms of developmental charts in the presentation of results.

Because the dataset included published works that spanned a decade, a crucial element of the analyses was the time factor. We have decided to use two-year periods as our principal units of analysis, thereby breaking the decade down into five main blocks starting with 2005/06. The rationale for this clustering procedure was to produce robust time cells that reflect temporal trajectories in a more reliable manner than that of a single-year categorisation.

3. Results and discussion

The presentation of the findings will be divided into three parts. First, we describe broad patterns observed in the data, offering an extensive overview of the nature and dynamics of the publication surge. Second, we present a more in-depth analysis of the methodological and theoretical trends characterising the publications across the years. Finally, based on the patterns observed over the past ten years, we offer a projection of the various directions in which the future research agenda may progress.

3.1. Basic patterns

3.1.1. The surge in research output

Fig. 1 provides a schematic representation of the amount of research output broken down by the biannual time clusters. As can be seen, there is a steady overall growth trajectory, with the final period covered by the analysis including over four times as many studies as the first. To give a sense of the surge in the rate of output, in 2005/06 the frequency of publications was equivalent to one new paper being published every 22 days and this increased to one paper every five days by 2013/14. This reflects a remarkable level of research activity, which has been acutely felt by anybody trying to stay in touch with ongoing developments in the field.

An early question we needed to consider in our analysis of the dataset was whether the surge in motivation research was merely an absolute increase, possibly mirrored across other areas, or was it something unique to the area of L2 motivation. Because of the broad scope of the field of SLA, we cannot replicate and provide figures for all avenues of research; instead, the approach we took was to compare research output in the area of motivation with output relating to the other traditionally conceived major individual difference factor in SLA, learner aptitude. Fig. 2 provides a frequency diagram of publications on these two core learner variables over the past decade; the growing gap between the two trajectories allows us to confidently assert that the growth in motivation studies is unique and not merely a function of the overall increase in published papers on learner differences.

Fig. 1. Frequencies of publications on L2 motivation throughout the past decade.
There are several plausible explanations for the contrasting fortunes of these two areas of research (i.e. L2 motivation and aptitude). Some of the difference could be attributed to the regular appearance of authoritative and accessible summaries of motivation (e.g. Dornyei, 2001b; Dornyei & Ushioda, 2011) which have helped newcomers in the area (e.g. doctoral students) to get oriented and involved in the development of the field. A further factor may be the broader educational climate in which learners and their own learning behaviours are regarded as central to the learning process; motivation is a concept in tune with such an environment, but the same cannot be said for aptitude, which is seen by many as a largely static trait that is mostly beyond the learners’ control (for further discussion of this matter, see Dornyei & Ryan, 2015).

In order to understand the nature of the unique surge in motivation research, we considered a breakdown of the studies in the dataset according to the various publication categories described earlier. Table 1 presents the frequency and percentage of each publication type’s contribution to the overall research output, showing clearly that two forums in particular accommodated the surge: influential (but not the highest-profile) international applied linguistics journals and anthologies dedicated to L2 motivation research. Of these, the second category — edited volumes — came as a surprise because publishers are known to be reluctant to commit to such works as these tend to be commercially unattractive propositions. Therefore, the fact that as many as seven such volumes have appeared in the past six years is testament to the general perceived popularity of the domain — previous growth indicators of journal articles and book sales must have offered publishers convincing evidence of the worthiness of such ventures.

A further point of interest concerns the papers published in ‘non-applied-linguistics journals’ (Group 5) as this category not only highlights the interdisciplinary nature of the field of motivation research, but also offers insights into how researchers have broadened the scope of publishing avenues. A check of these journals showed that L2 motivation papers were accepted for publication in the areas of education (e.g. Educational Research), communication (e.g. Communication Research Reports), intercultural relations (e.g. International Journal of Intercultural Relations), and psychology (e.g. Psychological Reports).

Fig. 3 further breaks down the data presented in Table 1 according to the five temporal clusters. It indicates a steady climb in the number of published works in all the five journal groups from 2005/06 to 2009/10 before there was a general decline beginning from 2011/12. This, however, is likely to be a mere ‘dip’ that can be attributed to the sharp increase in anthology papers: edited volumes diverted the attention of scholars as these outlets often offer a safer and faster publication environment than many peer-reviewed journals.

3.1.2. The nature of the published works

A view informally held by many researchers about why the field of L2 motivation has attracted so much research activity is that it represents an attractive point of intersection between theory and practice in the psychology of language learning (Dornyei & Ryan, 2015), thereby engaging both practically and theoretically minded scholars. In order to test this assumption, the studies in the dataset were divided into two categories depending on whether their main focus was theoretical in nature (motivatION) — for example, aiming to identify relevant motivational components in a specific learning environment — or if they were geared at increasing the learners’ motivation in some practically minded manner (motivatING). Although the majority (67%) of the 335 empirical papers in our dataset focused on motivatION, when this was mapped out across the decade (see Fig. 4), there was a clear corresponding growth for both motivatION and motivatING studies. This indicated a balanced trajectory and thus reaffirmed the partnership between these two aspects of L2 motivation research. The explanation for the consistently higher output figures for theoretical papers is likely to do with the nature of the publication sources assessed in our study: in research journals and anthologies, scholars are more likely to address theoretical issues than in other language teaching forums not included in our study (e.g. magazines and newsletters).
3.1.3. Demographics of the research participants

The demographics of the participants involved in the empirical studies in our dataset were investigated via three key points of interest: (a) level of education, (b) countries in which the studies were conducted, and (c) the nationalities of the examined language learners.

Table 1

<table>
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<th>Frequency and percentage figures of each source category.</th>
<th>Journal articles</th>
<th>Anthologies</th>
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<tr>
<td>Frequency</td>
<td>35</td>
<td>108</td>
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<tr>
<td>Percentage</td>
<td>8.41%</td>
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*a Group 1: The five highest profile SLA journals; Group 2: International applied linguistics journals; Group 3: Less-known applied linguistics journals published in English speaking countries; Group 4: Less-known applied linguistics journals published in non-English speaking countries; Group 5: Non-applied-linguistics journals.

Fig. 3. Breakdown of sources across the decade.

Fig. 4. The breakdown of “MotivatION” and “MotivatING” studies throughout the decade.

3.1.3. Demographics of the research participants

The demographics of the participants involved in the empirical studies in our dataset were investigated via three key points of interest: (a) level of education, (b) countries in which the studies were conducted, and (c) the nationalities of the examined language learners.
**Education levels.** Initially, we intended to summarise the main age groups of the research participants but this proved to be problematic because of the lack of consistency and standardisation in the way age data were reported. As a result, we decided to offer instead a summary of the learners’ level of education, but even this was not problem-free because of the different education systems employed worldwide and the use of non-standard terminologies in different countries. Therefore, we standardised the education data according to the British education system: primary (5–11 years), secondary (11–18) and tertiary education (18+), and collated other institutions (e.g. mixed-age private language schools) into the ‘Others’ category. The data (Table 2) reveal that the largest participant group is made up of college/university students. This is not surprising because, for many researchers, they constitute the most easily accessible convenience sample which is, at the same time, usually linked to the least strict research ethics requirements. However, the predominance of this type of students and particularly the underrepresentation of secondary school pupils — which might be considered the most suitable age group for instructed SLA — is clearly far from ideal.

**Geographic distribution of the research:** Much of the early research into L2 motivation was criticised for its focus on a single learning context, the unique Canadian setting. Our data reveal a far more diverse distribution in recent years: descriptive statistics show that the empirical studies in our dataset were conducted in 53 countries, with the three leading locations being Japan (38 studies; 11.34%), United States (30 studies; 8.96%), and Mainland China (25 studies; 7.46%). However, if we add Hong Kong (15 studies; 4.48%) and Taiwan (11 studies; 3.28%) to the Mainland China category, the composite score of the Chinese-speaking group doubles to 51 studies (15.22%), making this the largest cluster. These figures indicate a definite geographic shift towards East Asia from the previous centres of motivation research in North America and Europe.

**Nationalities of the research participants.** An issue closely related to the geographical distribution of the studies discussed above concerns the nationalities of the language learners examined. Once again, East Asian learners dominate: the two most studied nationalities were the Chinese (54 studies; 16.12%) and the Japanese (31 studies; 9.25%). Fig. 5 presents the temporal distribution of these frequencies across the decade, which shows unambiguously that the interest in East Asian learners’ motivation has been growing steadily. Given the magnitude of the body of Chinese learners of foreign languages this is unsurprising, particularly in the light of a worldwide trend sometimes referred to as ‘the great China exodus’ (Browne, 2014), which also directed the limelight on Chinese students seeking to further their education overseas (Chen, 2011; Luo, 2013). This outflow of Chinese nationals, in turn, has simultaneously educated a new generation of Chinese L2 motivation researchers and provided Western scholars with increased links to, and greater access to, the Chinese population.

On the other hand, the salience of Japanese and Japanese learners on the L2 motivation research agendas might be unexpected for many and while the reasons for Japan becoming a ‘motivation research hub’ are intricately complex, it is possible to identify a broad concern underlying this phenomenon: in spite of the significant resources channelled into English education at a national level, there is still a perceived failure of a practical working knowledge of the English language in Japan. In other words, there is a marked discrepancy in Japan between the significant efforts and resources invested and the rate of success in English language learning. As a result of this gap, researchers have been keen to seek a better understanding of this anomaly, and learner motivation has become a compelling explanation for this state of affairs. One recent reflection of this increased interest in L2 motivation in Japan can be seen in an anthology edited by Apple et al. (2013), which was specifically devoted to “pull together the cutting edge EFL motivational research occurring in Japan” (p. xi) in order to provide “a broad canvas on which the details of the specific situations are described, analysed and discussed, to novice and experienced readers within and outside of the Japanese context” (p. xii).

### 3.1.4. The L2 being studied

Interestingly, given the recent ‘multilingual turn’ in the field of SLA, a surprising finding of our study concerns the L2 being studied: our data reveal that a significant majority (72.67%) of empirical investigations was committed to the study of English as an L2. However, in the light of the world language status of English and especially from the discussion seen in the previous section relating to the geographical shift in motivation research, perhaps this finding was to be expected as motivation research in Asian settings is almost exclusively concerned with the learning of English, often in monolingual contexts (e.g. in Japan or many parts of China). Fig. 6 illustrates relevant developments over the past decade, reflecting the growing dominance of Global English in language education. This trend raises concerns as to whether the theoretical basis of L2 motivation might be affected by the L2-specific bias, and also whether the geographic shift in motivation research may lead to an unintended lack of attention to forms of language learning other than the learning of English in a primarily monolingual settings.

### 3.2. Research methodological changes

Of the 335 empirical papers in our dataset, 178 were grounded in quantitative research methods, 71 were qualitative studies, 73 employed mixed methodologies, and 13 utilised innovative methods. In order to understand the nature of the

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<th>Education levels according to participants’ education levels.</th>
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<td><strong>Frequency</strong></td>
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research base of the studies better, we further divided quantitative studies into two categories: studies using (a) standard inferential statistics such as t-tests, correlations and ANOVA, and (b) structural equation modelling (SEM). Similarly, we separated qualitative research methods into ‘Interviews’ (including both individual and focus group) and ‘Other qualitative approaches’ (e.g. various forms of observation and discourse analysis).

Fig. 7 presents the frequency breakdown of the assessed methodological categories across the decade and it indicates that there is still a prevailing strong preference for quantitative research in the domain. However, the dominance of quantitative approaches has been diminishing and this is largely due to the fact that SEM, which had been seen as the ‘top dog’ in statistical techniques in applied linguistics, failed to display the kind of growth trajectory that one would have expected at the beginning of the decade under investigation (the frequency grew from two papers in 2005/06 to only five studies in 2013/14). This may partly be due to the special expertise its use requires, but we suspect that the absence of an increased uptake of the method is also related to the ‘dynamic turn’ of the field (to be discussed in Section 4.1) that did not endorse the kind of linear cause-effect relations that SEM relies on. The slow uptake of SEM provides us with a salutary lesson. If this article had been written in 2005 instead of 2015, it is highly probable that SEM would have been identified as the most promising avenue for future research; however, the fact that this has not happened demonstrates the dynamic development of the field and also serves as a timely reminder of the uncertainties in trying to predict longer-term future developments.

Another salient pattern revealed in Fig. 7 is the substantial increase of qualitative studies from two to 21 over the period, which is in line with the repeated calls for such investigations in the field (e.g. Dörnyei, 2001a; Dörnyei & Ushioda, 2011;
Ushioda, 1994). In view of a similarly robust growth in mixed-methods studies (from four to 23) — which by definition is the addition of a qualitative component to a quantitative study — it is not farfetched to conclude that a major research paradigm shift has taken place in the study of L2 motivation over the past decade. This shift in research orientation has encouraged a new wave of scholars who are skilled in and/or attracted to non-quantitative research techniques to enter the field and the consequent arrival of these newcomers has contributed to a revitalisation of the research environment. A further revealing aspect in the figure concerns the relatively recent emergence of the category made up of innovative studies and this point will be discussed in Section 4.1 when we project the future development of methodological techniques.

3.3. Theoretical developments

Fig. 8 maps the theoretical foundations underlying the empirical studies across the investigated decade; because the other paradigms did not have a substantial effect on the overall picture, the focus here will only be on the four categories that topped the 2013/14 chart: L2MSS, ‘More than one concept’, CDST, and Integrative/Instrumental.

The theoretical trajectories show clearly that Integrative/Instrumental theory enjoyed a steady growth from 2005/06 before it experienced a steep decline from 2011/12. In a sharp contrast, L2MSS saw a spike from 2011/12. The timing of this growth is understandable and it corresponds with Dornyei and Ushioda’s (2009) anthology which presented the field with a number of large-scale studies that confirmed the validity of the L2MSS concept and, at the same time, demonstrated the affordance for both quantitative and qualitative research methodologies within its framework. A potential danger concerning the L2MSS, voiced in the same volume, concerned the fact that the term ‘self’ was perhaps too broad and nebulous to facilitate a meaningful research agenda (MacIntyre, Mackinnon, & Clément, 2009); however, Fig. 8 suggests that researchers have kept exploring ‘self’-related motivational components despite these worries.

The contrasting trajectories of the Integrative/Instrumental dichotomy and the L2MSS indicate the field’s collective shift in research focus from one concept to the other. This, however, raises an important question: did this shift only involve a ‘surface treatment’, that is, was it a mere repackaging of existing research efforts by replacing integrative motivation with the ideal L2 self and instrumental motivation with the ought-to L2 self? In this respect a closer inspection of the ‘More than one concept’ category might offer an answer.

Table 3 provides a breakdown of the 52 papers that drew on multiple motivation theories arranged according to their conceptual pairings. It shows that the majority of the studies (41) included the L2MSS concept, and amongst these, two pairing patterns stand out: 22 studies combined it with the Integrative/Instrumental theory and 14 with CDST. The first pairing pattern is to be expected and can be attributed to the transitory period in the field as scholars were trying to find both common and contrasting grounds between the traditional and the incoming paradigm. The second pattern, the fusion of CDST studies (representing the latest theoretical innovation in the field of SLA) with the L2MSS, however, offers some evidence that a self-based approach has provided a welcoming framework for innovation, thereby proving capable of accommodating radically new theoretical perspectives. We may speculate therefore that a factor underlying both the theoretical shift towards the L2MSS and the observed research boom is related to the versatility of the L2MSS framework: it not only allowed for the engagement with existing theories and methods on their own terms but it also offered a springboard for new approaches. This flexibility will be further confirmed below in the examination of the research methodological correlates of the L2MSS.
The absence of any 'fossilisation' regarding the L2MSS — that is, no sign of rigidity in terms of theoretical innovations and evolution associated with the concept — can be further tested by examining the research methodological underpinnings of studies that adopted the L2MSS. Fig. 9 presents a schematic representation of the research approaches employed by scholars in the three categories discussed above (L2MSS, CDST, and ‘More than one concept’) over the last four years of the period under scrutiny. Once again, we witness an air of creativity and room for expansion within the L2MSS concept, with non-orthodox (i.e. non-traditional quantitative and qualitative) methodologies playing a decisive part in ongoing research. Indeed, it is interesting to observe how the research methodological make-up of the 2013/14 state of L2MSS is surprisingly similar to the make-up of the ‘More than one concept’ group. Taking the above points together, we may conclude that a significant contributor to the driving force behind the ongoing L2 motivation surge has been an emerging creative research climate that did not stifle the innovative spirit and one that successfully accommodated a wide range of scholars despite the dominant status of the L2MSS.

4. General discussion

The basic patterns presented in the first part of the results section confirmed the fact that the surge of research interest in L2 motivation has been a substantial one over the past decade: the biannual number of publications quadrupled, with the majority published in influential peer-reviewed applied linguistics journals and high-profile anthologies. Furthermore, as the majority of studies were made up of empirical papers, these figures reflect active research engagement. This scholarly interest was not limited to theoretical agendas because our data indicated a good balance between the theoretical and practical dimensions of L2 motivation research (i.e. between motivatION and motivatING). However, this balanced approach did not apply to the demographics of the examined language learners as, in this respect, tertiary students dominated in the research samples. From the data, we also learnt that there is an increased interest in the East Asian research environments (as witnessed in 3.1.3); while this growth indicates the breathing of new energy into the field, when coupled together with the discussion of the L2 being studied, it could also potentially mean an upset in the healthy research balance in terms of the overall geographical context of motivation research and the forms of language learning being studied.
The examination of the theoretical and research methodological climate of the field revealed an environment that is dynamic and accommodating, as opposed to one that is static and stagnant. The consistency of this perception — derived from several different perspectives — suggests that an important key in unlocking the mystery of the unprecedented research boom observed over the past decade is that the domain of L2 motivation research has provided a welcoming research context that drew in a new set of scholars of varied backgrounds, thereby multiplying the size of the dedicated research community. Indeed, at the first ever international conference on Motivational Dynamics and Second Language Acquisition (2014, August; Nottingham, UK) — which itself was a sign of the increasing status of the field — Peter MacIntyre explained jokingly in his plenary talk that at the end of the 1990s most active L2 motivation researchers could have been seated at one large dinner table in a restaurant, which was in stark contrast to the 170+ attendants of this conference coming from over 30 countries. This growing interest in the subject, in turn, initiated a chain reaction, with publishers setting aside any commercial apprehensions about anthologies dedicated to L2 motivation and more generally, to the psychology of the L2 learner thereby creating further publication and research opportunities.

Finally, our data suggest that although quantitative research utilising traditional statistical measurement has remained the most popular choice, the dominance of the quantitative paradigm has disappeared and a variety of qualitative and innovative research methods has been increasingly endorsed in L2 motivation research. In terms of theoretical aspects, the Integrative/Instrumental dichotomy saw a decline in popularity beginning in 2011/12 and this was contrasted with the surge in the L2MSS from 2011/12. We have argued that our data do not indicate the gradual ‘fossilisation’ of a new orthodoxy, and that, indeed, the increase in the ‘More than one concept’ category highlights an innovative interest in juxtaposing diverse perspectives. Similarly, the spirit of experimentation has also been evident in the emerging popularity of the concept of CDST and its effects on learner motivation, which positions the study of L2 motivation at the vanguard of implementing research in a dynamic systems vein within the field of SLA (see also de Bot, 2015, which confirms this position).

4.1. Future projections and recommendations

In this section, we would first like to offer some ideas about what the coming years may hold, bearing of course in mind that in our earlier discussion of SEM we mentioned how linear predictions based upon current patterns can be a dangerous enterprise. Nevertheless, our study also shows that major shifts are not instantaneous, and therefore we may attempt to make some projections about the future trajectories of the field on the basis of the data from the last two time blocks (2011/12 and 2013/14) of our investigation.

The first point to be made concerns the observed continuity in the history of research on L2 motivation. Dörnyei, Henry, and Muir (2015) offer an overview of how various developments in the field have built on each other over the years, extending the scope and theoretical basis of the area, giving the introduction and the development of the L2MSS as an example. Indeed, the L2MSS was intended to provide an integrated paradigm that subsumed past theoretical strands such as the theories of Gardner, Noels and Ushioda (for a discussion, see Dörnyei, 2005; Sugita McEown, Noels, & Chaffee, 2014), and our findings suggest that this incremental process is ongoing: there is a growing number of studies trying to integrate the L2MSS with other theoretical strands (see Table 3). Furthermore, two new theoretical concepts — L2 vision (e.g. Dörnyei & Chan, 2013; Dörnyei & Kubanyiova, 2014; You, Dörnyei, & Csizer, in press) and ‘directed motivational currents’ (e.g. Dörnyei, Henry, et al., 2015; Dörnyei, Ibrahim, & Muir, 2014; Dörnyei, Muir, & Ibrahim, 2014; Henry, Davydenko, & Dörnyei, 2015; Muir &
— have recently emerged directly from the L2MSS framework and thus might take the theory of future self-guides to a new theoretical level. It is also noteworthy in this respect that these new theoretical innovations are accompanied by detailed practical recommendations of which some have already been empirically tested (e.g. Chan, 2014; Fukada, Fukuda, Falout, & Murphey, 2011; Mackay, 2014; Magid, 2014; Magid & Chan, 2012; Sampson, 2012), which is consistent with the complementary pattern of motivation and motivation observed in our dataset.

Another expected future theoretical development concerns the reshaping of our understanding of L2 motivation through the lens of CDST, which is seen as a ‘new transdisciplinary theme for applied linguistics’ (Larsen-Freeman, 2012). Fig. 8 presented a steady climb in research on motivational dynamics, and viewed against the backdrop of the failure of SEM to capture an increasing segment of the research market, the dynamic systems growth is likely to prevail. If this is indeed the case, the trend will support our growing conviction that scholars who are on the look-out for more sophisticated avenues of motivation research tend to favour less and less those traditional research designs that focus on linear cause-effect relationships. Instead, as observed in the emerging patterns of our study, there has been a definite growth in the range of innovative methods. In this respect, we should note that research methodological innovations first appeared in the field with mixed-methods research at the beginning of the new millennium, and while the latter has by now acquired an established, authoritative status, Dörnyei, MacIntyre, et al. (2014, p. 426) present a list of novel procedures that are opening up new channels for empirical investigations (e.g. Q methodology, idiodynamics, and retrodictive qualitative modelling). Although these authors also stress that dynamic systems methods are unlikely to fully replace other approaches to researching L2 motivation, the innovative spirit in the area is undeniable. Thus, consolidating the above-mentioned points, we can safely predict that the field will see further changes in terms of methodological advances and that these advances will behave in a manner of dynamic systems and will eventually settle into new ‘attractor states’.

While the overall purpose of this paper has been descriptive in the sense that our primary aim was to document a salient publication surge and landscape shift, it may not be inappropriate at this point to also offer some recommendations. Without wanting to provide any prescriptive theoretical angles, nevertheless it is our view that the field would benefit from three areas of improvement:

a) The first point concerns the demographics of the participants being studied. From Table 2, it is clear that the tertiary student sample dominates the research paradigms and secondary school pupils are underrepresented. We pointed out that this was not ideal given that the secondary school age is one that is most suitable for language learning within instructional contexts. In addition to this, we should note the virtual absence of systematic research on the motivation of primary school pupils. Admittedly, due to issues related to implicit and explicit learning, the study of the motivation driving early language learning in instructional context is undoubtedly a complex question, but this complexity should warrant, rather than inhibit, further research on the topic.

b) In terms of research methodology, simplistic research designs — even if accompanied by substantial samples — are unlikely to shed much new light on the critical questions faced by researchers today. Also, while mixed-methods research has great future potential, most of the current practice seems to involve rather superficial mixing of relatively independent qualitative and quantitative components within a study, without maximising the full potential of the approach. Therefore, we believe that adding further innovative methods for data collection and analysis would contribute to the healthy balance of findings in the field.

c) With regards to theoretical developments, we find in mainstream motivation research in psychology (e.g. Ryan, 2012), the emergence of novel theoretical angles, in particular, the exploration of the subconscious dimension of motivation (e.g. automatic or implicit goals, non-conscious motivational processes, conflict between conscious and unconscious attitudes). We feel that our field is ready to expand into exploring these areas because it seems evident that language globalisation has created a linguistic landscape that is characterised by both powerful positive trends and strong negative undercurrents (e.g. the love-hate relationship with English observed in some parts of the world). A second point to be highlighted here pertains to the nature of the L2 being studied. As illustrated in Fig. 6, we also see a clear need to study the motivation to learn languages other than global English. The overriding focus on the learning of English in L2 motivation research over the past decade raises the question of how far current theoretical perspectives are adequate to account for motivation to learn languages other than English.

4.2. Limitations

Although every effort was made to base our observations on as complete a dataset of publications as possible, we do not claim that our article pool is fully comprehensive. Moreover, because in some cases, regrettably, our analysis of the content of a paper was dependent on the information published only in the abstract of the article that we had access to, there is further danger of omission of detail. Also, due to the overlapping nature of research objectives in some studies, it was not always straightforward to decide which categories a particular investigation fell under, and trying to accommodate this fusion under the ‘More than one concept’ rubric inevitably mixed up different patterns. A further limitation of our study is that it admittedly offered a somewhat restricted focus in the sense that only seven theoretical concepts were highlighted, largely because only these seven were represented by a sufficiently high number of studies in the literature to make an observable mark in our charts. Yet, because the selected theories did represent all the three developmental stages of L2 motivation
research (discussed in the Introduction), we would hope that the picture we outlined is one that is sufficiently inclusive. Thus, on balance, it is our belief that the composite charts and figures presented in this paper are robust enough to reflect true and meaningful tendencies.

Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.system.2015.10.006.

References