Syntactic complexity in L2 writing: Progress and expansion

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A R T I C L E   I N F O

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A B S T R A C T

In this commentary to the Special Issue, I first identify four themes that arise from the contributions that each study makes to the study of syntactic complexity in L2 writing. I then explore several other themes that stem from the collective findings from the five studies and which connect with the general landscape of the research domain. Two questions guide the domain. One question is substantive: What do we know about how syntactic complexity grows, and what factors affect this growth? The other question is methodological: How can one best measure syntactic complexity? Both, of course, are interrelated. An overarching conclusion is that much progress has been made in what is already known, substantively and methodologically. An emerging insight is that we can look forward to several areas of expansion that are imminent in the domain.

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1. Introduction

Syntactic complexity is understood broadly as the range and the sophistication of grammatical resources exhibited in language production. Synonyms such as variety, diversity, and elaboratedness of deployed grammatical features are also often seen in all contemporary definitions of high currency among second language (L2) researchers. The construct is typically investigated as a dependent variable, a quality of language production that is expected to systematically vary as a function of other forces. Undoubtedly, the force of most central interest is linguistic development: It is posited that syntactic complexity indexes the expansion of the capacity to use the additional language in ever more mature and skillful ways, tapping the full range of linguistic resources offered by the given grammar in order to fulfill various communicative goals successfully. In the first half of this article, I examine the five studies that comprise the present Special Issue of the Journal of Second Language Writing, using four themes that directly derive from the main findings reported in each: Instructed development, first language (L1) influence, syntactic complexity in the new modality of computer-mediated communication, and the meaning dimension of syntactic complexity. The collective sum of the five studies suggests that any changes in syntactic complexity that are observed—either cross-sectionally or longitudinally—must be understood as a reflection of the interplay among the following factors at least: instructed development, first language, and modality. Any of these factors can be treated as independent variables worthy of study in and of themselves. Any of them can at times be seen as moderating forces. In either case, these forces will modulate, often jointly, in mutual interaction, the range of observations that are possible, as well as the interpretations that researchers can make about syntactic complexity. If left unchecked in research designs and analyses, these factors can also introduce error and obscure results and interpretations.

While the understanding of syntactic complexity in the field is formally and structurally oriented, an opportunity arises in the Special Issue to engage with a functional rationale and a fuller definition of the construct. Some of the contributions in the special issue explicitly or implicitly venture in this new direction. In the second half of my commentary, I suggest several
areas of expansion for the research domain. First I sketch possible expansions by studying the relationship of syntactic complexity to successful L2 writing, to genre, and to proficiency. Then I finish by touching on other ways in which we can deepen theoretical motivations for the study of syntactic complexity in the future, if diverse functional and usage-based rationales are pursued, balanced by a developmental perspective which is at the core of the phenomenon of L2 syntactic complexity. Particularly when studying syntactic complexity in the context of writing, it behooves L2 writing researchers to explore alternative understandings that go beyond the purely structural and formal. Writing becomes formally and structurally more complex only because emergent and skilled writers are challenged and seek to challenge themselves with the creation of meanings that are, conceptually and socially, also increasingly more complex.

An overarching conclusion after reading the studies in this Special Issue is that much progress has been made in what is already known, substantively and methodologically. An emerging insight is that we can look forward to several areas of expansion that are imminent in the domain.

2. Progress: contributions of this special issue to the study of L2 writing complexity

2.1. What is the relationship between syntactic complexity in L2 writing and instructed development?

Writing is a social activity that can happen in the workplace and for leisure, but the bulk of L2 writing research takes place in educational contexts. For this reason, it is helpful to think about development and instruction jointly as instructed development. Two of the studies in the special issue, Mazgutova and Kormos, and Vyatkina, Hirschmann, and Golcher particularly bolster the claim that the syntactic complexity of writing increases as the capacities to deploy the language resource in an additional language mature over time and with more instruction.

Mazgutova and Kormos were interested in the instructed development of syntactic complexity within a short (but intensive) time frame of a 60-h, 4-week course, and with writers at a high enough level of English L2 proficiency that they had arrived in the UK and were preparing to initiate and eventually complete a university degree through the medium of English. Would such a short instructional experience—rich in writing practice, close written feedback, and conferencing—result in any measurable progress in doing academic writing more skillfully, in terms of syntactic (as well as lexical) complexity? They found that growth was indeed seen in syntactic complexity for their younger and less proficient international student group. By the end of the 4-week course, these 14 students (18-to-21 year-olds with an IELTS mean global score of 5.9 and a mean writing score of 5.8) had higher levels of complexity in the following specific areas: (a) noun modification via adjectives and prepositional phrases, (b) complex nominals in subject position, (c) multiple modifiers after the same noun, (d) syntactic structure similarity, a measure of the density of sentence tree nodes (i.e., reflecting the layerness or nestedness of syntax, as Brandes & Ravid, in press, put it), (e) conditionals, and (f) relative clauses. An interesting secondary finding is that Mazgutova and Kormos arrived at different patterns of growth for the two sample groups they examined and attributed these differences to L2 proficiency. Specifically, the benefits from the same 60-h, 4-week intensive writing course were clearly noticeable in their less advanced (and slightly younger) Group 2 learners, and much smaller and in fewer areas of complexity when the data were inspected for their more advanced (and older) Group 1 learners.

Vyatkina, Hirschmann, and Golcher designed their study with the goal to investigate the assumption that, even from the very beginnings of instructed development, linguistic development gradually enables language learners to tap an increasingly wider range of resources offered by the given target grammar, which in turn should translate into observable growth in written syntactic complexity. These authors analyzed whatever proto resources for syntactic modification they could uncover in the 2-year curricular writings produced over the first four semesters of German study in college by 12 beginners. They represent a clearly much lower band of proficiency than the learners in Mazgutova and Kormo, as by the end of the first 2 years they typically reach no higher than level A2, a Basic User level on the Common European Framework of Reference for Languages (CEFR, Council of Europe Modern Languages Division Strasbourg, 2001) (Nina Vyatkina, personal communication, June 4, 2015). The data are publicly available in the KanDeL corpus as part of the Falko corpus family created by Lüdeling, Walter, Kroymann, and Adolphs (2005). Their examination of 17 waves of data took care of carefully mapping nonlinear development at the individual trajectory level against the group means, via graphing techniques (trend lines, confidence intervals) that helped visually and statistically assess smooth vs. abrupt growth curves. In this, they join an increasingly thriving line of research that examines inter- and intra-individual variation of syntactic complexity, accuracy, and fluency in L2 writing from complexity and dynamic systems perspectives (e.g., Baba & Nitta, 2014; Polat & Kim, 2014; Verspoor et al., 2012). Vyatkina et al. found the 12 emergent bilingual writers were able to write in their beginning German making use of simple but varied modification devices, gradually diversifying some of them and eventually using also more elaborated modification with some modifiers at the clause level. They used uninflected predicative and inflected attributive adjectives, prepositional phrases, and (later over the 2 years) adverbial clauses, and relative clauses. In other words, over the first two years of instructed development, they increasingly engaged in gradually more varied syntactic modification at the word, phrase, clause, and sentence levels, although exhibiting important inter- and intra-individual variation in some (but not all) areas of growth.

In sum, development can happen over different time frames, from one month as in Mazgutova and Kormos to two years as in Vyatkina, Hirschmann, and Golcher. What these two studies share, interestingly, is a curriculum that devotes central time and space to the activity of writing in an additional language. Moreover, the instruction was not specifically focused on writing in one case (Vyatkina et al.) and did not direct writers explicitly to using more complex structures when writing in
another case (Mazgutova and Kormos). This suggests that, given a time balance that involves sufficient intensity of writing practice, instructed development at the lowest and higher ends of proficiency will be reflected in a wider and more sophisticated range of grammatical resources accessible during language production, which in turn will result in written texts that exhibit variety, diversity, and elaboratedness of grammatical features.

2.2. L1 as a moderating variable of L2 syntactic complexity

The findings obtained by Lu and Ai in this issue strongly suggest that the L1 backgrounds of writers cannot be left unexamined when studying syntactic complexity in L2 writing. They show convincingly that L1-related forces, if unidentified in the designs, may contribute error to observations obtained from syntactic complexity metrics. Analyzing argumentative essays from the International Corpus of Learner English Version 2.0 (ICLE 2.0, Granger, Dagneaux, Meunier, & Paquot, 2009) and the Louvain Corpus of Native English Essays (LOCNESS, Granger, 1996), they found robust evidence that “learners with different L1 backgrounds, even for those at the same or comparable proficiency levels, may not develop in the same ways in all areas [of syntactic complexity]” (p. XX). Indeed, their main finding is striking. Only 3 of 14 measures detected any differences with an L1 baseline when all L1 learner groups were combined (N = 1400), whereas all 14 measures exhibited differences once the data were disaggregated by L1 into seven different languages (N = 200 each) representing Sino-Tibetan, Japonic, Niger-Congo, and Indo-European language families.

Lu and Ai’s main finding resonates with Murakami (2013), who found conclusive evidence with regard to accuracy (rather than complexity) in his analysis of 3000 essays from the Cambridge Learner Corpus (commercially available from Cambridge University Press). In the case of Murakami’s study, the writers had been rated at the B2-level on the CEFR (roughly at the level of the lower-proficiency groups in L1 & Ai as well as Mazgutova & Kormos) and were sampled across seven L1 groups representing Germanic, Slavic, Romance, and Altaic language families. Murakami found that for L1s which do not mark a given morpheme accuracy levels were consistently lower than for L1s that mark it. For example, accuracy in the progressive inflection—ing was statistically lower for German L1 (which has no progressive marking) than for all the other L1s together (where it was the easiest morpheme to show mastery).

A second finding reported by Lu and Ai is also important: Certain L1-related patterns were in a directionality that was unexpected vis-à-vis developmental and proficiency predictions of syntactic growth. Specifically, two L1 backgrounds stand out in this regard: Tswana and Russian. The Tswana essays exhibited much higher than expected means (i.e., higher than the L1 English baseline essays) mostly on measures related to subordination (and by extension on the global MLTU, which was the second highest mean at 17.96 words), considering that they had been written mostly by writers at the lowest level of proficiency (CEFR B2 or lower). Conversely, the Russian essays yielded lower than expected amounts of subordination and more reliance than expected on coordination (and by extension a depressed value in the global MLTU, which was the second lowest mean at 15.98 words), despite having been written by mostly writers at the highest level of proficiency (CEFR C1).

It is unknown whether these patterns can be explained by some language-specific preferences that, say, favor subordination in Tswana L1 and low levels of sentence combining in Russian L1. However, for a language like Spanish (an L1 background group not examined by Lu & Ai) the analogous empirical evidence has been reported by Neff, Dafouz, Diéguez, Prieto, and Chaudron, 2004. I discussed this study in Ortega (2003), citing it at the time as an unpublished conference presentation. Neff et al. found that the argumentative writing of 30 Spanish L1 EFL learners contained unexpectedly high levels of subordination (as measured by clauses per T-unit) by comparison to the amount of subordination seen in baseline essays collected by 30 L1 English writers matched by age and education. When they also inspected a sample of Spanish newspaper writing, they uncovered an L1 preference for heavy subordination, at levels that were in fact quite similar to those of the L1 Spanish students when writing in their L2 English. They interpreted these triangulated findings as a case of cross-rhetorical transfer. Based on this study, I suggested (Ortega, 2003, pp. 514–515) that the growth of syntactic complexity in L2 writing should not be expected to be linear but instead is likely to be susceptible to interactions among development, proficiency, and L1 background. I called for future designs that include not only baselines of the L1s involved (as both Lu & Ai and Neff et al. do in their studies), but also writings collected by the same writers in both L1 and L2. This same-writer bilingual design is ideal in order to fully investigate the possibility of cross-rhetorical influence, as Kubota (1998) argued long ago. Over a decade later, I continue to believe we should make much more frequent use of same-writer bilingual designs in order to properly investigate the degree to which the L1 and proficiency make unique (or more likely mutually-interacting) contributions to the L2 syntactic complexity produced by multilingual writers. This would also help account for the multicompetence of L2 writers (Cook & Wei, in press), which seems to have remained outside the scope of interest thus far in the existing syntactic complexity research.

The moderating effects of the L1 may be due to some linguistic biases (as Lu & Ai and Murakami seem to suggest) or to rhetorical preferences (as Neff et al., 2004 and Ortega, 2003 suggested) (or possibly to a combination of both). In either case, a word of caution seems in order. Although previous research on syntactic complexity (as well as on accuracy, cf. Murakami, 2013 see also Luk & Shirai, 2009) may have grossly underestimated the effects of the L1, it should not be forgotten that not all areas of language will be equally or deterministically susceptible to L1 influences. For example, 3rd person—s appears to be the most difficult morpheme to master for L2 learners of English regardless of L1 (Murakami, 2013). Moreover, it has been well established empirically now that crosslinguistic influences are always probabilistic and bidirectional (Jarvis & Pavlenko, 2008). Thus a great deal of theoretical and analytical flexibility will be called for when teasing out potential L1 influences on syntactic complexity. In the end, however, Lu and Ai in this issue throw into sharp relief the need to refrain from purely
developmental or purely proficiency-based explanations about syntactically less or more complex patterns, when the L1 influence has not been accounted for in the data.

2.3. Broadening notions of L2 syntactic complexity through the lens of CMC discourse

Modality is of crucial importance when measuring syntactic complexity in an L2, as differences in modality can to a good extent influence the definitional and measurement issues at stake, and they may also likely affect the shape of causal and modulating influences. The construct has been studied in both spoken and written data. In the present issue, the study by Adams, Newton, and Nik offers several insights and advancements in the measurement of syntactic complexity for a hybrid and important modality: computer-mediated (CMC) discourse. Examination of syntactic complexity in this and other online modalities is important because new technologies are becoming prevalent sites for L1 and L2 writing in today's world. For example, Tagg and Seargeant (2012) demonstrated how Facebook and Instant Messenger were used actively by university-educated Thai youth between 20 and 32 years old and located in Thailand and across the globe. The 96 (only 28 female) participants studied by Adams et al., between 20 and 24 year olds and studying engineering in Malaysia, must have been quite similar. Tagg and Seargeant's participants showed comfort and familiarity with both English and Thai scripts (romanized and traditional) and with online styles of interpersonal communication. These young people “appear[ed] to delight in playing with the Thai script, and [did] so as part of their display of identity as young, international Thais with experience of two cultures, laying claim to ownership of two languages and two scripts” (p. 211).

The choice of a modality like CMC naturally leads to genre choices that are indeed different from the academic genres of traditional writing. Adams et al. is the only study in the special issue featuring language use involving a non-essay type of writing: a 45-min role play evaluating and recommending software for company adoption. Important to remember is that the CMC data are written but also interactive. In groups of 4, the students carried out this role play under different conditions of cognitive task complexity (Robinson, 2007). Specifically, the researchers manipulated the resource dispersing demands of the task (thus presumably making the role play easier or more difficult) in two ways: with the task procedural support of a worksheet that lays out a structure for the comparison steps, and with the language support of a pre-task mini grammar lesson about auxiliary and modal verbs that would be useful to complete the task. In the two-fold easier condition, the accuracy of the CMC output increased but (contra Robinson) syntactic complexity remained unchanged. The likely explanation, bolstered by the retrospective interviews with a subset of learners, is a trade-off effect. Namely, monitoring of accuracy became a priority of performance thanks to the language support, further enabled by the task support.

By now, a handful studies have begun to accumulate that test Robinson's (2007) model of task complexity with CMC data. Several have been conducted by Adams and colleagues, and Baralt (2013, 2014) has also contributed two studies. They have turned up contradictory to no evidence for Robinson’s predictions. As Adams and Nik (2014) argue, the Cognition Hypothesis was developed based on psycholinguistic models of speech production, and for this reason it may not work when applied to the psycholinguistics of CMC. CMC may alter the nature of the cognitive burden imposed on L2 production. If so, it is possible that Robinson's task complexity model itself will have to be modified for CMC (Ortega & González-Lloret, in press).

It must be recognized, however, that there is great ambivalence among L2 researchers regarding the status of syntactic complexity in CMC discourse as a hybrid modality between speaking and writing. Adams et al. note that one of the most important features of CMC, from a psycholinguistic and an L2 learning perspective, is the dissociation between production and transmission of typed messages. From this feature, three unique but ambivalent implications for syntactic complexity ensue. First, the adjacency pairs of spoken language become displaced (non-adjacent) in the CMC products and in the experience of the interlocutors, who may read them noncontiguously. This might promote syntactic complexity in fact, since messages may need to be made more explicit in order to understand their adjacent references (Sauro & Smith, 2010). Second, the record of communication is available for inspection without extreme time pressure, and this may promote attention to form, even to the point that grammar has been found to be monitored or noticed over lexis (Nik, Adams, & Newton, 2012). It is important to appreciate how unique of CMC this possibility is, since negotiations in spoken language have been found to be more frequently lexical than grammatical (Ortega, 2007). However, if trade-off effects are at work, as some posit (Skehan, 1996), then a heightened focus on accuracy may work against complexity in CMC texts; and this is precisely what Adams et al. found in their study. Third, unique elements such as emoticons (😊) and abbreviations (or txtspk) are part of the language resources of CMC. Depending on one's theoretical position about language, they may be seen to contribute to, or alternatively, to deter from, linguistic complexity. Additionally, CMC there are concerns that accuracy may be sacrificed both because the medium encourages non-prescriptive language (emoticons, abbreviations) and because one must constantly post messages in order to be present online.

Given all these contradictory predictions about processes of text production that pull towards and away from complexity, and which collide with or compromise accuracy, it is important for L2 writing researchers to have a principled way to measure syntactic complexity in a CMC-sensitive way. This is another important contribution made by Adams et al., as their useful and detailed coding scheme (see their Table 3), which also includes guidelines for AS-unit segmentation (Foster, Tonkyn, & Wigglesworth, 2000), will greatly pave the way for more L2 writing researchers venturing into the study of syntactic complexity in CMC data.
2.4. The meaning dimension of complexity

The shared understanding of syntactic complexity in the special issue, as in the field, is the sophistication, variety, diversity, or elaboratedness of grammatical resources exhibited in language production. This is a structural, form-only, understanding. In her contribution to the Special Issue, Ryshina-Pankova challenges this strictly formal definition and develops a theoretical argument for addressing what she calls the meaning dimension of complexity, or the discourse-semantic motivations of syntactic complexity. Syntactic complexity, she argues, is a quality of language production motivated by the functional need to deliver complex content within discourse. More specifically, in keeping with systemic-functional linguistics (Halliday & Mathiessen, 2013), she sees syntactic complexity as a set of lexico-grammatical resources that are put to the service of constructing different kinds of meaning which are called for by different kinds of communicative goals. Particularly at the most advanced levels of instructed L2 development, she argues, this broadened view of the construct is needed.

A key lexico-grammatical resource, and a staple of mature and abstract linguistic expression, is grammatical metaphor, which boosts the propositional and informational density of the language produced by construing as nouns (e.g., motion, distance, reason) what might normally be thought of as processes (e.g., to move), qualities (e.g., distant), or logical relations (e.g., because). Grammatical metaphor is not trivial for syntactic complexity, as it has the radical consequence of building noun-centered syntax rather than verb-centered syntax. The syntactic consequences in themselves carry meaning that spills over the sentence level and into the whole of discourse. For example, Green (2014) has recently described how nine different levels of grammatical integration in English via clause combining serve to create, in different ways, the cohesiveness of a text. Her description is substantiated by an empirical examination of the frequency of inter-clausal cohesive ties in an L1 corpus of 450 combined clauses across the 9 different English clause types. Meaning, discourse, and function are behind grammatical metaphor. Namely, certain language events make communicative demands for more abstract expression because of the increased “distance between lived experience and language” (Ryshina-Pankova, this issue, p. X). Ryshina-Pankova explains this is typical of written and academic genres and registers, which entail ideational, interpersonal, and textual meanings grounded in settings characterized by spatial and temporal communicative displacement and therefore by more distal language-and-experience (an issue of field) and language-and-others (an issue of tenor) relations. Grammatical metaphor is useful in creating and negotiating the distal field and tenor entailments of different genres, and it is for this reason that it emerges as a staple of advanced language use. High use of grammatical metaphor is characteristic of more literate styles of communication (known in systemic functional grammar as synoptic) which, without being inherently superior, simply make more cognitively and communicatively taxing demands on language users.

I would like to highlight three advantages to the systemic–functional understanding of syntactic complexity that Ryshina-Pankova invites the field to consider. First, grammatical metaphor is a construct that provides principled guidance and motivation for the study of the relationship between lexical and syntactic complexity. For one, grammatical metaphor requires knowledge of derivational morphology (as in discuss–discussion). Several L2 studies have shown derivational lexical knowledge may be quite late to consolidate (Hayashi & Murphy, 2011; Schmitt & Zimmerman, 2002), possibly much later than inflectional morphology. Thus, this is an area of study that has been greatly neglected in L2 research—by comparison, the development of inflectional morphology has, of course, a long tradition of study (see Hulstijn, Ellis, & Eskildsen, 2015). The mature use of grammatical metaphor also demands a considerably large vocabulary size, including agnation (to work–work) and word families with different lemmas (near-proximity), all the while imposing great demands on collocational knowledge (e.g., verify a claim, corroborate a story), which also has been shown to develop later (Henriksen, 2013; Peters, 2015). Two, Ryshina-Pankova’s theoretical understanding of syntactic complexity brings issues of register/genre/task/content to the fore and makes them available for systematic study. This is because her meaning perspective of syntactic complexity requires that any language instantiation of lexico-grammatical resources be analyzed for genre and register demands, before syntactic complexity can be operationalized in a given set of data. Conversely, for any investigation, one must demonstrate that the prompts eliciting language sufficiently call for the deployment of highly abstract meaning-making—or else grammatical metaphor and its syntactic and lexical consequences would not be evinced or amenable for study. It also follows that in this theoretical proposal researchers must establish the link between linguistic deployment of appropriate meaning-making resources (including grammatical metaphor and the synoptic syntax of nominalization) and communicative success for particular genres and tasks, for example, as indexed by higher writing quality ratings. And three, as a corollary of the first two advantages, systemic functional linguistics so far has been the most successful theory in providing a link between the study of syntactic complexity and the realm of educational practice. This advantage is clear in that it has been shown to successfully support the overall L2 writing development of foreign language students (e.g., Byrnes, Maxim, and Norris, 2010) as well as minority students in school (e.g., O’Dowd, 2012). Educationally, a view of syntactic complexity as at once linguistically, communicatively, and rhetorically motivated has a much better chance of generating workable links between syntactic complexity as a goal and particular pedagogical contents and practices to meet educational needs.
3. Expansion: outstanding issues in the study of L2 writing complexity

3.1. Syntactic complexity and writing quality: what might the relationship be?

The findings reported by Vyatkin et al. and by Mazgutova and Kormos suggest that instruction in a second language that embeds a strong element of writing practice is beneficial for linguistic development, as reflected in growth in the syntactic complexity that the writers are able to deploy in their L2 writing over time. As Manchón (2011) has argued, writing is a site for language development, and language development supports writing. The call by Ryschina-Pankova to address the meaning dimension of complexity is motivated by the argument that the syntactic quality of language production varies as a function of the differentiated need to deliver complex content within discourse. If linguistic development and syntactic development grow through and in writing, and if what is measured as strictly linguistic growth viagrowth in syntactic complexity makes a wider impact on meaning making, then it is not far-fetched to expect that syntactic complexity may make a difference on the quality of the writing as well. This is because if syntactic complexity grows as writers become increasingly more capable of using the additional language with linguistic maturity, so they will also write with more communicative and rhetorical flexibility.

Hence, we ought to take the argument to its full scope and seek for evidence that syntactic complexity contributes to good writing as well. In practice, this means that correlations should be seen, at least to some degree, with teacher ratings of writing quality. None of the studies in the Special Issue included ratings of writing quality. However, Bulté and Housen (2014) did. They found that growth in global T-unit and mean length of finite clauses correlated reasonably well (r = .40 and .48, respectively) with ratings of writing quality, which themselves showed a substantial mean improvement (of around d = .70 to 1.0 depending on the rubric scales). Interestingly, the relationship between syntactic complexity and quality ratings may not be constant across different genres (cf. also more discussion about how genre intersects with the measurement of complexity in the next section). Thus, Beers and Nagy (2009) found that in the first-language writing of 41 seventh and eighth grade students mean length of clause (a measure of phrasal elaboration) was positively correlated with quality for argumentative essays only, whereas mean clauses per T-unit (a measure of subordination) was positively correlated with quality for narratives and negatively correlated with the quality of the argumentative essays.

There are, of course, many qualifications when trying to compare syntactic complexity results to teacher (or tester/researcher) ratings of writing quality. For one, too narrow of a notion of either syntactic complexity or quality of writing may result in null findings (as Hillcock, 1986 reported for L1 writing many years ago). Further, the relationship can only be expected to be “indirect” (Beers & Nagy, 2009, p. 187). More interestingly, good writing is of many kinds, even within the norms and expectations of particular genres and audiences.

A recent empirical investigation by Crossley, Roscoe, and McNamara (2014) furnished robust evidence for the intuition held by many good writing teachers and good writers that “successful writing cannot be defined simply through a single set of predefined features, but that, rather, successful writing has multiple profiles” (p. 185). Arguing against linear modeling approaches to the study of writing development, they used cluster analysis to derive four styles seen in 148 successful (i.e., highly rated) argumentative essays collected from first-language (L1) English writers in ninth grade, eleventh grade, and college freshman courses in the United States. What they called an action and depiction essay style was “strongly verbal and descriptive and tended to be low in cohesive devices and personal terms” (p. 202). The academic style “contained the hallmarks of academic writing including strong structural components, strong rhetorical choices, specific word choices, syntactically complex sentences, and the use of infrequent n-gram patterns [higher lexical sophistication]” (p. 204). The accessible style was set apart by “a narrative quality, expected word combinations, and [ . . . ] explicit cohesion devices,” “more social and affective words,” and “more second and third person pronouns” (p. 204). Finally, the lexical style was characterized by “a greater number of unique words [ . . . that nevertheless] are more imageable and specific [and more] frequent and familiar [and] polysemous” (p. 205). Arguably, of the four writing styles proposed by Crossley et al. (2014), it is only the academic one that L2 syntactic complexity measurement typically targets.

We do not know if the four successful writing styles of argumentation identified by Crossley et al. (2014) reflect writerly preferences that multilingual writers would transfer across their languages. If so, we may need to reconsider our notions of syntactic complexity as a unitary construct made up of a relatively closed set of linguistic resources that will help writers achieve a uniform effect of maturity in their texts. Instead, if different good writers approach writing in given rhetorical contexts, for example, argumentation, differently, it might be that linguistic development opens up different sets of preferred complexification resources that are put to use quite differently by different L2 writer profiles. Thus, from both developmental and educational perspectives it is important to understand better how and what kinds of syntactic complexity contribute to making writing “better,” as reflected in higher ratings of text quality. A broadening of the agenda seems worthwhile in future research. If we are to further the question of how much syntactic complexity growth can be expected how fast in instructed development, we should also ask in what ways syntactic complexity contributes to good writing.

3.2. What role do genre/task/content play in syntactic complexity in writing?

The writing in the five studies of the Special Issue feature a range of genres and tasks from which the data were obtained. They span all the way from traditional academic argumentative essays (in Lu & Ai and in Mazgutova & Kormos) to online
compare and contrast evaluation of software (in Adams, Newton, & Nik) to a variety of curricular genres (in Vyatkina et al. and in Ryshina-Pankova). No direct comparison of genres was attempted within any given study. Yet, the choice of genre/task/content is crucial in the study of syntactic complexity because, as Mazgutova and Kormos acknowledged, "not all elements of systematically complex language are relevant for the investigation of development within and across specific genres" (p. X). If this is so, researchers must ensure that the prompts eliciting language sufficiently call for the deployment of the complex elements in question.

An important research program by Berman and colleagues has illuminated the differential complexity demands made by different genres in developmental perspective (e.g., Berman & Nir-Sagiv, 2004, 2007; Brandes & Ravid, in press; Ravid & Berman, 2010). In a large number of studies, they have compared personal-experience narratives and expository texts (both in speaking and writing) from middle school to college. These are two basic kinds of genre which many language users experience in their regular lives inside and outside classrooms. Written narratives appear in fiction, biographies, history, and so on, where written exposition appears in encyclopedias, textbooks, or journals. Berman and colleagues have established that, overall, exposition attracts more advanced lexis and grammar. For example, expository texts show more relative clauses (Berman & Nir-Sagiv, 2007) and more complex noun phrases with longer words, more syntactic depth, more abstract head nouns, and more and more sophisticated modifiers (Ravid & Berman, 2010). The differentiated L1 writer response to the two genres (more complexity elicited for exposition) is observed across all ages they study: starting as young as 9 or 10 years old, all the way to adults between 20 and 35 years of age. At the same time, the developmental timetables are different for the two genres. Even though many if not all of the “local” linguistic means that ensure what they call structural well-formedness of a genre (e.g., measured by a suite of lexical complexity and syntactic complexity measures) are in place by 9 or 10 years of age, maturity is achieved already at the same age in narratives but only at 16 or 17 years years of age in exposition. Based on their findings, they assert “the critical status of adolescence in the development of complex language use, and the important role of expository writing as a platform for the expression of a rich range of linguistic abilities in different languages” (Ravid & Berman, 2010, p. 18).

Why should genre/task/content make a distinct contribution to the development of language, in general, and of syntactic complexity, in particular? When it comes to syntactic development in an L1, part of the explanation must address cognitive-developmental dimensions. Namely, genres such as exposition and argumentation demand abstract and formal reasoning which, according to Berman and colleagues, is known to begin to emerge fully only around 11 or 12 years of age. Cognitive-developmental explanations are less relevant for the multilingual and highly educated writers typically investigated in L2 syntactic complexity research. Part of the explanation Berman and colleagues offer for their findings is usage-based and therefore highly relevant for adult writers as well. Namely, during childhood oral registers and oral (and later) written narratives are part of their daily-life experience, from as early as 4 years old. On the other hand, “expository discourse […] depends on extensive schooling and exposure to written language and is largely confined to academic settings and school-based, literacy-related activities” (Berman & Nir-Sagiv, 2007, p. 107). The same experiential explanation works for adults: Experience accrued with specific genres matters greatly for them as well. Other research has independently confirmed that accumulated experience with different kinds of language does matter for both children and adults, because it predisposes language users to use certain grammatical resources more often for certain contexts of use. For example, Montag and MacDonald (2015) found that L1 English relative clauses of different kinds are more frequent in writing than in spoken communication and that this will affect how children and adults with different levels of exposure to text (via reading) process and use these relative clauses.

The usage-based explanation for genre-related effects at work is extremely relevant for the study of L2 syntactic complexity in L2 writing, because adult participants come to our studies with “[e]nvironmentally determined differences in the accessibility of [different] genres across the lifespan” (Berman & Nir-Sagiv, 2007, p. 107), just as more generally “students typically enter the university with conversational skills (and personal writing skills), while the complexity features of advanced academic writing are acquired later” (Biber, Gray, & Staples, 2014, p. 7). Thus, in the future it may be fruitful to pay more empirical attention to not only the genres we investigate but also the prior genre experiences across their multiple languages that L2 writers may bring to the task of L2 writing.

3.3. L2 proficiency and syntactic complexity

A powerful source of influence that modulates syntactic complexity is L2 proficiency. While this is a variable that L2 researchers understand well in general (e.g., Hulstijn, 2015), it remains little understood in studies of syntactic complexity. For example, for a long time the research domain used holistic ratings of writing quality and curricular levels as a proxy of proficiency when creating subgroups in a sample for comparison, rather than making use of standardized measures of proficiency (Ortega, 2003).

Consider the role that proficiency may have played in the studies in the special issue. Proficiency suggested itself in Lu and Ai as a potential variable that must be considered vis-à-vis L1 effects in the future, given that the seven L1 groups ended up falling into two proficiency subgroups. The arguments put forth by Vyatkina et al. and by Ryshina-Pankova rest, at least in part, on the need to identify good candidate areas for complexification at very early or very advanced proficiency levels, respectively, so as to be able to study syntactic complexity appropriately over the full developmental trajectories of L2 writers. And Adams et al.’s interpretation of their results stressed that, because of their intermediate proficiency, their Thai participants may have been both particularly predisposed to engage in grammatical negotiation and noticing, on the one
hand, and particularly able to take advantage of the unique processing conditions of CMC text production to meet this need, on the other. But it is the study in the special issue by Mazgutova and Kormos where a relatively small proficiency difference emerged (rather strongly and unexpectedly) as an important moderating variable. In this section, therefore, I would like to compare their findings to the findings reported in a study by Bulté and Housen (2014). I wish to draw this comparison because of interesting differences in findings despite similarities in the respective contexts and samples. Namely, both studies investigated samples of international student writers doing some English for Academic Purposes preparation prior to enrolling in regular classes in U.S. versus UK higher education, and both looked at syntactic (and lexical) complexity gains over a short instructional period of similar instructional hours, although distributed with different intensity, over 4 months versus 4 weeks, respectively.

In order to contextualize the discussion, Table 1 lists the reported MLTU and rough estimates of proficiency for Mazgutova and Kormos, for Bulté and Housen (2014), and also for Lu and Ai, since they reported standardized proficiency scores as well.

A warning is that a different standardized measure of proficiency was reported by each research team, so the equivalencies in Table 1 are only rough estimates that show the equivalences across the studies along various proficiency measurements that are well known internationally (ACTFL Proficiency Guidelines, http://www.actfl.org/publications/guidelines-and-manuals/actfl-proficiency-guidelines-2012; CEFR levels, http://www.coe.int/t/dg4/linguistic/cadre1_en.asp; IELTS™ test, http://www.ielts.org/; and TOEFL® test, https://www.ets.org/toefl).

The three studies shown in Table 1 involved L2 English samples that can be considered to be on a continuum at the upper levels of the full proficiency cline. If I may speculate about the other samples in this special issue (not shown in the Table, since they did not report a standardized measure of proficiency), one is likely to fall within and two outside the range within Table 1. The advanced German foreign language context that Ryshina-Pankova (this issue) explores is likely to fall in the upper levels contained in Table 1 as well, although perhaps at around the Bulté and Housen sample or the Group 2 and L1 Set 2 in Lu and Ai. The Thai college sample in Adams et al. is possibly intermediate at the pre-upper level (given their grades 4.5, 5.6 and 6 on the national Malaysian University English Test, where 9 is the lowest proficiency grade), and the German sample in Vyatkina et al. represents the beginning (enrolled in semester 1) to mid-intermediate levels (enrolled in semester 4) and not higher than A2 (Nina Vyatkina, personal communication, June 4, 2015).

Mazgutova and Kormos arrived at different patterns of growth for the two groups they examined and attributed these differences to L2 proficiency. Specifically, the benefits from the same 60-h, 4-week intensive writing course were much smaller and in fewer areas of complexity for the more advanced (and older) Group 1 learners, who were 25-21-34-year-olds and had a global mean on the IELTS of 6.7 (with a writing IELTS mean of 6.3 which was statistically significantly higher than the 5.8 writing IELTS mean of the lower-proficiency, younger Group 2 writers). A comparison of these findings with those reported by Bulté and Housen (2014) immediately reveals divergence.

First, Mazgutova and Kormos found overall much clearer growth in lexical than in syntactic complexity (and the syntactic complexity growth that did emerge was mostly due to gains by the lower-proficiency sample, which was closer to the proficiency levels of the Bulté and Housen sample), whereas the reverse was true of Bulté and Housen, whose lexical complexity measures were unpredictable of any change. In addition, Mazgutova and Kormos found no statistically significant differences in mean length of T-units, but Bulté and Housen’s 45 writers wrote with a mean length of T-unit that was one word longer in average after 4 months (a statistically significant medium effect of $d = .47$). Third, Mazgutova and Kormos reported growth—particularly for the 12 writers at the lower proficiency level—in phrasal elaboration measures (noun modification via adjectives and prepositional phrases, complex nominals in subject position, multiple modifiers after the same noun). This is consistent with Bulté and Housen’s findings, who also found that both mean lengths of finite clause and noun phrase increased at a medium rate similar to their T-unit increase ($d = .49$, $d = .41$). In the subordination-related measures, however, the two studies part ways again. Mazgutova and Kormos found changes in syntactic structure similarity, conditionals, and relative clauses after 4 weeks, but Bulté and Housen found that none of their various subordination measures changed over the 4 months.

What can be made of these disconcerting contradictions? Proficiency differences may explain some of the differing results, as the writers in Bulté and Housen (2014) do appear to be at a somewhat lower proficiency level than the writers in Mazgutova and Kormos (for unknown reasons, given the similar contexts for English for Academic Purposes). Unknown L1

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<td>Comparison of rough estimates of L2 proficiency and reported MLTU across 3 studies.</td>
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<th>Mazgutova &amp; Kormos Group 1&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Lu &amp; Ai L1 Set 1&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Lu &amp; Ai L1 Set 2&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Mazgutova &amp; Kormos Group 2&lt;sup&gt;d&lt;/sup&gt;</th>
<th>Bulté and Housen&lt;sup&gt;e&lt;/sup&gt;</th>
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<tr>
<td>MLTU&lt;sup&gt;d&lt;/sup&gt;</td>
<td>17.04</td>
<td>15.98–18.98</td>
<td>13.12–17.96</td>
<td>16.26</td>
<td>10.78</td>
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<tr>
<td>IELTS</td>
<td>6.5 to 7.5</td>
<td>5 to 6</td>
<td>5.5 to 6</td>
<td>4.5 to 5.5</td>
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<tr>
<td>TOEFL&lt;sup&gt;e&lt;/sup&gt;</td>
<td>627</td>
<td>543</td>
<td>B2</td>
<td>below 550</td>
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<td>CEFR</td>
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<sup>a</sup> Mean IELTS Group 1: 6.7 and Group 2: 5.9.<n><sup>b</sup> Set 1: L1 Bulgarian, French, German, and Russian samples mostly at CEFR C1; Set 2: L1 Chinese, Japanese, and Sesotho samples mostly at CEFR B2 or lower.<n><sup>c</sup> Most scores below the TOEFL 550 score.<n><sup>d</sup> MLTU: mean length of T-unit, recorded here as maximum and minimum means for cross-sectional samples or mean at Time 1 for longitudinal samples.<n><sup>e</sup> Proficiency estimates are only rough and derived from http://en.wikipedia.org/wiki/Common_European_Framework_of_Reference_for_Languages.
influences of the kinds discovered by Lu and Ai might also be at work, particularly given that both studies examined writers from mixed L1 backgrounds. Other factors seem to offer additional (not mutually exclusive) candidate explanations. One is the differences in measurement across studies. For example, the subordination measures were ratios in Bulté and Housen (2014) but a mixture of length-based and frequency-based (and normalized to per 1000 words) in Mazgutova and Kormos. Even when conceptually the same construct may be targeted, these differences make comparison of results across studies less than ideal. In addition, genre differences may have played a role as well. Namely, all writing prompts involved in the Bulté and Housen data were descriptive (e.g., “describe your current home,” Connor-Linton & Pollo, 2014), whereas the prompts by Mazgutova and Kormos were argumentative (e.g., “exams cause unnecessary stress for students, how far do you agree?”). This difference may not be inconsequential as it is well known that different genres make different linguistic demands and attract different kinds of complexification, in both writing (Beers & Nagy, 2011; Berman & Nir-Sagiv, 2004; Biber et al., 2014) and speaking (Nippold et al., 2014). Argumentation typically mobilizes the deployment of more complex language than narration and description, and this seems supported in the comparison of reported mean lengths of utterance (see Table 1) (see also a more extended discussion of genre/task/content below).

Herein lies the challenge of measuring syntactic complexity: any changes that are observed—either cross-sectionally or longitudinally—must be understood as a reflection of the interplay among several factors beyond just instructed development. Any of them will modulate, often jointly, in mutual interaction, the range of observations that are possible, as well as the interpretations that researchers can make about syntactic complexity. The more study designs can account for the basic factors at least— instructed development, L1 proficiency, modality/genre/task/content—the more progress the research domain will be able to make.

3.4. What areas of growth at what proficiency levels?

As just exemplified with the comparison of Mazgutova and Kormos (this issue) and Bulté and Housen (2014), findings reported across studies can be conflicting despite not so dissimilar contexts and not so dissimilar proficiencies. But the challenges that such discrepancies pose can lead to more substantive questions. If complexification is achieved by different means at different points (i.e., different proficiencies) in the developmental trajectories of learners, then different areas of complexity may be relevant at one given proficiency level but irrelevant or at least less predictive of growth at a different given proficiency level.

Based on the available research at the time, and particularly the longitudinal findings reported by Byrnes et al., 2010, Norris and Ortega (2009) proposed that global complexification (for example, as indexed by a general length measure like mean length of T-unit) can probably capture overall changes in complexity in any data. They further predicted that subordination, for example as measured by mean number of clauses per T-unit, would be the preferred source of linguistic complexity relied upon at intermediate levels. At the most advanced levels of proficiency, subordination would cease to be predictive and, instead, they expected phrasal elaboration to be a main area for growth, for example as measured by mean length of (finite) clause—principally via the nominalization processes that Ryshina-Pankova discusses in this issue. However, findings across studies can look disconcerting when closely considering the syntactic areas for complexification that might be most promising to study at different proficiency levels. As mentioned, Bulté and Housen (2014) found the opposite pattern, in fact: At the upper-intermediate level, their sample showed phrasal elaboration changes but unchanged subordination. Mazgutova and Kormos found that both phrasal and clausal complexification grow hand-in-hand for their lower-proficiency L2 writers, something that Norris and Ortega also did not predict.

Nevertheless, the importance of pursuing empirical descriptions for the best matching of targeted areas for complexification with relevant proficiency levels is well illustrated by Vyatkina et al. For example, they concluded that adverbs may be unsuitable candidates for study in early development, given that over the entire 2 years they were used (or underused) by beginning writers in a restricted type variation involving small sets (sehr-very, hier-here, jetzt-now, dann-then, gerne-gladly). Adjectives, on the other hand, revealed themselves as a fruitful area for deeper analyses at these early levels, at least in L2 German, given that they exhibited systematic patterns of change over time. Specifically, predicative adjectives in German are uninflécfted (as in “your idea is wonderful,” deine Idee ist wunderschön) and thus easier and earlier used than attributive adjectives, which must be inflected (“a wonderful idea,” eine wunderschöne Idee) and may increase in frequency of use slightly later. On the other hand, unlike word- and phrase-level modification devices, adverbial and relative clauses were not present in the corpus from the very beginning of the 2 years. Once they appeared, they exhibited a sudden and steep increase in use towards the middle of the 4 semesters (for adverbials) or a bit later (for relatives) with great individual variation in use. Few investigations exist of truly beginner learner language development exist (for German or for any other target language), and these findings are extremely helpful in forming hypotheses for future complexity research into early developmental trajectories.

Researchers do surely not expect that the importance and relevance of all areas of language remain constant at all proficiency levels for the study of syntactic complexity. We would be ill prepared to choose the type of complexification that we should be measuring for a given sample, unless we make predictions about and harvest detailed knowledge of how linguistic development unfolds over proficiency continua. However, at the time of the present writing, some six years after Norris and Ortega (2009), there is reason to believe that the question of what syntactic areas for complexification might be most promising to study at what different proficiency levels might need to be tackled in alternative ways in the future. First, as seen in the five studies in this issue, the independent and moderating variables are too important to leave out. More
powerful and multivariate, non-linear thinking is needed if we are to take into account not only instructed development but also the influences of L1, proficiency, genre/task/content, and so on. Specifically, we will have to set up the study design and then plan the statistical analyses in ways that these variables are fully represented and their complex interactions captured. Second, the mere counting of a very few basic structural features stripped from their context cannot sufficiently capture the construct. A more fruitful research approach is the inclusion of functionally discriminating measurement, and specifically clusters and large sets of functionally motivated complexification resources at once. This latter strategy is modeled, albeit quite differently, in the L1 writing work by Berman and colleagues (e.g., Berman & Nir-Sagiv, 2007), already discussed, and in the L2 syntactic complexity measurement practices suggested by Biber and colleagues (e.g., Biber et al., 2014), which I briefly describe next.

3.5. Ever deepening functional motivations for the development of syntactic complexity

It behooves L2 writing researchers in the future to explore alternative understandings of syntactic complexity that go beyond the purely structural and formal. Two of the contributions in this special issue, Ryshina-Pankova and Vyatkina, Hirschmann, & Golcher, explicitly adopt a usage-based perspective which views form and function as inseparable and mutually constitutive of language (Cadierno & Eskildsen, 2015; Robinson & Ellis, 2008; Römer, 2009; Tyler, 2010). Under this functional perspective, writing becomes formally and structurally more complex only because emergent and skilled writers are challenged and seek to challenge themselves with the creation of meanings that are conceptually and socially also increasingly more complex.

Systemic-functional linguistics is the specific theoretical and analytical commitment proposed by Ryshina-Pankova (this issue). But other key theoretical positions share her same argument that syntactic complexity as a construct must be dealt with as meaningful, functional ways to meet specific communication demands. This is in essence the call put forth by Berman and colleagues, who have always insisted on “the need to examine linguistic forms not only in terms of their frequency and distribution, but also in terms of the functions which they perform in the context of specific types of extended discourse” (Berman & Nir-Sagiv, 2004, p. 375). It is also in a nutshell the call made by Biber and colleagues in their work, which applies the multidimensional analysis of register differences (Biber, 1988) to L2 development.

One of the most important contributions by Biber and colleagues (e.g., Biber, Gray, & Poonpon, 2011; Biber et al., 2014) is to show that the mere counting of a very few basic structural features stripped from their context cannot sufficiently capture the construct of syntactic complexity, much less if such counting is done in the same ways across speaking and writing and across different registers (their preferred term for genre), because different registers are characterized by different combinations of language features. In corpus-based evidence of first language use in formal academic registers, they found that clausal elaboration (i.e., subordination with high-frequency mental verbs such as think, know, say) characterizes the complexity of spoken registers, whereas the main source of linguistic complexification in written academic language is phrasal compression, and specifically complex noun phrases and complex phrases. They distilled these and other more detailed findings into a developmental proposal from finite dependent clauses (mostly noun and adverbial clauses, initially) to non-finite dependent clauses to, at the most mature levels of academic writing, dependent phrases (most particularly noun phrases and prepositional phrases that modify nouns). They further call for a more detailed cataloguing of structural types of nominalization, possibly also in tandem with the examination of particular sets of resources whose heavy presence or glaring absence characterize the multidimensional analysis of different registers (see Biber, 1988). Based on their findings of the distinctiveness of mature academic writing when compared to everyday speaking genres, Biber and colleagues urge L2 writing researchers to address phrasal and clausal complexification in sufficient functional detail, and to “differentiate among the structural types and syntactic functions of dependent clauses and phrases” (Biber et al., 2014, p. 26).

3.6. Full circle: developmental views of L2 syntactic development, expanded

It seems undeniable, in view of the five studies in the special issue and the many connections with other bodies of L1 and L2 writing that have addressed syntactic complexity, that a broadening in the scope of the research domain would be beneficial. The basic factors that influence syntactic complexity—at a minimum, instructed development, L1, proficiency, modality, and genre/task/content—must be investigated as mutually related, which will require complex designs and powerful statistics. The understandings of syntactic complexity must encompass functional and meaning dimensions, which in turn will open up better understandings for questions regarding, for example, the influence of genres on complexity or the relationship between complexity and successful L2 writing. But keen attention and expansion must also be directed toward L2 development itself, as this is the core mechanism that underlies changes in syntactic complexity: How does the analytical lens incorporate ever expanding conceptions of what development may mean along long-term trajectories of L2 learning?

Consider, for example, prepositional phrases as one resource that functionally serves modification. Vyatkina et al. found prepositional phrases to be widely used by all 12 early learners in their corpus but two, and across all 17 waves of data collected over 2 years. Thus, prepositional phrases can be considered a promising area for the analysis of syntactic complexity, even at the earliest levels of development. But can it be studied profitably across the full developmental trajectory, all the way to the very advanced levels of L2 that, for example, Ryshina-Pankova (this issue) addresses? In most cases in their data, Vyatkina et al. report, prepositional phrases involved prototypical spatio-physical and temporal meanings, with a trend for upward development initially and downward development eventually. A closer look at issues of
function and meaning in prepositional phrase use can also expand the interpretive lens considerably and make this area amenable for interesting study all the way to the most advanced levels of L2 use, particularly if the functional and meaning consequences of modification are brought to bear on the analyses.

As Tyler and Evans (2001) have shown, the semantic complexity of prepositions is notorious, in that they show a primary meaning or protoscene as well as additional distinct senses that form a motivated semantic network, or what these authors call polysemous network. For instance, over in English can mean completion as in the party is over, excess as in it spilled over, repetition as in over and over, and so on up to 13 distinct senses plus the protoscene (Tyler & Evans, 2001, p. 746). Thus, the gradual development of modification via prepositional phrases might be amenable to semantic analysis as well, whereby L2 learners at the more advanced levels might be expected to begin to be able to use lower-frequency or more nuanced or idiomatic extended senses of prepositions and prepositional phrases.

Prepositions also happen to be not only lexical (with their polysemous semantics) but also functional words that can, among other things, assign case in German (läuft auf der Straße, where the dative signals stasis, “runs on the street,” versus läuft auf die Straße, where the accusative encodes dynamic motion, “runs onto the street”, Baten, 2011, p. 458). In this case, syntactic complexity may interface with accuracy as wider functional valencies of prepositional phrases enter the data. This will give rise to interesting crosslinguistic differences that are worth exploring in the early development for modification by prepositional devices as well as in the later development.

In fact, as is probably the case with many (perhaps all) other areas of language, the amenability for study of prepositional phrases seems highly productive across ages and across target languages, when the purely formal approach is expanded and a functional and meaning motivation is incorporated into the developmental study of syntactic complexity. For example, Morgenstern and Sekali (2009) fruitfully studied their functional and pragmatic growth for L1 English and L1 French children in the first two years of life, and Brandes and Ravid (in press) have studied prepositional phrases expressing manner in L1 Hebrew (e.g., be-iyyut ‘in-slowness = slowly’). They found only one instance per text, or roughly 1 in every 14 clauses, in the narrative and expository texts written by 80 participants at four age-and-schooling levels, from 4th grade and 9–to-10 years of age all the way to graduate university students aged 25–30. The relative low frequency of occurrence notwithstanding, a close consideration of the complexity of their internal structures and their different syntactic functions in the service of rhetorical effects demanded by the two genres enabled these researchers to map how the manner prepositional phrases grew longer and more complex with age.

Beyond the phrase level, similar developmental rationales can be applied. Thus, for instance, Vyatkins et al. found that clausal categories of modification were more difficult and later emerging than adjectives, adverbs, and prepositional phrases. The longitudinal findings substantiated the predictions: Therefore, we may expect that relatively simple adverbial clause modifiers and relative clause modifiers emerge late, whereas all other modifiers will be present from early on and thus their evolution can be studied from early on as well. In German, modification by subordination presents the additional learning challenge of requiring a verb-final word order that becomes available for productive use only in the latest stages of word order development (Baten & Håkansson, 2015).

In sum, when researchers of syntactic complexity venture well beyond structural and formal approaches, they can examine functional motivations for syntactic complexification attuned for what it may also mean in terms of developmental interfaces with semantic, morphological, and discourse-pragmatic areas of the language that are also subject to developmental explanations. This analytical developmental strategy opens up directions for the study of the relationship of syntactic complexity with lexical complexity and with accuracy that are understudied currently and will be worth exploring in the future. It further redefines the space for what can be studied along the full developmental trajectory within a given type of strategy for complexification.

4. Coda: what do we look forward to?

The study of syntactic complexity in L2 writing has made much progress. However, a complex picture that suggests the need for future expansions arises from the five studies in this Special Issue, as well as some other recent studies in this research domain and related L1 research areas that I have brought to bear in the discussion. Despite the undeniable progress, in our quest to measure and understand syntactic complexity in additional language learning, in the past we may have engaged in thinking which privileged one or a very small set of best measures for all purposes (e.g., Foster et al., 2000) or for a few differentiated purposes (Norris & Ortega, 2009). With so much progress, we may have outgrown this quest at present and in the future, instead, we may need to find out how we can best measure syntactic complexity for certain purposes, at certain levels of development and proficiency and over various instructional times and intensities, on certain modalities and genres/tasks/content, and all while taking into account L1 background and intra- and inter-learner variation. This may sound at first blush daunting. However, the five studies in the special issue bear witness to the fact that increasingly more sophisticated tools, data sets and corpora, and analytical strategies are now being used. Sustained use of these tools, data, and strategies will pay off with increments in nuanced knowledge of the kind that can indeed make us measure syntactic complexity in the best ways possible within carefully stipulated research parameters.

But if researchers of syntactic complexity shift their interest and seek to establish the link between linguistic deployment and appropriate meaning-making resources and communicative success, then they will also be forced to seek for the link, however indirect, between increases in syntactic complexity of various kinds and what counts as “good” or successful writing for various writer styles and across genres. When we do so, and in our quest to solve the daunting developmental and
measurement challenges that the study of syntactic complexity faces us with, we should not forget that writing becomes formally and structurally more complex only because emergent and skilled writers constantly seek to challenge themselves with the creation of meanings that are conceptually and socially also increasingly more complex. In this regard, when Skehan in his work (e.g., Skehan & Foster, 2007) defined syntactic complexity as “form-as-ambition,” he offered a befitting term—the ambition learners have for the language they produce, and which supports their willingness to take risks in order to express themselves as they aspire to do, at the cutting edge of their meaning-making resources. Investigations of syntactic complexity would do well to pursue the insight that syntactic complexity in L2 writing emerges from multilingual writers’ ambitions to push the boundaries of meaning making and self-expression and from their relative willingness to take calculated risks when writing in languages, including their additional languages.

Finally, the functional and communicative value of syntactic complexity is exciting in expanding the horizons of the possible research programs L2 writing researchers may be able to pursue in the future. Nevertheless, we would be remiss if we did not acknowledge that the importance of syntactic complexity for multilingual writers is modest, as so many other qualities of language and discourse give rise to what one might proclaim as successful writing. But this modest value is undeniable. Multilingual writers need to develop linguistically, they need to function in instructional contexts well, and they need to respond appropriately to the different demands of valued genres, tasks, and contents that comprise their varied educational experience. They do these things in and through their writing. When they develop linguistically, their grammatical resources expand and make it into their written products, suggesting a certain maturity of expression that should be captured in the various indices of syntactic complexity that researchers have devised.

References


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