Divergent Conceptions of Grammar

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Abstract

A divergence of beliefs regarding the structure and scope of *grammar* is identified in the literature on Japanese teachers' of English beliefs (JTE) and Western teachers' beliefs. This divergence results from the belief held by many JTEs that grammar equates with syntax. A review of the literature typically utilised by native speaker teachers of English (NEST) reveals that grammar has a more inclusive scope, extending to both semantics and function. Furthermore, due to perceptions of examination requirements, many JTEs believe that instruction is best conducted in Japanese (Nishimuro & Borg, 2013). English as a foreign, or second, language (EFL/ESL) can, therefore, be instructed in four possible manners. In this theoretical paper, a four-part framework is explored. We draw upon dual process theory (Stanovich, 2009) to assess the forms of cognition that each form of instruction is likely to involve, and we note several problematic areas for EFL instruction. We conclude by indicating possible directions for further research.

Keywords　grammar, teacher perceptions, teacher beliefs, Japan EFL, systemic functional linguistics, dual process theory

　　The Ministry of Education, Culture, Sports, Science and Technology (MEXT) periodically reappraises its English curriculum to address issues raised in any previous version of its curriculum (Sarich, 2014). Since 1989, one issue that has received attention over the past few reappraisals is that of developing communicative abilities (Taguchi, 2005). Several obstacles to the development of communicative skills have been identified. Taguchi (2005) demonstrates that many classroom learning activities do not target productive communicative skills. Japanese teachers of English (JTE) in Taguchi (2005) exhibited a clear preference for passive listening activities. This phenomenon is partially answered by Nishino and Watanabe (2008) who note that many Japanese teachers of English (JTE) do not feel confident in their

own productive communicative skills. Yet, the communicative competence of JTEs is not the only issue that inhibits learners' development of communicative abilities. One major inhibitor may be the strength of JTEs' belief in the primary importance of grammar instruction in preference to other instructional objectives. Nishino and Watanabe (2008) the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT, while discussing other factors, including the belief held by many JTEs centring on the importance of grammar skills in preparing high school students for university entrance tests. They characterise a prevailing belief held by high school JTEs:

> "based on their experience preparing themselves and their students for high school and university entrance exams, many secondary school English teachers may believe that detailed grammatical knowledge and intensive reading skills are crucial for Japanese secondary school learners" (Nishino & Watanabe, 2008, p. 134)

Furthermore, there is a gulf between the goals of communicative English and the content of grammar instruction, and that "critics of this approach claim that Juken Eigo (examination English) requires high school students to learn decontextualized language and peripheral grammar" (Nishino, 2008, p. 30).

The challenge of improving middle and high school learners' communicative abilities is further hampered by methodological concerns. Hardy (2007) notes that:

> "Most JTEs are trained in grammar-translation and/or audiolingual methods. These methods emphasise learning linguistics rules and to make them habitual in order to achieve fluency. Current language acquisition theories suggest that these methods are, in many ways, counter-productive if the goal is communicative competence (Hardy, 2007, p. 13).

Of interest here is Hardy's (2007) use of 'to achieve fluency'. The perception of the importance of grammar and the instructional methods through which grammar is acquired may collude, according to Hardy, to inhibit communicative abilities. However, much research into the beliefs about English-as-a-foreign language (EFL) teaching held by JTEs indicates that direct instruction in grammar skills is important (Nishimuro & Borg, 2013; Nishino, 2008; You, 2019).

Problem Statement

In EFL curriculum theory, Brown (1995) describes seven systems for organising language learning courses, including structural syllabuses that prioritise and sequence grammatical and phonological information. There is no principled reason for discounting structural syllabuses, yet the predominantly grammar-translation approach typically utilised by JTEs is frequently cited as a major inhibitor to communicative competence (Nishino & Watanabe, 2008). Brown (1995) does not criticise the validity of any of the syllabus types. He discusses techniques that are commonly found in each syllabus that aim to develop communicative

skills in the foreign language.

Later research has focused on how skills are acquired (Ericsson, 2006). Skill acquisition is the result of three inter-related facets: knowing what and why to practice (*i.e.* declarative knowledge); associating a target skill with a relevant vehicle for practice (*i.e.* associative practice leading to procedural knowledge); and over time, autonomous (or acquired) skills can be performed without deliberate recourse to declarative knowledge (DeKeyser, 2015). As Brown (1995) suggests, a grammar approach does not *per se* inhibit communicative abilities. Therefore, the issue must lie elsewhere.

The main problem may be that middle and high school EFL classes are not structured for cyclic, iterative procedural skill development. Katayama (2015) describes demotivated learners whose dreams of becoming "a native-like speaker of English" disappeared because English instruction involved the "study *about* English in Japanese particularly in grammar or reading" (p. 124, italics in original). Katayama's study participants were university students, but their experiences mirror those at middle and high school. The present authors believe that the lack of procedural *practice* is likely to be the largest factor that inhibits school-age learners' communicative competencies. This argument is, we believe, both intuitive and supported by the literature: without practice, success is unlikely. When asked, JTEs readily concur with this sentiment (Nishimuro & Borg 2013). Therefore, the 'lack of practice' argument alone is insufficient to justify JTEs continued grammar-translation approach.

Research Question

One factor that has previously not garnered sufficient attention in the literature, however, is how JTEs' beliefs about the nature and scope of grammar itself influences their instruction of grammar. Grammar, as a concept, is an encompassing term for a wide range of linguistic information. As EFL practitioners, the present authors teach aspects of grammar regularly. In our preservice training courses, we studied pedagogic grammar. Moreover, our students frequently ask us questions about grammar. Upon reflection, our instruction of grammar frequently touches on linguistic function, semantics, collocations, syntax, and many other aspects of language that are ultimately associated with communication of meaning. Furthermore, our conception of grammar, following Brown (1995) does not preclude it being the principle organising system underpinning a language syllabus. Yet, our conception and that of the JTEs discussed above seems to be divergent. We pondered if this divergence, once clarified, could point to a reason that inhibits JTEs' development of curricula that promote communicative competencies in school-age children. We developed the following investigative research question: *What are the broad conceptions of grammar underpinning native speakers of English EFL researchers and those of Japanese teachers of English?*

Review of Relevant Literature

The precise role of grammar instruction in foreign language learning has long been disputed in theory. A brief outline of some key concepts in this debate and how they are currently

conceived aids in locating the specific area under investigation.

How grammar is located in the learning process, in particular, has received much attention. For example, Krashen (1982) argued for a distinction between learning and acquiring, declaring that directly learned information—including grammar knowledge— cannot be converted into autonomous and automatic abilities. Grammar learning in this view aids communicative skills through the process of consciously monitoring one's output. This position has largely been rejected (VanPattern & Williams, 2015), moving towards a dichotomy of explicit versus implicit knowledge (Ellis et al., 2009), or declarative versus procedural knowledge (De-Keyser, 2015). (However, see Bialystok (1990), whose model of L2 acquisition retains some distinctions between the roles of explicit and implicit knowledge). Ellis (2002), for example, echoes the consensus that a direct focus on grammar (i.e. focus-on-form: DeKeyser, 2015) is a welcome, if not necessary, part of learning a foreign language, and that learned items of grammar may be acquired later in the process after much consciousness-raising activities (Ellis, 2002), which form the basis for proceduralisation of those rules through deliberate associative practice (DeKeyser, 2015).

Consciousness-raising activities are conceptually and pedagogically an attempt "to develop declarative rather than procedural knowledge of it" (Ellis, 2002, p. 3). Ellis (2002) notes several differences between target practice of a grammar point and a consciousness-raising activity. Two differences that are relevant to this discussion are that controlled practice aims to provide "opportunities for *repetition* of the targeted language" (p. 3, italics in original) and that consciousness-raising requires learners to "utilise *intellectual effort* to understand the targeted feature" (p. 3, italics in original). Ellis (2002) ends by indicating a crucial point that reflects the state-of-knowledge in second language research regarding the necessity of developing metalinguistic (called 'metalingual' by Ellis) knowledge about language in the learning process:

> "the main purpose of consciousness-raising is to develop explicit knowledge of grammar. I want to emphasise, however, that this is not the same as metalingual knowledge. It is perfectly possible to develop an explicit understanding of how a grammatical structure works *without learning much in the way of grammatical terminology*. Grammar can be explained, and, therefore, understood in everyday language. It may be, however, that access to some metalanguage will facilitate the development of explicit knowledge" (Ellis, 2002, p. 4, italics added).

While few strongly argue for a completely grammar-free learning process, Ellis (2002) is describing a position that observes the form of metalinguistic knowledge required. Studying grammar is known to be helpful, but learning about a foreign language in the manner of a trainee linguist is not necessary. Furthermore, as Ellis (2002) indicates, there is much discussion regarding the precise role of metalinguistic knowledge to L2 learners.

The Nature and Scope of Grammar

In the examples of Ellis (2002) and Krashen (1982), various aspects of grammar are dis-

cussed, yet a crucial assumption remains undefined. This is their definition of the nature and scope of grammar itself. A major question must be asked: *Is grammar synonymous with syntax, or does it contain other facets?* In our reading of the literature, researchers do not address this question explicitly. Cots (2008) provides a useful summary of the debate, noting that forms of knowledge about language (KAL) themselves are not, themselves, agreed upon:

> "It is important to emphasise that the object of knowledge to be included within KAL is also highly controversial, between a limited focus on formal rules and a more comprehensive view of verbal communication including forms, uses, sociocultural meanings and connotations, etc." (Cots, 2008, pp. 15-16).

We argue that if KAL, which includes grammar knowledge, is such an open concept, diverse groups involved in EFL must make their own positions more transparent if communication between them is to be meaningful.

However, their descriptions of examples and scenarios in which grammar is taught, their intention can be identified. To foreshadow the following discussion, it was noted that the literature by native speakers of English typically features an inclusive definition of *grammar*; that is, its scope extends beyond the nature of a syntax-only belief.

Earlier, we indicated that JTEs' assumptions about their beliefs regarding the nature and scope of grammar also are not clarified. Both Taguchi (2005) and Nishino (2008) describe a lack of confidence in both JTEs' English communicative abilities and conducting lessons using communicative methodologies. However, JTEs' beliefs about the nature and scope of grammar itself remain unknown. When beliefs and assumptions remain unreflected upon, there is the possibility for communication breakdowns (Scollon, Scollon, & Jones, 2011), especially between those who argue for better EFL instruction in the Japanese compulsory school context and those who believe in a delimited scope for grammar.

In summary, the literature suggests that JTEs, for the most part, accept the importance of grammar, in whichever formation, and non-Japanese theorists allow a role for grammar in the development of explicit to implicit skill development in EFL (DeKeyser, 2015). Yet, what remains notable in this literature is the absence of discussion regarding the scope and nature of grammar itself.

This issue has implications beyond the compulsory school EFL context. The present authors deliver EFL courses in a Japanese national university. Many of the students we encounter are preparing for the National Licencing Examination in English Teaching. Many of these students succeeded in middle and high school and have come to believe in the efficacy of grammar instruction as they had experienced as learners and trained in as future teachers. Although many also lament their own communicative abilities in English, their educational enculturation of 'English-as-grammar' remains entrenched. Their vision of grammar is tied to their experiences, and their graduation theses frequently feature themes related to better ways of teaching aspects of grammar as a process of improving English communicative skills in Japan. The future of English education in Japan is therefore influenced by current JTEs' beliefs about the scope of grammar.

If there is a commonly held set of beliefs about the definition of grammar by both JTEs and native speaker teachers of English (NESTs), a problem would not exist. However, the present authors have noticed a tendency in their students' conceptions of grammar to limit it to issues of syntax. Student beliefs are not the same as JTEs' beliefs, but student beliefs are the result of their instructional history in EFL. This proof-of-concept theoretical research project was established to investigate the possibility of a communicative mismatch between JTEs' beliefs regarding the scope and nature of *grammar* and that of English native speaker grammarians.

The decision to compare JTEs' beliefs with a theoretical base was taken because it is well established that Japanese undergraduate preservice teachers (*i.e.,* undergraduates) do not receive much training in incorporating theoretical models of EFL into their practicum and that much teacher-training in the Japanese school context is done in-service (Lee, Graham, & Stevenson, 1999). Although this comparison may seem to be unbalanced, Lee *et al.* (1999), writing in the American context, note that American teachers place much more confidence in theoretical models and believe that their teaching is efficient because of the application of those models (whether that confidence is well-placed or not is a different question). The upshot is that a direct comparison between Japanese theoretical pedagogic models of English with those in the English language context would not permit access to data collection as it actually occurs in the classroom, although the present authors readily concede that a direct theoretical comparison may be a useful study in the future should classroom pedagogic differences be observed.

Two Conceptions of *Grammar*

It is necessary to establish some common grounds for comparison. In this section, we review several issues relating to conceptions, definitions and instructional enactments of *grammar*. We decided to utilise systemic functional linguistics (SFL) as a base to make the comparison because:

> "its scope is wide in that it sets out to explain how humans make meaning through language and other semiotic resources, and to understand the relationship between language and society" (Coffin & Donohue, 2012, p. 65).

In other words, SFL presents an inclusive conception of language that may be used to compare other perspectives. This is because SFLs' scope is wider than a strictly pedagogic grammar approach, and it includes a rigorous linguistic analytical system at the individual word level and the discourse level. SFL identifies three primary areas in its grammar system: syntax (*structure*), semantics (from lexis to discourse-level *meaning*), function and aspects of language use (*pragmatics*). Broadly stated as described by its originator, Halliday, SFL locates the actual text used within a framework of semiotics, contexts, semantics and clause-level syntax. This refers to the located and actuated nature of linguistic utterance

(Halliday & Matthiessen, 2014). SFL offers a highly effective system to analyse more limited conceptions of language.

    SFL contains a precise degree of focus on grammar at its:
- ・micro-level (its *linguistic* aspect): STRUCTURE
- ・while retaining a socio-semiotic perspective: MEANING
- ・on the application of linguistic elements: (its *functional* or PRAGMATIC aspect).

This encompassing approach has been "used to say sensible and useful things about texts in fields such as language education" (Eggins, 2004, p. 2). As such, the present authors consider SFL as a viable proxy for a native speaker of English's intuition as to the scope and nature of grammar. Functionally in this theoretical paper, SFL acts as a testing instrument to assess the coverage of various language aspects in teacher beliefs.

English Language Specialists' View of Grammar

In this section, we review two standard grammars of English: (Greenbaum and Quirk 1990) and Larsen-Freeman and Celce-Murcia (2016). These works were selected on the basis of their ubiquity and comprehensiveness. Greenbaum and Quirk (1990), was developed from their earlier comprehensive grammar Quirk *et al.* (1985), which at 1779 pages, serves as a principle source of pedagogic grammar. These books are widely used in EFL/ESL teacher training, linguistics and as a standard reference for other language-based pedagogies in British English contexts. Larsen-Freeman's (2016) is directly targeted at EFL/ESL teachers in American English contexts. Both works are "pedagogic grammars" (Akhtar, 2006) which embody assumptions regarding the scientific nature of language and how that may be transmitted to learners. Pedagogic grammars are more suited to this present study because they are the typical source of linguistic information at the technical level for EFL teachers. Indeed, the present authors were required to use these texts in their own preservice training courses: (Jacob, using Larsen-Freeman *et al.* (2016) in the American context, and Jim, with Greenbaum and Quirk (1990) in the UK context).

Greenbaum & Quirk

Greenbaum and Quirk (GQ: 1990) explicitly identify 'grammar' as "includ [ing] syntax and . . . morphology" (p. 1) and exclude spelling and word choice. Furthermore, by noting the "primacy of speech" (p. 21), they include pronunciation and prosodic aspects of language. In this respect, GQ addresses the *structural* aspect of grammar at both syntactic and phonological levels. Additionally, they discount sociolinguistic considerations from their conception of grammar. Later, they introduce semantics and discourse aspects into their model, satisfying the *meaning* requirement. GQ provide copious notes in their grammar framework, mainly to clarify structural aspects. However, in their discussion of semantics, structural roles are frequently paired with their *pragmatic* use. For example, in elucidating on the *meaning* of the simple present, they note that; "it is used as a stylistically marked device in fictional narratives for imaginary events in the past" (p. 79). This form of description, though, appears far less frequently. In summary, GQ's framework of pedagogic grammar satisfies the SFL criteria, but we note that GQ is less focused on pragmatics and that it overtly excludes sociolin-

guistic considerations.

Freeman-Larsen et al.

The subtitle of Freeman-Larsen *et al.*'s (2016) *The Grammar Book* (TGB) is *Form, Meaning, and Use for English Teachers*, placing the three SFL grammar aspects firmly within their scope. Moreover, the 'for English Teachers' also establishes the primary audience and the function of the text as a pedagogic grammar, a point they emphasise later. Immediately on page 1, TGB asserts its position to grammar. Unlike GQ, who initially define 'grammar' as syntax prior to expanding their position, TGB "adopt [s] a broader view of grammar" (p. 1). Their definition of grammar is instructive:

> "Grammar is a meaning-making resource. It is made up of lexicogrammatical form, meaning, and use constructions that are appropriate to the context and that operate at the word, phrase, sentence, and textual levels" (Larsen-Freeman *et al.*, 2016, p. 2).

This definition resembles SFL, and indeed, Halliday and Matthiessen (2014) is referenced on many multiple occasions in TGB, although TGB does not claim to be a pedagogic realisation of SFL. In summary, TGB's conception of grammar firmly includes all three aspects of SFL.

The consensus as codified in the instructional manuals above, therefore, from a native speaker teacher of English perspective is that the standard view of grammar contains structural, semantic and pragmatic aspects. Grammar instruction, therefore, may be conceived as a reduced act of teaching syntax primarily or it may include a wider set of conditions. Another critical aspect is the language of instruction. We consider how the instructional language (in L1 or L2) mediates the learning process in the next section.

NESTs' Beliefs about Grammar

After examining two influential grammar books in the Western EFL context, it can be seen that the books themselves contain a focus on all of the three central SFL aspects identified above, albeit to different degrees. What then of the NESTs who are ultimately the ones to disseminate the information from the book to the classroom? In this section, we will look at the beliefs of some NESTs specifically to see if their pedagogic actions match the pedagogic grammar books portray as important as grammar. We note, however, that in this pilot study, only a small number of NESTs' beliefs are surveyed.

The possibility of a divergence between grammar instructional texts and teachers' enactments of their own beliefs regarding grammar suggests a need to briefly survey relevant literature. We begin with a brief analysis of a NEST in the Maltese context as it offers a useful comparison with those in the Japanese context.

A pioneer in this field, Borg (1998) noted that "teachers' classroom practices are determined to a substantial degree by their personal pedagogical belief systems" (p. 9). He analysed a single teacher's grammar cognitions and provided data on classroom practices of grammar instruction in the Maltese context. He reported that:

"The teacher's approach to grammar was largely unplanned; that is, he took decisions about what language points to focus on interactively (as opposed to preactively), usually on the basis of problems students had during lessons (all the episodes presented in this account originated in this manner)" (Borg, 1998, p. 23).

Of interest here is that the instructional planning does not include an initial stance towards grammar. Rather, grammar instruction emerges organically during a planned task that is pragmatic (or functional) in nature. This pedagogic sequencing places any structural aspect of grammar within the overall meaning or pragmatic aspects.

Additionally, Borg (1998) described the selection process for grammar items:

> "Deciding which grammar points to include in error analysis activities, then, was not just a question of writing down students' mistakes; it involved professional judgments about appropriate issues to focus on, judgments that the teacher felt he was able to make on the basis of his experience" (Borg, 1998, p. 16).

This is highly suggestive of an iterative approach that responds to earlier instruction. Borg's participant was "not obliged to follow specific syllabuses or textbooks" (p. 11). Although it is unknown from Borg's study how the teacher viewed the nature of a sequential grammar syllabus, it is clear that the participant considered a cyclic approach to grammar instruction as essential. This approach contrasts significantly from much instruction in the Japanese EFL context that attempts to present grammar sequentially and proceed with "expectations of linear progress and success" (Katayama, 2015, p. 124).

Borg's (1998) study was with a single participant in a particular context. He has conducted more in various settings (*e.g.,* Borg, 2001). Ellis (2012) summarises Borg's and other's contributions to the research into teachers' pedagogic beliefs and states that; "it is also clear that metalingual comments are not restricted to form-and-accuracy contexts; they also occur in meaning-and-fluency contexts" (p. 134). To native speaker teachers of English, grammar instruction is generally seen as an essential aspect of L2 learning, and grammar includes the three aspects of structure, meaning and function.

As seen in the previous section, the beliefs of the NESTs and the books used by them complement each other pedagogically. We note that SFL is able to capture the pedagogic grammars' conceptions of grammar, and these are enacted by NESTs. When NESTs teach grammar, they emphasise a view that extends beyond structural accuracy to pragmatic fluency. Now that the NESTs' perspective has been described, it is important to see JTEs' beliefs.

JTEs' Beliefs about Grammar

In this section, we analyse some key papers in the literature that discuss JTEs' beliefs about grammar. Borg collaborated with Nishimuro (2013) to investigate JTEs' cognitions relating to grammar. Their case studies on three teachers found that "teachers did not express any opposition to this approach and shared the belief that grammar instruction plays a vital

role in an EFL environment such as Japan" (p. 36). As with NESTs, JTEs assert that grammar is a necessary element in EFL instruction. Yet, Nishimuro and Borg (2013) do not clarify the nature and scope of the term grammar. A clarification of these JTEs' beliefs about the constituents of grammar can, however, be identified. One teacher "translated English into Japanese sentence-by-sentence, and checked the meaning of words and key grammar items" (p. 37). This method appears to be *yakudoku*, sometimes erroneously translated as *grammar-translation*.

Briefly, *yakudoku* and *grammar-translation* share a commonality in that both methods result in bilingual texts: from L2 to L1 in the case of *yakudoku* and bidirectional L1–L2–L1 in grammar-translation. Additionally, they utilise syntactic terminology to describe each lexical item in the translation. However, their differences are vast and beyond the scope of this study. Two main differences are that *yakudoku* is a technique that is applied to any given L1 statement (*e.g.* a poem, a sententious, or moral expression in Chinese and an English sentence), whereas grammar-translation is a method that builds up translation skills from a minimal base through a structured and sequenced syllabus to complex language. See Hino (1988) and Gorsuch (1998) for further details. For our present purposes, we note that neither *yakudoku* nor grammar-translation are, in principle, restricted in their scope about the nature of grammar, however limited their practices may be.

Another participant in Nishimuro and Borg (2013) provides another indication of their view of the scope of grammar; "because this *to study* modifies the whole sentence, we call this the adverbial usage of *to-infinitive*" (p. 38). Nishimuro and Borg's third participant is unequivocal about his beliefs about grammar; "students should only focus on the *form*" (p. 39, italics added).

In these three examples, all participants expressed beliefs that placed grammar as synonymous to SFL's structure. There were no instances where this belief was challenged.

You (2019) explored two EFL teachers in Hawai'i. She notes that "many Japanese teachers remain uncertain about what CLT [communicative language teaching] is and are unsure about how to implement it in their classrooms" (p. 214). You (2019) investigated two NESTs' beliefs about the importance of grammar instruction. Her case study chose two experienced NESTs based in Hawaii because both had undergone extensive training in a variety of methods. One of You's participants favoured explicit focus-on-form instruction, which included drills and, citing Celce-Murcia; "grammar was 'taught and learned independently of meaning, social function, and discourse structure' " (citing Celce-Murcia, 1991, in You, 2019, p. 218).

Note that You (2019) does not imply any pejorative criticism of the Hawaiian EFL teacher who rejected meaning and function. Instead, she uses this example to legitimise direct instruction of English syntax as a pedagogic objective in its own right. Later, we will discuss an important implication here, but for now, we must point out that the language of instruction in Hawaii was English and inquire if the language of instruction itself affects the instruction.

We selected You (2019) and placed her study in a section on JTEs' beliefs about grammar although You studied NESTs. This apparent contradiction is defended below. You, a native Japanese researcher, provides information from NESTs that supports the three participants

in Nishimuro and Borg（2013）who emphasise the importance of form, or structure, in Japan EFL learning. This point is highly revealing. It seems to underscore the Japanese belief in the validity of formal grammar instruction. For these reasons, the present authors consider You's selection itself of NESTs grammar beliefs to be evidence for an entrenched perception regarding the scope of grammar held by a JTE（or Japanese researcher of English）. For example, You's（2019）first two beliefs in her summary were, "Belief A: Teaching Grammar is Critical" and "Belief B: Explicit Grammar Teaching is Fundamental"（p. 216）. We interpret this summary of beliefs as an incorrect analysis of the data. Moreover, the summary points to unreflected assumptions held by You. For example, in the Appendix data, both NESTs responded '2: disagree somewhat' to the following statement; "Learning a second language is mostly a matter of learning a lot of grammar rules"; and 2 and 1（strongly disagree）to; "Learners need to memorise grammar rules before they are ready for communication"（p. 220）. In other words, it seems likely that You（2019）selectively utilised segments of the data set to support her argument and ignored those segments that argued against her.

Crucially, neither You（2019）nor the participants in Nishimuro and Borg（2013）recognise a vital difference between formal instruction in a learner's native language and the use of the L2 to provide instruction in a focus-on-form pedagogic methodology. In other words, they fail to recognise that teaching（English）grammar in Japanese has an entirely different cognitive structure from teaching（English）grammar in English.

Cognitive Processing

To understand why this difference is important, we need to consider some typical cognitions in the learning process under both systems. If grammar instruction equates with presenting information about the L2 and learning equates with receiving, comprehending and memorising that information, logically, it does not matter in which language the instruction is presented. The debate centring on the use of L1 in EFL instruction is ongoing（De La Campa & Nassaji, 2009）.（McManus & Marsden, 2019）provide evidence that the use of L1 in explicit grammar teaching in L2 skill development improves learners' abilities better than without explicit instruction. They note that "establishing reliable and accurate declarative knowledge is argued to be essential"（p. 4）, and delivery in the L1 is an efficient method of achieving this aim as explicit instruction "about L1 followed by practice in interpreting the L1 may help develop and consolidate declarative knowledge about the L1"（McManus & Marsden, 2019, p. 463）. McManus and Marsden（2019）locate their studies in the context of skill longitudinal development of L2 production and limit the use of L1 to the delivery of declarative knowledge in the initial stages of learning a new topic. In other words, the role of L1 is restricted in both position（at the beginning）and extent（clarification of propositional meaning only）.

In Japan, Carson（2018）explored JTEs perceptions of using L1 and reported that "JTEs believed that a greater amount of Japanese support was necessary than students preferred"（p. *xii*）. Carson discusses class management, learner expectation and other motivational is-

sues. In these studies, teachers' perceptions are explored, as are the effects on affectual and attainment of L1 or L2 use. They do not explore learners' cognitive processing in respect to immediate, online, non-affectual cognitions during learning. This is necessary due to the nature of mental executive functions which "refer to a family of top-down mental processes needed when you have to concentrate and pay attention"(Diamond, 2013, p. 1). This removes attitudinal aspects from learning processes and allows a direct focus on cognitions involved with intellectual operations during learning. We do not wish to minimise affectual aspects as their ability to influence bottom-up processes, (*e.g.* motivational dispositions), but we consider higher-order cognitions also to be vital in the learning process, a facet that has not received sufficient attention. Dual process theory (Kahneman, 2011; Stanovich, 2009) is a theory that enables such a focus.

　　Accordingly, in this section, we utilise dual process theory (Stanovich, 2009) to locate cognitive processes during learning. The term 'dual' refers to a) Type 1 autonomous, or automatic, cognitions that arise in the mind due to prior conditions of learning or being; and b) Type 2 algorithmic cognitions, or learned sequences, that are applied to combinations of autonomous cognitions which are decoupled, or held temporarily, in the working memory. Figure 1 illustrates this model.
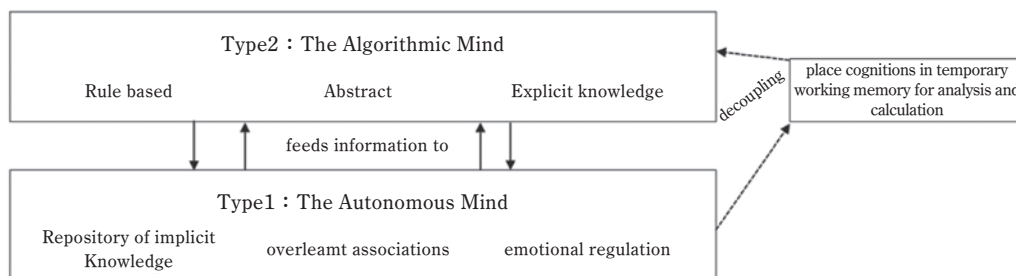

Figure 1 Dual process model （adapted from Stanovich, 2009）

　　Stanovich (2009) presents a model of cognition which is capable of describing the human learning process. In terms of EFL learning, the nature of explicit knowledge is characterised as knowledge of algorithmic processing. Autonomous information is retrieved as necessary. An example shows this process. When a learner aurally encounters a new vocabulary item, for example, they decouple that phonological information in the working memory as the L1 equivalent is retrieved from the autonomous mind. The algorithmic mind provides the rule 'hear the L2 word, associate it with the L1 meaning and memorise this association'. When this 'hearing–associating–memorisation' has been conducted many times, the link becomes overlearned and the learner has proceduralised the learning into the autonomous mind. Other forms of learning utilise different pre-learned algorithms and use different overlearned L1/L2 associations. The complexity of the learning process may be conceptualised more effectively with the dual process model. In particular, the nature of L1 autonomous associations and how L2 associations may be developed becomes clearer. Moreover, this description also clarifies the importance of discussing the language of instruction.

A Framework for Analysing Cognitions in EFL Learning

As discussed earlier, SFL argues for a tripartite division of *grammar* into structure, meaning and use. When EFL learners experience instruction in structure, several possibilities arise:

1. In the learner's L1
    (a) focus-on-form instruction only
    (b) information about meaning and use appear in the L1
2. In the learner's L2
    (a) focus-on-form instruction only
    (b) information about meaning and use appear in the L2

In situation 1 (a), linguistic information about English is provided in Japanese and is delivered according to a strict sequence. Learners' cognitions in the L2 are limited to creating L1–L2 conceptual associations (*i.e.* comprehending and memorising L2 lexis). The remainder of the cognitive work is to transform algorithmically autonomously derived information via decoupling processes in order to satisfy a condition. This form of instruction may be called puzzle English. Such instruction is known to demotivate Japanese learners of English (Kikuchi, 2009).

Situation 1 (b) is more interesting from a cognitive process perspective. Arguably, the primary purpose of learning a second language is to communicate in that language. Communication is centred on meaning-making. Without adequate attention to meaning-making (that is, *puzzle English*), the likely result of EFL instruction is failure. When, however, meaning-making is presented in the learner's L1, currently it is unknown (to our knowledge) how much instruction mediates naturalistic linguistic outcomes. Such information is required if the exact role of 1 (a) or 1 (b) instruction is to be known.

From a dual process perspective, the structural abilities of EFL learners will be equivalent to that described in 1 (a). However, meanings and uses of the L2 will be derived from learners' L1 autonomous mind. In other words, L2 linguistic information will be associated with L1 sociocultural pragmatic beliefs. Such information is likely to be largely unavailable for reflection Furthermore, because autonomous processes constantly need to be decoupled into the working memory and have algorithmic processes applied to them, fluency failures are likely to occur.

Situation 2 (a) instruction, on the other hand, is coupled with repeated practice of both L2 structural and lexical items in the L2. This practice supports overlearning, a facet of the autonomous mind. Overlearning is the process by which explicit L2 information becomes implicit and available for automatic use. This situation, therefore, is more likely to promote L2 linguistic fluency than situation 1 (a), where linguistic information is presented in the L1. Issues of sociocultural pragmatic use remain open. Further research is needed to investigate how situation 2 (a) mediates naturalistic L2 language use. Situation 2 (a) may be summarised by Ellis (2005):

"based on a structural syllabus (*i.e.,* a specification of the linguistic structures to be taught) but differs from it in that it emphasises the meanings realised by the different structures, not just their forms, and also the importance of situational teaching structures (*i.e.,* identifying situational contexts for practising the structures)" (Ellis, 2005, p. 3).

Situation 2 (b) combines all three SFL aspects of grammar. As such, not only the structural aspects of the L2 but also its meaning and uses receive attention. In terms of dual process theory, autonomous processes are supported leading to more possibilities for overlearning. Moreover, repeated decoupling during the initial associative stages (DeKeyser, 2015) is likely to lead to overlearning of all L2 linguistic facets and increased fluency and naturalness.

Discussion

In this section, we review our research question. Then we summarise our comparisons of NESTs and JTEs beliefs about grammar in relation to the dual process model. From this, several conclusions are drawn. We note that this paper is highly limited in scope, and we end with suggestions for future research. We sought to examine the broad conceptions of grammar held by native speakers of English, EFL researchers, and those of Japanese teachers of English. In order to have a general tool of measurement, we used systemic functional linguistics (SFL), specifically looking at syntax, semantics, and function. We then examined Western grammar books, teaching ideas of both NESTs and JTEs, and then compared what researchers stated.

Given that there is no widely agreed-upon theoretical principle to discount a grammar approach to EFL, we wondered if there may be another reason for the failure to develop middle and high school learners' communicative abilities beyond the intuitive lack of practice argument described above. We asked the following research question; *What are the broad conceptions of grammar underpinning native speaker of English EFL researchers and those of Japanese teachers of English?* We reviewed the literature to find that NESTs broadly (in our small sample) conceive grammar as a tripartite system consisting of structure (or form), meaning and use. They place an importance on all the three central aspects of SFL. Moreover, NESTs viewed grammar teaching as something more fluid and dynamic with no set process of teaching. We also conclude that a fair assessment of JTEs' beliefs was that grammar consisted of structure only and that other L2 linguistic information is delivered in L1.

Japanese teachers of English overwhelmingly focused on the structural, syntactic aspect of grammar. English grammar learning seems more of a puzzle-solving activity rather than the development of a fluid language system. Although EFL theorists' ideas about grammar varied somewhat, NESTs tended to have a similar pedagogic philosophy to grammar teaching as the books they used, while Japanese researchers found that grammar teaching was the actions involved in focusing on structure.

In conclusion, significant divergences regarding fundamental conceptions of grammar could

be identified. These divergences mediate EFL in Japanese middle and high school education at deeply structuring levels. They interrelate with other important issues, such as the concern that compulsory English in Japan is not conceived as a skill development process with little iterative and deliberate repetitive practice enshrined in the curriculum. These issues themselves have not been resolved in second language acquisition research, so it is hardly surprising that they are not resolved in Japanese secondary EFL.

However, by far the most concerning issue this paper has identified is the unreflected belief that L2 education may be conducted in L1. Carson (2018) has reported on many aspects of this belief, especially in regards to attitudes towards L1 or L2 instruction as they mediate motivational aspects of learning. This paper analysed L1 or L2 language of instruction from the perspective of dual process theory. Much more needs to be done to investigate L2 learning using dual process theory. We identified several principal areas of concern, and we propose that the issue impeding middle and high school EFL communicative abilities is the continued use of L1. JTEs' use of L1 may partially be due to their own insecurities in communicating in English (Nishino, 2008). Such obstacles can be overcome if the beliefs balanced towards using L2 as the main language of instruction. As this balance is not evident, another more fundamental hindrance must explain JTEs' decision to utilise an L1 language of instruction; and this decision is itself based on the belief that grammar *is* structure.

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