

○ BEYOND ENL NORMS IN ELF USE: A COGNITIVE PERSPECTIVE ON ELF OUTPUT

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This article presents a cognitively-oriented account of the qualitative differences between ENL (English as a native language) and ELF (English as a lingua franca) users. Based on the declarative-procedural model of second language acquisition, it examines the linguistic and sociolinguistic implications of ELF users' dependence on their declarative memory system, with its corresponding explicit knowledge and controlled processes of cognition subserving the production of their output in English. In contrast, it points to ENL speakers' output being sustained by both their procedural and declarative memory systems, with their corresponding implicit and explicit knowledge types that interact through automatic and controlled processes. Given the differences in the underlying cognitive resources and processes in output production, it concludes that the prevailing practice of assessing ELF users' output in relation to ENL norms is simply irrelevant.

KEY WORDS: ELF; ENL; declarative/procedural memory systems; controlled/automatic processes.

INTRODUCTION

Globalisation has led to the rapid spread of English as a lingua franca (ELF), through which English users interact with each other in diverse and fluid communicative contexts. Most of these contexts do not involve native speakers of English as interlocutors since more than a billion people are believed to use English as a nonnative language in comparison to only 380 million native speakers of the language (Clyne & Sharifian, 2008). As such, the pedagogic emphasis in English language teaching (ELT) has been shifting gradually from reliance on the monolingual native speaker as the custodian of what is acceptable English usage to a new understanding of communicative competence that is not necessarily constrained by native

speaker-based norms and conventions. Instead, what has been emerging is the realization that ELF use is another representation of competence involving both the ‘co-existence and constant interaction of the two languages in the bilingual’ (Grosjean, 2008, p. 13) and the possession of intercultural insights (Alptekin, 2002) providing the conceptual basis for a multicultural identity (Alptekin, 2010). In terms of its linguistic and cultural dimensions, the emerging notion of multicompetence views ELF users as being qualitatively different from monolingual native speakers rather than approximations thereof (Cook, 1999). Yet not much is offered about the cognitive resources and processes that underlie such qualitative differences, manifestations of ELF users’ performance not going beyond surface-level descriptive accounts of specific lexical-semantic, morphosyntactic, and phonological features that are compared to native-speaker usage (e.g., Breiteneder, 2009; Jenkins, 2000; Mauranen, 2009; Prodromou, 2008; Seidlhofer, 2009a).

As a case in point, one can refer to the descriptions of the use of idiomatic and formulaic collocations in ELF interactions, which has received increasing attention in applied linguistics (Durrant & Schmitt, 2009; Kuiper, Columbus & Schmitt, 2009; Mauranen, 2009; Prodromou, 2008; Seidlhofer, 2009a; Wray, 2002). Prodromou (2008), for instance, argues that the main difference between the native speaker of English and the expert ELF user is one of idiomaticity, which he considers to be the principal key to native fluency. In his view, it is in relation to idiomatic competence that expert ELF users run into difficulties in both decoding and encoding information in English. What is bypassed in this exonormatively performance-oriented account is the inherent culture-specificity of idioms, which are efficient ‘conveyers’ of meanings so long as the interactants share the same culture. Prodromou seems to overlook the fact that the verbatim use of idioms runs counter to the substance of ELF exchanges, in which mutual intelligibility, supportive cooperation, and interactional success are of utmost importance among interlocutors who are nonnative speakers of English from different cultural contexts. Seidlhofer’s (2009a) attempt to view the use of idioms from a relatively more endonormative perspective is thus closer to the reality of English as an international medium of communication. She describes ELF interactants as co-constructing idioms on line to set ‘shared meaning’ rather than feeling the need to make their output correspond to conventional ENL (English as a native language) idiomatic usage. Focusing on the issue in the broader context of ELT, a group of researchers (Durrant & Schmitt, 2009; Kuiper et al., 2009; Wray, 2002) point to the paucity of idiomaticity in the discourse of second language users.¹ Kuiper and colleagues, for instance, complain that second language learners’ performance of formulaic utterances in cloze tests is ‘abysmal’ owing to their inability to learn these forms. Considering that native speakers also deviate from canonical forms in their use of semi-formulaic utterances, albeit in different ways in relation to ELF users, Mauranen (2009) claims that second language

processing may indeed be similar to native-language processing. However, she does not explain the so-called similarity in cognitive terms, focusing instead on the linguistic variation the new output brings into English. It is thus evident that none of these accounts fully explains why idiomaticity and formulaicity are treated the way they are by ELF interactants except to characterize the users' linguistic output in different ways. More specifically, no account explains why ELF interactants in general would not be able to make native-like use of idiomatic and formulaic expressions even if they were familiarized with them as part of their formal training in English.

Aiming to provide explanatory power to output production in ELF, this article demonstrates how the cognitive resources and processes that underlie ELF use are qualitatively different from those subserving ENL use. In this context, it examines the roles played by long-term memory systems, declarative/procedural types of knowledge, and controlled/automatic processes of cognition in the formulation and production of ELF output.

DECLARATIVE VS PROCEDURAL KNOWLEDGE SYSTEMS IN ELF USE

Clearly, a descriptively and explanatorily adequate definition of the ELF user should involve the 'what', that is, the representation of linguistic knowledge, as well as the 'how', that is, the operationalisation of information for acquisition, storage, and retrieval as distinct cognitive processes. Corpus studies, such as VOICE and ELFA, which attempt to codify ELF 'with a conceivable ultimate objective of making it feasible, acceptable and respected alternative to ENL in appropriate contexts of use' (Seidlhofer, 2001, p. 150) appear to have the mission of delineating discourse characteristics that are based on interactions between nonnative speakers of English in international settings, with a view to providing a descriptive basis for an evolving set of 'declarative' norms.² Unfortunately, the substance of such interactions is erroneously thought to characterize procedural knowledge (e.g., Seidlhofer 2009b, p. 240), creating the misconception that what linguists need to do consists of the simple operation of converting procedural linguistic knowledge into declarative linguistic knowledge. The truth of the matter is that declarative knowledge relies on the declarative memory system, which, with its subdivisions of semantic and episodic memory systems, subserves the explicit learning, storage, and use of information pertaining to facts and events, including lexical knowledge. In contrast, procedural knowledge rests on the procedural memory system, which subserves the implicit acquisition, storage, and use of motor and cognitive skills and knowledge of a routinised nature, including syntactic, morphological, and phonological properties and sequences (Ullman, 2001, 2005). Being located in different brain circuits, the two systems are dissociated and an interface between them, although a common facet of native language use, is not necessarily the case in second language use, as an interface is

dependent on the degree of the learner's experience with and proficiency in the second language on one hand, and as its direction (in the event it occurs) would be one of declarative-to-procedural on the other. Suffice it to say at this point that, in a neurocognitive sense, it is not possible to view ELF corpora as providing the grounds for procedural knowledge ready to be 'formalized' through declarative means, since this would require a procedural-to-declarative shift in second language use—which is common in native language acquisition but not in second language learning. Such a shift takes place in native language development because learning the explicit knowledge of the language normally lags behind the acquisition of implicit linguistic knowledge and skills. Consequently, explicit knowledge is said to be 'extracted' from implicit knowledge of specific tasks (Sun, Sluarz & Terry, 2005), native language tasks being no exception to the rule. In contrast, late second language learning implicates the likely case of a declarative-to-procedural shift, given that most adult second language learners acquire their second language through essentially form-focused educational training characterized by explicit learning of rule-based declarative knowledge, often at the expense of untapped implicit processes catering to procedural knowledge.³ Hence, ELF output manifests the operationalisation of what is chiefly declarative knowledge manipulated through controlled processes of cognition.

With extensive exposure to second language input, rules of declarative knowledge might nevertheless contribute to the conscious creation of utterances which themselves subsequently play a part in implicit learning (e.g., Ellis, 2005), resulting in the gradual replacement of declarative knowledge by implicit computational procedures. According to this weak interface position between the two types of knowledge, once a linguistic item (e.g., a lexical chunk, collocation or idiom) becomes seeded in the learner's long-term memory and is consolidated as explicit knowledge, its frequent subsequent use will be sufficient to convert it into implicit routinised knowledge. This shift from one knowledge resource to the other is likely to bring about a parallel shift in processing procedures. That is, with attentional selection no longer playing a major role in handling the output, controlled processes may gradually be replaced by automatic processes of cognition. There are, however, serious objections to this type of interface in second language learning. DeKeyser (1997, 2000, 2003), for example, while advocating interface, disagrees with the notion of automatised information use in the second language being equated with the procedural knowledge use in the native language on the grounds that native language-like acquisition is not available in second language learning. What may seem automatised, he maintains, may be functionally equivalent to procedural knowledge but is not necessarily qualitatively identical to it. From a non-interface perspective, Hulstijn (2002) argues that what may appear to be the automatised second language declarative knowledge through the formation of

computational procedures is, in fact, the building of an additional separate neural network that accommodates automatization through implicit learning and that caters to the procedural memory system. Likewise, Paradis (2004, 2009), while not denying the possible indirect contribution of declarative knowledge to the development of procedural knowledge in the second language, flatly rejects the claim that declarative knowledge may become procedural, or that declarative rules can be proceduralised (automatised). In this context, he questions how the explicitly formulated rules of the declarative memory system could actually be identical to the implicit processing operations of the procedural memory system.

A somewhat different view comes from Ullman's (2001, 2004, 2005) declarative/procedural (DP) model of second language learning, which, based on extensive neurocognitive evidence, posits that the two memory systems are dissociated and an interface between them in the form of declarative knowledge becoming proceduralised may take place only when the learner has adequate experience with and advanced proficiency in the second language. Otherwise, Ullman shows that in neurocognitive terms the second language learner's declarative memory system is in charge of almost all cognitive processes underlying language acquisition and use, given that, following adolescence, there is a certain attenuation of the procedural memory system with increasing age, resulting in a shift to the declarative system. This suggests that adult second language users are restricted in their procedural learning capacities, chronological age hampering the exploitation of their implicit knowledge in second language use (DeKeyser & Juffs, 2005).⁴

In the absence of a procedural-to-declarative shift on one hand, and the uncertainties permeating a declarative-to-procedural shift on the other, it follows that a formal tabulation of the ELF user's output cannot be seen as a representation of procedural knowledge that could be converted into declarative rules. Nor can it be seen as the outcome of declarative rules gradually becoming proceduralised, enabling second language learners to develop native-like implicit knowledge. For example, as suggested by Paradis (2009, p. xi), even in those cases where language learners display fluent output in the second language, this type of fluency in conversation, rather than being an indication of implicit linguistic competence, could be the result of speeded-up controlled processes that give the illusion of automaticity. What a corpus provides, then, as a representative sample of ELF interactants' discourse, is fundamentally a manifestation of their ability to apply their explicit declarative knowledge in different communicative settings, with the declarative memory system and controlled processes underpinning the production of output. In the final analysis, it is only when second language learners reach an almost native-like proficiency level that they can begin to gradually replace the controlled application of declarative rules by the automatic use of their corresponding implicit procedures.

DIFFERENCES IN COGNITIVE RESOURCES AND PROCESSES BETWEEN ELF AND ENL USERS

In the light of the recent literature on the roles played by the declarative and procedural memory systems in native and second language learning (e.g., Bowden, Gelfand, Sanz & Ullman, 2010; DeKeyser, 2009; Ellis, Loewen, Elder, Erlam, Philp & Reinders, 2009; McLaughlin et al., 2010; Morgan-Short, Sanz, Steinhauer & Ullman, 2010; Paradis, 2009; Ullman, 2001, 2004, 2005; Van Hell & Tokowicz, 2010), this article is predicated on the premise that the declarative and procedural knowledge resources, although being complementary in nature, are fundamentally dichotomous entities and only in exceptional circumstances (e.g., early exposure to second language acquisition, growing up in a bilingual family or setting) or with sufficient exposure to and experience with the second language can allowance be made for both overlap and movement between the two. Given, however, the overall profile of the ELF user that emanates from the existing literature, the ‘typical’ ELF user will be taken to be an adult or an adolescent who has missed the ‘window of opportunity’ of early second language acquisition; one who has had explicit form-focused instruction in English as an additional language; and one who uses ELF in both formal and informal multicultural contexts of the ‘Expanding Circle’ (Kachru, 1992).

From a cognitive perspective, the capital difference between this type of ELF user and an ENL speaker is that the native speaker’s language performance stems from the cooperation and, at times, competition of the procedural and declarative knowledge systems, dependent on the nature of the linguistic task to be tackled. Normally, the systems complement each other in processing a given task, yet one may “defunctionalise” the other in the name of more efficient processing if the task is largely explicit or implicit. In contrast, ELF users’ linguistic resources in the second language rest primarily on the operations of the declarative knowledge system, in addition to a number of procedural routines associated with their native language. More precisely, ENL speakers’ declarative grammatical knowledge normally stems from the delayed explication of their implicit knowledge of phonology, morphology, and syntax acquired naturally in their early years (Sun et al., 2005), as mentioned earlier. Thus, for native speakers, the formation of explicit grammatical knowledge follows the development of implicit grammatical knowledge and is generally based on it. Phonological and morphosyntactic development in the native language is thus characterized by a shift from the procedural to the declarative system over time. No such shift is possible in late second language learning, however, as there is only one system that has been educationally accommodated and remains operative. Under these circumstances, any use of procedural knowledge could come mainly from computational procedures associated with the native language, which would often blind the acquisition system to

properties of the second language, thereby leading to ‘deviations’ from ‘standard’ English usage (Ellis, 2006). Accordingly, it can be said that while the ELF output is essentially the outcome of controlled processing, which normally characterizes the operation of the declarative knowledge system, the ENL output stems from either the automatic processing of the procedural knowledge system or the controlled processing of the declarative knowledge system or both.

From the viewpoint of language use, the most important consequence of the cognitive differences between ENL and ELF users’ linguistic performance is that the declarative system, which subserves explicit vocabulary learning and use in native language acquisition, is responsible not only for vocabulary learning and use but also for the learning and use of “grammar” (i.e., syntax, morphology, and phonology) in the second language, which is implicitly operationalised by the procedural system in native language acquisition and use. As such, the ELF user’s output displays a heavy reliance on lexical processing, relegating the grammatical properties of the second language to secondary status, as will be discussed in the next section.

Given, then, the qualitative differences between the cognitive systems and their underlying operations in native and nonnative language learning and use, it should not come as a surprise that expert ELF users can be defined as individuals who are able to materialize an efficient application of the second language-based declarative knowledge in their second language performance while deactivating their native language procedural knowledge unless the form-meaning mappings between their native language and English are very similar to the point of being identical (see Sabourin & Haverkort, 2003). This is clearly different from the ENL speaker’s linguistic performance, which relies exclusively on native language-based procedural and declarative knowledge systems that interact in differing degrees through processes of cooperation and/or competition.

THE LINGUISTIC IMPLICATIONS OF ELF USERS’ RELIANCE ON THE DECLARATIVE MEMORY SYSTEM

There are several important implications of an ELF user’s being overwhelmingly dependent on the declarative memory system with regard to linguistic performance in the second language. First and foremost, it should be expected that ELF usage will be governed essentially by the controlled processing of explicitly learned ‘know-that’ type of information even for functions that normally depend on the procedural memory system in ENL. As a result, ELF usage is bound to require a relatively high degree of selective attention, which is not the case for ENL usage, as this normally involves the automatic processing of implicitly

acquired ‘know-how’ skills along with a degree of ‘know-that’ type of explicit knowledge processed by controlled operations. In other words, native language output stems from the concurrent activation of the procedural memory, responsible for grammatical operations, and the declarative memory’s semantic and episodic components, associated with lexical access. With both systems contributing, production in the native language is thus more fluent than that in the second language, not to mention the fact that the implicit grammatical (syntactic, morphological, and phonological) tasks it involves are processed automatically, thereby imposing lower loads on working memory capacity (Halford et al., 2007). It follows that coping with the cumbersome syntactic, morphological, and phonological features of English for production, with a cognitive apparatus that is chiefly designed for the conscious use of lexical-semantic properties, is likely to impose on ELF users high levels of cognitive load that would oblige them to construct their own norms in order to keep communication moving—rather than adhering to native speaker-norms. Thus, embedded in ELF interactions is a sense of creativity and ‘becoming’, which leads House (2009) to call it ‘a phenomenon *sui generis*’ (p. 141) or Jenkins (2007) to refer to it as ‘a phenomenon without precedent’, not fitting neatly ‘into pre-existing categories predicated on the tired old dichotomy of native/nonnative Englishes’ (p. 414).

What this means in a psycholinguistic sense is that those grammatical (syntactic, morphological, and phonological) constituents of a potential utterance which are, by definition, not conducive to being processed lexically (i.e., complex grammatical forms that require combinatorial computations rather than associative binding) will place a heavy load on the constrained capacity of the ELF user’s working memory, which is known to play a major role in second language acquisition and use (e.g., Alptekin & Erçetin, 2009, 2010; Harrington & Sawyer, 1992; Leiser, 2007; Mackey, Adams, Stafford & Winke, 2010; Walter, 2004). Therefore, numerous cognitive factors will prevent ELF users from adopting, routinising, and producing the grammatical forms of English, in the way these are used by ENL speakers. As a case in point, mention should be made of the factor of contingency, whereby the user fails to attend to a reliable mapping of form and function in the case of the ‘-s’ morpheme in English, which may be interpreted as a plural or a third person simple present singular tense or a copula marker (Ellis, 2006). Likewise, salience plays a major role in the user’s production in that any form thought to exhibit low salience in terms of its communicative value is seen to be bypassed or simplified in the output, as part of the motive to use one’s cognitive resources efficiently. For instance, Ellis and Cadierno (2009) indicate that the ‘-s’ morpheme as the third person simple present singular tense marker is perceived to be less salient than the adverbial ‘today’, suggesting that, whereas the former will not be consistently produced by the users, the latter will be. What is important in this context is

users' need to alleviate some of the burden on their working memory system by focusing their selective attention on removing or altering those elements of the linguistic form that are perceived to be semantically redundant, such that both the communicative intent of the speaker and the communicative value of the message remain essentially unchanged.

Redundancy, in fact, which reflects the degree to which meaning conveyed by a specific form in the message is signaled elsewhere in the same message, is pervasive in human language and is said to facilitate communication by 'lowering the processing load through minimizing the amount of new information the system has to deal with' (Harrington 2004, p. 88). Field (2008), for example, shows that second language listeners recognize content words in speech much more readily than function words, due to English function words being of low perceptual prominence. Field suggests that the reason for this failure in processing functors stems from the way in which second language listeners select to distribute their attention. Other instances of linguistic elements that are deemed to be 'insignificant' and therefore dropped or changed include relative pronouns and question tags, as even a cursory look at corpus data shows (see Seidlhofer, 2004). In contrast, the progressive marker *'-ing'* is not redundant, as it is the sole marker of 'here-and-now' with regard to semantic meaning in those cases where the appropriate temporal adverbs are not part of the context. In sum, ELF users are likely to attend more to those lexical-semantic aspects of discourse that are most relevant to the communicative goals they wish to accomplish. In this sense, they tend to rely more on lexical items as opposed to grammatical forms to get their meanings across, as lexical items, content words in particular, are the most salient means of conveying meaning. In a recent study, in fact, Morgan-Short and colleagues (2010) demonstrate that, neurocognitively speaking, explicitly trained second language users rely on the lexical-semantic processes of the declarative memory system irrespective of their proficiency level in the second language. Specifically, they attach more salience to noun-adjective gender agreement in the second language than to noun-article gender agreement. The researchers think that users' focus on noun-adjective pairs has to do with adjectives possessing richer semantic content than articles, which may be easier for the declarative memory to process. It should be added that rich semantic content stimulates selective attention because it is perceived to have high salience. Similarly, Pickering (2006) remarks that ELF users place heavy reliance on word-level interpretations even in the face of contradictory evidence. For example, certain grammatical constructions are processed as if they were autonomous lexical items rather than applications of specific structural rules. A case in point is regular and irregular verb forms in English (Pinker & Ullman, 2002; Ullman, 2001). The regularly inflected past form of 'walk', for instance, is processed as a morphologically undecomposed lexical item stored in semantic memory as a whole ('walked'), rather than the product of a

combinatorial process of symbolic rule computation that stems from procedural memory ('walk' + '-ed'). Elsewhere, Clahsen and Felser (2006), in their shallow-structure hypothesis, point to L2 users' relying less on syntactic cues and more on lexical and semantic data as part of their processing, which is subsequently extended to the processing of morphosyntax (Clahsen, Felser, Neubauer, Sato & Silva, 2010). In general, then, it may not be an overstatement to say that the dependence on the declarative system leads the user to place less salience on grammaticality and more salience on lexical meanings. Accordingly, a number of syntactic, morphological, and phonological cues are dropped or altered because they are deemed to be redundant in the immediate setting of the utterance, or because they are viewed as contributing little to its semantic interpretation. In the final analysis, the pattern is one of ignoring syntactic, morphological, and phonological cues when these are not functionally loaded: after all, when one asks for 'two hamburger' or 'two hamburgers', one most likely gets the same amount of food!

Based on the cognitive reliance of ELF users' on the lexical-semantic dimensions of English, a plausible explanation for the underuse of idiomatic and formulaic expressions, mentioned earlier, can be formulated. For instance, idioms, as conventionalized structural patterns that are lexically specified, can be said to be stored in the declarative memory's mental lexicon as unanalyzed chunks. However, their internal structures are associated with the implicit knowledge of rule-governed combinatorial grammar sustained in procedural memory. Given both the presence of an attenuated procedural system and the lack of proper interactions between the two memory systems in late second language learning, it is likely for idioms to be infrequent in ELF users' output. For one thing, even if their overall lexical-semantic content is learned, it will be quite difficult to tackle their morphosyntactic features through the declarative system, whose focus is on individual words and their conceptually-related associative binding rather than combinatorial processes of linking sequential chunks. For another, it is common knowledge that in most cases the global meaning of an idiom cannot be predicted from the meanings of the individual words it comprises due to its culturally-specified idiosyncratic character. That is, an idiom has a metaphorical meaning despite its containing ordinary words and morphosyntactic features. With this knowledge in mind from their native language, ELF users have a sense of awareness that the individual meanings of the words in an idiomatic phrase may not 'add up', causing communication problems in intercultural encounters. After all, a pail is not necessarily implicated when someone 'kicks the bucket'. There are always alternative ways of expressing a person's death. Alternative ways should, however, be in tune with the *modus operandi* of the declarative system, which conducts word-level operations through lexical processing and connects each word to other conceptually congruent units of meaning through associative binding, thereby not generating an inordinate amount of cognitive

load on its processing mechanisms (e.g., working memory). Clearly, then, alternative ways of constructing meaning in ELF are likely to be dependent on the use of semantic universals, shared by all cultures and represented in all languages.

In contrast, ENL use, including that of idiomatic and formulaic expressions, rests on both the automatic processes of the implicit grammatical knowledge in the procedural system and the controlled processes of the explicit lexical knowledge in the declarative system, as mentioned earlier. The lexical item ‘run’, for example, originates from the native speaker’s lexical-semantic memory as an explicit word in the same way its irregularly inflected past form is generated. That is, declarative memory is responsible for their processing, storage and retrieval. However, the third-person morphological inflection for the singular form of ‘run’ is automatically generated through a symbolic rule computation as a procedural routine, paving the way to the production of ‘runs’ (‘run’ + ‘-s’). Hence, both the declarative and the procedural systems cooperate in the production of ENL output, with both controlled and automatic cognitive processes underlying output production.

THE SOCIOLINGUISTIC IMPLICATIONS OF DECLARATIVE KNOWLEDGE-BASED ELF OUTPUT

From a sociolinguistic viewpoint, it can be said that the most important outcome of ELF interactants’ steady use of declaratively guided linguistic forms could be its potential for language variation. Based on a usage-oriented approach to language, it has been argued that contextually embedded language use aiming to construct meaning is the primary shaper of linguistic form. A user’s language emerges as a result of exposure to numerous specific communicative situations, each making the speaker-hearer more sensitive to the frequency with which certain constructions are encountered. The most frequently used constructions or instances of particular constructions eventually acquire their own pragmatic, semantic, and phonological features, thereby undergoing what is called a “grammaticisation” process, which leads to changes in a given language (Bybee, 2006). Grammaticisation specifically refers to an existing lexically-specified construction becoming more frequent, changing in various ways, and eventually turning into a new construction. Frequency of use is, in fact, one of the key manifestations of language variation as it gives some semblance of ‘normality’ to the emerging discourse. Moreover, as a manifestation of social activity, it forms new cognitive structures and develops the existing ones. Thus, ELF users can be said to be developing their mutually intelligible and comprehensible forms based on the frequency of the output they produce and the input they receive from other ELF users as part of what can only be accounted for as both an emergent and emerging novel linguistic code. Clearly, in an ENL-centered perspective the new forms could be said to represent ‘variants’ (reminiscent of

indigenized varieties of English) or even ‘errors’ (reminiscent of interlanguage perspectives). However, if one views ELF as ‘a phenomenon without precedent’, as Jenkins (2007) labels it (see above), with even ‘co-constructed’ (yet ‘deviant’ by ENL standards) idiomatic phrases suggesting emergent patterning (Mauranen, 2009) as well as mutually shared meanings (Seidlhofer, 2009a), then the ‘forms’ achieving the semantic, pragmatic, and discursual functions are indicative of consciously produced declarative knowledge-based ‘realizations’ that represent an emerging and partially emergent linguistic code with its own endonormative norms. The new norms are in tune with the requisites of the sociocultural contexts in which the forms themselves are used. After all, if context is a determining factor in the choice of grammatical form, then the context in which the interaction takes place between ELF users should determine the grammar they adopt (Bex, 2008). To think otherwise is to assume that the procedural system is capable of automatically generating novel linguistic forms from its repertoire of implicit ‘routines’ in the second language, which does not seem likely for a system designed for nonconscious knowledge of a habitual essence, characterized by unintentional retrieval-- not to mention the fact that adult ELF users do not normally have proper access to this type of knowledge in English (see Ullman, 2004 above). In this sense, Canagarajah (2007) is correct when he asserts that ELF is not an interlanguage: ELF users are not moving, he states, ‘toward someone else’s target; they are constructing their own norms’ (p. 927). One might add that what is unique about the evolving norms is that they result from the application of the users’ declarative knowledge in the second language, having perhaps some association with their native language-based procedural knowledge and skills (e.g., Sabourin & Haverkort, 2003; Walter, 2007) but very little relationship with their second language-based procedural knowledge and skills.

CONCLUSION

In sum, the ‘what’ and the ‘how’ in ELF should not be judged in relation to the ‘what’ and the ‘how’ in ENL. The linguistic performance in ENL and that in ELF, despite their being somewhat similar on the surface, stem from different cognitive resources and are the outcome of different cognitive processes. ELF users’ forms are not necessarily variants of ENL forms. Nor are they errors in relation to the ENL norms. They are unique in that they represent chiefly the controlled output of the declarative memory system, involving the activation of the semantic and episodic knowledge subsystems, not to mention the significant role played by lexical processing. Unlike in ENL production, little procedural knowledge contributes to the production of ELF output in that several cognitive variables prevent ELF users from adopting, routinising, and producing exonormatively determined native-speaker forms. Thus, the output involves declaratively-governed, rule-based forms that are sustained

by controlled lexical processes. Selective attention guides the construction of the forms, based on variables such as redundancy, salience, and frequency. These knowledge representations and processing factors act as the normative criteria according to which output production is achieved.

With identical cognitive resources and processes underlying output production, it is not surprising that ELF interactants experience little difficulty in understanding each other. It is likely that the knowledge representations and the corresponding cognitive processes are parallel in both productive and receptive modalities except for the order in which the memory networks become engaged. Clearly, while the direction of the activation is from the declarative memory system to working memory with a view to processing the information on its way out as output, the direction is from working memory to the declarative system in the case of input processing. With lexicalization characterizing the type of control processes underlying linguistic tasks in the second language, it is likely that there will be a propensity on the part of the ELF user for lexical-semantic connectedness, often at the expense of dealing with grammatical constituents. This, in fact, appears to be the case, as suggested by a number of research findings. For example, input is parsed not in an automatised manner as in the native language, but through a focus on nonstructural information (Papadopoulou, 2005). Similarly, foreign-accented speech, which is known to hamper ENL speakers' input comprehension, does not affect ELF interactants' intelligibility among themselves (Munro, Derwing & Morton, 2006). Even highly proficient ELF users find other ELF users' output more intelligible than that of ENL speakers (Pickering, 2006).

It follows that from a cognitive perspective, linguistic comparisons of ELF and ENL speakers' output leading to judgements of the former's proficiency level in relation to that of the latter are chiefly irrelevant. The two types of English users are qualitatively different from one another in that both the cognitive systems utilized for output formulation and the cognitive processes activated for output production are not similar. It is perhaps because of these fundamental differences in cognitive representation and processing that some researchers, such as Hyltenstam and Abrahamsson (2000), regard second language users who have been identified as being indistinguishable from native speakers, as individuals who 'characteristically exhibit non-native features that are unperceivable except in detailed and systematic linguistic analyses' (p. 150).

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ENDNOTES

1. In view of the conceptual overlaps and inconsistencies in the use of the terms 'English as a second language' and 'English as a foreign language' (Nayar, 1997), the term 'second language' in this paper refers to cases of late bilingualism where English is learned formally as an additional language in one's own native setting, which corresponds to Kachru's (1992) Expanding Circle.
2. In the literature on second language acquisition, it is commonly held that declarative knowledge is essentially explicit in nature, available to conscious awareness, as opposed to procedural knowledge, which is basically implicit and nonconscious. The former is characterized by controlled processes of cognition while automatic processes underlie the cognitive operations of the latter.
3. Late second language learners are those who acquired their second language in middle childhood or later, following their native language mastery.
4. It should be pointed out that in Ullman's DP model the distinction involving the declarative/procedural memory systems is not necessarily isomorphic to that of explicit/implicit knowledge types. True, the declarative memory system normally underpins conscious operations of explicit knowledge, including lexical information, and the procedural system underlies implicitly acquired skills and habits, including proceduralized routines of rule-governed grammatical forms. In principle, however, Ullman (2004, 2005) allows for explicit linguistic representations, subserved by declarative memory, to also rely on procedural memory, and vice versa, due to his belief in the biological dissociation yet complementary functionality of the two systems.