Typological Universals of Agreements in Arabic Second Language Acquisition

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ABSTRACT

This study investigated the cognitive relevance of typological universal grammar in second language acquisition. It addressed whether constraints that hold for primary languages hold also for interlanguages. To answer this question, two Greenbergian implicational universals were tested on the mental grammar of nine Javanese-Indonesian learners of Jordanian Arabic. Results revealed that none of the participants acquired gender agreements in Arabic verb phrases (i.e. the marked pattern) without acquiring number agreements (the unmarked pattern). Similarly, participants' level of accuracy for subject-verb (SV) number agreements (i.e. the unmarked pattern) was similar to or higher than their level of accuracy for verb-subject (VS) number agreements (i.e. the marked pattern). The research findings were discussed in view of Eckman's Structure Conformity Hypothesis (1991).

Keywords: Typological Universal Grammar, Structure Conformity Hypothesis, Arabic SLA.

1. Introduction

Linguists offer two different views of what the term universal grammar (UG) may refer to. These two views are known as the Chomskyan approach (Chomsky, 1980) and the Greenbergian approach (Greenberg, 1966; Croft, 2003). Comrie (1989) demonstrates that the Greenbergian approach and the Chomskyan view of UG are different in the data base, the degree of abstractness, and their classification. First of all, Chomsky identifies language universals by the detailed study of an individual language, primarily English. Contrary to this approach, Greenberg(1966, 1976) refers to the general principles that govern the spoken languages around the world by typologically examining the grammar of thirty languages from different language families in different parts of the world. Moreover, for Chomsky's approach, language universals are primarily constraints on the relation between abstract structures (e.g., the Binding Principle, the Theta-Criterion, the Feature-checking, etc.) and more concrete structures (e.g., relative clauses, passive voice, etc.). Greenberg's universals, on the other hand, are stated with more concrete levels of analysis (e.g., If a language has discontinuous affixes, it always has either prefixes or suffixes or both).

Concerning schemes of classification, Comrie (1989) defines two Chomskyan groups: 'formal universals' and 'substantive universals'. Formal universals are statements about the form of grammar rules (e.g. the Binding Principle, the Theta-Criterion…etc.), whereas substantive universals are those universals that "delimit the class of possible languages" (Comrie, 1989, p.15). However, Greenberg and his proponents classify language universals into implicational *vs.* non-implicational universal. An implicational universal is associated with the need to refer to other properties of a given language. For example, if a language has subject/verb inversion in yes/no questions, it must also have subject/verb inversion in Wh-questions, but not contrariwise (Greenberg, 1963). Other universals are stated without the need for any reference to any other properties of a language. These universals are the non-implicational universals. The fact that all human languages have nouns, verbs and objects which are used in a certain order to produce sentences is an example of non-implicational universal. Despite the discrepancies between the Chomskyan approach and the Greenbergian approach of UG, some linguists, such as Comrie (1989), believe that both approaches

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take part in determining the grammar model of the languages of the world. The reminder of this section will address the psychological reality of both approaches of UG, discussing the possible roles that these universals may play in language acquisition.

According to Chomsky (1980), UG refers to the principles and parameters common to all humans in the initial state of the language in the human mind. The principles of UG are the absolute requirements that a human language must meet, whereas the parameters of UG explain the variation between languages (Cook, 1987). Chomsky gives strong cognitive explanations for these universals. He proposes that children are born with a universal linguistic ability which enables children to acquire large amounts of their native language (NL) knowledge by listening to an extremely limited part of it and without sufficient experience. Followers of Chomskyan universals explain that one setting of some parameters may be fixed before the other. They refer to the parameter that is fixed first as the 'unmarked' parameter, and the one that is fixed later as the 'marked' parameter (Cook, 2010). For example, the belief that all children adopt the pro-drop parameter in their early acquisition, regardless of the language they are exposed to (Hyams,1986), suggests that the pro-drop parameter is less marked than the null pro-drop.

The question of whether UG, in its principles and parameters, is relevant in second language acquisition (SLA) has been a debatable subject in the last three decades. The potential similarities between how adults of different first language (FL) backgrounds develop their second language (SL) and the similarities between their errors and children's NL errors led many researchers to seek evidence for the possible accessibility of UG in adults' SLA (White, 1986, 2003; Cook, 2010; Parodi, 2012). The relationship between Chomskyan UG and SLA can be summarized in four general positions: the direct full access, the no-access, the indirect access, and the partial access hypothesis. Proponent of the direct access camp argue for a full active role for UG in adult SLA (e.g., Gass, 1979; Flynn &Martohardjono, 1994; Epstein et al., 1996). Advocates of the non-access position propose that adults have no access to UG (e.g., Bley-Vroman, 1989; Clahsen, 1990; O'Grady, 1996). This means adult SL learners use their general learning capacity and full transfer from their FLs. According to the non-access view of UG, SL learning difficulties can be best explained by the assumption that UG is no longer accessible by SL learners after their puberty age. The third group of linguists represents the indirect access camp, holding that only the part of UG used in FL can be used in SLA (e.g.; White, 1986, 1988). The fourth hypothesis is the partial access position (e.g., Schachter,1988; Clahsen&Muysken, 1989; Long, 2003), which claims that adult SL learners have access to absolute universal principles but not to parameter resetting and unmarked parameter preferences.

Now let's turn to the relevance of the Greenbergian approach of UG to language acquisition, the main topic of the present paper. For implicational universals of the Greenbergian approach, the terms 'marked' and 'unmarked' refer to something different from Chomsky's perception. According to typological markedness, "An element A in some languages is more marked than B if the presence of A in a language implies the presence of B; but the presence of B does not imply the presence of A" (Eckman, 1977, p. 320). In the example of "If a language has subject/verb inversion in yes/no questions, it must also have subject/verb inversion in Wh-questions", the implicatum (i.e. subject/verb inversion in Wh-questions) is less marked and more frequent than the implicant (i.e. subject/verb inversion in yes/no questions). Some studies refer to Greenberg's universals as mere properties of human languages which have no psychological realities and mental representations (Newmeyer, 2007; Tseng, 2011; cristofaro, 2012). Other researchers believe that the Chomskyan approach and the Greenbergian approach of language universality do not contrast but co-work in the sense that they examine the subject from different perspectives; Chomsky is more explanatory while Greenberg simply observes without offering high levels of explanations (Greenberg, 1991; Eckman, 2008, 2012). For this latter assumption, Greenbergian universals are similar to Chomskyan universals in that both types impose constrains on language learning/acquisition, and are parts of human's language acquisition device (LAD).

The purpose of the present paper is to outline the ongoing debate mooted in the literature on the possible role of typological implicational universals in SLA. It also provides further evidence in this regard from the linguistic behavior of adult Javanese-Indonesian learners of Arabic; namely, their Arabic number/gender agreement behavior. This paper

concludes that morphological universals formulated by topologists are part of human's LAD rather than just being the result of demographically accidental patterns of cross-language variation. The structure of this paper is organized along the following lines. Section 2 discusses the development of two linguistics hypotheses which suggest some possible relationships between implicational universals and SLA. It also reviews and summarizes some previous studies relevant to these hypotheses, outlining the purpose of the present paper and its significance. Section 3 compares participants' NLs, i.e. Javanese and Indonesian, and their target language (TL), i.e. Jordanian Arabic, in terms of their number/gender agreement patterns in verb phrases. Research hypotheses are explicitly stated in Section 4. Research methods are discussed in details in Section 5. Finally, Section 6 reports the research results while Section 8 interprets and describes the significance of the findings in light of the research problem being investigated.

1.   Implicational Universals and Markedness in SLA

Researchers pertain constraints of typological markedness to SLA through two different, but strongly related, hypotheses, the Markedness Differential Hypothesis (MDH) (Eckman,1977), and the Structure Conformity Hypothesis (SCH) (Eckman, 1991, 1996). Eckman has introduced the MDH to reconcile the Contrastive Analysis Hypothesis (CAH) (Lado, 1957; Stockwell& Bowen, 1965) with some of its shortcomings appeared in Duly and Burt's empirical data (1972). Then Eckman (1991) proposed the SCH demonstrating that the SCH should take precedes over the MDH because "it can be shown that there are facts that will falsify the Interlanguage SCH but will not falsify the MDH, and that facts that falsify the MDH will also falsify the Interlanguage SCH. Thus, the Interlanguage SCH is more easily falsified than is the MDH" (p. 32). In what follows we will take a closer look at the development of the two proposed hypotheses that make predictions on how implicational universals may have psychological representations in interlanguages, i.e. the mental grammar of language learners.

The CAH claims that those aspects of TL similar to those in NL are more easily acquired, while those dissimilar would prove more challenging. However, the MDH suggests that NL-TL differences are not always essential factors to predict SL sources of difficulty. According to the MDH, research findings on SLA inconsistent with CAH are the outcome of the degree of markedness between the two languages in question. That is, those aspects of the TL which are different from and more marked than those in the NL would prove difficult while those aspects which are different and less marked would prove unchallenging for SL learners (Eckman, 1977). This hypothesis concerns the universals of the implicational kind. If the TL has an implicational universal 'if A then B' which does not exist in the NL, learners of the TL acquire the less marked element B before they acquire the more marked element A.

The MDH also proposes that the degree of difficulty involved is predicted to correspond directly to the relative degree of markedness. One of the most famous implicational universals with different degrees of structural makkedness is Kennan and Comri's hierarchy of relativization (1977): *(least marked) Subject > Direct Object > Indirect Object> Object of a Preposition > Object of a comparative Particle (more marked)*. This hierarchy shows that if a language allows relative structures in any position of the hierarchy, it must also allow relative structures in all positions to the left. Gass (1980) designed different tests to relate this hierarchy to the degree of learning difficulty for ESL learners. Results showed that the more ESL learners move from the subject position toward the object of the comparative position, the greater the level of relativization difficulty would be. Their interlanguage behavior agrees with the degree of markedness in Kennan and Comri's hierarchy. In a more recent study, Carlisle (1991) investigated the production of complex onsets of English by native speakers of Spanish. The researcher reported that the likelihood of modifying a given onset type by inserting an epenthetic vowel is the outcome of the relative degree of markedness of the consonant cluster in question and the preceding sounds.

Eckman et al. (1989) realize that some phenomena that appear in the SL learner's interlanguage cannot be explained based on the MDH. For instance, Eckman (1981) found frequent occurrences for the terminal devoicing rule in the interlanguage of Spanish learners of English, though neither the phonological system of English (the NL) nor Spanish (the TL) contains terminal devoicing (i.e. a phonological process of many human languages where word-final voiced obstruents are devoiced). Moreover, Mazurkewich (1984) reports that Inuktit speakers of English accept the

unmarked [NP+PP] complement of the dative verb before the marked [NP+NP] complement, though only the marked [NP+NP] complement exists in Inuktit. This suggests that the unmarked form of an implicational tendency (i.e. A tends to imply B) appears first in a learner's interlanguage even though their FLs exceptionally have the marked form only. Such findings have raised the question as to what extent interlanguages are independent of FLs and SLs. This motivated Eckman (1991, 1996) to expand and incorporate his MDH into a more general theory, namely, the SCH. The primary rational for the SCH stands to reason that an SL pattern is not necessarily an error pattern that should adhere to markedness principles. That is, some emergent interlanguage patterns are not areas of NT-TL differences and, therefore, cannot be explained by the MDH. Eckman (2008, p. 102) explains that,

One way to address this shortcoming was to eliminate NL-TL differences as a criterion for invoking markedness to explain the L2 learning facts. Essentially, then, the SCH is the result of stripping NL-TL differences from the statement of the MDH. If we can assume that a learner will perform better on less marked structures relative to more marked structures, then the MDH can be seen as a special case of the SCH.

According to the SCH, "The universal generalizations that hold for the primary languages hold also for interlanguages" (Eckman,1991, p. 24). A group of researchers demonstrate that for any implicational universal, either the unmarked form may emerge in the SL learner's interlanguage, or both the unmarked and the marked forms may emerge simultaneously. It is impossible, however, for the marked pattern to appear before the unmarked one (e.g., Eckman et al., 1989; Eckman& Iverson, 1993; Eckman, 1996; Carlise, 1997, 1998). This obviously agrees with tendencies that natural languages (i.e. human languages) may have either the unmarked pattern, both the marked and the unmarked pattern, or neither one.

Examining the effect of two syntactic implications on English SLA, Eckman et al. (1989) found that none of their Turkish, Korean and Japanese learners of English produced 90% of subject-verb inversions in Wh-interrogatives (i.e. the implicant) without achieving the same or a greater percentage of Wh-fronting (i.e. the implicatum). Moreover, none of the participants produced 90% of the total subject-verb inversion in Yes/No-interrogatives (i.e. the implicant) without showing at least 90% of subject-verb inversions in Wh-interrogatives (i.e. the implicatum).

In a phonological study, Eckman (1991) further verifies the relevance of implicational universals to SLA when his Chinese, Korean and Japanese learners of English showed no 80% of accurate stop+stop clusters without demonstrating at least 80% of accurate fricative+stop clusters at any level of their English proficiency. Eckman's findings agree with the implicational universal stating that if a language has at least one final consonant sequence of stop+stop, it must also have at least one final sequence of fricative+stop (Greenberg, 1978). However, see Tseng (2011) for counter-results. In another phonological study, Carlisle (1997, 1998) tested the pattern of consonant clusters in the interlanguage grammars of Spanish learners of English. The findings were congruent with the proposed SCH as none of the participants modified the marked consonant clusters without modifying the unmarked consonant clusters.

It seems that most of the data reported in testing the relevance of Greenbergian typological universals to the development of SL competence has been in the area of phonology and, to a lesser extent, syntax. It can also be noticed that the same reviewed research focuses on the interlanguage of English SL learners. Thus, further research on this field may still need to investigate whether implicational universals of morphological cross-linguistic constraints can demonstrate similar unidirectional constraints on the mental grammar of SL learners other than English. This paper examines the effect of two Greenbergian morphological-agreement constraints on Arabic SLA; namely, Universal 32 (i.e. the number/gender agreement constraint), and Universal 33 (i.e. the SV/VS number agreement constraint). The former states, "Whenever the verb agrees with a nominal subject or nominal object in gender, it also agrees in number" (Greenberg, 1963, p.74), while the latter generalizes, "When number agreement between the noun and verb is suspended and the rule is based on order, the case is always one in which the verb precedes and the verb is in the singular" (Greenberg, 1963, p.74).

The main purpose of this research is to answer the question as to whether adult Javanese learners of Arabic access the two agreement implicational universals stated above during the process of developing their Arabic language

competency. A positive answer to this question will support the ISCH (i.e. what holds for human languages also holds for interlanguages.). Finally, it is hoped that this study will contribute to the field of Arabic foreign language teaching since it is expected to provide Arabic foreign language teachers with the problematic areas to focus on and with the non-problematic issues to lay aside while teaching Arabic as a foreign language.

2.   Grammar of the Native and Target Language

Katamba (1993, p. 330) defines agreement in a language as "a grammaticalconstraintrequiringthatifoneword has a particular form, otherwordsappearing in thesameconstructionmusttaketheappropriatecorrespondingform". Similarly, Corbett (2006) demonstratesthat "agreement in language relates to the correspondencebetweenwords in a sentence, in terms of gender, case, person, or number". Languagesvary in theirsystems and patterns of grammatical and canonical agreements. Forexample, Javanese and Indonesian, likeallothervarieties of theAustronesianlanguages, hold no numberorgenderagreementsbetweenany of theirlinguisticelements.[1]Javanese and Indonesianalsolackbothgrammaticalplurality and grammaticalgender. Itisbasicallythecontextthat can tellwhether a nounsignifies singular or plural references in theselanguages. Pluralitymayalso be expressedbyreduplicatingthenounitself in Javanese and Indonesian, thoughmarkingpluralityisrare in informal styles of theselanguages, buttheverbremainsunmarkedfornumber.

NeitherJavanesenorIndonesianencodesmorphologicalmarkersforgender, withtheexception of fewIndonesianwordsborrowedfromSanskrit and Old Javanesewherethesuffixes–**wan** 'male'/–**wati** 'female' and –**a** 'male'/–**i** 'female' are used. TheJavaneselanguage uses thesamegender-neutral pronoun**dheweke**forboth he/him and forshe/her. Javanesespeakers can revealgenderambiguitylexicallybyplacingtheword**lanang** 'male/man' and theword**wadon** 'female/woman' beforethenoun (e.g., *bojo lanang 'husband', bojo wadon'wife'*). Similarly, Indonesian uses thesame informal pronoun**dia**for 'he' and 'she'.[2]Indonesiangenderisalsoexpressedlexicallybyplacingthewords**laki-laki**'man' and **perempuan** 'woman' afterrationalbeings, and byaddingthewords**gantan** 'male' and **btina** 'female' afteranimals. However, verbs of theselanguagesneveragreewithnominals in gender.

Arabic, on the other hand, has strong and complex concord patterns between the verb and the subject in gender, number and person.[3] For example, in Madani Jordanian Arabic,[4] the verb is obligatorily inflected for feminine gender and plural number observing the following rules. First, the –**ii** suffix marks both perfect and imperfect verbs when the subject is a feminine second person singular. Second, the –**at** suffix and the **bit**– prefix mark perfect and imperfect verbs, respectively, when the subject of the verb is a feminine third person singular. To demonstrate number agreements between nonsingular (both dual and plural) subjects and verbs, the –**uu** suffixes attaches to both perfect and imperfect verbs regardless of the subject gender.[5]

(Jordanian) Arabic nouns whether animate or inanimate are classified and behave either as masculine or feminine nouns based on a binary-gender category. Jordanian Arabic feminine nouns are either morphologically feminine,

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[1]About half of the Indonesian population speak Javanese as their FL and NL (Robson &Wibisono, 2002; Lewis, 2009). Indonesian, on the other hand, is the national and official language of Indonesia. Indonesian is widely spread throughout the Indonesian Archipelago as the language of commerce, education and official transactions. It also serves as the lingua franca that more than 210 million Indonesians of different local languages (e.g., Javanese, Sundanese, Madurese) use to communicate with each other (BadanPusatStatistik, 2013).

[2]*Beliau*isthe formal pronounfor he/she.

[3]Arabic is a sematiclanguagethat has manyvernacularvarietiesspoken in almostallArabstateswithanofficial standard formused in literacy, media and press. VernacularJordanianArabiccompressesthreemainvarieties: Madani (i.e. UrbanJordanianArabic), Fallahi (i.e. Rural JordanianArabic), and Bedouin (i.e. NomadicJordanianArabic) (Sakarna, 1999; Al-Deaibes& Rosen, 2016).

[4]MadaniJordanianArabicistheurbanvarietyspokenbythosewhocamefromDamascus, Haifa, Jaffa and settled in the capital city of Jordanoverfivedecadesago (Al-Wer, 2007).Shouldn'tthis be in thesameformat as in 2&3

[5]However, speakers of Rural and Bedouin varieties of Jordanian Arabic assign the suffix **-in** as a separate marker to verbs when the subject is plural feminine (e.g., l-mudarris-**iin**ʔidʒ-**uu** 'the boys have come'/ l-mudarris-**aat**ʔidʒ-**in** 'the boys have come'.

semantically feminine or both. Morphologically feminine nouns are marked by one of three feminine suffixes but refer to inanimate things rather than living beings with female features (e.g., kanab-**ih** 'couch' (f.), sam-**aa** 'skey' (f.), sajaar-**aat** 'car' (f.pl.)). Semantically feminine nouns signify animate beings that are naturally feminine but not suffixed by a grammatical feminine morpheme (e.g., ʔum 'mother', faras 'mare', bint 'daughter'). The third group of Arabic feminine nouns includes the nouns attached to feminine suffixes and refer to animate beings (e.g., mʕallm-**ih** 'teacher-f.)'/mʕalm-**aat** 'teacher-f.pl'. On the other hand, most Arabic masculine nouns are unmarked by feminine suffixes and naturally non-feminine. An exception to this last classification is Arabic non-human plural nouns. Arabic non-human plural nouns are treated like singular feminine nouns (e.g. kjaas 'bags' mrattab-**ih** 'nice-f.', 'nice bags'). In very few cases, neither the form nor the meaning of the noun indicates its gender (e.g., ridʒil 'leg', ʕejn 'eye').

Javanese, Indonesian and Jordanian Arabic can also be compared and contrasted in terms of their dominant word order of their verb clauses. SV(O) is the dominant word order in both Javanese (Keeler, 2015) and Indonesian (Sneddon, 1996). However, both languages allow flexible word order in verbal clauses such as placing the verbal predicate before the subject resulting in a VSO word order (Uhlenbeck, 19975; Gil, 1994; Sneddon, 1996; Davies, 1999). Indonesian can also postpone the subject after the verb to show foregrounding (i.e. highlighting the importance of the predicate), to avoid awkward construction when the subject is frequently long, and when the agent (i.e. objects) of the active sentence is a pronoun or a pronoun substitution (Gil, 1994; Sneddon, 1996). (Urban) Jordanian Arabic has a dominant SV(O) word order which competes with the second frequent VS(O) construction, based on some linguistic and social factors (Al-Shawashreh, 2016). In either position verbs must inflect for plurality and gender.

3. Research Hypotheses

This study postulates the following two hypotheses, based on (1) the morpho-syntax of Javanese, Indonesian and Jordanian Arabic; (2) the implicational universals of (gender) and number agreements; and (3) the prediction of the SCH:

1- *If Javanese-Indonesian learners of Jordanian Arabic attain a certain (acquisition) level of correct number agreement between subjects and verbs of Arabic, they should also show the same or a higher (acquisition) level of accuracy in gender agreement.*

2- *If Javanese-Indonesian learners of Jordanian Arabic produce a certain (acquisition) level of correct number agreements between Arabic verbs and subjects in VS(O) word order, they should also demonstrate the same or a higher (acquisition) level of correct number agreements between Arabic subjects and verbs in SV(O) word order.*

4. Methods

4.1. Participants

Participants of the present study were nine adult female bilinguals of Javanese and Indonesian (i.e. native speakers of both languages). Participants have come from Indonesia to Jordan to work permanently in housekeeping and caregiving for some urban-Jordanian families of Western Amman. All the Indonesian participants reported that they use Javanese as their first native language to communicate with their families and people from the same region/tribe. They also use Indonesian on a wide scale in their official transactions and as a lingua franca in the multilingual Indonesian archipelago. Participants also demonstrated satisfactory, good, and very good commands in spoken Arabic to the researchers. None of the nine Indonesian participants attended any literacy or conversational classes in Arabic. Participants reported that they learnt Spoken Arabic spontaneously during years of their daily interactions with their Jordanian hosting families, employers and marketplaces.

Participants' average age was 33 years (ranged from 28 to 42 years), and their average length of residency in Jordan was 7.6 (ranged from 6 to 13 years). Most of the participants reported that they had received low levels of education in their home country. Five of the participants have not completed their elementary education. Two participants reported that they had received secondary level of education. Only two participants reported that they had tertiary education in the form of some vocational courses after completing high school.

4.2. Recruitment Procedure

The researchers utilized the 'friend-of-a-friend', also known as 'snowball', technique (Milroy, 1980; Milroy & Gordon 2003). The researchers asked some of their friends who live in Amman (Western Amman in particular) whether they know families that have Indonesian female workers. Fortunately, some friends helped in introducing the researchers to the families that have Indonesian workers. That made it easier for the researchers to enter those houses and discuss the possibility of allowing the Indonesian workers to have interviews with the researchers. After getting the permissions, the researchers met the potential participants, obtained some background information (e.g., age, level of education, and length of residency in Jordan) and chose eligible participants according to the criteria mentioned in 5.1 above. Examining any possibly effects of the participants' background information on producing Arabic agreements is beyond the scope of this study. However, this gathered information may be employed in some prospective research designed to address the relationship between mastering morpho-syntactic agreement in an SL and SL learners' age, level of education and experience.

4.3. Data Collection

The first researcher interviewed each participant individually in a quiet room for ten to fifteen minutes. The participants were asked to talk freely about one or more topics that were carefully chosen for the purpose of the interviews. The interviewer asked the participants to compare women's life in Jordan and women's life in Indonesia, to talk about some Jordanian and Indonesian customs, and/or to talk about how a foreign worker may alleviate hardship when they live abroad. The interviewer took a very limited part in the conversational settings. His role was confined to giving verbal reinforcements (e.g., *I see, good, mmm*) during the participant's talk, or asking simple related questions to encourage her to talk more whenever she had long pauses. The interviews were audio-taped by a highly-sensitive digital recorder after obtaining a signed consent form from each interviewee.[6]

4.4. Data Analysis

The researchers listened to the audio-recorded interviews, transcribed the speakers' utterances and identified the target structures (i.e. SV/VS gender and number agreements). The defined structures were the input to the researchers' analysis. Since the investigated tokens were gathered in a nonstructural setting, the researchers did not have control over the number of tokens the subjects produced. Therefore, it was inaccurate to simply count the number of verbal clauses that had agreements and compare them with the ones that lacked agreements. Instead, the researcher employed both the Absolute Existence Interpretation (AEI) criterion (Eckman& Iverson, 1993) and the Relative Existence Interpretation (REI) criterion (Eckman et al., 1989) to measure the degree of the emergent linguistic patterns. The REI compared the quantity of successful instances of gender agreements between subjects and verbs to the quantity of successful tokens of number agreements between subjects and verbs. The RIE method of evaluation proves valid if the Javanese-Indonesian learners of Arabic managed to produce a proportion of successful number agreements between subjects and verbs equal to or greater than the proportion of successful gender agreements between subjects and verbs. The RIE also proves valid if the Javanese-Indonesian learners of Arabic produced a percentage of successful number agreements in SV(O) word order similar to or higher than the percentage of successful number agreements in VS(O) word order.

As for the employed AEI test, the researcher used the 80% criterion as the threshold for the existence of the investigated pattern in the learner's interlanguage. That is, if the participant produced 80% or more of correct instances of number or gender agreements between subjects and verbs, they were perceived as they had acquired number or gender patterns of agreement, and given the '+' sign. On the other hand, if the speaker produced less than the 80% threshold, they were assigned the '-' sign and considered unaware of the presence of number or gender pattern of agreement in Arabic. To be consistent with the AEI criterion, Javanese-Indonesian learners of Arabic should not demonstrate an 80% of successful gender agreements between Arabic subjects and verbs without producing an 80% or higher instances of number agreement. Similarly, to support the implicational universal of number-agreement

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[6]Theconsentformwasintroduced to theparticipants in Indonesianafterhavingbeentranslatedfrom English by a professionalIndonesian-English translator.

suspension between subjects and verbs, the Javanese speakers of Arabic should not generate an 80% of successful VS(O) number agreement without scoring an 80% or higher structures of SV(O) number agreement. Finally, if the speaker produced fewer than four tokens (i.e. instances) of any target structure, she was treated as neither having the pattern nor lacking it, regardless of her recorded percentage.

Number agreements between subjects and verbs were tested when the participants showed or indicated plural referents, no matter whether the plural noun was formed correctly. This is because the current research is concerned with morphological agreements rather than with the acquisition of correct plural forms. The present study also excluded the cases where the speakers did not show gender agreements between subjects and verbs when neither the form nor the meaning of the feminine nouns indicate their gender (e.g., *l-ʔiidnħaraqkθiir*'*the hand was severely burnt*'). In these cases, it is hard to tell whether the lack of agreement between the feminine noun and the verb was due to the speaker's unawareness of the gender agreement pattern or due to the cluelessness of the gender of the noun (i.e. the nouns are lexically rather than semantically and/or morphologically feminine). About 5.5% of the data were excluded from the analysis for this reason.

5. Results

In logic, there are four possibilities available to the Javanese-Indonesian learners of Arabic regarding number and gender patterns of Arabic agreement. They may acquire both number and gender agreements, only the number agreement, only the gender agreements, or neither one. However, the employed 80% AEI criterion listed in Table1 below shows that none of the speakers produced a threshold of 80% of gender agreement without showing at least the same percentage of successful number agreement. Of the nine interviewed Javanese-Indonesian learners of Arabic, Fa, Gi, Ik and Au mastered the Arabic number agreement but showed little expertise in gender agreement between subjects and verbs. Three participants (i.e. Ann, Am and Na) showed both number and gender agreement, based on the 80% AEI threshold. Two of the adult Javanese-Indonesian learners of Arabic, An and Pu, failed to show number or gender agreements between subjects and verbs when they spoke Arabic. However, none of the participants demonstrated an 80% of successful gender agreements without scoring an 80% or higher of successful number agreement. Table1 also depicts that only one participant, Na, violated the implicational universal of number/gender agreement based on the REI criterion. This method of measurement proposes that language learners cannot record higher accuracy of gender agreement between subject and verbs compared to number agreements between these linguistic elements. Despite this small deviation (i.e.7% more accuracy for the gender agreement), the participant produced high successful agreements in both number and gender.

Table1: *Count and Percentage of Gender & Number Agreements between Subjects and Verbs in the Interlanguage of Javanese SL Learners of Jordanian Arabic.*

Informant	Total of Verb Phrases with Feminine Subjects	No. & % of Verb Phrases with Feminine Subjects and Correct Gender Agreements	Total of Verb Phrases with Plural Subjects	No. & % of Verb Phrases with Plural Subject and Correct Number Agreement	AEI Criterion (80%)		REI Criterion
Ann	7	6 85.7%	12	12 100%	(+ Yes	+)	Yes
An	28	7 25.0%	13	6 46.2. %	(- Yes	-)	Yes
Am	11	9 81.8%	28	27 96.4%	(+ Yes	+)	Yes
Fa	25	12 48%	15	13 86.7%	(- Yes	+)	Yes

Informant	Total of Verb Phrases with Feminine Subjects	No. & % of Verb Phrases with Feminine Subjects and Correct Gender Agreements	Total of Verb Phrases with Plural Subjects	No. & % of Verb Phrases with Plural Subject and Correct Number Agreement	AEI Criterion (80%)		REI Criterion
Gi	4	2 50%	14	12 85.7%	(- +) Yes		Yes
Pu	8	3 37.5%	15	7 46.7%	(- -) Yes		Yes
Ik	35	21 60%	8	7 87.5%	(- +) Yes		Yes
Na	17	16 94.1%	23	20 87.0%	(+ +) Yes		No
Au	10	3 30.0%	19	16 84.2%	(- +) Yes		Yes
Total	145	79 54.5%	147	120 81.6%	(- +) Yes		Yes

The above results support the first research hypothesis in that acquiring the pattern of number agreements between subjects and verbs is a prerequisite for acquiring the pattern of gender agreements between these linguistic components. Both of the less conservative AEI criterion and the more conservative REI criterion of data analysis confirm this hypothesis.

Table2: *Count and Percentage of SV and VS Number Agreements in the Interlanguage of Javanese SL Learners of Jordanian Arabic.*

Informant	Total of VS(O) Constructi-ons with Plural Subjects	No. & % of VS(O) Constructions with Plural Subjects and Correct Number Agreements	Total of SV(O) Constructi-ons with Plural Subjects	No. & % of SV(O) Constructi-ons with Plural Subjects and Correct Number Agreements	AEI Crite-rion (8%)		REI Criterion
Ann	4	4 100%	8	8 100%	(+ +) Yes		Yes
An	5	1 20.0%	8	5 62.5 %	(- -) Yes		Yes
Am	10	9 90.0%	18	18 100%	(+ +) Yes		Yes
Fa	5	3 60.0%	10	10 100%	(- +) Y		Yes
Gi	2	0 ------	12	12 100%	(? +) ?		?
Pu	7	2 28.6%	8	5 62.5%	(- -) Yes		Yes

Informant	Total of VS(O) Constructi-ons with Plural Subjects	No. & % of VS(O) Constructions with Plural Subjects and Correct Number Agreements	Total of SV(O) Constructi-ons with Plural Subjects	No. & % of SV(O) Constructi-ons with Plural Subjects and Correct Number Agreements	AEI Crite-rion (8%)	REI Criterion
Ik	0	0 ----	8	7 87.5%	(? +) ?	?
Na	7	5 71.4%	16	15 93.8%	(- +) Yes	Yes
Au	5	4 80.0%	14	12 85.7%	(+ +) Yes	Yes
Total	45	28 62.2%	102	92 90.2%	(- +) Yes	Yes

Table 2 compares participants' performance in number agreement between SV(O) and VS(O) word order. Two participants, Gi and Ik, were excluded from this analysis because each one produced an overall of less than three tokens of VS(O) structures with plural subjects. At the 80% threshold scale, Ann, Am, and Au demonstrated a high level of proficiency in number agreements between subjects and verbs when the subject preceded the verb (100%, 100%, 85.7%), and when the subject followed the verb (100%, 90%, 80%). Two participants, Fa and Na, showed that they had acquired gender agreement between subjects and verbs only in SV(O) word order since they managed to exceed the 80% threshold of successful number agreement only when the subject preceded the verb. The data also show that both An and Pu's interlanguages lack the number-agreement pattern in both SV(O) and VS(O) word order. This is because none of the two speakers reached the 80% required accuracy level in either word order. Finally, The AEI analysis suggests that all of the seven reported participants produced higher percentages of successful SV(O) number agreement compared to the percentage of their successful VS(O) number agreement.

The overall findings agree with the prediction of the second research hypothesis. That is, the emergence of number agreement pattern between subjects and verbs in SV(O) word order is essential for the advent of the same number agreement pattern in VS(O) word order.

6. Discussion

This paper investigated the effect of two morpho-syntactic typological universals on adult SLA. The research results revealed that Javanese learners of Arabic do not attain the acquisition rate of agreements between verbs and nominal subjects in gender without achieving the same or higher acquisition rate of agreements between verbs and nominal subjects in number. This finding is consistent with the absolute implicational universal which states "Whenever the verb agrees with a nominal subject or nominal object in gender, it also agrees in number." Results also uncovered that Javanese learners of Arabic do not show success in plurality agreement between plural subjects and verbs in VS(O) word order without demonstrating success in plurality agreement between subjects and verbs in SV(O) word order. This latter awareness concurs with the typological universal which reads "When number agreement between the noun and verb is suspended and the rule is based on order, the case is always one in which the verb precedes and the verb is in the singular."

Three hypotheses can be evaluated in view of the obtained results. First, the analysis suggests that the CAH is not always reliable in predicting SL learning difficulties and easiness based on the areas of discrepancies and similarities between NLs and TLs. Despite their absence from the participants' NL, the unmarked patterns of the two investigated implicational universals prove unchallenging/less challenging for most of the research participants and in the overall analysis. This finding

is consistent with the predictions of the MDH. However, the same results can also be tested against the wider linguistic perspective of the SCH. None of the research participants deviated from the predictions of the two investigated typological universals by controlling the marked patterns without mastering the unmarked ones. This complies with the SCH which states that what holds for primary forms of language also holds for non-primary (i.e. interlanguage) forms (e.g., Eckman, 1991, 1996, 2008). These affinities suggest that a typological universal is not just a result of demographic accidents, but rather it has psychological reality and serves as part of the human innate linguistic knowledge.

Findings of the current research are at variance with Tseng's proposal (2011) that intrinsic universals rather than typological universals are relevant to the interlanguage phenomenon. Tseng's study found that phonetic intrinsic universals such as ease of articulation are accountable for how Taiwanese learners of English pronounce English voiced and voiceless consonants clusters in word-initial and word-final positions. His investigation failed to find any effects for two typological universals, structurally-based universals, namely the Fricative-Stop Implicational Universal and the Resolvability Implicational Universal. Tseng suggests that the SCH can prove valid accounts for some interlanguage data if and only if its typological implications have some linguistic or cognitive motivation. One possibility to account for the discrepancies between the findings of the present research and Tseng's results is to assume that when an intrinsic universal competes with any other structurally-based universal, the former takes precedence over the latter in explaining the interlanguage grammar. However, it seems that such intrinsic universals may interact and compete with phonological implicational universals rather than morphological and morpho-syntactic implicational universals.

Some uniformity between implicational universals and interlanguage grammars can be explained in terms of some universal functional generalizations.For example, Kennan and Comrie's accessibility hierarchy of resumptive pronouns in relative constituents can be explained in light of the universal functional generalization that: for all languages, the more difficult a construction is to process, the more likely the language will use a more explicit expression type (Moravcsik, 2012). Moreover, the implicational universal for the case-marking of direct-objects may be explained by the Iconicity Constraint. The cross-linguistic distribution for direct-object types shows this hierarchy: indefinite nonspecific >indefinite specific >definite common >proper name >personal pronoun. That is, if a language has a direct object of a particular type, it must also include all types of direct objects in the left of the scale. The cross-linguistic distribution for direct-object case-marking follows the same exact direction. The Iconicity Constraint demonstrates that given a markedness opposition between two nom-inals, the marked member should be case-marked; where a nominal on the above scale is marked relative to all other nominals to its left side (Moravcsik, 2012). However, the present study suggests that the SCH predictions can prove valid even in the absence of a possible universal functional generalization justifying the affinity between typological universals of primary language and learner's interlanguage. We are not aware of any reason that makes interlanguage grammars obey the same typological implicational universal as do the grammars of primary languages for number/gender agreements and SV/VS number agreements.

This study disputes the claim that (implicational) typological universals are not part of human's linguistic knowledge (Cristofaro, 2012). On the contrary, our research findings suggest that some morpho-syntactic typological universals such as the number/gender implication and the SV/VS number-agreement implication are part of human's LAD. For example, children are born with the linguistic knowledge that subjects cannot agree with verbs, within the same verb phrase, without matching with verbs in number. The presence of these implicational universals in the interlanguage of adult Javanese learners of Arabic indicates that universal grammar is fully-accessible to learners of SLs even after the puberty age (Flynn &Martohardjono, 1994; Epstein et al., 1996). Consequently, it would not be surprising if children confine themselves to the same implicational universal constraints of gender and number agreements during their NLA of Arabic. Some future research can test the same two implicational universals on children's Arabic interlanguages during their NL acquisition.

A follow-up study may also examine the effect of language instructions on the sequence of number and gender agreements, on the one hand, and on the sequence of word order and number agreements, on the other. Ammar and

Lightbown (2005) argue that Arabic learners of English instructed and trained in more difficult relative clause structures seem to be able to generalize to the less marked relative clause structures that they had not been taught.

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اللغة الكلية التصنيفية واكتساب اللغة الثانية

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ملخص

هدفت هذه الدراسة إلى تَحَري علاقة قواعد اللغة الكلية التصنيفية باكتساب اللغة الثانية، وقامت الدراسة بالتساؤل فيما إذا كانت ضوابط اللغة الأساسية (اللغة البشرية) تتوافق مع ضوابط اللغة البينية (اللغة الانتقالية)،وللإجابة عن هذا السؤال قامت الدراسة باختبار أَثَر ضابطين من ضوابط اللغة الكلية الضمنية (الغرينبيرغيه) على القواعد اللغوية الإدراكية لمتعلمي اللغة العربية من متحدثي اللغة الجافانيزية والإندونيسية، وأبدت النتائج أنَّ لا أحداً من متعلمي العربية الأجانب أظهار اكتساب التوافق الجندري بين الفعل والفاعل من دون إظهار اكتساب التوافق العددي بينهما، وهذا وقد بينت النتائج أنَّ متعلمي العربية من الأجانب اظهروا مستوىً من التوافق العددي بين الفاعل والفعل في الجملة الاسمية بدرجة مساوية أو أعلى من دقة مستوى التوافق العددي بين الفعل والفاعل في الجملة الفعلية،و قامت هذه الورقة البحثية بمناقشة النتائج في ضوء فرضية تشاكل (تجانس) التركيب للباحث إيكمَن (1991).

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