

The Use of Discourse Connectives in the Written Academic Discourse of Students Majoring in Arabic and their Peers Majoring in English

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Abstract

The present paper explores the use of connectives in the persuasive discourse of 30 Tunisian third-year English majors and 30 Tunisian third-year Arabic majors. The study aims to look at the potential impact of Arabic rhetoric on Tunisians' EFL writing. A quantitative analysis of the students' Arabic and English essays on the same argumentative task shows the predominance of additive connectives at the clause and sentence levels and their overuse in Arabic productions. Causal connectives are the second most used category in both Arabic and English corpora. The two groups also showed comparable limited repertoires. A qualitative analysis of the data disclosed further similarities and differences in the ways connectives are used, combined and misused.

Keywords: discourse connectives, contrastive rhetoric, EFL, Arabic, argumentation.

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Introduction

Arab learners' English writing has been investigated in the context of Contrastive Rhetoric, a research area concerned with accounting for the influence of the learners' L1 on their ESL/EFL writing. Based on the assumption that the learners' cultural background and native rhetoric negatively impact their English writing, Contrastive Rhetoric (henceforth CR) has been criticized for its subjectivity in considering British and/or American standard English as the ultimate norm against which all other varieties are weighed. Kubota (1999, 2001), for instance, highlights CR's tendency to exoticize the native culture, language and rhetoric of ESL students against a superior native English Self.

Within the framework of World Englishes, Kachru (1995) criticized CR's prescriptive strain and essentialist view which do not recognize the pluralism of the Outer and Expanding Circles' varieties. Instead, the English model used in the Inner Circle is considered the only acceptable alternative, especially in academic discourse.

CR research on Arabs' ESL/EFL writing reported its peculiarity as compared to native speakers' writing. The differences between native speakers' and Arab learners' English written productions were accounted for with reference to the possible influence of Arabic rhetoric and culture, both portrayed in the literature as residually oral. One of these differences lies in the use of discourse connectives. My paper proposes to investigate the influence of Arabic rhetoric on Tunisian students' use of connectives in their argumentative writing in both English and Arabic. In the first section, discourse connectives are defined and distinguished from other related terms.

This is followed by a review of the related literature, namely studies on the additive character of Arabic rhetoric and its influence on Arabs' use of connectives. In the second section, the methodology used in the study is detailed and the data analysed both quantitatively and qualitatively. Last, the results are discussed, and conclusions are drawn.

Review of the literature

Discourse connectives are referred to, in the literature, by different appellations. These include, but are not limited to, *pragmatic markers*, *discourse connectives*, *discourse markers* and *discourse particles*. Often used interchangeably, these designations, numerous and diverse, gave rise to a terminological confusion. One way of distinguishing between these concepts is to categorize them from general to specific.

Pragmatic markers (henceforth PMs) are described as being the most generic of the aforementioned categories (Fraser, 1999, 2006, 2009). According to Fraser (2009), they are lexical expressions that "occur as part of a discourse segment but are not part of the propositional content of the message conveyed, and they do not contribute to the meaning of the proposition, *per se*" (Fraser, 2009, p. 295). These markers have semantic and pragmatic functions. They could, for example, signal the relation between two discourse segments, or indicate the type of message they introduce, or contribute to managing the conversation.

The expression "discourse markers" is used at times to refer to the more general notion of PMs (e.g., Brinton, 1990; Schiffrin, 1987, 2001). The former, however, is often

taken to be subsumed in the latter. Fraser (2009) classifies discourse markers (henceforth DMs) as a subcategory of PMs along with "basic pragmatic markers", "commentary pragmatic markers" and "discourse structure markers". Fraser (1999) defines DMs as lexical expressions that "signal a relationship between the interpretation of the segment they introduce, S2, and the prior segment, S1" (Fraser, 1999, p. 950), without contributing to the semantic meaning of the segment in which they occur. Fraser (2006) subcategorized DMs further on the basis of the semantic relation they signal. The subcategories are: elaborative DMs (e.g. *and, anyway, furthermore*), contrastive DMs (e.g. *on the contrary, however, but*), inferential DMs, (e.g. *as a result, so, consequently*), and temporal DMs (e.g. *then, eventually, after*).

Even though the expression DMs is sometimes used interchangeably with "discourse connectives" (henceforth DCs), the two appellations are to be distinguished from each other. Bordería (2001, 2006, 2008), for example, acknowledges the terminological confusion surrounding the two concepts. He distinguishes between them in terms of usage and scope. The word "connective", he maintains, has been employed by European scholars since the 1980s, while the word "marker" is preferred in the United States. As for scope, he considers DCs to be a subcategory of DMs. This last assertion, however, is not soundly corroborated in the literature, whereby DMs' conceptualization overlaps with DCs'. A clear example of overlap is between Fraser's (2006) framework and Halliday and Hasan's (1976). Indeed, Halliday and Hasan (1976) investigated conjunctions, i.e., the textual relations binding sentences in discourse, within a broader framework devoted to the study of textual cohesion. A parallel can

be drawn here between Halliday and Hasan's (1976) categorization of conjunctive relations signaled by DCs and Fraser's (1999, 2006, 2009) taxonomy of DMs. In this respect, Halliday and Hasan (1976) classify conjunctions into additive, adversative, causal and temporal types. These correspond to Fraser's (1999, 2006, 2009) elaborative, contrastive, inferential and temporal DMs, respectively. Another similarity between the two approaches concerns the nature of conjunctive elements. Despite the different labels, both Fraser (1999, 2006, 2009) and Halliday and Hasan (1976) assert that connectives cannot be pinned down to a single grammatical category. Instead, conjunctive elements include adverbs such as *actually*, prepositional phrases such as *in addition*, prepositional expressions such as *in spite of that*, and coordinating conjunctions such as *and* and *but*.

Discourse connectives in Arabic

In Arabic, DCs belonging mainly to the class of particles, *hurūf*, were studied in formal traditional grammar. Examining Arabic particles' cohesive, and more particularly connective, role in discourse was secondary to their grammatical analysis within the sentence boundary (Al-Batal, 1990; Basheer, 2016). Modern treatments of Arabic DCs moved away from the confines of the sentence to become more sensitive to their textual role. These studies display the manifest influence of western approaches to DCs (e.g. Fraser, 1999; Halliday & Hasan, 1976; Schiffrin, 1987). Al-Batal (1986, 1990), for instance, explores the semantic functions of DCs in written Arabic texts from a Hallidayan perspective, showing their role in maintaining cohesion in discourse. Sarig

(1995) relies on Schiffrin's (1987) framework in her treatment of "initial position functionals" like *wa*, *fa* and *la-qad*. Her study shows that these discourse markers, whose use was considered otherwise redundant in the literature, were actually primordial in indicating "the text's rhetorical structure" (Sarig, 1995, p. 8). Hamza (2006) adopts Fraser's (1999) pragmatic model of DMs to revisit their use in Quranic excerpts. Granting special focus to *wa*, he comes to the conclusion that, unlike its English counterpart *and*, it has functions that transcend the sentence level, as it "is one of the components of coherent Arabic discourse" (Hamza, 2006, p. 240). More generally, most studies on connectives in Arabic writing (e.g. Abbas et al., 2016; Alsaif, 2012; Al-Shurafa, 1994) highlighted the abundance of additive connectives.

Discourse connectives in Contrastive Rhetoric

Early CR research has examined ESL/EFL writing against the conventions of Anglo-American writing and with reference to the potential influence of the learners' native rhetorical traditions. Connor (1996, 2002) offers a good survey of CR research while drawing attention to the criticism leveled at its early stages, namely the field's insensitivity to the cultural context in which ESL/EFL discourse is produced. DCs in both English and Arabic writing have been investigated within the framework of CR. In this context, the differences between native and non-native speakers' writing were ascribed to the influence of Arabs' native rhetoric.

In an early CR study that compared two translations of an Arabic text, one literal and the other idiomatic, Holes (1984) noted that Arab writers, who tend to write

lengthy sentences, made use of more additive conjunctions than English writers did. Fakhri (1994), similarly, reported the overuse of the coordinating conjunction *and*, namely at the beginning of the sentence in the essays of 30 Arab writers after he compared them to 30 essays by non-Arab writers. Mohamed and Omer (1999, 2000), who compared Arabic stories and their English translations as well as unrelated Arabic and English stories, also underlined Arabic sentences' lengthiness and the excessive use of coordination in Arabic narratives in comparison to their English counterparts. Mohamed-Sayidina (2010) examined transition words in 50 research papers by Arabic native speakers. The study's results tally with Mohamed and Omer's (1999, 2000) showing that Arab writers favored the additive mode of text development apparent through the use of additive connectives.

More recently, Alsharif (2017) studied the use of DMs in EFL Saudi learners' academic writing and contrasted it to native speakers'. Her results revealed Saudi learners' overuse of DMs, especially listing and resultive ones. Likewise, listing connectives were reportedly overused by Arab scholars in a study conducted by Abumelha and Alyousef (2019). The authors, who explored and contrasted the use of linking adverbials in the research articles of native English-speaking and native Arabic-speaking academics, reported the predominance of additive linkers, such as *in addition* and *furthermore*, in the latter's papers, thus echoing the findings of previous studies.

The Study

The present study seeks to assess Arabic rhetoric's impact on Tunisian English Majors' writing. This influence is apparent, as claimed in the literature, in the overuse of additive discourse connectives, which results in an additive propositional development of the text. This study compares, quantitatively and qualitatively, the use of DCs in the persuasive writing of 30 Tunisian third-year English majors (TEMs) and 30 Tunisian third-year Arabic majors (TAMs) from a CR perspective. In so doing, it answers the following research questions:

1. Do Tunisian Arabic majors and Tunisian English majors use additive connectives more than other types of connectives in their persuasive writing?
2. Are there any significant similarities in the use of connectives between Tunisian Arabic majors and Tunisian English majors in the same writing task?

The study draws on Al-Batal's (1994) definition of connectives as “any element in a text which indicates a linking or transitional relationship between phrases, clauses, sentences, paragraphs, or larger units of discourse, exclusive of referential or lexical ties” (Al-Batal, 1994, p. 91). Notwithstanding the part about linking phrases, this definition is equivalent to Halliday and Hasan's (1976) conception of conjunctions, which, as shown earlier, overlaps with Fraser's (1999) explanation and categorization of DMs. Along these lines, I propose the following working definition of connectives as any word (e.g. conjunction, adverb, etc.) or string of words (e.g. phrase, clause or

even sentence) which serves to link clauses, T-units, or larger parts of discourse. I also adopt Halliday and Hasan's (1976) classification of connectives into additive, adversative, causal and temporal categories. This taxonomy is chosen mainly for its reliance on the semantic interpretation of DCs and, therefore, suitability for their description in two fundamentally different languages. The semantic relations signaled by DCs are defined as follows:

- 1) Additive: In this relation, discourse segments are added to previous ones.
- 2) Adversative: Connectives introduce a discourse segment that expresses a proposition that is "contrary to expectation" (Halliday & Hasan, 1976, p. 250)
- 3) Temporal: This type of relation links propositions chronologically as one coming before or after the other.
- 4) Causal: Causal connectives bind a proposition to its cause or result.

A fifth category, that of "continuatives", comprises those textual elements that have a connective role, but do not fall under any of the previous categories. Examples include expressions such as *anyway* and *after all* in English and *bil-asās* (basically) and *fi al-ghālib* (mostly) in Arabic.

Methodology

The writing samples were collected from third-year TAMs and TEMs recruited from two Tunisian institutions, the Faculty of Letters and Human Sciences of Kairouan

(FLHSK), University of Kairouan, and the Faculty of Letters, Arts and Humanities of Manouba (FLAHM), University of Manouba, using a nonprobability sampling design.

Table 1

Participants in the Study

Variable	Groups	
	Group 1	Group 2
Count	30	30
Age	21→30	21→38
Native language	Arabic	Arabic
Language of composing	EFL	AL1
Institution	FLHSK	FLAHM, FLHSK

At a first level, a number of essays were eliminated from the initially collected corpus. These were either too short or were deemed to evince a very low proficiency level. At a second level, the two corpora were chosen from the remaining essays, so as to increase the groups' homogeneity by reducing variance².

The writing samples were collected in a consistent manner and in the same conditions for both groups. To best control the topic-familiarity variable and increase motivation, the writing prompt, originally designed for the International Association for the Evaluation of Educational Achievement (IAE), allowed the participants to write, argumentatively, about a topic of their own choosing. The essay's proposed structure is two-fold. The prompt, first, directs the students to write about a problem that they think is important and affects life around them. Second, the students are

² Variance was calculated for both groups using the students' exam scores in the literature and language modules.

instructed to propose an adequate solution to an audience that can help make a change. The prompt's Arabic translation was proofread and approved by an Arabic language teacher. In addition, the participants were provided with questionnaires to elicit their language history and background information.

Data analysis

The Arabic and English corpora were analyzed quantitatively and qualitatively to better understand the students' use of connectives across languages. The Arabic essays were, first, transcribed³. Then, the corpora were segmented⁴ and annotated with the UAM CorpusTool 3.3v2 (O'Donnell, 2019). The annotation was carried out manually, using a scheme based on Halliday and Hasan's (1976) model. Connectives were split further into three subcategories: intrasentential, intersentential and discourse connectives⁵. The first category comprises connectives linking clauses within the same T-unit. The second covers connectives linking different T-units, while the third includes connectives operating at the level of the whole essay, i.e., linking paragraphs or chunks of discourse. To ensure the connectives' appropriate interpretation and annotation, the researcher segmented and analyzed the corpus with the help of an Arabic language teacher who has taught Arabic grammar and composition at the secondary and tertiary levels for over 25 years, and a fellow EFL teacher with more

³ The Arabic corpus was transcribed using the *ALA-LC Arabic Romanization Table* (2012)

⁴ The segmentation unit is the T-unit as defined by Tavakoli (2013, p. 681). The words "T-unit" and "sentence" are, at times, used interchangeably.

⁵ To distinguish the subcategory "discourse connectives" from the general appellation, I use, throughout the rest of the paper, the terms "connectives" and/or "linkers" with reference to the latter.

than 20 years of experience in teaching English linguistics in higher education. Connectives of various grammatical categories were identified. These include single words (prepositions, conjunctions or adverbs) like *and*, *since*, *ḥattá* (in order to) and *bal* (but), phrases like *in this context*, *for example*, *min jihatin ukhrá* (on the other hand), *fī khātimat hādhā al-maqāl* (as a conclusion to this essay), subordinate clauses like *to explain my idea further* or even, in rare examples, a main clause like *wa-nakhluṣu fī ākhiri al-qawl ilá anna [...]* (we conclude in the last part of discourse that [...]).

The connectives' relative frequencies were reported along with their absolute frequencies, as the Arabic and English corpora are not of equal size (8991 and 10625 tokens, respectively; punctuation excluded from token count). Relative frequencies were calculated by dividing the total number of each type of connectives by the total number of words and multiplying the result by 10000 (closest figure to the corpora's size). The log-likelihood (LL) statistic, considered a fast method to determine the differences in frequencies across corpora (Rayson & Garside, 2000), was used⁶ and the chi-square test applied based on the LL calculation to appraise the significance of these differences. To confirm the chi-square test results (based on frequency profiling), a t-test was applied using the SAS (Statistical Analysis System) software to show whether the mean difference between the groups, for the different categories, is significant.

⁶ the LL scores were calculated using Paul Rayson's online log-likelihood and effect size calculator: <http://ucrel.lancs.ac.uk/llwizard.html>

Results and discussion

In answer to the first research question on the prevalence of additive connectives in the students' essays, both groups showed a similar preference for this category which is, by far, the most frequently used at all levels. Table 2 presents the connectives' absolute and relative frequencies (AFs and RFs) at the clause, sentence and discourse levels, along with the LL statistic for every category.

Table 2

Connectives' Absolute and Relative Frequencies by Category

	Arabic			English			Log-likelihood	
	N	% Among features	Per 10000 words	N	% Among features	Per 10000 words	LL	Overuse/ Underuse
CONNECTIVES								
intrasentential	252	30,62	280,28	200	38,76	188,24	17.83****	+
intersentential	544	66,1	605,05	253	49,03	238,12	162.89****	+
discourse	27	3,28	30,03	63	12,21	59,29	9.43**	-
Total	N=823	915,36		N=516	485,65		131.61****	+
INTRASENTENTIAL								
additive	151	18,35	167,95	105	20,35	98,82	17.77****	+
adversative	11	1,34	12,23	9	1,74	8,47	0,67	+
causal	67	8,14	74,52	61	11,82	57,41	2.17	+
temporal	10	1,22	11,12	21	4,07	19,76	2.37	-
continuative	13	1,58	14,46	2	0,39	1,88	10.96***	+
INTERSENTENTIAL								
additive	336	40,83	373,71	160	31,01	150,59	96.68****	+
adversative	42	5,1	46,71	34	6,59	32	2.71	+
causal	154	18,71	171,28	48	9,3	45,18	77.61****	+
temporal	3	0,36	3,34	2	0,39	1,88	0.40	+
continuative	9	1,09	10,01	9	1,74	8,47	0.13	+
DISCOURSE								
additive	25	3,04	27,81	55	10,66	51,76	7.08**	-
adversative	1	0,12	1,11	1	0,19	0,94	0.01	+
causal	1	0,12	1,11	4	0,78	3,76	1.46	+
temporal	0	0	0	0	0	0	0	+
continuative	0	0	0	3	0,58	2,82	3.68	-

* 95th percentile; 5% level; $p < 0.05$; critical value = 3.84

** 99th percentile; 1% level; $p < 0.01$; critical value = 6.63

*** 99.9th percentile; 0.1% level; $p < 0.001$; critical value = 10.83

**** 99.99th percentile; 0.01% level; $p < 0.0001$; critical value = 15.13

More than half the connectives in both groups' essays are additive in nature. This finding confirms previous research on Arab writers' propensity to overuse additive connectives in their Arabic and English writing. This category was used more between sentences than clauses by both groups. Even though occurring in comparable percentages in AL1 and EFL productions, both intrasentential and intersentential additive connectives were significantly overused by TAMs⁷ ($p < .0001$).

The second most frequently used category by the two groups is that of causal connectives. Like additive connectives, they have been used a lot more between sentences than clauses. TAMs overused causal intersentential connectives as their essays contained more than triple the number used in TEMs' writing. The abundance of causal linkers can be explained by the nature of the writing prompt which proposes a problem-solution structure. This type of rhetorical structure requires a fair amount of explaining liable to establish causal links. The groups showed no statistically significant differences in their use of adversative linkers whose frequency pales in comparison to the afore-mentioned categories. The least frequently used connectives are continuative and temporal.

Table 3 displays the means, standard deviation and the t-test (for normal distribution) or the Wilcoxon rank-sum test (for non-normal distribution) results by category. The tests' results confirm the significant differences in additive connectives'

⁷ Group 2 is the reference group for the underuse/overuse calculation in Table 2.

use at the intrasentential ($p < .05$) and intersentential ($p < .0001$) levels. The difference in causal connectives' use ($p < .0001$) is also statistically significant between sentences, but not clauses.

Table 3

Descriptive Statistics of Connectives by Language

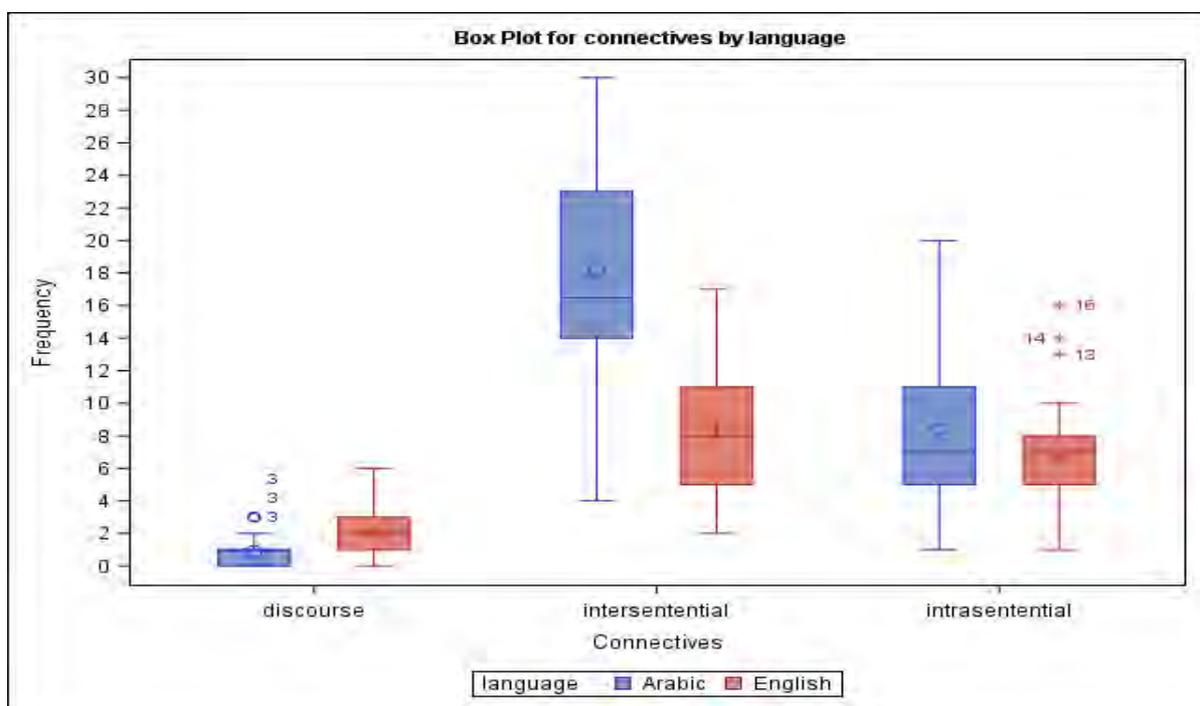
	Arabic	English	Parametric	T-test		WilcoxonTest
	Mean (SD)	Mean (SD)		t Value	Pr > t	One-Sided Pr > Z
CONNECTIVES						
intrasentential	8.4 (4.64)	6.66 (3.53)	Yes	1,63	0,1092	
intersentential	18.13 (6.96)	8.4 (4.03)	Yes	6,63	<.0001	
discourse	0.9 (0.99)	2.1 (1.7)	No	-3,32	0,0017	0,0017
Total	9.14(8.57)	5.72 (4.17)	No	3,4	0,0009	0,042
INTRASENTENTIAL						
additive	5.03 (3.3)	3.5 (2.67)	No	1,97	0,0531	0,0226
adversative	0.36 (0.66)	0.3 (0.65)	No	0,39	0,6971	0,298
causal	2.23 (2.09)	2.03 (1.44)	No	0,43	0,6689	0,4221
temporal	0.33 (0.8)	0.7 (0.79)	No	-1,78	0,0805	0,0107
continuative	0.46 (0.89)	0.06 (0.25)	No	2,61	0,0133	0,0086
INTERSENTENTIAL						
additive	11.2 (4.92)	5.3 (3.2)	No	5,5	<.0001	<.0001
adversative	1.4 (1.56)	1.13 (1.3)	No	0,72	0,4768	0,3017
causal	5.13 (3.37)	1.6 (1.49)	No	5,25	<.0001	<.0001
temporal	0.1 (0.30)	0.06 (0.25)	No	0,46	0,6472	0,3272
continuative	0.3 (0.53)	0.3 (0.87)	No	0	1	0,1493
DISCOURSE						
additive	0.83 (0.98)	1.83 (1.57)	No	-2,94	0,0049	0,0047
adversative	0.03 (0.18)	0.03 (0.18)	No	0	1	0,5
causal	0.03 (0.18)	0.13 (0.34)	No	-1,4	0,1683	0,0847
temporal	0	0	No			0,5
continuative	0	0.1 (0.3)	No	-1,8	0,0831	0,0407

The statistics also confirm the overuse of these categories by TAMs as well as the two groups' similar preferences in the choice of connectives, especially additive ones. Standard deviation measures show a variability in the distribution of connectives across the corpora, as shown with the example of additive intersentential connectives for TAMs ($M = 11.2$, $SD = 4.92$) and TEMs ($M = 5.3$, $SD = 3.2$). This variability is also apparent through the boxplot (Figure 1) below representing the connectives' use in

AL1 and EFL essays at the macro and micro-levels of discourse. For example, as far as intersentential connectives are concerned, 50% of TAMs used between 14 and 23 with a minimum of four and a maximum of 30 per writer, while 50% of TEMs used between five and 11, with a minimum of two and a maximum of 17.

Figure 1

Boxplot for the Distribution of Connectives by Language



If the frequency profiling showed that two categories, namely additive and causal linkers, stood out at the expense of the others, a look at the examples of linkers used reveals a lack of diversity within and across categories, as well as a similarity in the choice of connectives between the two corpora. At the intrasentential level, the most frequently used linkers are *and* (AF= 73, RF= 68,70) and its Arabic counterpart *wa* (AF = 107, RF= 119), representing 69,52% and 70,86% of all additive intrasentential linkers, respectively. In the second place come *or* (AF=15, RF= 14,12) and its Arabic

equivalent *aw* (AF= 14, RF= 15,57), used with almost similar frequencies. The rest of the examples, like *not only... but also, instead of, aydan* (also), *khāṣṣatan* (especially), occurred one to few times only. At the intersentential level, *and* (AF= 67, RF= 63,06), *for example* (AF= 25, RF= 23, 53), *wa* (AF= 202, RF= 224,67) and *fa* (and) (AF= 53, RF= 58,95) are the most used additive connectives. Causal connectives lack variety as much as additive ones. To link clauses, students used, mainly, *because* (AF= 24, RF= 22,59), *in order to* (AF= 13, RF= 12,24), *hattá* (AF= 18, RF= 20,02) and *li-anna* (AF= 11, RF= 12,23). *So* (AF= 20, RF= 18,82) and *fa* (AF= 101, RF= 112,33) were the most recurrent linkers binding sentences. This limited choice of connectives highlights the students' restricted repertoire, as both English and Arabic offer more ways to link sentences additively and causally besides *and, also, so, wa* and *fa*.

To answer the second research question, the two corpora displayed significant quantitative differences in the use of connectives, along with other differences in punctuation use. Indeed, TEMs used periods and commas (501 and 492, respectively, per 671 T-units) more than TAMs did (183 periods and 53 commas per 715 T-units), which shows that the students adjusted to the English language's reliance on punctuation. This finding deviates from the results reported by Labidi (1992) who found that Tunisian students underuse punctuation and misuse it. Contrary to English, Arabic only recently incorporated punctuation (El-Aswad, 2002) which could explain its underuse by TAMs. On the other hand, the two groups showed not only similarities in overusing the same two categories (namely, additive and causal connectives) at the expense of the others, but also a narrow repertoire. This repertoire

lacks variation and shows analogous choices in the two data sets. These findings answer the second research question inasmuch as the two groups are similar in preferring the same categories and examples of connectives used.

Qualitative analysis

While both groups' limited selection of connectives does not necessarily imply the influence of Arabic on TEMs' style, the use of *and*, especially at the beginning of the sentence, does. In fact, this usage is not characteristic of the English language. Halliday and Hasan (1976, p. 233) write: "The 'and' relation is felt to be structural and not cohesive, at least: by mature speakers; this is why we feel a little uncomfortable at finding a sentence in written English beginning with *And*". In Arabic, however, it is common for sentences to be coordinated with *and*. This is validated by the current findings: Out of 715 total T-units, 440 are coordinated sentences. 248 start with *wa* (sometimes combined with another connective), while 154 start with *fa*, as shown in examples (1) and (2):

- (1) *wa-innī u'akkidu 'alá ahammiyyat dawr al-usrah fī dhālik*
and I insist on the importance of the family's role in that
- (2) *fa-min khilāl hādhih al-asbāb yash'ur al-ibn aw al-fard bi-annahū muhammash*
and through these causes the son or the individual feels that he is marginalized

Usually considered as *and*'s equivalent, *wa* is used almost systematically to start sentences in Arabic, thus, delimitating them in the same way punctuation does. *Wa* also acts at the intrasentential level as a subordinator, like in the case of the *ḥāl* (adverbial of manner) clauses in example (3):

- (3) *mu'addá al-qawl aw khulāṣatuh, an lā wujūda li-ḥayāt dūna al-amn fa (a) in tawaffara al-amn 'ishnā wa (b) in ghāba mutnā wa (c) nahnu aḥyā'wa (d) fāraqatnā al-ḥayāt wa (e) nahnu aḥyā' fa (f) bi-wujūdihi yan'akis kull shay'*
 what the discourse leads to or its conclusion is that there is no life without safety **in that (a)** if safety was provided we lived **and (b)** if safety was absent we died **while (c)** we are alive **and (d)** life left us **while (e)** we are alive **therefore (f)** everything is reflected in its [safety's] existence.

Indeed, unlike (b) and (d) which are intersentential additive connectives, (c) and (e) are called *waw al ḥāl* and operate at the clause level. *Fa*, in this example, is an intersentential causal linker. Nonetheless, it is also commonly used by TAMs as an additive intersentential linker like the *fa* in example (4) which also includes another intersentential additive connective *mathalan* and an intrasentential adversative connective *fī ḥīn*:

- (4) *fa anā mathalan ladayya tiḥl yu'ānī min al-ḥasāsiyyah fī ḥīn anna la-hu al-ḥaq fī al-khurūj wa-murāfaqatī ilā hādhihi al-amākin*
and I for instance have a child who suffers from *the allergy **while** he has the right to go out and accompany me to these places

In the English essays, although the number of coordinated sentences is not as important as in Arabic, it is still noticeable against the English norm. Indeed, there are 122 coordinated T-units out of 671, 72 among which start with *and* (at times followed by another connective), like in example (5):

- (5) **and** as we know, murdering and killing people is totally illegal according to *the religion.

The conjunction *and* is sometimes superfluously combined with other connectives at either the clause or sentence levels, like the examples below, where the combinations are counted as one causal connective in (6) and as an additive one in (7):

- (6) people become more free in expressing their opinions about problems in their life, **and so that** their expectations of a better way of life are becoming higher and higher
 (7) **and also** they bit their friends in kindergarden or schools for no *reasons

This phenomenon is more common in Arabic, where the conjunction *wa* either precedes or follows the other connective:

- (8) *hādhihi al-mushkilah ‘alá ghāyah min al-ahammiyyah wa-lākin al-mujtama’ al-yawm ghāfil ‘an khuṭūratihā*
 this problem is of paramount importance ***and but** society today is oblivious of its seriousness
- (9) *wa-min jihatin ukhrá lā nastaṭī inkār ta’tḥīrah al-salbī ‘alaynā*
and on the other hand we cannot deny its negative effect on us
- (10) *wa-lā yastaṭī ‘ūn al-takhallī ‘an hādhihi al-barāmij ḥattá wa-in kānū rāghibīn fī dhālika*
 and they cannot stop watching these programs **even *and** if they were willing to do that
- (11) [...] *khāṣṣatan wa-annahū yuwaffir dawrāt takwīniyyah hāmmah wa-furaṣan lil-tafā’ul ma’a mawwāqī’ al-rādyū wāb al-maḥalliyyah wa-al-dawliyyah*
 [...] **especially *and** that it provides important training sessions and an opportunity to interact with other local and international web radio stations
- (12) *bil-tālī wa-ḥasab mā ‘araḍnā takūn al-khuṭṭah allatī yajib an yatabannāhā al-awliyā’ li-tarbiyati abnā’ihim tarbiyah salīmah [...]*
as a consequence and as we have shown, the plan that parents should follow to educate their kids in a healthy way [...]

As the examples show, while some of these combinations yield grammatical English counterparts, others do not. In rarer occasions, *wa* occurred in three-connective clusters:

- (13) *wa-li-dhālika fa-‘alá al-awliyā’ an yalfitū nazarahum ilá hādhihi al-mas’alah wa-an ya’rifū ayya al-barāmij aṣṣlaḥ li-abnā’ihim*
and because of this *so parents should bring their attention to this matter and know which programs are more suitable for their children
- (14) *wa-lam taqtaṣir hādhihi al-zāhirah ‘alá al-kuḥūl wa-innamā ayḍan balaghāt al-aṭfāl*
 and this phenomenon was not limited to middle-aged people **and *but also** reached the children

English connectives occurred, for the most part, at the beginning of the sentence or the clause. In Arabic, however, linkers had more varied locations. In example (15), the intersentential connective *lākinna* (but) is in the middle of the sentence as it is preceded by a fronted *iḍāfah* construction composite functioning as *ḥāl*. In (16), the additive intersentential connective *mathalan* (for example) comes at the end of the sentence:

- (15) [*rughma kawnihā lam takun mujdiyah bi-mā fī-hi al-kifāyah*] **lākinna**-hā 'alā al-aqal *ṭarahat hulūl min qabīl takhṣīṣ amākin lil-mudakhkhinīn wa-amākin li-ghayr al-mudakhkhinīn*
[despite being *was not effective enough] **but** it, at least, proposed solutions like devoting areas for smokers and areas for non-smokers
- (16) *wa-yumkin an tusabbiba mashākil bayn al-ab wa-ibnih mathalan*
and it can cause problems between the father and his son **for example**

In (17), the adversative intersentential connective *ammā* (but) introduces an elliptical T-unit which also includes the additive intrasentential connective *fa*:

- (17) *hum lam yuṭabbiqu hādihā al-amn siwā nazariyyan ammā taḥbiyyan fa-lā*
They applied this security only theoretically **but** practically **then** no

In other instances in Arabic and English, the intersentential connectives occurred in the middle of the sentence:

- (18) *Kamā tatasabbabu mutāba'atuhum lil-tilfāz ayḍan fī raf' mu'addal al-badānah bayna al-atfāl*
Additionally their T.V. watching causes **also** an increase in obesity rates among children
- (19) **Besides** *to these, the absence of understanding, **also**, affects the relations among people

Misuse of connectives

The connectives' manual annotation ensured their proper interpretation and a classification that takes into account their polysemous nature and accommodates their misuse in the corpora. Two types of misuse stood out in the Arabic and English essays. The first type consists in using connectives at inappropriate textual levels. A conspicuous example in EFL productions is using *actually* and *in fact* either to start a new section, as in (20) and (21), or to start the whole essay, as in (22) and (23):

- (20) **Actually**, there are many solutions to this temporary problem. To begin with teenagers who are *mislead and still young. They can protect themselves from addiction by spending time into other hobbies such as clubs after school or playing *the favorite sport.
- (21) **In fact**, one of the major problems in the education field is that teachers are complaining about their *students speaking and communicating skills which are not good at all. They always complain about that but no one *try to solve the problem yet, neither the teacher, nor the student, while *its a serious one.

- (22) **In fact** suicide is one of the most important problems that many countries suffered from, especially Arab countries. There are many causes that lead to *suicide. Social, psychological and *illiteracy issues are one of the main causes that lead to suicide.
- (23) **Actually**, if I have something that I really dislike in our community, our everyday life, as social phenomenon; a horrible one, is the way that people treat each *others with; mainly the "impoliteness", "the disrespect" "the indelicacy" of people.

The use of *actually*, interpreted as a continuative connective at the discourse level, is reminiscent of the oral style, seeing that it is used more in speaking than in writing. *In fact* could be a literal translation of the French *en fait* also used frequently in spoken discourse. Other connectives, mistakenly used at the discourse level, include *also*, *and*, *indeed* and *so*. Having used less discourse connectives than TEMs, TAMs were less likely to make this kind of mistake. Other examples concern the use of intrasentential connectives to link T-units:

- (24) For example, pornography is totally a very *negative that can destroy children's moral behavior. **Because** these children *are not yet reached a mature stage in order to distinguish between bad and good.
- (25) One of the most negative consequences of watching T.V is *delinquency. **As** it is generally known that T.V includes endless number of programs that *are not all fit children's upbringing.

This practice is less noticeable in AL1 essays, insofar as the Arabic language demonstrates more flexibility in the use of connectives to bind T-units. As such, linkers such as *haythu* (because), *idh* (as), *aw/am* (or), *bal* (rather), *fi h̄in* (while) are used fittingly at the intersentential level.

The second type of mistakes relates to the connectives' semantic meanings and the logical relations they signal. More specifically, it consists in using a connective where another is needed. For instance, in (26) and (27), *illā anna* and its English equivalent *however* express contrast although there is none between the propositions they link:

- (26) *wa-yawm ba'd yawm yata'allaq hādhā al-tifl bi-hādhā al-jihāz hattā yuṣbiḥ mudminan mim mā yaj'aluhu yansā akla ta'āmiḥ aw samā' ayy ṣawt ākhar ghayr ṣawt al-tilfāz wa-hādhīhi al-fi'āt tatarāwah a'māruhum bayn al-sanatayn wa-al-'ashr sanawāt illā **anna** hādhā kashafa ladā 'iddat aṭibbā' wa-bāḥithīn 'an makhātir hādhā al-jihāz.*
and day after day this child clings to this device until he becomes addicted which makes him forget to eat his food or hear any other sound except for the T.V.'s sound and these groups' ages range between two and ten years **however** this unveiled to many doctors and researchers the dangers of this device.
- (27) The excessive use of the new technology makes life *more easier but at the same time it makes *individual's behaviours very strange and abnormal. **However**, the effects of using the computer especially the internet are very clear on the teenagers.

Another common example specific to EFL essays is the use of *so*, like in speaking, not as a causal connective, but a continuative one:

- (28) And this *what makes these children use this device in a bad way. **So**, here the role of parents in affecting their children's behavior, whether negative or positive, is more important.
- (29) #**So**, *kidnap, *volation, smoking, drugs, all are a result of *misunderstanding of the technological world.

This usage might suggest the potential influence of orality on writing, although not necessarily the influence of Arabic on the students' EFL productions.

Conclusion

This paper examined the use of connectives in the academic discourse of Tunisian Arabic and English majors with the aim of appraising the possible influence of L1 on EFL writing. The quantitative and qualitative analyses of the data showed both similarities and differences in the way linkers are used. Although the two groups demonstrated a preference for additive and causal linkers at the intra- and intersentential levels, these categories were overused by Arabic majors. The prevalence of additive connectives at all levels of discourse in both corpora suggests a transfer from AL1 of the additive mode of text development. The choice of connectives

within and across the categories lacked in variety and was comparable in both data sets.

Pedagogical implications and suggestions for further research

The study's findings bring forth some pedagogical implications for the writing classroom. Indeed, the students' overuse of additive linkers suggests their poor command of other modes of textual development. At a first level, both AL1 and EFL composition teachers need to raise the students' awareness as to the existence of a wide collection of other additive connectors besides *and*, *wa* and *fa*. Instructors should also encourage the use of the other categories of connectives, namely causal, adversative, temporal and continuative, and train students in using them properly, both semantically and structurally. Another phenomenon worth addressing is the scarcity of connectives at the discourse level, especially in AL1 essays. Accordingly, students need to practice using linkers beyond the sentence boundaries to make clearer transitions and enhance their essays' overall organization.

The limited size of the corpora calls for further research using more samples to bring new insights into the use of connectives in EFL writing. Additionally, as some of the Expanding Circle's countries have a plurilingual scene, a look at the influence of the second language, in our case French, is likely to offer a comprehensive look into the learners' interlanguage. Ideally, a contrastive examination of Tunisians' Arabic, French, and English essays against English native speakers' writing would provide ample understanding of the learners' use of connectives in their EFL discourse.

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