

Connectivity in Written Personal and Fictional Narratives: The Study of Iranian EFL Learners and Native Speakers of Persian and English

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Abstract

The present study aimed to examine the use of different levels of syntactic architecture in written personal and fictional narratives in both Persian and English across three discourse communities, namely Persian native speakers, English native speakers, and Iranian EFL learners. To this end, the participants of the study were selected based on convenience sampling and were asked to write one of their happiest memories. Also, an English fable from Aesop's fables and a Persian story, chosen based on comparative literature and having the similar plot, were given to them to read and write whatever they remembered; there was no limit on the number of words and paragraphs. To analyze the data, the Berman and Nir-Sagiv's (2009) model was followed. The findings showed that in fictional narratives written by both Persian and English native speakers, isotaxis, asymmetric parataxis, complement (CMP), and parataxis levels were frequently employed; however, personal narratives in Persian were dominantly isotactic, paratactic, and asymmetric paratactic, CMP, while isotactic, hypotactic, and paratactic levels were frequent in English written personal narratives. Also, after receiving explicit instruction on different types of English sentences, the use of adverbial and relative clauses (hypotaxis level) increased in Iranian EFL learners' written narratives. It can be concluded that explicit teaching of syntactic levels enabled EFL learners to arrange their sentences correctly to express their intended meaning. Teachers can benefit from the results to gain a more comprehensive understanding of narrative

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connectivity and help EFL learners elaborate clause linkage in their written narrative tasks.

Keywords: *fictional narrative, hypotaxis, isotaxis, parataxis, personal narrative, syntactic architecture*

1. Introduction

Genres, as inherent dynamic cultural schemes hanging over time due to their sociocultural factors, are used to organize knowledge and experience through language (Taavitsainen, 2001). To organize the structure and shape the ongoing communicative actions, the members of a community make use of genres that are established as socially recognized types of communicative actions serving as institutionalized templates for social activities (Orlikowski & Yates, 1994). From a communicative perspective, genres are the product of the link between communication forms and the sociocultural context; therefore, genres are mental frames in people's minds the realization of which depends on the purpose, interaction, and cultural context (Taavitsainen, 2001). Narrative is considered as a genre using shared conventions of the language and the genre expectation (Chamberlain & Thompson, 2002) on the one hand and as a mode of thought dealing with "human or human-like intention and action and vicissitudes and consequences that mark their course" (Bruner, 1986, p.13) on the other. Narrative helps individuals construct the world of reality (Jurdak, 2016). Many scientific hypotheses root in stories and scientific theories also contribute to different forms of art (Jurdak, 2016). Narrative represents casual thinking by which human agency questions are explained and answered; it covers a historical understanding and explains the events that occurred in the past by looking back for pieces of evidence; it transmits significant information and establishes the speakers' identity and social status; it concerns political undertakings which guide people to construct new stories to protest storyless events (Biettie et al., 2019; Churchill & Churchill, 1982). Narrative refers to "all types of discourse in which event structured material is shared with readers or listeners, including fictional stories, personal narrative accounts, and recounts of events (real or imagined)" (Mistry, 1993, as cited in Pavlenko, 2006, p. 6). It helps people express their emotions and thoughts and enhance critical thinking (Sabah & Rashtchi, 2022).

To produce a coherent and well-organized narrative, both linguistic and narrative demands must be met (Liskin-Gasparro, 1996). One of the main narrative discourse domains is connectivity, which is concerned with linking clauses from a more linear structure (juxtaposed or coordinated) to more hierarchical means of subordination (relative and adverbial clauses) (Berman, 2008; Rehbein et al., 2007). To date, the

overwhelming majority of previous empirical studies have been done on syntactic complexity and clause linkage in writing development (Applebee, 2000; Bazerman et al., 2018; Beers & Nagy, 2011; Wang, 2022; Zhang & Zhang, 2024), writing assessment (Beers & Nagy, 2009; Crossley & McNamara, 2014; Li & Yang, 2023; Thi et al., 2023), and L2 writing (Alaei et al., 2024; Ortega, 2015; Park, 2022; Zheng & Barrot, 2024); however, there is still little research in this regard to examine the patterns of connectivity in fictional and personal narrative across the three groups of Persian native speakers, English native speakers, and Iranian EFL learners on the one hand and explicit instruction of those inter-clausal structures in the context of the narrative writing on the other. That said, the present research endeavored, firstly, to explore the inter-clausal connectivity in the written personal and fictional narratives of the aforementioned three groups and, finally, to teach EFL students how to construct meaning by the use of syntactic structures in their narrative writing.

2. Review of Literature

2.1. Narrative: Personal and Fictional

The term narrative has been used to denote language development, mental capacity, social communication, communication actions, collective culture (Biettje et al., 2019; Book et al., 2024; Bouizegarene et al., 2024; Dor, 2017; Norman & Eslami, 2024; Qartrinada & Apoko, 2024). Through narrative and narrative creation, people interpret and make sense of their experiences in the way to understand the prospects of future and mentally sort through the past, make their cultures, societies, and their political points comprehensible, and change the trend of their lives ((Amirshojai & Mollanazar, 2025; Isopahkala, 2003; Richardson, 1990). Bruner (1990) argued that all human beings enjoy an innate predisposition to narrative organization. Therefore, narrative understanding is considered as a mental mechanism that enables human beings to understand previously constructed narratives and talk about their views and experiences to others through narratives (Worth, 2004). Narrative can be classified into several nonfictional categories like memoir, news sport, documentary, travelogue, etc., and fictional types such as myth, anecdote, novels, fairy tales, short stories, thriller, legend, historical fictions, etc. (Carey & Snodgrass, 1999; Harmon,

2012). Pavlenko (2006) grouped narrative into two categories of personal and fictional narratives.

Personal narratives (PN) focus on individuals' personal experiences usually told in the first person (Stahl, 1989). To Linde (1993), personal narratives, told by an individual, must meet two criteria: a) the stories and associated discourse units in the life story have to evaluate a point about the speaker rather than show the point about the world; b) those personal narratives have to indicate extended reportability.

On the other hand, fictional narrative focuses on fiction which refers to any creative narrative work and portrays people, events, or places in an imaginary way not indicating the exact real historical events or facts (Sageng et al., 2012). According to Farner (2014), fictional narrative is the construction of an imaginary world in which everything is deviated from the real world and the audiences do not expect to face factually accurate portrayals in the real world. Fables are seen as a type of fictional, narrative, and literary genre; they are invented stories to tell the truth rather than a true story; they show natural actions by imaginary agents (Blackham, 2013). Fables tend to "project human instincts and responses onto animal protagonists with little concern for naturalism or genuine animal behavior" (Lefkowitz, 2014, p. 1).

2.2. Narrative Connectivity

One of the narrative development aspects within the framework of functional linguistics is complex syntax which is also referred to as "clause linkage" (Hamim & Thompson, 1988), "connectivity" (Berman, 1998, 2009), "nexus" (Foley & Vanvalin, 1984), and "syntactic packaging" (Berman & Slobin, 1994). Form-function analysis, as one of psycholinguistic approaches, studies narrative development from five domains: a) reference; b) evaluation; c) connectivity; d) narrative structure; and e) temporality. This approach is concerned with the relationship between linguistic forms (passive; nominalization, relative clauses, noun phrases, etc.) and their functions such as reference, temporality, evaluation, and connectivity in narrative discourse (Berman, 2008). To put it in another way, two types of knowledge are involved in the production of a narrative. The first one deals with the general underpinnings of narrative text production and the internalized

narrative schemata, making it possible to understand, recall, and produce different types of narrative genres and their sub-genres like stories, scripts, personal accounts, recounts, event casts, fictional stories, etc. This knowledge helps individuals to organize information in temporal sequence, introduce the setting, get the events in a way to shape the backbone of the plot, resolve the problem, and finally end their stories by making a moral message or relating the story to the current or universal situations (Berman, 2008). The second type of knowledge refers to how linguistic devices, syntactic construction, lexical expressions, bound morphemes, etc., are used appropriately to perform the narrative functions by using grammatical tense, aspect and adverbial and subordinating markers to express temporal relations and by employing different lexico-grammatical means of clause packing to create inter-clausal connectivity (Berman, 2008).

To study connectivity in narration, ‘clause package’ as a text-embedded unit is used to analyze the units of a text beyond the level of the single clause through the use of abstract linkage relations, which means that within each clause package, the relations of clause linkage can be either marked by coordinating/subordinating conjunctions or deduced from the thematic progression (Berman & Nir-Sagiv, 2009). “Connectivity” or “clause combining” ability does not just refer to structural linguistic complexity since individuals can pack different pieces of information into a single stretch of utterance to show different thematic relations between situations and elaborate on a given prediction within a situation through cognitive online processing capacity, appropriate lexico-semantic expressions, and pragmatic ability (Berman, 2004).

To Berman and Slobin (1994), narrative connectivity is essential concept in analyzing the informational structure of discourse; in other words, “that is, we are studying the development of linguistic means to connect events and syntactically package them into coherent structures at the level of scene, episode, and, overall plot” (p.1-2). Connectivity addresses surface elements of language phrases, clauses, or sentences on the one hand and deals with such particular elements of knowledge as illocutions, propositions, and mental /cognitive entities to form interaction and the types of discourse on the other (Hohenstein, 2005, 2006).

2.3. Present Study

The "complex syntax" used by L1 and L2 speakers to convey their linguistic, narrative, and communicative functions are different (Pan, et al., 2016) because languages are classified to several different typologies, e.g., analytic, synthetic, flective, inflective (Barber, 1999; Yu, 1993), which directly affect the use of syntactic patterns in written and spoken texts. "Syntactic complexity" or "narrative connectivity" in written narrative has been investigated by many researchers (Abechi et al, 2016; Allaei et al., 2024; Berman, 2008; Berman & Nir-Sagiv, 2009; Crowhurst, 1980; Domsch et al., 2012; Drijbooms et al., 2017; Peristeri et al., 2017; Zheng & Barrot, 2024). However, in most pedagogical environments' "connectivity" as one of the domains of narrative discourse receives less attention. EFL/ESL students are encouraged to construct correct and grammatical sentences rather than syntactically complex sentences resulting in stringing sentences without expressing any communicative and narrative functions. This study explored narrative connectivity in two subgenres of narrative, fictional and personal, written by native Persian speakers, native English speakers, and Iranian EFL learners; moreover, it investigated whether explicit teaching of "narrative connectivity" affected Iranian EFL learners' written narrative production. Thus, based on the main objectives of the study, the following research questions were formulated:

1. What levels of syntactic architecture are used in written personal and fictional narrative productions of Persian native speakers, English native speakers, and Iranian EFL learners?
2. Is there any significant difference between Iranian EFL learners' written personal and fictional narratives before and after receiving explicit teaching of syntactic architecture?

3. Methodology

3.1. Participants

Three groups of participants, selected based on convenience sampling, took part in

the study. The first group was 105 Persian native speakers ,45 males and 60 females, born in Iran and ranging in age between 15 and 70. Persian language was the single language through which they communicated. After interviewing and asking them to write a paragraph in English, it became clear that they were not familiar with the English language. The second group was composed of seven male and eight female English native speakers, born in England, aged between 24 and 70. One of the researcher's friends came from England, and she asked her relatives and friends to participate in the study; they were also asked to write their ages and gender. The educational level of Persian native speaker (first group) and English native speakers (second group) was not taken into consideration because the participants of the study were in their early or middle adulthood and cognitively developed, which enabled them to connect their past experiences to the current activities and remember things while doing difficult tasks (Malik &Marwaha, 2023; Thomas & Boyd, 2023). In addition, their ability to read and write in their L1 was enough to fulfill the tasks of the present study. The third group of participants were Iranian EFL learners. Nine female and six male Iranian EFL learners, aged between 18 and 25, took part in the study. This group was majoring in English Language and Literature at Islamic Azad University. Based on the result of the Quick Oxford Placement Test (QOPT), the level of the EFL learners' language proficiency was recognized to be at the elementary level.

3.2. Instruments

3.2.1. The oxford quick placement test

The researcher utilized an Oxford Quick Placement Test to determine the EFL learners' level of language proficiency. The paper-and-pencil version was used. All the questions in the test were in multiple-choice format and the answer sheets could be quickly marked. The test consisted of two parts. Part one (items 1-40) was taken by all candidates and aimed at students who were at or below the intermediate level. Part two (items 41-60) was for higher ability students only; those who scored more than 35 out of 40 on the first part. To determine the EFL learners' language proficiency level, only the first part of the QOPT was administered in one session,

which lasted ninety minutes. The second part was not run because the learners' scores were less than 35 out of 40, and they were grouped as elementary EFL learners.

3.2.2. Berman's syntactic architecture

To identify the syntactic architecture in Persian and English native speakers and EFL learners' written personal and fictional narrative, Berman's (2009) model, called form-function analysis, including five structures, was utilized. The first type of syntactic architecture is isotaxis level [ISO] which refers to single clauses (main clauses) attending to equal organization with no internal architecture. The second level is symmetric parataxis [PAR] referring to the juxtaposed or coordinated clauses with overt subject-marking and showing side-by-side organization. The third syntactic architecture level is called asymmetric parataxis [AsPAR] which is the indicator of partial equivalence and dependent stringing. This level includes dependent clauses that are coordinated with the main clause with the same subject ellipses, verb gapping, or complementary clauses that are obligatory joined to the main clause. The fourth level is hypotaxis [HYPO] representing the nesting of the clauses. This level can be illustrated by adjective and adverbial clauses which are related to the main clause by asymmetric layering. The fifth and last level of syntactic architecture is endotaxis [ENDO] in which adverbial and adjective clauses are nested inside another clause (Berman & Nir-Sagiv, 2009).

The reliability of Persian, English, and EFL learners' written Personal and fictional narrative was measured based on inter-rater reliability. This study enjoyed content validity because the theoretical model, introduced by Berman and Nir-Sagiv (2008), was used to analyze the gathered data.

In this regard, table 1 revealed that the inter-rater reliability was found to be $k = 0.83$, 0.92 in Persian personal and fictional narrative, respectively. The inter-rater reliability of English personal and fictional narrative was found to be $k = 0.75$ and $k = 0.61$, respectively. Then, the inter-rater reliability related to EFL learners' written personal and fictional narrative was measured: (a) personal narrative ($k = 0.67$), (b) fictional narrative ($k = 0.67$)

Table 1

Kappa Correlation between Raters based on Persian, English, and EFL Learners' Personal and Fictional Narratives

	Value	Asymp.std. Error	Approno Tb	Approx
PPN	0.83	0.077	9.084	0.000
PFN	0.92	0.016	25.62	0.000
EPN	0.75	.058	10.337	0.000
EFN	0.61	.053	11.023	0.000
LPN	0.83	0.077	9.084	0.000
LFN	0.67	.088	8.879	0.000

Note. PPN = Persian Personal Narrative, PFN = Persian Fictional narrative, EPN = English Personal Narrative, EFN = English Fictional Narrative, LPN = Learners; Personal Narrative, LFN = Learners' Fictional Narrative

3.3. Procedure

Three groups of participants took part in this study. All three groups of participants, Persian native speakers, English native speakers, and Iranian EFL learners, took part in the present study voluntarily. The students, willing to take part in the study, also signed the consent form. The officials of the University where the research was conducted, were fully informed, and they allowed the study to be done.

Regarding the written fictional narrative, a fable that was common between both Persian and English languages with the similar plot was selected based on comparative literature. Thus, a fable by Aesop (620-564 BCE) entitled "The wolf, the lion, and the fox" in English (Aesop & Holder, 1981), and its Persian counterpart entitled "Sezaie Sokhanchini" [the punishment of badmouthing] from "Alkoni va alalghab" (1357 AH, vol 2, p119) written in Arabic by the Iranian author, Abbas Qomi (1254-1319 SH), and translated and simplified in Persian by Fatemeh Safari in a book entitled "The best stories for the best kids" (1394 SH) were chosen to be rewritten. Then, native speakers of Persian were given the fable as a type of fictional narrative to read and rewrite, and the native speakers of English were sent the fable via a social network on their cell phones or e-mail to read and write in their own words. The English native speakers' memories and rewritten fables were sent to the researcher via the social network on the cell phone or to the researcher's e-mail.

After determining their level of language proficiency, the Iranian EFL

learners, were, firstly, asked to write one of their happiest memories in Persian. Then, they were asked to read and rewrite the Persian fable in their own words. After a week, they were asked to write one of their happiest memories in English and read and rewrite the English fable. The EFL learners were asked to rewrite the fable and memories in separate sessions to avoid their fatigue and not to be overwhelmed cognitively; the gathered data at this stage were taken as their pretest. To teach these syntactic levels, different types of English sentences, like simple sentences, compound sentences, and complex sentences, including adverbials, adjectives, noun clauses, and phrases (infinitive, gerund, and participle) were taught to EFL learners. Thus, the researcher attempted to help the students to identify and differentiate between Persian and English syntactic patterns. After receiving instruction regarding different English syntactic architecture levels in both personal and fictional narratives, the Iranian EFL learners were asked to write down one of their happiest memories and rewrite another fable as their posttest. Teaching syntactic patterns of personal and fictional narrative took six months, i.e., almost two university semesters (20 sessions); each session lasted an hour and half; the mode of instruction was face-to-face instruction.

To elicit different levels of syntactic architecture out of native Persian and English speakers, and Iranian EFL learners' personal and fictional narratives, the model proposed by Berman and Nir-Sagiv (2009) was used. The written personal and fictional narratives were divided into their clause packaging, and then they were analyzed in terms of five levels of syntactic architecture. In each clause package, simple sentences were taken as isotaxis level, compound sentences as parataxis level, adverbial and adjective clauses as hypotaxis level, infinitive, gerund, and participle phrases as asymmetric parataxis, NF level, complementary clauses as asymmetric parataxis, CMP level, compound complex sentences as endotaxis level, and clauses with a verb-gapping or same-subject ellipsis as asymmetric parataxis, GAP level.

4. Results

Concerning the first research question of this study, initially, the frequency and percentage of different syntactic architecture levels were estimated in the written

personal and fictional narratives of native speakers of Persian, native speakers of English, and Iranian EFL learners.

Based on Table 2, it was shown that isotaxis was the most frequent level of syntactic structure. 207 (57.98%) of the 357 clauses and phrases were written as isotaxis. The next level was parataxis, included in 62 (17.36%) clauses written by native Persian speakers in their personal narratives. Asymmetric paratactic, CMP, ranked third; its occurrence was 15.40% in the written personal narratives produced by native Persian speakers. The least frequently used syntactic structure was Asymmetric, NF, which occurred in 33 (9.24%) of the 357 clauses.

Table 2

Levels of Syntactic Architecture in Persian Written Personal Narratives

Levels of Syntactic Architecture	Frequency	%
Isotaxis	207	57.98
Parataxis	62	17.36
Hypotaxis	.....	.....
Asymmetric parataxis, CMP	55	15.40
Asymmetric parataxis, NF	33	9.24
Asymmetric parataxis, GAP	.....	.....
Endotaxis	.....	.....
Total	357	

Note. CMP = complement, NF = non-finite, % = percentage

An example of the Persian personal narrative analysis based on different levels of syntactic architecture is given below:

CP: 2

۱- ساعت حدودا سه صبح بود. [ISO = MC]

[it was about three in the morning]

۲- شخصی اومد. [ISO = MC]

[someone came]

۳- اصرار کرد [ISO = MC]

[insisted to come in]

۴- {که} بیاد داخل. {AsPAR, NF}

۵- ما هم قبول نکردیم. [ISO = MC]

[and we did not accept either]

۶- از شانس ما همان شب چند افسر عالی رتبه در کلانتری ما حضور داشتند. [ISO = MC]

[unfortunately, several senior officers were at our police station that night]

With regard to Table 3, it was shown that isotaxis was the most frequent level of syntactic structure; 73 (35.26%) of the 207 clauses were written as isotaxis level. Hypotaxis ranked second and its occurrence was 21.25%. Then, asymmetric parataxis, GAP occurred in 13.04% of clauses and phrases. Next, parataxis was used in 23 of the 207 clauses. Then, asymmetric parataxis, CMP, and asymmetric, parataxis, NF occurred in 20 (9.66%) and 18 (8.69%) clauses and phrases, respectively. The least frequent syntactic structure was related to Endotaxis; just 2 clauses included Endotaxis level.

Table 3.

Levels of Syntactic Architecture in English Written Personal Narratives

Levels of Syntactic Architecture	Frequency	%
Isotaxis	73	35.26
Parataxis	23	11.11
Hypotaxis	44	21.25
Asymmetric parataxis, CMP	20	9.66
Asymmetric parataxis, NF	18	8.69
Asymmetric parataxis, GAP	27	13.04
Endotaxis	2	.96
Total	207	

Note. CMP = complement, NF = non-finite, % = percentage

An example of the personal narratives written by English native speakers, which was analyzed based on different levels of syntactic architecture, is shown below:

CP1:

Hmn I guess [ISO = MC] happiest memory for me was [AsPAR , GAP] when I was about eight. [HYPO]

CP2:

Me and my best friends were in the netball team for our primary school [ISO = MC] and we went to a tournament. [PAR]

Table 4 shows that isotaxis was the most frequent level of syntactic structure; 97 (32.65%) of the 297 clauses and phrases included it. Then, asymmetric parataxis, NF occurrence was 21.21% and ranked second. Parataxis (13.13%), Asymmetric parataxis, GAP, (12.79%) hypotaxis (11.11%), asymmetric parataxis, CMP, (7.74%), and endotaxis (1.34%) occurred in written fictional narrative written by native English speakers, respectively.

Table 4

Levels of Syntactic Architecture in English Written Fictional Narratives

Levels of Syntactic Architecture	Frequency	%
Isotaxis	97	32.65
Parataxis	39	13.13
Hypotaxis	33	11.11
Asymmetric parataxis, CMP	23	7.74
Asymmetric parataxis, NF	63	21.21
Asymmetric parataxis, GAP	38	12.79
Endotaxis	4	1.34
Total	297	

Note. CMP = complement, NF= non-finite, % = percentage

The syntactic architecture analysis of one of the personal narratives written by the

English native speakers is shown below:

CP:1 An old, sick lion lay down in his cave. [ISO = MC]

CP:2 Visitors came [ISO=MC] to pay their respects to the lion [AsPAR, NF] and wish him well, [AsPAR, GAP]

CP:3 however the well-known fox was nowhere [PAR]to be seen. [AsPAR, NF]

Furthermore, table 5 revealed that isotaxis as the most frequent level of syntactic architecture occurred in 210 (54.68%) of the 384 clauses written in Persian written fictional narrative. Parataxis included 96 (25%) clauses; the occurrence of Asymmetric parataxis, CMP was 18.22%; and asymmetric parataxis, NF was employed in 8 2.08% of the 384 clauses and phrases.

Table 5

Levels of Syntactic Architecture in Persian Written Fictional Narratives

Levels of Syntactic Architecture	Frequency	%
Isotaxis	210	54.68
Parataxis	96	25
Hypotaxis	.....	.....
Asymmetric parataxis, CMP	70	18.22
Asymmetric parataxis, NF	8	2.08
Asymmetric parataxis, GAP	.....	.....
Endotaxis	.....	.....
Total	348	

Note. CMP = complement, NF = non-finite, % = percentage

The syntactic architecture analysis of one of the fictional narratives written by a native Persian speaker is shown below:

CP:5

۱- که روباه را در مسیر دید [AsPAR, CMP]

[at that momemt saw the fox on the road]

۲- روباه در حال فرار بود [ISO = MC]

[the fox was running away]

۳- و گرگ به دنبال روباه بود {PAR}

[and the wolf was chasing him]

۴- که روباه گفت [AsPAR, CMP]

[the fox told]

۵- که در جاییکه پادشاه نشسته است [AsPAR, CMP]

[that where the king has sat]

Additionally, table 6 showed that isotaxis, the most frequent syntactic architecture level, was used in 125 (50%) of the 250 clauses and phrases whereas 6 (2.44%) clauses included endotaxis, the least frequent level. Then, asymmetric parataxis, CMP (20.8%), parataxis (7.6%), asymmetric parataxis, NF (7.2%), asymmetric parataxis, GAP (6.8%), hypotaxis (5.2%) were used in the written fictional narrative by Iranian EFL learners in the pretest, respectively.

Table 6

Syntactic Architecture in EFL Learners' Fictional Narrative as Pretest

Levels of Syntactic Architecture	Frequency	%
Isotaxis	125	50
Parataxis	19	7.6
Hypotaxis	13	5.2
Asymmetric parataxis, CMP	52	20.8
Asymmetric parataxis, NF	18	7.2
Asymmetric parataxis, GAP	17	6.8
Endotaxis	6	2.4
Total	250	

Note. CMP = complement, NF = non-finite, % = percentage

The analysis of the EFL learners' fictional narrative as pretest in terms of different levels of syntactic architecture is shown below:

CP2:

One day all animals get around [ISO = MC]

to visit him [AsPAR, NF].

Fox decided [ISO=MC] to saw the lion [AsPAR, NF].

When lion arrived there [HYPO].

He did not saw the wolf [ISO = MC]

but the wolf heard his sound [PAR].

Besides, table 7 showed that isotaxis, the most frequent syntactic architecture level, occurred in 119 (46.12%) of the 258 clauses and phrases. Then, the occurrence of asymmetric parataxis, CMP was 18.99%; hypotaxis (13.95%), parataxis (11.24%), asymmetric parataxis, GAP (6.97%), asymmetric parataxis, NF (6.58%), and endotaxis (3.10%) were respectively used in Iranian EFL learners' written fictional narrative as posttest.

Table 7

Syntactic Architecture in EFL Learners' Fictional Narrative as Posttest

Levels of Syntactic Architecture	Frequency	%
Isotaxis	119	46.12
Parataxis	29	11.24
Hypotaxis	36	13.95
Asymmetric parataxis, CMP	49	18.99
Asymmetric parataxis, NF	17	6.58
Asymmetric parataxis, GAP	18	6.97
Endotaxis	8	3.10
Total	258	

Note. CMP = complement, NF = non-finite, % = percentage

The analysis of the fictional narrative written by an EFL learner as posttest in terms of syntactic architecture is given below:

CP5:

7-He said to mistress crow [ISO = MC].

8- How well you are looking today [ISO = MC],

9-how bright your eyes [Aspar, GAP],

10- how beautiful you feather [AsPAR, GAP].

As table 8 revealed, 45.05% of the clauses and phrases included isotaxis. Then, parataxis (13.98%) asymmetric parataxis, CMP (9.84%), hypotaxis (9.32%), asymmetric parataxis, GAP (9.84%), asymmetric parataxis, NF (7.25%), and endotaxis (4.66%) were respectively employed by Iranian EFL learners to write their personal narrative as pretest.

Table 8

Syntactic Architecture in EFL Learners' Personal Narrative as Pretest

Levels of Syntactic Architecture	Frequency	%
Isotaxis	87	45.05
Parataxis	27	13.98
Hypotaxis	18	9.32
Asymmetric parataxis, CMP	19	9.84
Asymmetric parataxis, NF	14	7.25
Asymmetric parataxis, GAP	19	9.84
Endotaxis	9	4.66
Total	193	

Note. CMP = complement, NF = non-finite, % = percentage

An example of personal narratives written by EFL learners which were analyzed in terms of different levels of syntactic architecture in the pretest is shown below:

CP1:

Once upon a time when I was 3 years old [HYPO] I went to park with my mother [ISO].

I saw a doll [ISO] that it was very nice! [AsPAR, CMP]

CP2:

I said to my mother [ISO] to buy it for me [AsPAR, NF]

but my mother don't buy it [PAR].

I cried very much [ISO] but my mother don't buy it [PAR]!

Table 9 shows Iranian EFL learners made use of isotaxis in 145 (44.07%) out of the 329 clauses and phrases. Next, hypotaxis (13.67%) ranked second; parataxis occurrence was 12.76%. Asymmetric parataxis, GAP (9.11%), asymmetric parataxis, CMP (9.42%), asymmetric parataxis, NF (9.42%), endotaxis (1.51%) were respectively used by Iranian EFL learners in written personal narrative as posttest.

Table 9

Syntactic Architecture in EFL Learners' Personal Narrative as Posttest

Levels of Syntactic Architecture	Frequency	%
Isotaxis	145	44.07
Parataxis	42	12.76
Hypotaxis	45	13.67
Asymmetric parataxis, CMP	31	9.42
Asymmetric parataxis, NF	31	9.42
Asymmetric parataxis, GAP	30	9.11
Endotaxis	5	1.51
Total	329	

Note. CMP = complement, NF = non-finite, % = percentage

CP4:

We decided[ISO] to return home [AsPAR, NF].

We follow a path[ISO] to return home [AsPAR, NF].

During the path suddenly I think [ISO]

that it's not that path [AsPAR, CMP]

we came from[HYPO]. Mohammad also thought [ISO]

and said yes [AsPAR, GAP], it's not that path [ISO].

Furthermore, to answer the second question of whether there was any significant difference between Iranian EFL learners' written fictional narrative before and after receiving explicit teaching of different levels of syntactic architecture, a paired samples t-test was run.

In this regard, table 10 shows there was no statistically significant difference between the isotaxis level in the pretest ($M = 8.33$, $SD = 2.84$) and posttest ($M = 7.93$, $SD = 2.57$) because of ($t [14] = .52$), $p = .60$.

The use of hypotaxis in the pretest ($M = .8667$, $SD = .7432$) and the posttest ($M = 2.5333$, $SD = 1.8723$) showed a significant difference in EFL learners' written fables, $t (14) = -5.20$, $p = .00$. Hence, it can be deduced that teaching hypotaxis, appeared as relative and adverbial clauses, improved the EFL learners' performance in the posttest.

There was no significant difference between asymmetric parataxis, CMP level in the pretest ($M = 3.6667$, $SD = 2.663$) and the posttest ($M = 3.2667$, $SD = 1.8695$), $t (14) = .44$, $p = .66$.

In addition, no significant difference was found between the use of parataxis level in the pretest ($M = 1.26$) and the posttest ($M = 1.93$), because of $t (14) = 1.67$, $p = .11$.

Moreover, there was not any significant difference between EFL learners' written fictional narratives in the pretest ($M = .40$, $SD = .63$) and the posttest ($M = .53$, $SD = .39$) based on endotaxis level, $t (14) = -.69$, $p = .49$.

There was not any significant difference between EFL learners' written fictional narratives in the pretest ($M = 1.13$, $SD = 1.24$) and the posttest ($M = 1.20$, $SD = 1.52$)

based on asymmetric parataxis, NF, $t(14) = -.18, p = .86$.

Additionally, there was no statistically significant difference between the mean of asymmetric parataxis, GAP level in the pretest ($M = 1.1333$) and the posttest ($M = 1.2000$) because of $t(14) = -.18, p = .86$.

Table 10.

Paired t-test Related to EFL Learners' Written Fictional Narrative

Levels of Syntactic Architectur	Paired t test					
	Mean	Std Dev	S.E. mean	t value	df	Sig(two tailed)
Isotaxis-pre/post	.400	2.94	.760	.526	14	.607
Hypotaxis-pre/post	.1.66	1.23	.318	-5.22	14	.000
Aspar, CMP-pre/post	.400	3.48	.898	.445	14	.663
Aspar, NF-pre/post	.0666	1.83	.472	.141	14	.890
Aspar, GAP-pre/post	133	.743	.191	-.180	14	.860
Parataxis-pre/post	.666	1.43	.371	-1.673	14	.116
Endotaxis-pre/post	.666	1.54	.398	-.695	14	.499

Note. pre = pretest, post = posttest, Aspar, CMP = asymmetric parataxis, complement, Aspar, NF = asymmetric parataxis, nonfinite, Aspar, GAP = asymmetric parataxis, GAP

In this sense, a paired samples t-test was run to answer the second question of whether there was any significant difference between Iranian EFL learners' written personal narrative before and after receiving explicit instruction of different syntactic architecture levels.

As table 11 shows, the isotactic level, used in the pretest ($M = 5.80, SD = 2.75$) and the posttest ($M = 9.66, SD = 4.56$) demonstrated a significant difference in EFL learners' written personal narrative based on the use of isotaxis level ($t[14] = -3.18$), $p = .007$. It was concluded that after receiving instruction, the EFL learners outperformed in their posttest in their written personal narrative.

The difference between the use of hypotaxis in the pretest ($M = 1.20, SD = 1.08$)

and the posttest ($M = 3.00$, $SD = 1.46$) was significant, $t(14) = 3.60$, $p = .003$. The EFL learners made use of more hypotaxis level in their posttest.

Furthermore, asymmetric parataxis, CMP level used in the pretest ($M = 1.26$) and the posttest ($M = 2.13$) demonstrated no significant difference in EFL learners' performance in written personal narrative ($t[14] = -3.60$), $p = .003$.

Besides, no significant difference between the use of parataxis level in the pretest ($M = 1.93$, $SD = 1.38$) and the posttest ($M = 2.80$, $SD = 1.89$) was found in EFL learners' written personal narrative ($t[14] = 1.62$), $p = .33$.

Based on endotaxis level, there was no significant difference between written personal narratives in the pretest ($M = .66$, $SD = .89$) and the posttest ($M = .33$, $SD = .61$) because of $t(14) = 1.58$, $p = .13$. It can be inferred that the explicit teaching of this level did not lead the learners to use it in the writing of their memories.

There was not any significant difference between EFL learners' written fictional narratives in the pretest ($M = .93$, $SD = .88$) and the posttest ($M = 2.13$, $SD = 1.24$) based on asymmetric parataxis, NF, $t(14) = 2.88$, $p = .012$.

No significant difference was found between asymmetric parataxis, GAP, used in the pretest ($M = 1.20$, $SD = 1.26$) and the posttest ($M = 2.06$, $SD = 1.26$) in EFL learners' written memories ($t[14] = 1.71$), $p = .10$.

Table 11

Paired Samples t-test of the Iranian EFL Learners' Personal Narratives

Levels of Syntactic Architecture	Paired t test					
	Mean	Std Dev	S.E. mean	t value	df	Sig(two tailed)
Isotaxis-pre/post	-3.66	4.70	1.21	-3.18	14	.007
Hypotaxis-pre/post	-1.80	1.93	.499	-3.60	14	.003
Aspar,CMP-pre/post	-1.80	1.93	.499	-3.60	14	.663
Aspar,NF-pre/post	-1.20	1.61	.416	-2.88	14	.890
Aspar,GAP-pre/post	-.866	1.95	.505	-1.71	14	.109

Levels of Syntactic Architecture	Paired <i>t</i> test					
	Mean	Std Dev	S.E. mean	<i>t</i> value	<i>df</i>	Sig(two tailed)
Parataxis-pre/post	-.866	2.06	.533	-1.62	14	.116
Endotaxis-pre/post	.333	.816	.210	1.58	14	.136

Note. pre = pretest, post = posttest, Aspar, CMP= asymmetric parataxis, complement, Aspar, NF = asymmetric parataxis, nonfinite, Aspar, GAP = asymmetric parataxis, GAP

6. Discussion

After comparing the Persian and English written personal narratives, it was revealed that isotaxis level, ranked first, was the most frequent syntactic structure in personal memories produced by both Persian and English native speakers. It seems they told their memories orally, but they made use of orthographic symbols of their languages (Persian and English alphabet) to express their experiences on paper. Thus, the isotactic level, seen more in the spoken mode of language, was prominent in Persian and English native speakers' written personal narratives. The use of isotaxis level may (a) help them convey a sense of independence and success since the life story has to evaluate a point about the speaker rather than the world or others (Linde, 1993), (b) make the reading of the text easy and understandable for the readers, and (c) lessen readability problems and the readers' interest loss.

The Iranian and English participants of the present study wrote one of their happiest memories, not just a report of a sequence of events in the past, but the expression of their happy emotions to share with others through the use of simple sentences as isotaxis level, compound sentences as paratactic pattern, adverbial and adjective clauses as hypotaxis level, and other levels of syntactic architecture to express their happy emotion and attract the readers' attention to their stories. To Labov and Waletzky (1967), the narrative has two dimensions: (1) referential which deals with information content, the inclusion of key events and characters, the connection of causal sequences, and the resolution of the problem, and (2) evaluative (affective) which concerns with the value of the event and emotion providing the meaning and significance of the story. The storyteller utilizes different means from

every level of linguistic structure (phonology, lexicon, syntax, and discourse) to highlight the points of their story (Polanyi, 1982). It seems that such emotions as happiness, sadness, anger, fear, etc., transferred via narratives, may determine different levels of syntactic architecture in personal narratives. Hudson et al. (1992) found that the emotion about which the participants were asked to talk greatly affects the structure of narratives. Happy personal memories, for instance, are descriptive rather than providing a plotted story about the occurred events (Hudson et al., 1992). Therefore, Persian native speakers employed isotactic and paratactic levels, and English native speakers made use of isotactic and hypotactic levels along with other syntactic levels to describe the positive emotions for a situation in their lives. Contrary to the English written personal narratives expressing conflict moments (argument and disagreement), being largely hypotactic (Berman & Nir-Sigav, 2009), the English written personal narratives expressing the happiest moments were highly isotactic. It can be stated that "emotions are not created equal" (Fivush, 1998, as cited in Peterson & Biggs, 2001, p. 806), and "in fact, narratives about emotions that have the same valence may be quite different" (Peterson & Biggs, 2001, p. 806).

In other words, the negative and positive emotions may directly affect the choice and the use of different levels of syntactic architecture in the production of written personal narratives by native speakers of any language. From a cognitive linguistics perspective, it is assumed that language and emotion are not directly connected, and cognition functions as an intermediate between them; cognition first conceptualizes emotion, and then reflects in language (Foolen, 2012). The reflection of emotion in language via cognition may be done by the use of different levels of syntactic architecture. It can be explained that "comprehension of discourse is facilitated whilst in a congruent emotional state and inhibited whilst in an incongruent state" (Majid, 2012, p. 440). The use of simple sentences and compound sentences as indicators of isotaxis and parataxis levels may facilitate the expression and comprehension of such a congruent emotion as happiness in the written narrative discourse.

Moreover, the language typology (synthetic or analytic) may also affect the use of different levels of syntactic architecture. Therefore, isotactic and paratactic levels are dominant in written Persian personal narratives because Persian belongs to synthetic (paratactic) languages, which "refers to the typological property of a language in

which such function words as conjunctions, conjunctive adverbs, and prepositions (and postpositions) are very often not used or required to denote logical and semantic relationships between elements within sentences" (Yu, 1993, p. 1) , and large numbers of bound morphemes are used (cook, 1993) while isotactic and hypotactic levels are prominent in written English memories due to analytic typology of English language using very few bound morphemes (Barber, 1993).

Besides, the comparison of Persian and English personal narratives written by the native speakers revealed, that unlike native English speakers, who use all five levels of syntactic structure in their personal writing, native Persian speakers never employed "hypotaxis", "endotaxis", and "asymmetric parataxis, GAP" in their memory writing. Lack of hypotaxis likely results from the type of Persian grammar. Contrary to English, there is no relative pronoun to introduce relative clauses in Persian (Taleghani, 2008); such complementizer as "ke" is used to introduce a relative or an appositive clause (Mohammad & Taleghani, 2005, as cited in Taleghani, 2008), and "ke became the general complementizer" (Windfuhr, 2009, p. 35). It can be concluded hypotaxis level cannot be found in the personal narratives written by native Persian speakers due to the introduction of adjective and adverbial clauses by the conjunction "ke" as a complementizer.

No asymmetric parataxis, GAP level was found in narratives written by Iranians since the Persian language belongs to pro-drop languages, allowing the omission of subject from the beginning of the sentence (Jalalivand et al., 2017) because of being rich in inflectional morphemes added to the end of the verbs to indicate the subject. English, however, is a non-pro-drop language, permitting the omission of the subject (Cook & Newson, 1996).

The prominent feature of the fables is their succinctness, which directly affects the levels of syntactic architecture through which the events of the story are expressed to convey the ideas and meaning behind the fables. In written fictional narratives by native English speakers, this conciseness was demonstrated by using asymmetric parataxis, NF, and asymmetric parataxis, GAP, following from the analytic typology of the English language. The Persian fables are also short, but 'hypotaxis', 'endotaxis', 'asymmetric parataxis, GAP', and asymmetric parataxis, NF were not

used in Persian native speakers' rewritten fables due to the Persian language being a synthetic, pro-drop, and inflectionally rich language,

In written fictional narratives, it seems that the EFL learners' level of language proficiency was a determinant of using certain levels of syntactic architecture. The first three frequent levels in the pretest were isotaxis (simple sentences), asymmetric parataxis, CMP (complementary clauses), and parataxis (compound sentences) and the last three less frequent levels were asymmetric parataxis, NF (infinitive, gerund, and participle phrases), asymmetric parataxis, GAP, (clauses with same-subject ellipses or verb gapping), hypotaxis (complex sentences: adjective and adverbial clauses), and endotaxis (compound and complex sentences).

It is thought that EFL learners pass through three stages to write in L2: first, they produce simple sentences as independent clauses (isotaxis); in the next stage, those simple sentences (isotaxis) are connected by coordination to make compound sentences (parataxis), and then by subordination to make complex sentences (hypotaxis); in the last stage, the complexification of noun phrases like making infinitive, participle, and gerund phrases (asymmetric parataxis, NF) occurs (Bardovi-Harlig, 1992; Norris & Ortega, 2009; Wolfe-Quintero et al., 1998). Thus, the higher number of simple and compound sentences (isotaxis and parataxis) in written fictional narratives in the pretest resulted from the participants' level of language proficiency (elementary level). EFL learners taking part in the present study passed the first and to some extent the second stage of syntactic complexity development, and they could not produce sub-clausal complexification at the phrasal level. According to Bartning and Schlyter (2004), the sequence of acquiring subordinate clauses begins with an adverbial clause, followed by complement clauses, and finally, relative clauses are required.

Besides, the role of L1, transfer from L1 to L2, and variations across Persian and English cannot be neglected in the process of writing in L2. To Kuiken and Vedder (2019) the effect of cross-linguistic variation in terms of basic structural differences between languages and different stylistic preferences on syntactic complexity should be taken into account.

After receiving explicit teaching of different levels of English syntactic

architecture, the use of adverbial and adjective clauses (hypotaxis) increased, reached from fifth rank in the pretest to the third rank in the posttest, and replaced the compound sentences (parataxis). This increase can be explained based on (a) the awareness which Iranian EFL learners received in terms of the syntactic differences between the Persian and English language, and (b) “Zone of Proximal Development” (ZPD) which emphasizes the importance of others, more competent peers, and adults who enable learners to do what they cannot do alone (Dunn & Lantolf, 1998; Kinginger, 2001; Slavin, 2003). The explicit teaching of different levels of syntactic architecture functions as appropriate stimuli to fill the distance between the learners’ “existing developmental state to their potential development” (Brown, 2007, p. 13).

Complementary clauses (asymmetric parataxis, CMP) were frequently used in the EFL learners’ fictional narrative posttest because of many direct and indirect speeches, questions, and requests in fiction the reporting of which will contribute to the increase of asymmetric parataxis, CMP and asymmetric parataxis, NF (Stepan, 1983) and genre (narrative, persuasive, descriptive, argumentative, etc.) which affects the use of different levels of syntactic architecture in addition to the variation across languages, levels of language proficiency, and the role of L1, (Beers & Naggy, 2011; Zhang & Liu, 2021; Xu, 2021). Beers and Nagy (2011) found more clauses per T-units and subordination was more in the persuasive genre than such genres as narrative, descriptive, and argumentative; it was also shown that the descriptive genre had more words per clause, which was the indicator of denser syntax of the academic register than the persuasive, narrative and argumentative genre. Zhang and Liu (2021) showed the effect of genre on L2 linguistic complexity. Comparing translational and non-translational English across four genres (fiction, news, general prose, and academic) showed that phrasal complexity as coordinate and nominal phrases were employed more in translational fiction and news, whereas subordination was the main level of complexity in translational general English prose (Xu, 2021)

Regarding written personal narratives, isotaxis and parataxis levels were common in both the pretest and the posttest, ranked first and second, respectively. Iranian EFL learners made use of isotaxis (simple sentences) and parataxis (compound sentences) more than the other syntactic levels in their both the pretest and posttest, resulting from the point that (a) personal narrative gets out of conversation which is regarded

as a spoken discourse (Titon, 1980); (b) although the participants wrote their personal experiences, they imagined themselves in the situation similar to the conversation and wrote as they told their stories before an audience, made their written personal narratives in both the pretest and posttest similar to the spoken mode and full of simple linear structures, paratactic patterns, and limited subordination (Horowitz & Samuels, 1987); and (c) personal narrative is about the personal story of someone's life or a significant part of that life (Titon, 1980) which can include great turning points and insignificant details of their experiences of their lives (Degh, 1985); therefore, the use of isotactic and paratactic levels helps EFL learners at the elementary level of language proficiency to express the facts or their opinions in an understandable and clear way.

In the pretest written by EFL learners at the elementary level of language proficiency, asymmetric parataxis, CMP, and symmetric paratraxis, GAP, were frequently employed and came third. It may result from the interlingual transfer and the lack of relative pronouns in Persian, making it difficult to distinguish between relative pronouns introducing adjective clauses and subordinating conjunctions coming before adverbial clauses. After receiving explicit instruction based on different types of sentences in English, the hypotaxis level referring to the use of adverbial and adjective clauses increased drastically and ranked second in the posttest. It may follow from the point that the explicit instruction filled "the metaphorical space between learner's current level of development and the next level" (Gregg, 1984; White, 1987, as cited in Brown, 2007, p. 297).

6. Conclusion

The present study aimed to explore the narrative connectivity (Berman & Nir-Sagiv, 2008) across three different discourse communities, i.e., Persian native speakers, English native speakers, and Iranian EFL learners; besides, it examined the effect of explicit teaching of those syntactic architecture levels as different types of sentences on Iranian EFL learners' written personal and fictional narratives. Discourse communities refer to groups of people with certain goals and purposes who share a set of values and assumptions; communication enables them to achieve those goals

(Brog, 2003; Swales, 1990). Based on the findings of the present study, it can be claimed that language typology (synthetic/analytic) along with the goals and purposes of the discourse community may lead to the use of specific levels of syntactic architecture to exchange information, negotiate meaning, interact with each other, and express their feelings and emotions. For instance, native Persian speakers' written personal narratives were dominantly isotactic and paratactic due to Persian synthetic typology, while native English speakers' written personal narratives were rich in isotactic and hypotactic levels because of the English language analytic typology. The pretest of Iranian EFL learners at the elementary level of language proficiency also included isotaxis and parataxis levels, reflecting the Persian syntactic architecture pattern transfer due to their unfamiliarity with different levels of English syntactic pattern. It can be stated that the language typology affects its users as the habitants of a discourse community to make use of particular levels of syntactic architecture; the linguistic determinism hypothesis argues that language and its structures limit and determine human knowledge or thought (Hickmann, 2000), and people's thought processes are under the influence of their L1.

In addition to the variation across languages, genres, and their sub-genres also affect directly the use of different levels of syntactic architecture, appear as different types of sentences in the written Persian and English fictional and personal narratives. In written personal narratives, whether in Persian or English, simple and compound sentences were frequently used whereas asymmetric parataxis, CMP was more prominent than parataxis level in Persian and English written fictional narratives. Another factor affecting the use of syntactic architecture is emotion. In the present study, happiness as a congruent emotion, may determine the levels of syntactic architecture used to narrate the memories. Written English narratives representing conflict, for instance, were hypotactic (Berman & Nir-Sagiv, 2009), while those showing happy events were dominantly isotactic. It can be said that different types of emotion whether positive or negative put different cognitive pressure on the individuals to make use of different levels of syntactic architecture in their written personal or fictional narratives. All in all, each discourse community makes use of particular levels of syntactic architecture to express their thoughts, feelings, or emotions. It can be claimed that the types of language (analytic or synthetic), mother

tongue, the target genre(s) and sub-genre(s), emotion, and the level of language proficiency are the determining factors in the use of syntactic architecture at different levels.

6. Limitations and Suggestions for Further Research

This study is limited in that the researcher had limited access to the English native speakers and EFL learners at different levels of language proficiency; therefore, the number of participants in each group was not balanced. Next, the educational level of Persian native speaker and English native speakers was not taken into consideration. Additionally, the study is limited in that the effect of explicit teaching of different levels of narrative connectivity on textual competence and the development of EFL learners' writing ability was not taken into account.

To enhance future research, syntactic complexity can be explored in other narrative genres like novels, short stories, anecdotes or personal memories that show other emotions such as anger, fear, sadness, conflict, etc. Moreover, the relationship between the use of syntactic complexity levels and gender, age, educational levels, learning strategies, learning and cognitive styles can be examined.

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