On the Notion of *Equivalence*:
Coordinated Constructions in Narrative Discourse

M.A. Thesis submitted

by

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Prepared under the guidance of

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Abstract

We all have strong intuitions about a connection between Coordination and the notion of "equivalence" (Hebrew: שקולות, שלילות). This is reflected by the fact that researchers often use terms like ‘parallelism’, ‘similarity’, or ‘symmetry’ when providing structural definitions of coordinated constructions (e.g., Azar 1977; Haspelmath, 2007; Van Valin 1990).

Certain questions, such as the following, remain unaddressed in this connection: (1) What exactly is meant by "equivalence"? (2) What components go to make up structural equivalence? (3) Are all coordinated constructions equivalent?

The present study aims to refine the notion of "equivalence" between two or more clauses combined by processes of coordination. Following Reinhart’s (1995) idea of equivalence as a means of narrative evaluation, I apply a set of carefully defined criteria to examine the equivalence relations between what Haspelmath terms coordinands in coordinated constructions occurring in a naturalistic sample of orally elicited Hebrew narratives.

Analysis was applied to 300 coordinated constructions from three narrative samples (Picturebook-based narratives, Picture-series-based narratives, and Personal-experience narratives) and its main goal was to shed light on the relationship between coordinated constructions and the notion of equivalence by examining whether and, if so, how and to what degree, structural equivalence constitutes an organizing principle for processes of coordination in Hebrew narratives.

The results of this study show that irrespective of narrative genre – equivalence scores of coordinated constructions come to around one-third of the maximal possible equivalence score. This finding raises a question as to the importance of structural equivalence as a characteristic of coordinated constructions.
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1. **Topic**

People have a powerful intuitive sense of a connection between Coordination and the notion of *equivalence* (Hebrew: ֶקָּלַע, *שקילות*), reflected by the fact that researchers often use terms like ‘parallelism’, ‘similarity’, or ‘symmetry’ when providing structural definitions of coordinated constructions (= CCs).

On the other hand, questions such as the following, remain unaddressed in this connection: (1) What exactly is meant by "equivalence"? (2) What components go to make up structural equivalence? (3) Are all coordinated constructions equivalent?

The present study aims to refine the notion of *equivalence* between two or more clauses combined by processes of coordination, by examining the relation between the units occurring in such constructions, following Haspelmath (2007) its *coordinands*, in elicited oral Hebrew narratives.

2. **Theoretical and Research Background**

The notions of coordination and of equivalence are discussed below in relation to relevant research literature (Sections 2.1 and 2.2 respectively).

2.1 Domain of Analysis: Coordinated Clauses

The study concerns Coordinated Clauses as syntactic constructions in which two or more elements “of the same type” – in a sense to be more precisely specified in the study – are combined, usually using a coordinating conjunction or, again following Haspelmath, a *coordinator*, e.g.: Hebrew *ve*, *avâl*, ’o to create a larger unit of discourse.
Processes of Coordination can occur at various levels of structure:

- **Word level**: *ha-yeladîm ve-xavreyhêm nosîm letayêl*

- **Phrase level**: *hayîti carîx lehitrocêc ba- rakêvet ve- be- ‘otobûsim ve- be trêmpim* <pers04> ¹

- **Clause level**: *hu paxâd la'avôr 'et ha- gadêr] ’az hu ‘acår* <pictH03>

The focus of the present analysis is on combination of two or more clauses, functioning in the domain of clause-linkage as a means for constructing complex syntax (Haiman & Thompson, 1988). Methodologically, clauses are divided by set criteria, along the lines stipulated in cross-linguistic narrative research for different languages including Hebrew in Berman & Slobin (1994, pp. 660-662), and as further agreed on in consultation with the research team in Prof. Berman's laboratory, that is working on other topics in the data-base considered here.

In contrast to previous studies, concern here is not only with Main Clauses, in the sense of syntactically independent units, as is the accepted procedure in the bulk of linguistic research in the domain of coordination. ² The present study deliberately also considers coordinated constructions inside of different types of subordinate clauses – Relative, Adverbial, and Complement – as in the following example (1) of two clauses coordinated inside a Relative Clause.

¹ (i) Hebrew data are entered in broad phonemic transcription, including stress markings on the relevant syllables. Grammatical elements prefixed orthographically to the next word in Hebrew that typically are represented by separate words in English are indicated by a hyphen (so-called *mošê ve-kalev*) standing for the definite article ha-, the prepositions meaning ‘in, from, to, as’, and the conjunctions ve ‘and’, and se- ‘that’. In glosses, items in parentheses do not occur in the Hebrew original. (ii) Clause boundaries are indicated by a square bracket [ ] . (iii) Items in angled <…> brackets refer to the particular piece of narrative discourse from which the example is lifted, as detailed in Section (4.1) below, while the serial number indicates to the order of the participant in that group.

² An exception is Grosu’s (1973) analysis of coordinations in Relative Clauses.
Moreover, again in contrast to most prior analyses, the topic is considered in terms of actual usage, not invented examples, in the context of authentic, non-literary narrative discourse, so providing for text-embedded analyses beyond the more accepted boundaries of biclausal sentences.

Three levels of inter-clause dependency were specified in terms of the relation between the referents of the Subject constituents of each coordinand – as different, co-referential, or elided. Note that for present purposes, it was decided not to take into account the Hebrew-specific case of verbs inflected for past or future tense for 1st and 2nd person, given the controversial nature of the syntactic status of their subject constituents – including in the case of coordinated constructions (Berman, 1990; Azar, 1977). Example (2) is of coordinand clauses with non-coreferential subjects – labeled DS for Different Subject.

(2) **hu' nimrāx kulō] ve- bazō't nigmerā ha- merivā**)] <pers02>

The subjects of **hu' 'he'** and **ha- merivā 'the fight'** refer to two distinct entities, hence are tagged as DS. Same Subject coordinands (SS) refer to the same entity, realized lexically or, most often, by pronominalization, as in the relation between **yanšūf** and the pronoun **hu** in (3).

(3) **yacā mi- šāma yanšūf] ve- hu af lemāta]** <book07>

A third type of relation between coordinand subjects is of so-called “equi-NP deletion”, termed here SSE for Same Subject Elision, where the second, coreferential subject is not mentioned, as in (4).
The subject of the first clause in (4), Pōni ha-sus ‘Poni the horse’ is semantically the same as the subject of the predicate in the second clause, hīgā (‘arrived, 3rd person’), so allowing for (although not requiring) elision in the grammar of Hebrew. In fact, such constructions are accorded a special status in Hebrew grammars, with what is sometimes termed “predicate coordination” constituting a subcategory of the notion of kolelīm (כוללים) – inclusives. Some researchers consider such constructions to represent the coordination of two VPs, while others analyze it as the coordination of two clauses (Azar, 1977; Sadqa, 1997). The latter view is adopted here, since a clause in the present analysis is specified as the realization of a single event (termed by Berman and Slobin, 1994, “a unified predication”) so that SSE represents the coordination of two clauses. The example in (4) encodes two distinct events – that of the horse running and that of the horse reaching the fence – so that it represents the coordination of two separate clauses rather than of two VPs.

2.2 The Notion of Equivalence

The term “equivalence” in a conventional dictionary entry is typically given a circular definition such as “The condition of being equal or equivalent in value, worth, function, etc.” (Oxford Online Dictionary), while the Thesaurus.com website lists the following as synonyms of the term: “alikeness, correspondence, equality, symmetry, harmony, parallelism, etc.” In other words, while some sense of “sameness” is involved, it appears difficult to find clear and explicit specifications of what exactly is involved by entities described as being equivalent or as entailing a relation of equivalence between them.
Terms like symmetry, parallelism and equivalence are often used in the context of the topic of syntactic coordination. Recognized as a leading researcher in this domain, Haspelmath (2007) stipulates that “In a coordinated construction of the type A-link-B (where A and B are sentences), A and B are in some sense structurally symmetrical” in contrast to subordinated constructions, which he defines as instances where “A and B are not symmetrical, but either A or B is the head and the other element is a dependent”. Importantly in the present context, Haspelmath further stipulates that “Each coordinand must be of the same type within a coordinate construction”. To demonstrate this claim, he compares the following two sentences:

a. You were right and I was mistaken

b. *Peter wrote a letter of protest and to the Pope

He proposes that (b) is “ungrammatical, because the coordinands are syntactically different (NP vs. PP)”.

The notion of equivalence is also explicitly involved in Van Valin’s (1990) more functionally oriented definition, where CCs are viewed as representing “a whole-whole equivalence relation between two independent clauses”.

Relatedly, a range of Hebrew grammars refer to coordinated sentences (termed alternately in Hebrew mišpāt me’uxē or mišpāt me’uxē) as two independent components which are parallel and conjoined to one another (Azar, 1977; Perez, 1943), while Sadqa (1997) points to the fact that “the two parts of such constructions are parallel because they both contain a subject and a predicate” as in examples (5), (6).
In the definitions cited above, the italicized elements are all in some way synonymous with or at least close in meaning to the notion of “equivalence”, including such expressions as: “in some sense structurally symmetrical”, “of the same type, equivalence relation”, and “parallel”.

This pervasive reliance on expressions such as these in definitions of syntactic coordination indicates that equivalence is a recognized factor in syntactic coordination, suggesting that it may function as an organizing principle of coordinated constructions.

2.3 Equivalence in Coordination

However, various definitions of syntactic coordination in both English and Hebrew, from different perspectives, leave several unanswered questions when the topic is considered in the context of actual usage, such as the following.

- In general, what exactly is meant by terms like 'equivalence', 'symmetry', 'similarity'?
- Is there only one level of parallelism – or can different instances be perceived in terms of various degrees ranged on a continuum?
- Do syntactic similarities alone suffice to determine structural equivalence? What about prosodic and/or lexical sameness / similarity?
- Must both clauses in a coordinated construction contain a subject and predicate, as claimed by Hebrew grammarians, and if so, is the subject
necessarily overt? How is equivalence affected, if at all, by the presence or
absence of an overt surface subject?

- Are the component clauses of a coordinated construction necessarily
  *independent* – and if so, in what sense precisely?

Issues like these are illustrated from the narrative data-base by examples (7) to (9),
each of which is followed by a sample analysis of the structure of its coordinands
labeled A and B.

(7) A. *hu omēd meʾever la- gadēr]*

  B. *ve- šokēl] ūm liqūc la- cad ha- šeni] šam nimcā par]* ³ <pictH01>

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 clause</td>
<td>3 clauses</td>
<td>EQUIVALENT?</td>
</tr>
<tr>
<td>Main Clause</td>
<td>Main Clause] Complement</td>
<td>SAME TYPE?</td>
</tr>
<tr>
<td>Clause]</td>
<td>Relative Clause]</td>
<td></td>
</tr>
<tr>
<td>Sbj: <em>hu</em></td>
<td>Sbj: no overt subject</td>
<td><strong>B: NO SUBJECT, INDEPENDENT?</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In order to understand the second clause we MUST rely on the first clause. If so, then the second coordinand is not independent</td>
</tr>
</tbody>
</table>

³ The coordinands are labeled A and B, following Haspelmath.
(8) A. ha- sus šelānu 'osē ma'asē amīc]

B. ve- kofēc] [pictH01]

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 words</td>
<td>1 word</td>
<td>EQUIVALENT?</td>
</tr>
<tr>
<td>Sbj: ha- sus šelānu</td>
<td>Sbj: no overt subject</td>
<td>B: NO SUBJECT, INDEPENDENT?</td>
</tr>
<tr>
<td>Pred: 'osē ma'asē amīc</td>
<td>Pred: kofēc</td>
<td>Semantically, the predicate in B specifies the content of the predicate in A</td>
</tr>
</tbody>
</table>

(9) A. yacā mi- šāma yanšūf]

B. ve- hu af lemāṭa] [book07]

A further problem is revealed by example (9), in which the two coordinands differ in the feature of word order – A has VS word order, while B has SV order. Can these two coordinands then be defined as parallel to each other in the same way and to the same degree as the coordinands in examples (7) and (8), where both clauses have either VS or SV order? Further, how does the case in (9) compare with those in (7) and (8), where SV in A is coordinated with V alone in B?

2.4 Equivalence in literary analysis

The point of departure for the present study in addressing some of these issues derives from Reinhart’s (1995) discussion of the idea of equivalence (שקילות). As background, she uses Jakobson’s (1960) ideas on the poetic function of equivalence. For Jakobson, 'equivalence' is a very broad notion that incorporates a range of different patterns, including: repeated sound patterns (rhyme and meter), syntactic correspondences, and
semantic equivalences (analogy, contradiction, and figurative language). Jakobson regards the main role of equivalence patterns as serving an aesthetic function.

Reinhart (1995) uses these ideas of Jakobson as the basis for the discussion of narrative evaluation – proceeding beyond her earlier (1984) study of the topic and as part of her criticism of Labov’s (1972) strictly structure-based definition of evaluative clauses. Reinhart identifies several different types of narrative evaluation, the first of which is what she terms “repetition (equivalence)”. Under the label of repetition, she distinguishes three types of equivalence relations – full repetition, syntactic repetition, and semantic equivalence – as illustrated by Reinhart in (10) through (14) below.  

Full repetition is further divided into two subcategories – lexical and phonological.

(10) Full lexical repetition (sentence-level)

\[ ve \ anî \ histalâktî \ me- \ beet \ sæfer \ yom \ exăd, \ anî \ histalâktî \ me- \ beet \ sæfer, \]
\[ ben \ adâm \]

A second type of “full repetition” takes the form of phonological repetition, including meter, rhyme, and sound segments (in Hebrew, typically consonantal). In (11), the rhyming final syllable stands for the repeated bound possessive suffix meaning ‘his’ and in (12) the same consonantal root is repeated in two adjacent words, one an adverb and the other an adjective.

(11) Full Phonological repetition (rhyme, word-endings)

\[ laxaluîn \ lirșutô, \ tâxat \ xasutô, \ axšâv \ hi \ šelô \]

(12) Full Phonological repetition (shared root consonants)

\[ dibrâ \ xilônît, \ xûûn \ halâyla \]

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4 Reinhart’s examples are taken from Modern Hebrew literature, including prose and poetry, as specified in her paper (1995), pp. 13-15.
Perhaps most relevant to the current study is what Reinhart terms “syntactic repetition”, alternatively termed “parallelism”, to refer to repetition of the same syntactic structures – phrasal or clausal – as illustrated in (13).

(13) Syntactic Repetition (headless relatives)

\[
\text{mi-še- ne’ekār min ha- maxrešā ...] mi-še- tultāl le- xan ...]
lo yuxāl še- lo leharhēr]
\]

Reinhart’s third type of equivalence – semantic equivalence – refers to repeated elements with shared meaning or content. Since the repeated terms are semantically the same or only similar, not necessarily identical or fully synonymous, Reinhart labels such cases as representing relations of ‘equivalence’ or ‘congruence’ rather than 'repetition'. (14) is the example she gives of a sequence of three clauses that are semantically equivalent.

(14) Semantic Equivalence

\[
'\text{avāl hi haytā mispār xazāk} \text{'ita} \text{lo hayū šum xoqmōt} \text{hi sāma ba- kis}
\text{et kol ha-axīm šelā}]
\]

These three clauses in (14) do not share any lexical items or even syntactic structure, but they express the same ideas, hence serving, for Reinhart, the evaluative function of intensification by reinforcing the same semantic content.

In identifying factors of structural equivalence for purposes of the present study, Reinhart’s categories of full (lexical and phonological) equivalence as well as syntactic parallelism (phrasal or clausal) both played a role. Semantic factors are considered here from a rather different perspective, as further discussed below.
3. **Aims of Study**

As noted, researchers often use terms like ‘parallelism’, ‘similarity’, or symmetry when providing structural definitions of coordinated constructions. However, they generally fail to provide a clear specification of how equivalence is linguistically realized, nor is it clear whether all CCs are by definition structurally equivalent. Against this background, the study has the following goals: (1) to provide a more fine-tuned specification of the notion of equivalence in the context of syntactically coordinated constructions; (2) to clarify the factors that play a role in creating structural equivalence by examining CCs that occur in the context of extended (narrative) discourse; and (3) perhaps most importantly, to shed light on the relationship between coordinated constructions and the notion of equivalence in Hebrew narratives.

4. **Method**

To meet these aims, a data-base of 30 oral narratives produced by native speakers of Israeli Hebrew was analyzed by means of a set of analytical categories devised specifically for this study.

4.1 **Data Base**

The data-base for analysis consists of three different types of oral narratives, out of which a total of 300 coordinated constructions were analyzed according to the categories detailed in (4.2) below. The three samples are as follows:
(1) **Personal-experience narratives** - relating to veridical events in the narrators’ own history and dealing with the topic of conflict situations, on the basis of elicitation procures described in Berman (2003), Berman & Ravid (2009) – designated below as <pers>.  

(2) **Picture-series-based narratives** - replicating in Hebrew the Hickmann (2003) series of cross-linguistic studies – and depicting two short series (five and six pictures long) of events with animal protagonists, labeled as <pictC> for the series about a cat and <pictH> for the series with a horse as protagonist (See Appendix I).

(3) **Picturebook-based narratives** - based on the Hebrew sample of the Berman and Slobin (1994) cross-linguistic “frogstory” study, where participants were required to relate the contents of an adventure story about a boy in search of his lost frog as depicted in a 25-picture booklet without words, labeled <book>.

The study includes 300 coordinated constructions, 100 from each of the three samples. All participants are young adults in their 20 to 30s, well-educated native-speakers of Hebrew from monolinguial, middle-class backgrounds.

**4.2 Categories of Analysis**

In order to provide a more precise and in-depth characterization of the notion of equivalence as realized in different types of Coordinated Constructions in Hebrew, the topic is approached from several different, possibly interrelated, perspectives – along lines consistent with Reinhart’s multifaceted view of the idea of equivalence in literary narratives. To this end, three main categories of equivalence are examined: Syntactic,

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5 Collection of this data-set was funded by a grant from the Israel Science Foundation (ISF) to Ruth Berman and Dorit Ravid for the study of The Oral/Literate Continuum.
Phono-morphological, and Lexical, specified on two, possibly interrelated, tiers of (1) framing and (2) component categories.

4.2.1 Framing categories

These are based on the type of construction analyzed, dictated by the topic or content of a particular piece of narrative discourse, involving three factors which together constitute the frame of reference for analysis of coordinated constructions:

i. Subject Reference: Non-Coreferential = Different Subject (DS), Co-referential overt = Same Subject (SS), Co-referential elided = Same Subject Elision (SSE) – as illustrated in (2.1) above.

ii. Lexical coordinators: Coordinating conjunctions (Hebrew ve, avāl, 'o)

iii. Narrative semantics, Temporality: Two types of temporal relations between clauses were defined for narrative discourse: (a) sequential [+SEQ] – clauses are presented in the same order as the events they describe and (b) simultaneous [SIM] – the clauses described events that co-occur or overlap in time (Aksu Koc & von Stutterheim, 1994; Berman & Slobin, 1994; Labov, 1972). 6 These relations are illustrated in (15) and (16) below.

(15) menahēlet ha- maxlakā šelā higīa] ve- servā leafšēr et haflalēt ha-

ovēdet] <persA12>

[+SEQ] the event in the second clause occurred directly after the one in the first clause, thus, first, the head of the department arrived; and, second, (after arriving) she refused to agree to something that was supposed to happen.

6 A third logical possibility is of non-sequential relations, such that an earlier occurring clause describes a later occurring event, but these are known to be extremely rare, and were almost totally absent from the data-base analyzed here.
The events in both clauses express temporal overlapping, with the two events occurring together: 1st clause – the cow looks at him in wonder; 2nd clause – and (at the same time) the bird considers what she can do.

Note that, unlike the Component categories described below, the Framing categories do not in themselves indicate whether or in what way a construction entails equivalence relations. Rather, it is assumed that their values might have an effect on the nature of equivalence between two or more coordinands.

4.2.2 Component categories (dependent variables)

This tier of analysis involves factors that constitute components of “equivalence” between two or more coordinated clauses. These represent expressive choices of the narrator divided between three structural categories of equivalence: Syntactic, Phonomorphological, and Lexical equivalence, as detailed below. In addressing the notion of equivalence in the specific context of syntactic coordination for the first time, to the best of my knowledge, attention is deliberately focused on a few selected subclasses in each category.

(i) Syntactic Equivalence: This notion, which corresponds to Reinhart's syntactic repetition, is analyzed here in descriptive terms of how many clauses each coordinand contains – a question that is not addressed at all in Haspelmath's characterization of A and B “coordinated sentences”. A second issue arises from descriptions accepted in Hebrew grammars, according to which sentences in general, including the two clauses in coordinated constructions (termed interchangeably either or both mivnim me’uxim ‘connected constructions’, mivnim mexubarim ‘attached constructions’) must consist
of a subject and predicate (Sadqa, 1997). Consequently, in characterizing syntactic equivalence, account is taken of the following two structural constituents: (a) the syntactic category of the subject and (b) complements of the predicate, with the latter ranged in order of surface occurrence. These components are illustrated in Table 1 below in relation to example (16), repeated here as (16’). C1 and C2 in the table stand for the two coordinads forming the coordinated construction.

(16’) ha- parā mistakēlet alāv be- tehiyā] ve- ha- cipōr xošēvet] ma hi yexolā la’asōt] <pictH01>

Table 1: Illustration of Syntactic Components

<table>
<thead>
<tr>
<th>Components</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntactic Category of Subject</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Predicate Complements</td>
<td>PP PP</td>
<td>Wh-Question Complement</td>
</tr>
<tr>
<td>Number of Clauses</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

The grammatical subjects of both clauses are realized as non-modified definite NPs with a lexical head – ha- parā, ha- cipōr. As for complements of the predicates, the 1st clause contains two PPs that complement the predicate, with the preposition preceding a pronominal suffix in one and an abstract noun – alāv, be- tehiyā. In the 2nd clause, however, the complement is in the form of a separate clause – the indirect question ma hi yexolā la’asōt, which expands coordinand 2 into two clauses, a matrix verb and its complement, so yielding an “imbalance” between the number of clauses in coordinand 1 and 2 respectively.

7 The second PP constitutes a typical form of manner adverbs in Hebrew, consisting of the preposition be- ‘in, at’ and an adjectivally derived noun (Berman & Nir, 2011).
(ii) **Phono-morphological Equivalence**: This notion corresponds to Reinhart’s cases of *phonological/morphological repetition*. Here, analysis was impeded by the fact that I did not have access to either live or digitalized audio-recordings necessary in order to achieve precise specification of prosodic features of the coordinand clauses (such as pitch, intonation units, and length of pauses). Given the lack of access to such information, the following subcategories were adopted to specify “phono-morphological equivalence” between coordinands. Two phonological criteria were (a) number of syllables, as an indicator of the relative weight of each coordinand; and (b) rhyming patterns, specified by the last word in each coordinand (i.e. in terms of clause-endings), defined as cases in which the stress pattern is the same and also both the final consonant and final vowel are identical, as indicative of a prosodic similarity. A third, morpho-lexical criterion is provided by (c) repeated elements, divided between full repetition – when the exact same word appears in both coordinands – and partial repetition – when part of a word, typically a bound morphological element such as consonantal root, morphological pattern, or stem-external affix – is repeated. These different patterns are illustrated in Table 2 in relation to example (16’’).

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8 I am grateful to Profs. Reuven Tsur and Outi Bat-El for their helpful input on questions of prosodic analysis.
(16’’) *ha- parā mistakēlet alāv be- tehiyā* ve-* ha- cipōr xošēvet] ma hi yexolā la'asōt* <pictH01>

Table 2: Illustration of Phono-morphological Components

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of syllables</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Rhyming patterns (Coordinand ending)</td>
<td>tehiyā</td>
<td>la'asōt</td>
</tr>
<tr>
<td>Repetition – Full</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Repetition – Partial</td>
<td>def. article – <em>ha</em></td>
<td>def. article - <em>ha</em></td>
</tr>
<tr>
<td></td>
<td>fem. suffix <em>et</em> <em>(mistakēlet)</em></td>
<td>fem. suffix <em>et</em> <em>(xošēvet)</em></td>
</tr>
</tbody>
</table>

Table 2 shows that the two coordinands are largely similar in length, having almost the same number of syllables each, their final words do not rhyme, and they reflect two types of partial repetition.

(iii) **Lexical-semantic Equivalence:** Following Levin (1993), general lexical-semantic properties of the predicates of the coordinands are specified in terms of the following categories: Activity, Motion (as a subclass of activities), Change of State=COS (corresponding to the class of unaccusactive predicates), and States, divided between cognitive, perceptive, and physical. This breakdown is confined to roughly broad specification of lexical subclasses of verbs, without attention to semantic relations between coordinated predications (such as synonymy, antonymy, contrast, specification, etc.) in order to focus on analysis of structural features of the coordinands. On the other hand, it is assumed that semantic similarities between the
predicates may shed light on the notion of equivalence (as further noted in the Discussion section below). The lexical-semantic component is illustrated in Table 3 in relation to the same example (16’’’).

(16’’’) ha- parā mistakēlet alāv be- tehiyā] ve- ha- cipōr xošēvet] ma hi yexolā la’asōt] <pictH01>

Table 3: Illustration of Lexical-Semantic Component

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic properties of Predicate</td>
<td>Perception-Cognition</td>
<td>Cognition</td>
</tr>
</tbody>
</table>

The semantics of the predicate in the first coordinand is composed of the verb itself and its complement, a manner adverb – mistakēlet (alāv) be- tehiyā, 'looking (at him) in wonder’. Thus, the semantic property of the predicate is Perception (look) - Cognition (wonder). The semantic property of the second predicate is that of the verb – xošēvet, 'thinking', thus – Cognition.

4.3 Scoring Procedure

As described above (in Section 4.2.1), framing categories do not in themselves indicate whether a construction entails equivalence relations and therefore these categories do not get scored in the analysis. As for the component categories, each CC is scored according to the realization of equivalence between its coordinands. Each category is scored with a binary value of 0 or 1. If a relation of equivalence is identified between the coordinands, it scores 1, otherwise 0. Note, too, that for present
purposes, there is no grading of levels or degrees of equivalence along a continuum. 9

The method of scoring is illustrated in (17) to (18) below.


<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexical Category of Subject</td>
<td>Pronoun</td>
<td>Pronoun</td>
<td>1 = Equivalence</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of syllables 10</td>
<td>29</td>
<td>19</td>
<td>0 = No Equivalence</td>
</tr>
</tbody>
</table>

A single occurrence of an equivalent feature rates a score of 1, while additional occurrences of equivalences in the same category do not provide additional points, and the score remains as a unitary '1'. This means for example that a construction with two partial repetitions is not analyzed as more equivalent than a construction with only one partial repetition. Examples (16”’’) and (19) illustrate constructions that differ in their number of partial repetitions.

9 Establishing relative levels of equivalence would need to be based on psycholinguistic investigations of speaker judgments.

10 Regarding the category: 'number of syllables', a difference of (up to) two syllables is allowed, i.e., the construction is considered equal. Moreover, the coordinator itself is not considered in the counting.
Both the above examples scored 1, even though (16’’’’) showed two instances of partial repetition while (19) showed only one.

Note, further, that several component categories might be assigned a half-score of '0.5' when a feature is similarly but not equally realized, as follows: (a) Syntax - Complements of the Predicate, (b) Phono-morphology - Rhyming patterns, (c) Phono-morphology - Repetition-partial, and (d) Lexical-semantics - Semantic properties of Predicate. Examples (20) to (23) illustrate these cases.
(20)  *histaklā 'al ha- ṣor] ve- ha- ṣor histakēl 'al ha- sus] še- ne'emād me'evēr la- gadēr* ] <pictH07>

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complements of the Predicate</td>
<td>PP</td>
<td>PP [RC]</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(21)  *Pōni ha- sus rac ba- ṣadē] ve- higīa' le- gadēr* ] <pictH04>

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhyming patterns</td>
<td>ṣadē</td>
<td>gadēr</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(22)  *'īma' cipōr, kno kol 'īma' ṭovā, halkā ve- xipsā lahēm mazōn] 'avāl hi' hifqīra 'otān levād* ] <pictC01>

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetition – Partial</td>
<td>le + hem - lahēm</td>
<td>'et + hen - 'otān</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(23)  *ha- para mistakēlet alāyy be- tehiyā] ve- ha- cipōr xošēvet ] ma hi yeḵola la'ašōt* ] <pictH01>

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic properties of Predicate</td>
<td>Perception-Cognition</td>
<td>Cognition</td>
<td>0.5</td>
</tr>
</tbody>
</table>

All these cases manifest, as noted, instances of similarity rather than of identity between elements, as required by a score of 1.
This scoring method allows each coordinated construction to obtain a maximal equivalence score of 8 points, realizing each of the eight components taken into account as representing equivalence relations. Examples (24) and (25) illustrate the scoring procedures as applied to two of the coordinated constructions in the data-base.

(24) *ha- yêled gilā xor šel marmîta] ve ha- marmîta kaʃcâ alâv]* <book01>

<table>
<thead>
<tr>
<th>Property</th>
<th>C1</th>
<th>C2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntactic Category of Subject</td>
<td>NP</td>
<td>NP</td>
<td>1</td>
</tr>
<tr>
<td>Predicate Complements</td>
<td>NP</td>
<td>PP</td>
<td>0</td>
</tr>
<tr>
<td>Number of Clauses</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Number of syllables</td>
<td>10</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Rhyming patterns</td>
<td><em>marmîta</em></td>
<td><em>alâv</em></td>
<td>0</td>
</tr>
<tr>
<td>Repetition – Full</td>
<td><em>marmîta</em></td>
<td><em>marmîta</em></td>
<td>1</td>
</tr>
<tr>
<td>Repetition – Partial</td>
<td>def. article - <em>ha</em></td>
<td>def. article – <em>ha</em></td>
<td>1</td>
</tr>
<tr>
<td>Semantic properties of Predicate</td>
<td>Perception</td>
<td>Motion</td>
<td>0</td>
</tr>
</tbody>
</table>

Equivalence score for CC (24) = 5
Equivalence score for CC (25) = 3

5. Results

Results of the analyses outlined above are presented below, starting with the general breakdown of relative amount of CCs analyzed for each data-base (Table 4), and followed by realization of equivalence scores (Table 5), the breakdown of equivalence.
scores in terms of the different framing categories (Tables 6 to 8), and in terms of the component features of equivalence (Tables 9 and 10).  

Recall that in order to balance the sample size across the three types of elicitation materials – the picture booklet, picture-series, and personal experience account respectively – the first 100 instances of Coordinated Constructions were selected for analysis in each case. Table 4 shows the total number of clauses and the number of texts out of which these 100 instances were selected from each type of material.

Table 4: Overall sample size for selection of 100 instances of CCs, by type of narrative.

<table>
<thead>
<tr>
<th>Narrative Type</th>
<th>Overall number of clauses and texts</th>
<th>Coordinated Constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frog story &lt;book&gt;</td>
<td>368 clauses produced in 6 texts</td>
<td>100 = 27.2%</td>
</tr>
<tr>
<td>Cat-Horse picture series &lt;pict&gt;</td>
<td>367 clauses produced in 15.4 texts</td>
<td>100 = 27.2%</td>
</tr>
<tr>
<td>Personal experience account &lt;pers&gt;</td>
<td>291 clauses produced in 7.5 texts</td>
<td>100 = 34.3%</td>
</tr>
</tbody>
</table>

Table 4 shows that the data-base of 100 Coordinated Constructions used for analysis represents a similar amount (around one-third) out of the total sample of narrative materials considered for analysis, with the two pictured fictitious sets of materials containing relatively fewer instances of CCs out of the total data-set than the personal-experience accounts.

After consultation with a statistician, it was decided that the figures were too small and disparate to allow for revealing statistically significant findings. Besides, the study is concerned with identifying trends in a particular subset of narratives rather than with making general claims about equivalence relations in narrative discourse in general.
The 100 instances of CCs analyzed for each genre yielded a possible equivalence score of 800, as noted in the preceding section (‘8’ is the maximal potential equivalence score of each CC). Table 5 shows how much of this potential was realized for each genre.

Table 5: Realization of equivalence score out of the total score possible, by type of narrative.

<table>
<thead>
<tr>
<th>Narrative Type</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frog story &lt;book&gt;</td>
<td>38.25% (306/800)</td>
</tr>
<tr>
<td>Cat-Horse picture series &lt;pict&gt;</td>
<td>35.12% (281/800)</td>
</tr>
<tr>
<td>Personal experience account &lt;pers&gt;</td>
<td>33.37% (267/800)</td>
</tr>
</tbody>
</table>

Table 5 shows that overall, equivalence scores – irrespective of narrative genre – come to around one-third of the possible score, that is, they are well below 50%. This finding raises a question as to the importance of structural equivalence as a characteristic of coordinated constructions, a key issue considered further in the discussion in Section 6 below.

The figures in Tables 6 to 8 relate to the breakdown of three different types of framing categories in terms of their equivalence scores.

Table 6: Framing Category I - Distribution of three types of subjects (DS, SS, SSE) out of all CCs, by type of narrative.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS</td>
<td>41%</td>
<td>29%</td>
<td>52%</td>
</tr>
<tr>
<td>SS</td>
<td>32%</td>
<td>31%</td>
<td>32%</td>
</tr>
<tr>
<td>SSE</td>
<td>27%</td>
<td>40%</td>
<td>16%</td>
</tr>
</tbody>
</table>
The analysis of distribution of types of subjects yields a more heterogeneous distribution, possibly than expected, since not only do the three options differ in amount, but the genres also differ from one another in this respect. The relatively high proportion of DS type of subjects in the genre of personal experience stories might have to do with the fact that CCs with 1st and 2nd person (inflected for past or future tense) as subjects were not coded. In this genre, participants were often the subjects of their own stories so that they relied heavily on 1st person reference, while most of the CCs that were coded were about other characters in their story, so decreasing the relative proportion of SS and SSE occurrences compared with what was found for the other two genres (from 60% to 70% in the picture-based fictitious stories to less than 50% in the personal-experience accounts).

Distribution of the framing category of type of coordinator is shown in Table 7 for each genre.

Table 7: Framing Category II - Distribution of types of coordinators (ve, 'aval/zx, 0) out of all CCs, by type of narrative.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ve</td>
<td>84%</td>
<td>69%</td>
<td>80%</td>
</tr>
<tr>
<td>'aval,'ax</td>
<td>7%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>0</td>
<td>9%</td>
<td>19%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Table 7 shows that in oral narratives, irrespective of narrative genre, the coordinator ve is by far the most widespread, coming to between over two thirds and as high as 80% in the three genres, followed by lower proportions of both zero and 'aval, with the short picture series relatively favoring more reliance on zero coordinator.
The third type of framing category concerned Temporal Relations, as shown in Table 8.

Table 8: Framing Category III - Distribution of two types of Temporal Relations (+SEQ, SIM) out of all CCs, by type of narrative.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+ SEQ]</td>
<td>58%</td>
<td>59%</td>
<td>44%</td>
</tr>
<tr>
<td>[SIM]</td>
<td>42%</td>
<td>40%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Table 8 seems to suggest that genre plays a role in the distribution of Temporal Relations, since there are more sequential than simultaneous CCs in the frog book and cat-horse picture series than in the personal-experience accounts. This might have to do with the nature of the elicitation materials, since in these two types of narrative the participants look at a sequence of pictures – on a page, inside a book – and then tell the story. This elicitation method might influence the way the participants tell the story, leading them to move from one scene to the next sequentially more than coordinating two co-occurring events, as was the case over 50% of the time in the personal experience accounts.

Surprisingly, none of the three “framing categories” appear to bear any clear effect on the nature of equivalence between two or more coordinands (See Appendix II).

Moving now to the component categories, Table 9 displays the distribution of the different component types of equivalence – syntactic, phonological, and lexical – out of the total equivalence score (306/800, 281/800, 267/800) for each genre.
Table 9: Component Categories - Distribution of the main component categories (Syntax, Phono-morphology, Lexical-semantics) out of all CCs, by type of narrative.

<table>
<thead>
<tr>
<th>Component Categories</th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntactic components</td>
<td>40.19% (123/306)</td>
<td>42.7% (120/281)</td>
<td>35.2% (94/267)</td>
</tr>
<tr>
<td>Phono-morphological components</td>
<td>50% (153/306)</td>
<td>46.08% (129.5/281)</td>
<td>54.68% (146/267)</td>
</tr>
<tr>
<td>Lexical-semantic component</td>
<td>9.8% (30/306)</td>
<td>11.2% (31.5/281)</td>
<td>10.11% (27/267)</td>
</tr>
</tbody>
</table>

Table 9 shows that the two picture-based types of narratives reveal a similar distribution of types of equivalence – syntactic around 40%, phonological around 50%, and lexical only around 10%. In contrast, the personal experience stories show a greater disparity in the amount of syntactic versus phono-morphological realization of equivalence (around one-third compared with over 50% respectively). This might have to do, again, with the properties of the genre. Syntactic components of equivalence consist of relations between the characters in the narrative, the complements of the predicate and the number of clauses. The frog book and cat-horse pictures are schematically organized, containing relatively few characters and objects, with the framework of the pictures helping the narrator to organize the story in clear and coherent sequences of clauses as syntactic constructions. The personal experience stories relate actual rather than fictitious events, recounted from the participants' point of view and so represent a more spontaneous, less structured use of language use – expressed, inter alia, by greater reliance on phonological and morphological features of equivalence.
6. Discussion

The notion of structural equivalence in coordinated constructions in Hebrew narratives was examined in this study from a perspective that sheds innovative light on both the notion of equivalence as well as the syntactic domain of coordination. The study considered several questions that remained unaddressed in relation to the topics at issue here. First, against the background of Reinhart’s discussion of narrative evaluation, the study specified a carefully defined set of linguistic features that could be considered to constitute structural equivalence in the context of coordinated constructions (Section 4.2 above), thus refining the typically vague notion of equivalence. Second, as opposed to previous studies on coordinated constructions, this study considered authentic examples in the context of extended narrative discourse, rather than on the basis of isolated, often invented, sentences, so yielding a wider variety of genuine instances for analysis. One result of this procedure is that analysis also included coordinated constructions that are not main clauses, as in examples (26) and (27) below. Thus, the relevant construction in (26) consists of two clauses that are Appositional to the main clause, while the one in (27) is a Relative Clause.  

(26)  kanir’ē še ne’elmā mibā’ad ha- xalōn ha- patuāx] avāl hem ’od lo’ yod’īm] <book03>

(27)  še- ‘ēykṣēhu Būqi ha- sus šavār ’et ha- gadēr] ve nafāl leyād Nexāma] <pictH03>

Third, and perhaps most importantly, the study was motivated by the goal of shedding light on the relationship between coordinated constructions and the notion of

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12 Syntactic clause types were specified by categories defined and motivated in a large-scale project on development of clause-combining in Hebrew funded by ISF grant no. 190/10 to Ruth Berman and Bracha Nir, on which the author of this study served as a research assistant.
equivalence by examining whether and, if so, how and to what degree, structural equivalence constitutes an organizing principle for processes of coordination in Hebrew narratives.

Analysis was applied to 300 coordinated constructions from three narrative samples (Picturebook-based narratives, Picture-series-based narratives, and Personal-experience narratives), according to the categories detailed in Section 4.2 above. The main results presented in the preceding section can be summarized as follows: (1) No connection was found between the “external” framing categories (types of subject, coordinators and temporal relations) and the scores of equivalence defined by the component categories; (2) some small effect emerged between the three narrative sub-genres with respect to certain of the framing categories analyzed, such that both different subjects and a temporal relation of simultaneity were more favored relatively in personal-experience accounts than in the two picture-based samples, and with respect to the component categories, such that in the personal-experience stories, there were relatively fewer realizations of syntactic equivalence than in the two picture-based stories; and (3) most importantly, overall, irrespective of narrative genre – equivalence scores came to around one-third of the possible score: <book> 38.25%, <pict> 35.12%, <pers> 33.37% – well below 50% (see table 5 above). This finding raises a question as to the importance of structural equivalence as an organizing principle of coordinated constructions, as is widely implied in the literature on the syntax of coordination (see 2.2 above). The results indicate, rather, that structural equivalence may, in fact, not be “the name of the game” when it comes to characterizing coordinated constructions in Hebrew and, hence presumably, in other languages as well.
This does not mean, however, that the idea of “equivalence” should be abandoned entirely in linguistic analysis. After all, a basic assumption underlying this study, as noted at the outset, is that people have a powerful intuitive sense of a connection between coordination and the notion of equivalence. Rather, the idea of “equivalence” needs to be extended in several directions, in order to establish what role, if any, it can be said to play in coordination. Extending the research beyond the perspective of structural equivalence goes back to the point of view of Jakobson and Reinhart, who suggested that equivalence is a very broad notion that should be examined in different contexts and beyond strictly structural criteria. First, other constructions should be considered as well, to demonstrate if even a score of around one-third of possible realizations is much higher than in other types of inter-clausal relations – a finding that in itself would yield some (even if weak) support for the accepted analysis of coordinate clauses as manifesting structural equivalence. Second, perhaps most challengingly, the analysis of the nature of coordinated constructions and in particular, the analysis of equivalence relations could be extended to pragmatic or functional, discourse-motivated considerations of the kind that can best be analyzed in the context of authentic discourse – in which case the notion of equivalence might incorporate ideas of “dialogic syntax” (Du Bois, 2001) in relation to interactive conversational language use as well as in the context of extended narrative discourse of the kind considered here. The most relevant question that should be asked in these contexts is – for what function, or in other words, why, are two or more elements combined by a coordinator, to create a larger unit of discourse?

One possible response is that two or more units are combined together because they are all related to a shared theme. In her discussion of the pragmatics of and
conjunctions, Ariel (2012) terms this "the independent strategy", in the sense that the 
raison d'être for conjoining two or more elements together is that they all serve a 
parallel function in being separately but equally relevant to the same discourse topic. 
That is, according to Ariel, elements conjoined by “the independent strategy” are 
discursively rather than structurally, symmetrical. Interestingly, this time we meet the 
terms "symmetry", "parallelism", and "equality" in relation to discourse rather than to 
syntax. Examples (28) and (29) illustrate two constructions that are combined by such 
an independent strategy.

(28)  ba- lāyla dānī yašān] ve ha- cfarde' a yac'ā mi- tox ha- kad] <book05>

(29)  ha- par nir'ē 'acūv] ve- ha- meṣūkā švurā] <pictH02>

Both coordinands in example (28) are directly relevant to a shared discourse topic – 
"what happened at night (ba-layla)" and so they are combined to create a single 
discourse unit. In example (29), the shared topic of the coordinands is "the state of 
affairs (applying to a participant and an object) in a particular scene”. Note that the 
score for structural equivalence of example (28) is 1, and of example (29) – 4.5. Yet 
although these two examples differ markedly in their respective structural 
equivalence, pragmatically the same discourse function underlies the relationship 
between the two coordinands in both cases.

A second possible response to the question of why two or more elements are 
combined by a coordinator is also addressed by Ariel (2012) in terms of "the 
relational strategy". Here, the connection between the meanings of the conjuncts 
conveys a single message that is relevant to the discourse at hand. In this strategy, the 
conjunctions are often interpreted non-symmetrically and the raison d'être of the 
conjunction is that (only) when they are combined together, do the coordinated
construction form a single one meaningful discourse unit. Like the former, independent strategy, the relational strategy goes beyond structural criteria to characterize coordination, but this time, in terms of the semantics of the relations between the two parts as well as of the construction as a whole. This is in line with Reinhart's proposal for examining “equivalent” constructions by semantic analysis of the relations between them, in addition to strictly structural criteria, by taking into account, for example, if the predicates are synonymous or antonymous, if one construction elaborates on, illustrates, or paraphrases the contents of the first, and so on. Example (30) illustrates a case of a relational strategy from the corpus for this study.


The two structurally asymmetrical or non-equivalent coordinands in example (30) – where, for example, the initial coordinand consists of a single clause, and the subsequent coordinand of four – are combined to convey a single message relevant to the discourse in question here – "a state and its resolution".

These examples show that Ariel’s explanation of the phenomenon of coordination not in terms of structural symmetry, but from the discursively and semantically motivated perspective, against the background of pragmatic relevance theory, can also be shown to apply to stretches of narrative discourse in Hebrew. Both in Ariel’s analysis and in the approach taken to coordination in the present study, coordinated constructions can be characterized as forming coherent discourse units.

Finally, examination of equivalence in coordinated constructions in Hebrew narratives undertaken in this study shows that the only structural feature shared by all of the 300
CCs considered here is that they are composed of the same syntactic units – clauses. This is a tautology, since the *a priori* decision was to analyze inter-clausal rather than intra-clausal coordination. Nonetheless, the attempt made here to define the essentially vague notion of structural equivalence in more precise analytic terms, and the application of this analysis to authentic discourse did succeed in demonstrating that structural equivalence is not a major – let alone the only – organizing principle of coordinated constructions. Rather, coordination seems to be governed by a complex interaction of structural, pragmatic-semantic, and possibly, going even further afield, extra-linguistic factors as well, given that joining elements is a basic human activity.
References


Oxford Online Dictionary, [http://oxforddictionaries.com](http://oxforddictionaries.com)

Thesaurus, [http://thesaurus.com/](http://thesaurus.com/)
ע"מ 200-206.


Appendix I

Cat-horse picture series (Hickmann, 2003)

Cat story
Horse story
Appendix II

Table 6b: Framing Category I - Percentage of equivalence realizations out of Equivalence Score (see Table 5), by type of subject and narrative type.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS/equiv. score</td>
<td>40.19% (123/306)</td>
<td>34.69% (97.5/281)</td>
<td>43.82% (117/267)</td>
</tr>
<tr>
<td>SS/equiv. score</td>
<td>35.78% (109.5/306)</td>
<td>34.16% (96/281)</td>
<td>41.19% (110/267)</td>
</tr>
<tr>
<td>SSE/equiv. score</td>
<td>24.01% (73.5/306)</td>
<td>31.13% (87.5/281)</td>
<td>14.98% (40/267)</td>
</tr>
</tbody>
</table>

Findings for the distribution of the different types of subject out of total score for equivalence out of a possible 800 in each genre (306, 281, and 267 respectively) did not reveal any clear trends suggesting that there is no obvious or direct connection between subject type (DS, SS, SSE) and score of equivalence in all three genres.

Table 7b: Framing Category II - Percentage of equivalence realizations out of Equivalence Score (see Table 5), by type of coordinator and narrative type.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ve/equiv. score</td>
<td>82.84% (253.5/306)</td>
<td>69.92% (196.5/281)</td>
<td>83.89% (224/267)</td>
</tr>
<tr>
<td>'aval/ equiv. score 'ax</td>
<td>5.55% (17/306)</td>
<td>9.78% (27.5/281)</td>
<td>9.36% (25/267)</td>
</tr>
<tr>
<td>0/equiv. score</td>
<td>11.60% (35.5/306)</td>
<td>20.28% (57/281)</td>
<td>6.74% (18/267)</td>
</tr>
</tbody>
</table>

Again, taking use of each coordinator out of the overall equivalence score for each genre it might appear as though there is some interaction, such that CCs with ve show greater equivalence than with other types of coordinators – but this is only an apparent finding, since ve is across the board the favored means of connecting the two clauses.

Table 8b: Framing Category III - Percentage of equivalence realizations out of Equivalence Score, by type of temporal relations and narrative type.

<table>
<thead>
<tr>
<th></th>
<th>Book</th>
<th>Pictures</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+ SEQ]/equiv. score</td>
<td>58.66% (179.5/306)</td>
<td>53.91% (151.5/281)</td>
<td>44.19% (118/267)</td>
</tr>
<tr>
<td>[SIM]/equiv. score</td>
<td>41.33% (126.5/306)</td>
<td>45.01% (126.5/281)</td>
<td>54.3% (145/267)</td>
</tr>
</tbody>
</table>
לכלים שיש לאינטואיציות ת炣ק באומנ לקושי בקואורדינציה בין המושג "שקילות" (אנג'לון, (Equivalence) עלינו קוראות, חוקר אמותunix הברח ובו בקורות, יעים ואיאים.


שאלות מסוימות, מתורחת ללא מענה בהקשר זה, כנף: (1) מה בידיקי החווה "שקילות"? (2) מה הם רכיב השקולות המבנה? (3) הבא לכػי הקואורדינציה מכימיים שקולות!? מה המחבר נוגה שואף לليس את רנין "שקילות" וית שית פסוקות ואוות, אשר מחお勧め על יד היתולים והMocks על קואורדינציה. במקורה (1995) החיתות וה العالمي מתושב השקולות, הכאמיצא עלועה ברגבייה. ברוך היענותו, לא ממידה סט של קואורדינציה ארץ מeditingים ויא ללחן את חשי השקולות בק "קואורדינציה" (coordinands;kills), ברקע, (2007, "קואורדינציה", המופיעה, "קוארדינאיה, המופיעה ברגבייה המופקים בעבידת מודרב. קואורדינציה, המופיעה ברגבייה המופקים בעבידת מודרב.

מופדים קוארדינאיה, מופעים, מבניםären הטריביות (טריביות המבוססים על ספירים מנומנות). 300 מבנים הקוארדינאיה תוח מתש שנות תרבותım תרבותım המבוססים על ספירים מנומנות. תרבותım המבוססים על ספירים מנומנות המנוגדים, על ידי הקוארדינאיה של פלוס איזים. המנוגדים העקרונות אתشبه ארבעה בקגן קוארדינאיה לבלו השקולותCLE,壓וכב, בברקע.

כפי שאורפז מעלה - שקולות מכינים מהות הדקור אבירות עבורי מבנים קוארדינציה בתרבויות בברקע.

نظאות המדיחים כיוון קושי לשלג תורبية - צוין השקולות של מבנים הקוארדינציה.

הוגנה לשילשות מהניבוד המנס纻י חפשרי של שקולות. מנוגזר עם השלמה באור לצלובת השקולות המבנין ממפיאים מבנים קוארדינציה.
על המושג שקילות:
מבני קואורדינציה בשיתוף

היבר זו הוגשה כעבודה נמר לקוראת התואר
"מוסמך אוניברסיטי" – M.A.

עלידי:
גלה בליזצמן

העבודה הוגשת בהדריך:
פרופסור רות ברמן

אפריל 2014