Tracing Syntactic Diversity of the Participle in Biblical Hebrew

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The corpus

- Hebrew Bible
  - Ca. 400,000 words
  - Probably composed over a period of about 1000 years (1200-200 BC)
  - Complex transmission history
  - Oldest complete MS: Codex Leningradensis, 1008/9 AD
  - Various linguistic layers (e.g. vowel signs)
  - No native speakers

The database

- ETCBC database of the Hebrew Bible
  - [ETCBC = Eep Talstra Centre for Bible and Computer, formerly known as
    WIVU = Werkgroep Informatica Vrije Universiteit]
- Created since 1970s
- Linguistic levels:
  - Morphology (encoding rather than tagging!)
  - Words
  - Phrases
  - Clauses
  - Sentences
  - Text hierarchy

The topic

- Language variation in Hebrew Bible. Explanations:
  - Chronology (e.g. ‘Archaic’, ‘Standard’, ‘Late’)
  - Dialects (e.g. ‘Northern dialect’)
  - Genre (e.g. ‘language of poetry’)
  - Oral versus written (e.g. oral layers on narratives)
  - Textual transmission
  - Language contact (e.g. Aramaisms)
  - Multiple varieties accessible to Biblical Scribes in Persian/Hellenistic period.

The debate

- Can biblical texts be dated linguistically?
- Consequences for composition history
- Consequences for ‘Text and History’

The status questionis

- Focus on separate books (Ezekiel, Qoheleth, Esther, Chronicles)
- Presuppositions (e.g. “Which LBH-characteristics are present in Ezekiel?”)
- Lexical items
- Failure to make use of linguistic methods dealing with variation and change
- Failure to incorporate insights about syntactic differences in dependent / independent clauses or in narrative / direct speech

The method

- Complete Hebrew Bible
- Points of reference: non-biblical texts
- Starting with describing phenomena and their distribution
- Statistical evaluation of distribution, e.g.: S-curve, spatio-autocorrelation (random or clusters?)

The corpus

- Complete Hebrew Bible
- Points of reference:
  - Inscriptions
  - Post-biblical Hebrew
    - Dead Sea Scrolls
    - Rabbinic Hebrew
  - Aramaic
    - Inscriptions
    - Elephantine
    - QA: Genesis Apocryphon

The project

- Syntactic variation at the level of:
  - Phrases
  - Clauses
  - Text
- Synthesis: Cumulative evidence of congruous and contradictory tendencies

Why an author recognition tool is not sufficient

- How to define train corpus and test corpus?
- Where to start? E.g. first decide some ‘uncontroversial’ Late and Early texts.
- …but everything is controversial!

The Hebrew Participle

- The participle: between noun and verb.
- Morphology is nominal.
- Participle can function as subject or object of a clause, or embedded in a nominal or prepositional phrase, but also as main verb.

The Hebrew Participle

- Even in a nominal environment, it can retain its verbal characteristics, because it can select verbal complements.
- How is the variation in the use of the participle conditioned?

Gesenius, Geschichte der Hebräischen Sprache und Schrift (1815)

- One of the features of Late Biblical Hebrew (LBH) is that the participle is used more often as finite verb.
- Ambiguous.

Sellin, Die Verbal-Nominale Doppelnatur der hebräischen Participien (1889)

- Sellin gives about 30 examples of typical late usage of the participle in Jeremiah and the LBH books.
- According to Sellin, one would expect an imperfect instead of the participle.
- Traditional Hebrew linguistics: say that there is a tendency and give some examples.
- Problem: for each late example I can give an early (EBH) counterexample.

Mark S. Smith, Grammatically Speaking(1999)

- Studied the predicative participles in several books.
- Conclusion: There is a concentration of predicative participles in:
  - Dependent clauses (following the particles ‘asher, ki, ‘al ken, ‘im)
  - Direct speech (early and late)
  - Circumstantial clauses (syntax: w (and) + subject + verb)
  - Late narrative (Smith gives 5 examples in Esther)

Project on Syntactic Variation

- Older research is strongly based on intuition and assumptions.
- Study all participles in all biblical books.
- In which environment can the participles be found?
- Describe tendencies based on all data.
- Is it likely that there was a diachronic shift?

Data format
Introduction

- Our participle research:
  - encompasses the whole Hebrew Bible
  - integrates ETCBC-database + own insights
  - combines Unix + Excel to process the data

Data format
Creation

- List of all clauses with participle in database
- Addition of own codes for syntactic environments
- Join with other relevant information from database
- Export to Excel for visualization

Data format

Example

n-directe,im/qa-Vv	:a		NQNQ	Q	VP	661		>M		qal	JSP[	05 DEUT05,25.07	[>M <Cj>] [*JSPJM <PC>] [>NXNW <Su>]
m'-P-v	:		NQNQ	Q	VP	162				piel	DBR[	05 DEUT05,26.07	[*MDBR <PC>] [M-TWK H->C <Lo>]
r-j-v	:		NQNQ	Q	VP	16		>CR		qal	NTN[	05 DEUT05,31.07	[>CR <Cj>] [>NKJ <Su>] [*NTN <PC>] [LHM <Co>]
rv	:a		Q	Q	VP	16		>CR		qal	<BR[	05 DEUT06,01.07	[>CR <Re>] [>TM <Su>] [*<BRJM <PC>] [CMH <Co>]
rv	:c	+K	Q	Q	VP	16		>CR		piel	YWH[	05 DEUT06,02.07	[>CR <Re>] [>NKJ <Su>] [*MYWK <PO>]
k-an-v	:c		Q	Q	NP	512				qal	ZWB[	05 DEUT06,03.07	[>RY ZBT XLB W-DBC <Lo>]
rvv	:c	+K	Q	Q	VP	16		>CR		piel	YWH[	05 DEUT06,06.07	[>CR <Re>] [>NKJ <Su>] [*MYWK <PO>] [H-JWM <Ti>]
k-an-	:a		Q	Q	NP	512				qal	XYB[	05 DEUT06,11.07	[W-<Cj>] [BRT XYWBJM <Co>]
k-nk-v	:c	+K	Q	Q	PP	64				qal	>JB[	05 DEUT06,19.07	[L-HDP <Pr>] [>T KL >JBJK <Ob>] [M-PNJK <Co>]
rwv	:		Q	Q	VP	16		>CR		qal	BW>[	05 DEUT07,01.07	[>CR <Re>] [>TH <Su>] [*B> <PC>] [CMH <Co>]
h-anh-	:a		Q	Q	NP	100				nif	>MN[	05 DEUT07,09.07	[HW> <Su>] [H->LHJM / H->L H-*N>MN <ap><PC>]
k'-anh!-v	:		Q	Q	VP	160				qal	CMR[	05 DEUT07,09.14	[*CMR <PC>] [H-BRJT W-H-XSD <Ob>] [L->HBJW W-L-CMRJ MYWTW / L->LP DWR <sp><Co>]
k-p-v	:c	+W	Q	Q	PP	160				qal	>HB[	05 DEUT07,09.21	[CMR <PC>] [H-BRJT W-H-XSD <Ob>] [L-*>HBJW W-L-CMRJ MYWTW / L->LP DWR <sp><Co>]
k-p-v	:c		Q	Q	PP	160				qal	CMR[	05 DEUT07,09.28	[CMR <PC>] [H-BRJT W-H-XSD <Ob>] [L->HBJW W-L-*CMRJ MYWTW / L->LP DWR <sp><Co>]
n-/pi-Vvv	:		Q	Q	VP	201	160	W		piel	CLM[	05 DEUT07,10.07	[W-<Cj>] [*MCLM <PC>] [L-FN>JW <Co>] [>L PNJW <Aj>]
k-p-v	:c	+W	Q	Q	PP	201	160	W		qal	FN>[	05 DEUT07,10.14	[W-<Cj>] [MCLM <PC>] [L-*FN>JW <Co>] [>L PNJW <Aj>]
k-p-v	:c	+W	Q	Q	PP	110				qal	FN>[	05 DEUT07,10.21	[L> <Ng>] [J>XR <Pr>] [L-*FN>W <Co>]
rvv	:c	+K	Q	Q	VP	16		>CR		piel	YWH[	05 DEUT07,11.07	[>CR <Re>] [>NKJ <Su>] [*MYWK <PO>] [H-JWM <Ti>]
b-1-v	:a		Q	Q	AdjP	112				qal	BRK[	05 DEUT07,14.07	[*BRWK <PC>] [THJH <Pr>] [M-KL H-<MJM <Aj>]
k-nk-v	:c	+K	Q	Q	PP	421		W		qal	FN>[	05 DEUT07,15.07	[W-<Cj>] [NTNM <PO>] [B-KL *FN>JK <Co>]
r	:		Q	Q	VP	16		>CR		qal	NTN[	05 DEUT07,16.07	[>CR <Re>] [JHWH / >LHJK <ap><Su>] [*NTN <PC>] [LK <Co>]
h-anh-	:a		Q	Q	NP	102				qal	NVH[	05 DEUT07,19.07	[W-/ H->TT W-H-MPTJM W-H-JD H-XZQH W-H-ZR< H-*NVWJH <pa><cj>]
h-fS-	:a		Q	Q	NP	70				nif	C>R[	05 DEUT07,20.07	[<D >BD <Pr>] [H-*NC>RJM W-H-NSTRJM <Ob>] [M-PNJK <Co>]
h-fS-v	:a		Q	Q	NP	70				nif	STR[	05 DEUT07,20.14	[<D >BD <Pr>] [H-NC>RJM W-H-*NSTRJM <Ob>] [M-PNJK <Co>]
k-an'-	:		Q	Q	NP	100				nif	JR>[	05 DEUT07,21.07	[>L GDWL W-*NWR> <PC>]
rvv	:c	+K	Q	Q	VP	16		>CR		piel	YWH[	05 DEUT08,01.07	[>CR <Re>] [>NKJ <Su>] [*MYWK <PO>] [H-JWM <Ti>]

Data format
Conclusion

- Data format:
  - Combination of features from ETCBC-database and own codes
  - Basis for research into syntactic variation in participle constructions

Spoken vs. Written Hebrew

Behaviour of the participle in different text types

- Spoken vs. written Hebrew: differences?
- Problem: dead language
- Approach: Direct speech passages
- Focus: Behaviour of verbal participle

Spoken vs. Written Hebrew

Mark Smith

- Smith 1999 (Grammatically Speaking):

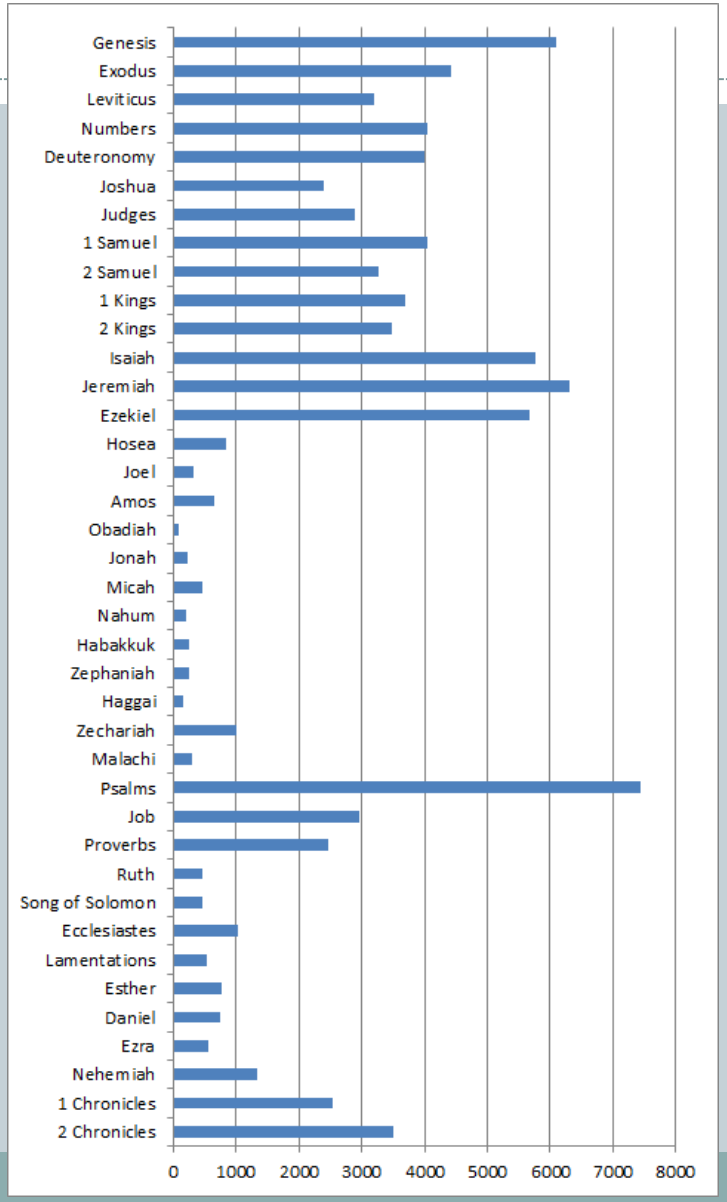
In direct speech, role of main verb tends to be taken by participle; elsewhere by e.g. *yiqtol*.

- Looks at selected books, not entire Bible.
- Can we confirm his claim with our methods?

Spoken vs. Written Hebrew

Approach

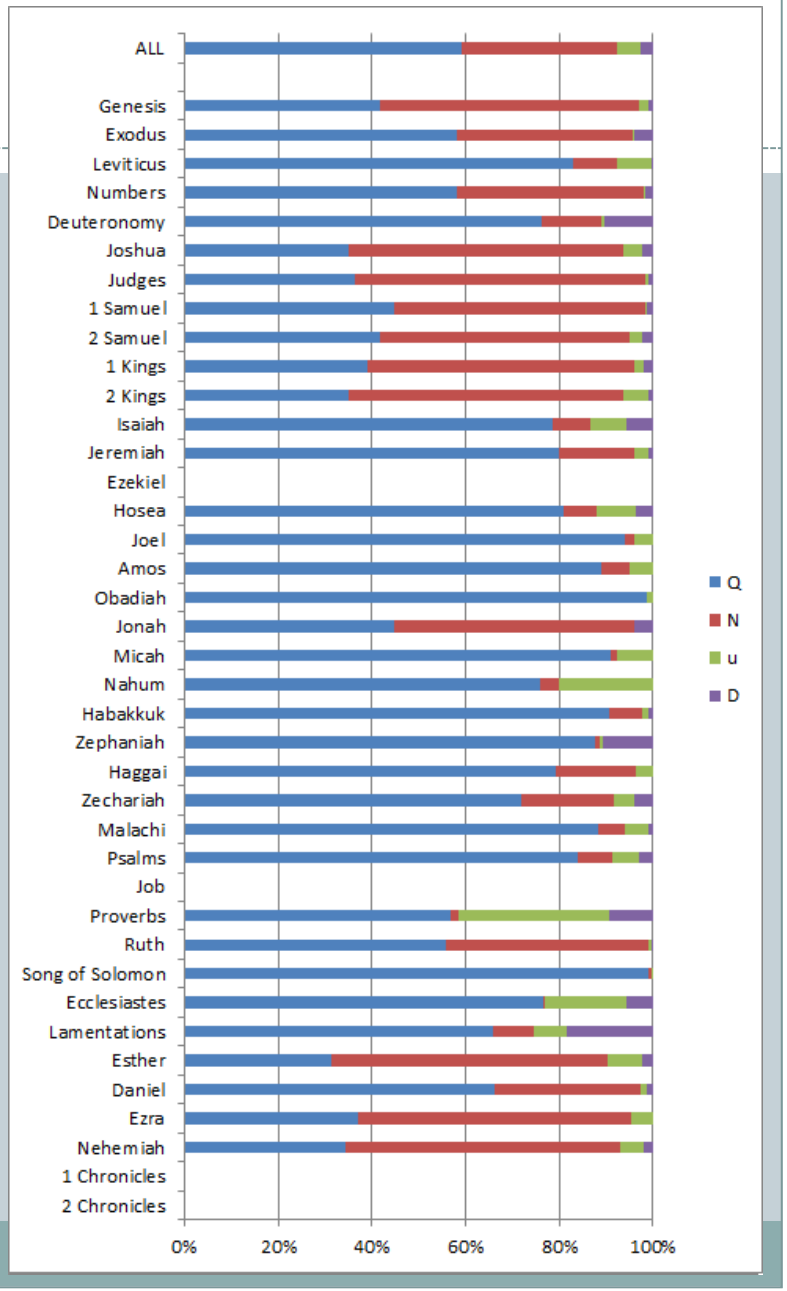
- Approach:
  - Step 1: Total number of clauses



Spoken vs. Written Hebrew

Approach

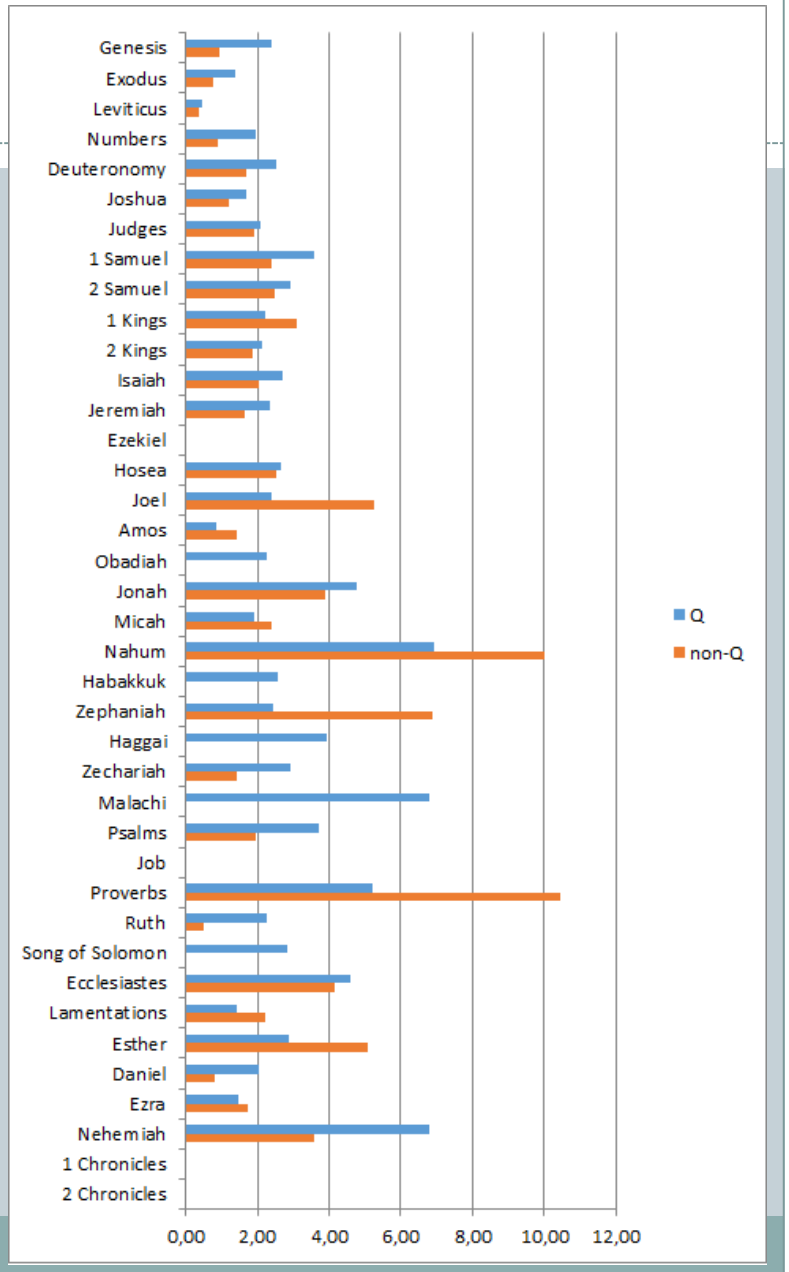
- Approach:
  - Step 1: Total number of clauses
  - Step 2: Text types



Spoken vs. Written Hebrew

Approach

- Approach:
  - Step 1: Total number of clauses
  - Step 2: Text types
  - Step 3: Proportion of verbal participle



Spoken vs. Written Hebrew

Distribution of verbal participle

Distribution of verbal participle

- Observations:
  - Majority has more ptc in Q
  - Some exceptions
- Conclusion:
  - Smith has a point, but caution is needed