What is a functionalist approach?

- Functionalist researchers ("functionalists") are generally concerned with the role language structures play in actual communication.
- The knowledge about language that they study is primarily knowledge about how language is used.
- Givón: Grammar as "a set of strategies that one employs in order to produce coherent communication”

Functionalism

- It is worth noting that functionalists and generativists are often quite ideologically divided. The functionalist view is generally considered by functionalists to be an alternative to the generativist (roughly speaking, “UG”) view. For many functionalists, the knowledge of language is exclusively cast in terms of knowledge of language use.
- I, as essentially a generativist at heart, don’t buy that, but nothing really precludes us from thinking of this instead as looking at two different aspects of our linguistic knowledge. This is how I will treat it here, that is as complementary rather than contradictory.

Discourse

- To investigate language function, we need to consider language in context, as in the context of a discourse.
- Consider: Here are two grammatical sentences.
  - He bought a book.
  - John bought it.
- Yet, only one can be used in response to the question (without additional gestures):
  - What did John buy at the store?
- A well-formed discourse has a coherent flow of information. In any given sentence, some information is new, and generally some information is old.
- Certain aspects of language are sensitive to the distinction between new and old information; for example pronouns can only refer to old information.
  - John walked in. He sat down.
  - It was a dark and stormy night. He sat down.
Grammaticality and felicity

• Whether a sentence is grammatical is a semi-independent question as to when it can be used. A sentence is grammatical if it can be used in some context, but it is felicitous only if it is used in the proper context.

• Pragmatics is concerned with the system underlying what makes an utterance felicitous is, certainly a part of overall language knowledge.

Topic, comment

• Sentences in a discourse can generally be divided into a topic and a comment on the topic.

• The topic is what the sentence is about (generally, the old information, something already established in the discourse), and the comment is what the sentence says about the topic (generally new information).

Topic, comment

• In English, the subject generally serves as the topic of a sentence.
  – Let’s talk about John.
  – He also bought some coffee.

• There are also other means of indicating the topic:
  – As for that book, John bought it two weeks ago.
  – That book, John bought (but this other one, he didn’t).

• Many languages explicitly mark topics with a particle, among them, Japanese:
  – Ano hon wa John ga katta
  – That book top John nom bought
  – ‘As for that book, John bought it.’

• Or Korean:
  – Ku chayk-un John-i sassta
  – That book-top John-nom bought
  – ‘As for that book, John bought it.’

Topic, comment

• Li and Thompson (1976) made a very influential proposal that differentiates languages into two types: topic prominent languages and subject prominent languages.

• The underlying organization of these two types of languages are claimed to be different; subject prominent languages like English differentiate subject and predicate primarily, while topic prominent languages like Mandarin or Japanese differentiate topic and comment primarily.

• In a topic prominent language, the sentence is usually structured with the topic first (discourse-old, or given information), followed by the comment (discourse-new information).

• The concept of “subject” takes a back seat: there are no “meaningless subjects” (like in it rains or there was a fire), “double subjects” are very common (‘As for fish, halibut is delicious’).
**Topic, comment**

- The article you use in English also is determined by context. The indefinite article *a(n)* is used on new information, while the definite article *the* is used only for given (old) information.
  - The fireman arrived.
  - A fireman arrived.
  - John bought a book. A book was about firemen.

**L2 research into function**

- Many L2A researchers have concentrated on this *pragmatic* knowledge, the use of language in context, to see how this knowledge develops in L2A. It is clear even from English that there is a great deal of pragmatic knowledge involved in language use over and above the things which render sentences grammatical or ungrammatical, principles and parameters and such.

**Modes of expression**

- Givón is credited with distinguishing two different “modes of expression” (as ends of a continuum), the *pragmatic mode* (or “pre-syntactic mode) where a speaker relies heavily on contributions of context and relatively little on structure and syntax) and the *syntactic mode* (where a speaker structures sentences in a more target-like and systematic way).

**Givón’s pragmatic vs. syntactic modes**

<table>
<thead>
<tr>
<th>Pragmatic mode</th>
<th>Syntactic mode</th>
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<tbody>
<tr>
<td>Topic-comment structure</td>
<td>Subject-predicate structure</td>
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<td>Loose conjunction</td>
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<tr>
<td>Slow rate of delivery, several intonation contours</td>
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<tr>
<td>Word order governed by pragmatic principles (old information followed by new information)</td>
<td>Word order governed by “semantic” principles (i.e. agent first)</td>
</tr>
<tr>
<td>Noun:Verb ratio low (about 1-1)</td>
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</tr>
<tr>
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<td>Elaborate use of grammatical morphology</td>
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</table>

**Modes**

- *Idea:* L2 learners start in the “pragmatic mode” and move toward the “syntactic mode.”

- Among other things, this would suggest that initially topic-comment type structures would be very common in the speech of elementary L2’ers.

**Grammatical vs. pragmatic knowledge**

- There is reason to believe that these are two (semi-in)dependent forms of language knowledge.

- L2’ers are sometimes observed to have acquired the grammatical structure without necessarily using it in the right places (from the perspective of the TL).
Huebner (1983)

- Single subject, Ge, an adult Hmong speaker learning English (in Hawaii) as an “L2”.
- Hmong, and Ge’s second language, Lao, are both topic-prominent languages (which as fully developed languages share many of the characteristics as Givón’s “pragmatic mode”).
- Recordings made every 3 weeks for a year.

Ge and *is(a)*

- Ge’s use of *is(a)*.
- Presumably has its origins in English it’s a or is a, but careful study reveals that this was not how Ge initially analyzed it.
- Looking at places where a copula (to be) is required in English, Huebner found that Ge used *is(a)* (essentially, correctly) in 80% of those contexts.
- Is Ge already speaking in an English-like way…?
- How about places where *is(a)* is used?

Ge and *is(a)*

- Looking at where Ge used *is(a)*, it appeared over half the time in places where the copula is not used in English.
  - T: How many people slept in each house?
  - G: Oh. In one house *um* people sleep, *isa* two hundred.
  - T: What time did you begin working?
  - G: *I work* *isa* eight o’clock, *to* *um* four o’clock.
  - T: How long did it take to walk from Laos to Thailand?
  - G: *Oh. Isa* *um* twenty day.

- Consider how a native speaker might answer these:
  - T: How many people slept in each house?
  - G: Oh. In one house *um* people sleep, *isa* two hundred.
  - N: Two hundred (people slept in a house).
  - T: What time did you begin working?
  - G: *I work* *isa* eight o’clock, *to* *um* four o’clock.
  - N: Eight o’clock to four o’clock.
  - T: How long did it take to walk from Laos to Thailand?
  - G: *Oh. Isa* *um* twenty day.
  - N: Twenty days.
- Is there a pattern?

Ge and *is(a)*

- The part of the sentence that comes after *is(a)* seems to be the new information. The part that isn’t given in the question.
- Notice that in places where the copula appears in English often (coincidentally) have that property too.
  - (Speaking of John…) He is a great syntactician.

Ge and *is(a)*

- What it appears that Ge was doing was actually using *is(a)* to mark the boundary between topic and comment (marking the new information with *is(a)*).
- Ge’s use of *is(a)* eventually declined (disappearing even from the obligatory copula contexts in English) and then returned, primarily used correctly in contexts where English requires a copula.
**Ge and da**

- Heubner (1983) also studied the development of the distribution of *da* (‘the’) in Ge’s speech over time.
- (L1) English use of *the* vs. *a(n)* is for specific referents is distinguished by whether the entity is known to the hearer or not:
  - I bought a book. [not known]
  - I gave the book to Mary. [known]

**the**

- We can think of the contexts in which *the* is used in native speaker English as being those which:
  - [+HK] Are “hearer-known”
  - [±SR] Have or do not have a specific referent
    - The telephone is vital for daily life.
    - The book fell onto the floor.
- Ge seemed to additionally take into account the feature [±Top] (whether the referent is topical in the discourse).

**Huebner (1983)**

- With *da* (and perhaps also with *is(a)*), it appears that Ge learned the grammatical form but nailing down the pragmatic environments in which it appears took more time.
- Initially, Ge’s assumptions about the grammar revolved significantly around the concept of topic.
- However, this could either have been due to a universal initial “pragmatic mode of expression” or due to transfer from his L1.

**Ge and da**

- In Ge’s use of *da*, there was a distinction made between nouns which were topics and nouns which were not.
- Ge would generally only use *da* with nouns that were not topics (since we already know that topics are known to the hearer, hence marking it as such with *da* is seen as redundant).

**The course of development of da**

- \([+SR, +HK], [-Top]\)  
  - Marking only nontopics
- \([+NP]\)  
  - Marking all nouns
- \([+NP] \text{ except } [-SR, -HK]\)  
  - Marking all nouns except nonspecific nontopic referents
- \([+HK]\)  
  - Marking all hearer-known nouns (target)
- \([-SR, -Exist]\)  
  - Marking all specific referents
- \([+HK]\)  
  - Marking all hearer-known nouns (target)

**Form-to-function**

- The sort of analysis Huebner carried out was a form-to-function analysis; he looked for a particular form (each of *is(a)* and *da*) and investigated what its *function* is, what roles it plays in the language use of the subject.
- That is, starting with the form and looking to characterize its *function*. 
Function-to-form

- We can also look at this kind of question in the reverse way, as a function-to-form problem.
- Consider a function (say, marking topic, or marking past time reference or encoding an embedded proposition), look for times when the subject is using language to perform that function, and try to characterize the forms in the learner’s knowledge of language used to perform the function.
- The hallmark of the functionalist analysis is this attention to the relationship between form and function in language use, regardless of the direction.

Sato (1990)

- Sato (1990) did such a function-to-form analysis on the transcripts of two Vietnamese children (Thanh and Tai) in their early teens relocated to the US and immersed in an English speaking environment. The study lasted 10 months, with weekly recordings.
- Sato wanted to study (development in) their
  - Expression of past time reference
  - Encoding of semantic propositions

Sato (1990)

- Concerning past time reference, Sato found almost no change over the ten months; throughout, the kids would express past time either through prior establishment in the context (i.e. already talking about the past) or through the use of adverbs (e.g., ‘Yesterday, I go…’).
- Sato hypothesizes several reasons why this might be, including:
  - Past tense endings are not phonologically salient
  - Communication failure rarely results
  - Phonological transfer from Vietnamese obscured syllable-final consonant clusters anyway.

Sato (1990)

- The results from the expression of past tense were inconclusive, but the results from the expression of semantic propositions were even worse.
- If the kids were in a “pragmatic mode” we’d expect to see
  - Lots of non-propositional utterances
  - Very low proportion of multi-propositional utterances
  - Reliance on the interlocutor for aid in expressing propositions
  - Little use of connective morphology between related propositions.

Sato (1990)

- However, what Sato found is that even in the very early speech of the kids, the proportion of simple propositional utterances was high and there was fairly little reliance on the interlocutor for assistance.
- (The other two expectations were met; multi-propositional utterances were rare and were connected primarily with and or just simply juxtaposed)

Sato (1990)

- Incidentally, this sounds perfectly consistent with the tree-building approach of Vainikka & Young-Scholten—multiple propositions are not expressed and connectives are not fully utilized because the tree has not reached the CP level, crucial for L1-like subordination. Yet, this does not preclude the use of fully propositional utterances.
Moving from the pragmatic mode to the syntactic mode

- Why do people move from the pragmatic mode to the syntactic mode? Some suggestions that have been made…
  - Subjective need to sound like the environment
  - Communicative failure
  - To economize language use through stable generalizations
  - …?

Moving from the pragmatic mode to the syntactic mode

- How do people move from the pragmatic mode to the syntactic mode?
  - This is very rarely addressed.
  - The “syntactic mode” is presumably the place where learners have enough of the complex syntactic structure in place to make judgments on the language which we previously have seen they can do with a large degree of systematicity. There is real grammatical knowledge.
  - In this sense the functional approaches are very similar to the UG approaches—they demonstrate (development) of language knowledge, but do not focus carefully on how this knowledge is gained.

The European Science Foundation Project

- Another study aimed at looking at form-function relations in L2A was the one conducted by the European Science Foundation. This was a large-scale crosslinguistic study using the following design:
  - English
  - German
  - Dutch
  - French
  - Swedish
  - Punjabi
  - Italian
  - Turkish
  - Arabic
  - Spanish
  - Finnish

The European Science Foundation Project

- These were adult immigrant learners immersed in the target language, recorded over a 2.5 year period, generating about 20-25 two-hour recordings of each speaker.

The European Science Foundation Project

- Perdue & Klein (1992) grouped the L2’ers into three basic learner varieties (claimed to be valid across linguistic groups) after analyzing the data they collected.
  - Nominal Utterance Organization (NUO)
  - Infinite Utterance Organization (IUO)
  - Finite Utterance Organization (FUO)

Learner varieties

- Nominal Utterance Organization (NUO)
  - Simple, unconnected nouns, adverbs, particles. Largely missing the “structuring power of verbs”.
- Infinite Utterance Organization (IUO)
  - Verbs prevalent, connecting agents and affected objects, etc. No distinction is made between finite and nonfinite verbs at this stage.
- Finite Utterance Organization (FUO)
  - Difference between finite and nonfinite verbs.
NUO

- One man for the window
- De boot weg ‘The boat away’
- Daughter’s dad no job
- Les deux content ‘the two of them happy’
- Daar ook de man ‘there also the man’

IUO

- Back door stand the policeman
- She pushin policeman
- Charlie and girl and policeman put on the floor
- Charlie get up first
- Charlie hittin the head
- Car gone

**Basic learner variety**

- IUO seems to be characterized by a small number of phrasal patterns:
  - NP₁ — V — NP₂
  - NP₁ {Cop} (NP₂ , Adj, PP)
  - V — NP₂
- And their language use seems to be driven by sometimes-conflicting constraints:
  - Controller first
  - New information last
- NUO/IUO is probably the closest analog to “pragmatic mode” in the ESF study.

**A comment about production studies**

- Studying spontaneous production is not necessarily a good indicator of the actual knowledge of the second language learners.
- If you see that 100% of the utterances of a speaker are TL-grammatical (and even TL-felicitous), this still doesn’t guarantee that they have TL-like language knowledge; for one thing, they could quite plausibly be avoiding constructions that they do not have the knowledge to use properly.

**A comment about production studies**

- Consider the “basic learner variety” characterized by the small number of phrasal patterns. It’s likely that even in native L1 speech, there are several phrasal patterns which predominate, but the knowledge of the native speaker presumably far exceeds that simply detectible by the predominant patterns.
- This is the whole issue behind “poverty of the stimulus” after all.

**A comment about production studies**

- Much better are studies “in the lab” which attempt to elicit specific responses (or grammaticality/felicity judgments), because the threat of avoidance skewing the results is much reduced.
- Laboratory studies have their own problems, of course, not least among them the assumption that people’s behavior in the laboratory truly reflects their knowledge (not, for example, contaminated by over-reliance on prescriptive rules).
A fair amount of the existing research seemed to be adopting to a view that says that L2 acquisition (universally, regardless of L1) goes through an initial topic-prominent (pragmatically driven) stage.

Fuller & Gundel (1987) attempted to look specifically for this by studying the IL English of L1 speakers of Arabic, Farsi, Spanish (subject prominent), Chinese, Japanese, and Korean (topic prominent), looking for features common to topic prominent languages in the early IL.

Fuller & Gundel claimed they found evidence of a stage intermediate between topic-prominent structures, somewhat supporting the idea that L2 acquisition invariably starts with a topic-prominent stage.

However, F&G’s study made only a very superficial categorization of languages into topic-prominent and subject-prominent (for one thing, ignoring the issue of pro-drop)—and furthermore, it is not clear that subject-prominent vs. topic-prominent is really a binary parameter along which languages vary…

To get at the issue more directly, Jin (1994) studied L2 learners of Chinese ((the prototypical) topic-prominent language) whose L1 was English (non-topic-prominent)

If there is initially a topic-prominent stage and if the target language is a topic-prominent language, then we would expect relative ease in acquiring the topic-prominent aspects of Chinese.

Jin found, however, that the L2 Chinese learners only became capable of using the topic-prominent properties at relatively high levels of proficiency.

Transfer seemed to play the biggest role.

Language knowledge includes a sophisticated knowledge of language use (pragmatics), aspects of which differ from language to language—an aspect of language knowledge which seems to be just as important as grammatical knowledge.

It appears that form is often acquired prior to function; that is, acquiring the pragmatic knowledge is sometimes slower.

There is debate about whether learners go through a developmental process from mainly “pragmatic” to mainly “syntactic”—but the clearest and most direct evidence seems to have shown much more effect of transfer of L1 language properties than of a universal pragmatic (or topic-prominent) stage.