Unit 02 An Introduction to Text Production (1)

within the SYSTEMIC FUNCTIONAL model of language

Slides for the session of Written Expression held on We 22 x 2025

> Robert Spence { English | LangSciTech } Saarland University

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

To the memory of my teacher:



Image supplied by M.A.K. Halliday

M.A.K. Halliday (13.4.1925-15.4.2018)

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

1 Knowledge structures and knowers

2 Symbolic meaning and the evolutionary order of nature

3 Signs and semiotic systems

4 Language is as it is because of what it has to do

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

02.4

1 To discuss and understand the difference between 'hierarchical' and 'horizontal' knowledge structures on the cline between 'sciences' and 'humanities'

we

An Introduction to Text Production (1)

Goal

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

To discuss and understand the difference between 'hierarchical' and 'horizontal' knowledge structures on the cline between 'sciences' and 'humanities'

2 To criticize the (undefined) term "written expression"

we

An Introduction to Text Production (1)

Goal

Some ways people learn

The evolutionary order

Signs and semiotic systems

- To discuss and understand the difference between 'hierarchical' and 'horizontal' knowledge structures on the cline between 'sciences' and 'humanities'
- 2 To criticize the (undefined) term "written expression"
- To introduce some basic concepts from 'Appliable Linguistics' that are useful for understanding how texts work, how they are structured, and how to produce them

we

An Introduction to Text Production (1)

Goal

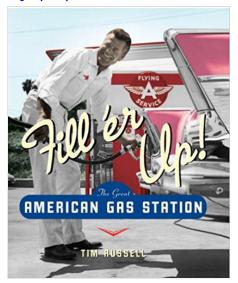
Some ways people learn

The evolutionary order

Signs and semiotic systems

- To discuss and understand the difference between 'hierarchical' and 'horizontal' knowledge structures on the cline between 'sciences' and 'humanities'
- 2 To criticize the (undefined) term "written expression"
- To introduce some basic concepts from 'Appliable Linguistics' that are useful for understanding how texts work, how they are structured, and how to produce them
- To look at some actual examples of texts see the handout from week 01: "Some texts to think about"

 Knowledge structures and knowers, or: Some ways people learn



Source: https://www.amazon.com/Filler-Up-Great-American-Station/dp/0785829865

... doing woodwork versus doing Woodwork

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (Lost in Translation)

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (Lost in Translation)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (Lost in Translation)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (*Lost in Translation*)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (*Lost in Translation*)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

Why don't we teach text production like ...

... shoelace-tying?

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (*Lost in Translation*)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

- ... shoelace-tying?
- ... physics?

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (Lost in Translation)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

- ... shoelace-tying?
- ... physics?
- ... linguistics?

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Functionalism

- ... doing woodwork versus doing Woodwork
- ... expressing yourself in writing versus doing Written Expression
 - "More expression" = "More intensity"? (Lost in Translation)
 - https://www.youtube.com/watch?v=qG6GaQl6wwA
- ... producing texts versus doing Text Production

- ... shoelace-tying?
- ... physics?
- ... linguistics?
- ... hairdressing?

Pedagogic discourses and knowledge structures

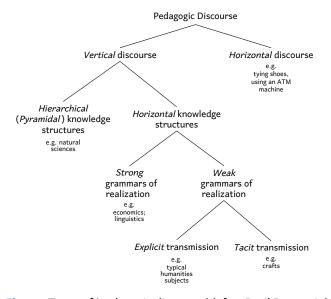


Figure: Types of 'pedagogic discourse' (after Basil Bernstein)



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

'Knowledge' structures and 'knower' structures (1)

For Bernstein, a hierarchical knowledge structure is "a coherent, explicit and systematically principled structure, hierarchically organized" (2000: 160) which "attempts to create very general propositions and theories, which integrate knowledge at lower levels, and in this way shows underlying uniformities across an expanding range of apparently different phenomena" (2000: 161). Bernstein uses a triangle to symbolize a knowledge structure of this kind, commenting in a footnote that there "is likely to be more than one triangle in a hierarchical knowledge structure" but that "the motivation is towards triangles with the broadest base and the most powerful apex" (2000: 172), where the apex refers to 'propositions' and the base to 'phenomena':



we

An Introduction to Text Production (1)

Goals

Some ways people

The evolutionary order

Signs and semiotic systems

Functionalism

[Martin & Maton 2017: 23]

'Knowledge' structures and 'knower' structures (2)

A horizontal knowledge structure is defined as "a series of specialized languages with specialized modes of interrogation and criteria for the construction and circulation of texts" (2000: 162), such as often illustrated by the disciplines of the humanities and social sciences. Bernstein suggests that these segmented knowledge structures can be visualized as a series of L's (standing for their specialized languages).

L1 L2 L3 L4 L5 L6 L7... Ln

[Martin & Maton 2017: 23-24]



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

'Knowledge' structures and 'knower' structures (3)

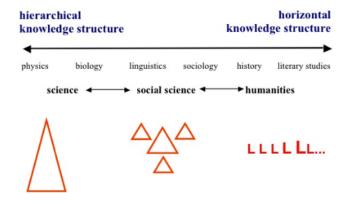


Figure: Knowledge structures (diagram from: Martin & Maton 2017: 27)

we

An Introduction to Text Production (1)

Goals

Some ways people

The evolutionary order

Signs and semiotic systems

'Knowledge' structures and 'knower' structures (4)

A hierarchical knower structure is "a systematically principled and hierarchical organization of knowers based on the construction of an ideal knower and which develops through the integration of new knowers at lower levels and across an expanding range of different dispositions" (Maton, 2014b: 70). This can be represented as a triangle, with an ideal knower at the apex and a range of novices at the base:



We can illustrate this knower hierarchy by considering the ways in which, as education has expanded over the past century, the humanities have aimed at embracing a greater range of learners and cultivating their dispositions to inculcate a particular 'gaze', such as a literary or artistic gaze. In other words, over time the base embraces more kinds of knowers and the aim is to cultivate or socialize their dispositions towards becoming similar to the ideal knower at the apex of the triangle and thereby move those knowers up the triangle. [Martin & Maton 2017: 30]

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order
Signs and semiotic

'Knowledge' structures and 'knower' structures (5)

In contrast, a horizontal knower structure is "a series of strongly bounded knowers, each with specialized modes of being, thinking, feeling and acting, with non-comparable dispositions based on different trajectories and experiences" (Maton, 2014b: 92). This can be represented as a series of segmented knowers

$$Kr^{1}Kr^{2}Kr^{3}Kr^{4}Kr^{5}...Kr^{n}$$

This can be illustrated by claims made by many proponents of natural science that the social profile of scientists is irrelevant for scientific insight and anyone can claim legitimate knowledge so long as they follow the correct principles and procedures. In terms of their non-scientific dispositions, scientists thereby represent a segmented series of strongly bounded knowers—they can be very different to each other (Maton, 2014b: 91). [Martin & Maton 2017: 30]



An Introduction to Text Production (1)

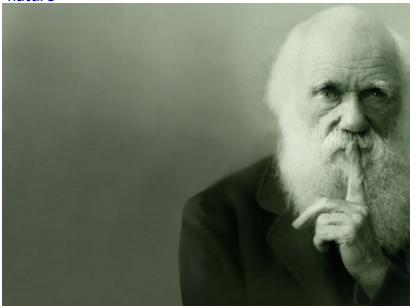
Goals

Some ways learn

The evolutionary order

Signs and semiotic systems

• Symbolic meaning and the evolutionary order of nature



Corress batters //www.businesishings our/tor/shoules domin

The place of language in the evolutionary order of nature:



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

• matter + life \rightarrow function



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- $\bullet \qquad \qquad \textbf{life} + \textbf{society} \rightarrow \textit{value}$

Gebrauchswert

↓ Tauschwert we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

• matter
$$+$$
 life \rightarrow function

• life
$$+$$
 society \rightarrow $value$

Gebrauchswert ↓ Tauschwert

 $oldsymbol{\mathsf{society}} + oldsymbol{\mathsf{language}} o oldsymbol{\mathsf{\mathit{meaning}}}$



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- $\bullet \ \, \textbf{matter} + \textbf{life} \rightarrow \textit{function}$
- life + society \rightarrow value $\overset{Gebrauchswert}{\downarrow}$ Tauschwert
- ullet society + language o meaning
 - [before there is grammar:]
 - sounds 'standing for' meanings → words



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- life + society \rightarrow value $\overset{Gebrauchswert}{\downarrow}$
- ullet society + language o meaning
 - [before there is grammar:]
 - sounds 'standing for' meanings \rightarrow words
 - [once there is grammar:]
 - sounds 'stand for' words ...



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- $\textbf{life} + \textbf{society} \rightarrow \textit{value} \quad \begin{matrix} \textit{Gebrauchswert} \\ \downarrow \\ \textit{Tauschwert} \end{matrix}$
- ullet society + language o meaning
 - [before there is grammar:]
 - sounds 'standing for' meanings → words
 - [once there is grammar:]
 - sounds 'stand for' words ...
 - ... and words in structures 'stand for' meanings



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- life + society \rightarrow value \downarrow Tauschwert
- [before there is grammar:]
 - sounds 'standing for' meanings → words
 - [once there is grammar:]
 - sounds 'stand for' words ...
 - ... and words in structures 'stand for' meanings

 $society + language \rightarrow meaning$

• thus, adult human language has three 'levels' or 'strata':



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- life + society \rightarrow value \downarrow Tauschwert
 - [before there is grammar:]
 - sounds 'standing for' meanings → words
 - [once there is grammar:]
 - sounds 'stand for' words ...
 - ... and words in structures 'stand for' meanings

 $society + language \rightarrow meaning$

- thus, adult human language has three 'levels' or 'strata':
- meanings



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

we

The place of language in the evolutionary order of nature:

- matter + life \rightarrow function
- life + society \rightarrow value $\stackrel{Gebrauchswert}{\downarrow}$
 - $society + language \rightarrow meaning$
 - [before there is grammar:]
 - sounds 'standing for' meanings → words
 - [once there is grammar:]
 - sounds 'stand for' words ...
 - ... and words in structures 'stand for' meanings
 - thus, adult human language has three 'levels' or 'strata':
 - meanings
 - ... stood for by **wordings**

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

we

The place of language in the evolutionary order of nature:

- $\bullet \ \, \textbf{matter} + \textbf{life} \rightarrow \textit{function}$
- life + society o value Gebrauchswert
- ullet society + language o meaning
 - [before there is grammar:]
 - sounds 'standing for' meanings → words
 - [once there is grammar:]
 - sounds 'stand for' words ...
 - ... and words in structures 'stand for' meanings
 - thus, adult human language has three 'levels' or 'strata':
 - meanings
 - ... stood for by wordings
 - ... stood for by sound(ing)s

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

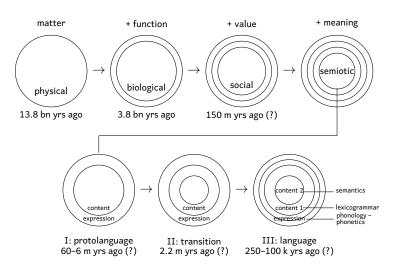


Figure: From matter to meaning (after C. M. I. M. Matthiessen)



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (1)

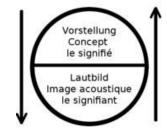


Figure: The sign function (Saussure)

Source: Wikipedia

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (2)

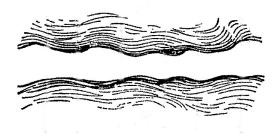


Figure: Without language, thought and sound are indefinite and indistinct

Source: adapted from Saussure (1916); Wikipedia

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (3)

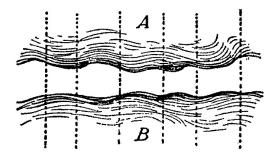


Figure: With language: the arbitrariness of the sign and the notion of *valeur*

Source: Saussure (1916); Wikipedia

we

An Introduction to Text Production (1)

Goals

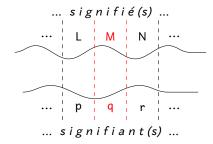
Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (4): *l'arbitraire du signe* & *valeur*

language (... L/p, M/q, N/r, ...) is a form, not a substance



- that q stands for M is ARBITRARY
- M is only defined by its VALUE relative to { ... L ... N ...}
- q is only defined by its VALUE relative to { ... p ... r ... }

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (5): an extraterrestrial example



Figure: Klingon has 8 different concepts where English has only 'fight'; and don't confuse the final sound of "qaH" [qhax] ('Sir!') vs "qagh" [qhay] ('worms')

we

An Introduction to Text Production (1)

Goals

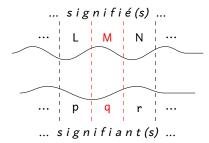
Some ways people learn

The evolutionary order

Signs and semiotic systems

Signs and semiotic systems (6): l'arbitraire du signe \longleftrightarrow valeur

• language (... L/p, M/q, N/r, ...) is a form, not a substance



- that q stands for M is ARBITRARY
- M is only defined by its VALUE relative to { ... L ... N ...}
- q is only defined by its VALUE relative to { ... p ... r ... }
- society (a speech community) is necessary to define these SYSTEMS of values
- were the signifiant / signifié relation natural, not arbitrary, it would not be necessary for the speech community to so strictly police the boundaries between the signs within the system

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

A semiotic system = a system of signs

 Each sign can only be defined by its place in the system of signs.



Source: Wikipedia

- Language is a system of signs.
- Read:

Ferdinand de Saussure: *Cours de linguistique générale*. 1916.

Available online.

These five paragraphs from Saussure (1916) are ...
 ... the most important thing I will ever be able to teach you about language:



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Evolution is a dimensional condition (1)



Nothing in biology makes sense except in the light of evolution. – palaeontologist/theologian Th. Dobzhansky

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Evolution is a dimensional condition (2)



(Evolution) is a general postulate to which all theories, all hypotheses, all systems must henceforward bow and which they must satisfy in order to be thinkable and true. Evolution is a light which illuminates all facts, a trajectory which all lines of thought must follow —this is what evolution is. – palaeontologist/theologian P. Teilhard de Chardin

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The human "mind" evolved

In the distant future I see open fields for far more important researches. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity by gradation. Light will be thrown on the origin of man and his history.

[Darwin 1859: 488]



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

• Language is as it is because of what it has to do



[Stanley Kubrick: 2001 A Space Odyssey, MGM, 1968.]

Like the "mind", language evolved—in contexts of use

(On the justification for the word 'functional' in what M. A. K. Halliday calls 'functional grammar':)

It is functional in the sense that it is designed to account for how the language is **used**. Every text — that is, everything that is said or written — unfolds in some context of use; furthermore, it is the uses of language that, over tens of thousands of generations, have shaped the system. Language has evolved to satisfy human needs; and the way it is organized is functional with respect to those needs — it is not arbitrary. A functional grammar is essentially a 'natural' grammar, in the sense that everything in it can be explained, ultimately, by reference to how language is used.

[M. A. K. Halliday, *An Introduction to Functional Grammar*, London: Longman, 1994²: xiii]

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

The internal organization of language reflects its external functions

Following from this, the fundamental components of **meaning** in language are functional components. All languages are organized around two main kinds of meaning, the 'ideational' or reflective, and the 'interpersonal' or active. These components, called 'metafunctions' in the terminology of the present theory, are the manifestations in the linguistic system of the two very general purposes which underlie all uses of language: (i) to understand the environment (ideational), and (ii) to act on the others in it (interpersonal). Combined with these is a third metafunctional component, the 'textual', which breathes relevance into the other two.

[M. A. K. Halliday, *An Introduction to Functional Grammar*, London: Longman, 1994²: xiv]

we

An Introduction to Text Production (1)

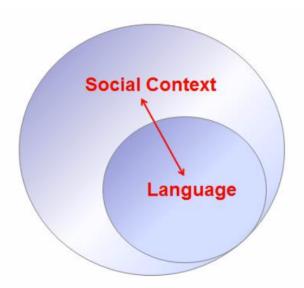
Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (1)





An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (2)

Functional model of language



The EAL Academy

we

An Introduction to Text Production (1)

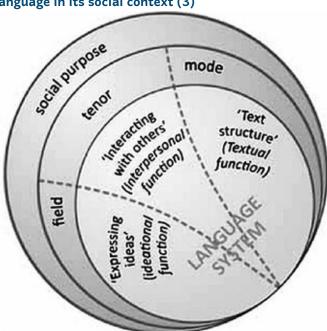
Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (3)



we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (4): REGISTER

Figure 2.4 Relation of the text to the context of situation

SITUATION: Feature of the context	(realised by)	TEXT: Functional component of semantic system
Field of discourse (what is going on)		Experiential meanings (transitivity, naming, etc.)
Tenor of discourse (who are taking part)		Interpersonal meanings (mood, modality, person, etc.)
Mode of discourse (role assigned to language)		Textual meanings (theme, information, cohesive relations)

– M. A. K. Halliday (1985). 'Functions of language'. ch. 2 of: M. A. K. Halliday & Ruqaiya Hasan (1985). Language, context, and text: aspects of language in a social-semiotic perspective. Geelong: Deakin Univ. Press



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (4a): FIELD

The FIELD OF DISCOURSE refers to what is happening, to the nature of the social action that is taking place: what is it that the participants are engaged in, in which the language figures as some central component?

– M. A. K. HALLIDAY (1985)

What can you say about the FIELD OF DISCOURSE of texts A, B, C, and D in your handout?

//www.spence.saar.de/writtenexpression/texts/index.pdf

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (4b): TENOR

we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order
Signs and semiotic

systems

Functionalism

The TENOR OF DISCOURSE refers to who is taking part, to the nature of the participants, their statuses and roles: what kinds of role relationship obtain among the participants, including permanent and temporary relationships of one kind or another, both the types of speech role that they are taking on in the dialogue and the whole cluster of socially significant relationships in which they are involved?

– M. A. K. HALLIDAY (1985)

What can you say about the TENOR OF DISCOURSE of texts A, B, C, and D in your handout? http:

//www.spence.saar.de/writtenexpression/texts/index.pdf

Language in its social context (4c): MODE

The MODE OF DISCOURSE refers to what part the language is playing, what it is that the participants are expecting the language to do for them in that situation: the symbolic organisation of the text, the status that it has, and its function in the context, including the channel (is it spoken or written or some combination of the two?) and also the rhetorical mode, what is being achieved by the text in terms of such categories as persuasive, expository, didactic, and the like.

– M. A. K. HALLIDAY (1985)

What can you say about the MODE OF DISCOURSE of texts A, B, C, and D in your handout?

http://www.spence.saar.de/writtenexpression/texts/some_ texts_to_think_about.pdf



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems

Language in its social context (5): GENRE

GENRE is "a staged, goal-oriented social process. Genres are not only types of texts defined by formal structural or semantic features, but recurrent configurations of meaning produced by speakers and writers in the process of achieving some social purpose."

 Marianna Achugar, Review of Martin and Rose 2008 in Language in Society 39: 411-426)

(Note: "staged", here, means "divided into stages"; and for Halliday himself, GENRE is simply the "rhetorical mode", rather than being a separate, higher level "above" field, tenor, and mode.)

What can you say about the GENRE of texts A, B, C, and D in your handout?

http://www.spence.saar.de/writtenexpression/texts/some_ texts_to_think_about.pdf

Concentrate on the questions: "What social purpose is being served by these texts?" ("What kind of social occasion would involve choosing precisely *this* combination of Field, Tenor, and Mode?")

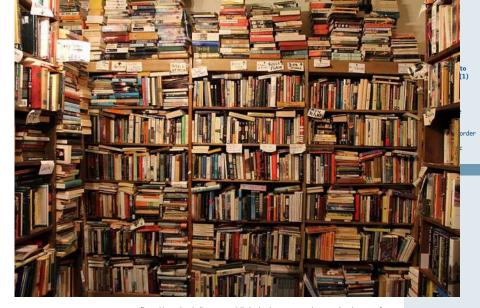
we

An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order
Signs and semiotic



[http://www.listchallenges.com/all-the-books-one-remembers-reading-by-sonita]

Bibliography

BERNSTEIN, Basil (2000). 'Vertical and Horizontal Discourse: An Essay'. In: Basil BERNSTEIN, Pedagogy, Symbolic Control, and Identity. Lanham, Maryland: Rowman and Littlefield, (revised edition).

DARWIN, Charles Robert (1859). On the Origin of Species by means of natural selection. London: Murray.

 $\label{lem:http://darwin-online.org.uk/content/frameset?itemID=F373&viewtype=text\&pageseq=1$

DOBZHANSKY, Theodosius (1973). 'Nothing in Biology Makes Sense Except in the Light of Evolution'. *The American Biology Teacher*, **35**: 3 (Mar. 1973), pp. 125-129.

Halliday, M. A. K. & Hasan, Ruqaiya (1985). *Language, Context, and Text. Aspects of language in a social-semiotic perspective.* Geelong: Deakin Univ. Press.

Halliday, M. A. K. (1994^2) An Introduction to Functional Grammar. London, Longman. Halliday, M. A. K. & Martin, J. R. (1993). Writing Science: Literacy and Discursive Power. Bristol/London: The Falmer Press.

Halliday, M. A. K. & Matthessen, Christian M. I. M. (1999). Construing Experience through Meaning. London: Cassell (Open linguistics series, edited by Robin Fawcett). Martin, J. R. & Maton, Karl (2017). 'Systemic functional linguistics and Legitimation Code Theory on education: Rethinking field and knowledge structure'. Onomazein, SFL, 12-45. http://dx.doi.org/10.7764/onomazein.sfl.02

 $\label{eq:martin, J. R. & Rose, David (2007)} \textit{Working with discourse: Meaning beyond the clause (2nd ed.). London: Continuum.}$

Maton, Karl (2014b). Knowledge and Knowers: Towards a Realist Sociology of Education. London: Routledge.

de Saussure, Ferdinand (1916). Cours de linguistique générale. https://fr.

wikisource.org/wiki/Cours_de_linguistique_g%C3%A9n%C3%A9rale/Texte_entier Teilhard de Chardin, Pierre (1961) *The Phenomenon of Man.* Harper Torchbooks, The Cloister Library, Harper & Row, Publishers.



An Introduction to Text Production (1)

Goals

Some ways people learn

The evolutionary order

Signs and semiotic systems