Outline of a Theory of Interpretation
ESSLLI 2022 Course Proposal

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**Title:** Outline of a Theory of Interpretation

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**Category:** Advanced

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**Abstract:** The course formally elaborates the idea of a theory of interpretation by translation, mostly in the spirit of Frege, Quine, Davidson and Kamp. The course provides some minimal formal tools required for presenting our extensional understanding of actual discourse, including intensional discourse, and a more or less philosophical motivation for presenting it this way. While most of the developed formalism will be by and large similar to the relatively common semantics architectures, the proposed approach distinguishes itself in that it tries and accomplish all this with no, or the least possible, ontological and representational commitments. We make no assumptions about what meanings are, or possibilities, or representations—or objects, for that matter, nor about how one could go about modeling them. The course might be very adequately characterized as a training in a logical, Fregean, understanding of DRT, and related formalisms.

In the course we will step by step develop the language and its logic. We motivate and introduce the formal language in various stages, each time explaining how it is to be understood (explain its *Sinn* so to speak), characterize its logic, and indicate how it can be interpreted model-theoretically (sketch its possible *Bedeutung*). The, minimal, logical architecture will be seen to allow for a neat but also novel understanding of the logical connectives, indexicals, names, propositional attitudes, and intentional existence. Even though it will not be explicitly argued here, the proposed architecture can be claimed to be compatible with various more specifically charged frameworks like those of formal dynamic semantics and cognitive conceptual grammar, and distributional approaches to meaning.

**Keywords:** theory of interpretation, dynamic semantics, discourse representation, proper names, indexicals, identity, necessity, propositional attitudes, natural deduction, logical space, intentional being.
Motivation  There exists no consensus about what the proper format of a theory of meaning should be like, and this seems to be quite rightly so. While dedicated branches of linguistics, philosophy and cognitive science benefit from their own choices for particular interpretive architectures, no one can, of course, claim to have adopted the one and only true theory of meaning. And no one should, of course, for obvious philosophical reasons, but also for practical ones. I propose, instead, an architecture of interpretation as translation that aims to combine basic insights from—surprisingly, perhaps, to find them together—Frege, Quine, Davidson, Hintikka, and Kamp. The architecture does, formally speaking, not appear to be truly novel, as it employs a “conceptual notation”, reminiscent of the logical forms in grammars developed in the Chomsky- and Montague- and Kamp-traditions. The presentation and interpretation, of these structures is, however, significantly different.

In the spirit of (Quine 1960; Davidson 1967), among many others, our intentional understanding of extensional discourse is framed in translations in a formal language the interpretation of which is assumed to be familiar. The ensuing readings are given in the convenient format of structures which formally resemble the discourse representation structures of (Kamp 1981; Kamp, Van Genabith & Reyle 2011; Geurts, Beaver & Maier 2016), but for the fact that they are not conceived of as representations, but as presentations, like the structures and models familiar from cognitive grammar. Distinct from the latter structures, however, the contents of the structures are characterized by the inferences that they license, in the format of a natural deduction system in the style of Anderson and Johnstone. The proof-theory itself is backed up by a specification of their satisfaction conditions, in the formal style of Tarski, relative to which the dynamic proof system is shown to be sound and complete. The formal language indeed inherits the character of a conceptual notation (Frege’s Begriffsschrift), except for the fact that its logic and ontology is explicitly ‘ours’, and is not aimed at displaying the logical form, if any such exists, of the discourses to be interpreted.

The approach advocated has two major distinctive characteristics, implicit in our aim to provide for an extensionalist understanding of actual intentional discourse. First, it is actualist. The aim is to provide translations of actually occurring, “live”, pieces of discourse, which we, in our words, try to make sense of, and the obtained translations themselves are assumed to be “live”, too. Such may suffice to provide an anchor to the world, time and place (if any) of a discourse, and of its translation, as they can be defined as the world, time and place (if any) of its occurrence. Second, it is intentionalist. We assume that the reader/user can herself read and understand the translations, guided by the additionally supplied statement of their logic and satisfaction conditions. These interpretations so to speak provide our “access” to propositions and concepts (Fregean thoughts, or “Sinne”, so-called), while it must be understood that the thoughts and concepts are there only intentionally, through the (intentional) presentation. Unlike Frege, we make no ontological commitments, not to thoughts, propositions, not even to possibilities, for the time being. Neither do we, of course, make any representationalist assumptions. By the end of the week, we will, however, be able to employ Quine to open the door to Fregean realms of thought, or other areas of metaphysical speculation.

While the approach advocated in this course is, naturally, formulated in some specific formalism, I hope its modest presuppositions allow the particular treatments of names, anaphors, demonstratives, propositional attitudes and intentional being, to be transportable to (formal) frameworks of any other kind.
Course Outline  Here is day to day list of main subject, with acronym of the associated formalism, and the subordinate subjects that (may) pass the review.

Day 1 Implication by Exclusion (EPL)
- Theory of Interpretation by Translation
- Generalized Peirce-Sheffer Stroke
- Natural Deduction and the ‘Excluded’ Third

Day 2 Discourse Reference and Dynamic Entailment (IPL)
- Declarations of Discourse Referents (Heim-Vermeulen-style)
- Indexical Coreference (de Bruijn-style)
- Dynamic Interpretation and Discourse Representation

Day 3 Logic and Use of Names in Discourse (DPT)
- Referential and Predicative Uses of Names
- Discourse Re-Presentations and Nominal Declarations
- Anaphoric Rigidity and Stubborn Identity

Day 4 Presentations of Beliefs about Reality (IPT)
- Characterization of Intentional States
- ‘Logical Omniscience’ so-called
- De Rebus Characterization of the Attitudes

Day 5 Talk about Things Non-Existent (TBC)
- The Problem of Non-Existence
- Intentional Reification
- Construal of Intentional Being

For each class preparatory readings are made available. They will not themselves be discussed in class, but they will facilitate the students to enter the class in the right frame of mind. By and large the plan is then as follows. On each meeting I aim to start with a brief overview of the main extant position on the subject of that day. Next I provide a motivation for accommodating it in our language, and present and explain the relevant aspects of its logic and semantics. Finally I will, whenever relevant, discuss the philosophical and practical implications of doing it this way, rather than possibly other ways. Of course, each individual meeting may deviate somewhat from this general plan.

Detailed Course Description  In order to bypass, and subsequently motivate, a particular semantics, I will begin the course the first two days by presenting a proof theory for a language with the expressive power of first order predicate logic, but also with the computational benefits of Discourse Representation Theory. The logic will be seen to be autonomous in the sense that it is, (a) motivated by logical considerations only, not linguistic or semantic ones, (b) it is free from artifacts like variables, (c) it is free from essentialist and existentialist assumptions,
and (d) it is genuinely indexical, in that the rules essentially only draw from resources actually
given, not postulated.

In the third class the formalism is restated in terms of structures from the DRT-framework,
and a presentationalist understanding of DRT’s discourse representational formalism is given.
Such a reinterpretation is primarily motivated so as to re-emphasize DRT’s original cognitive
psychological ambitions (Kamp 1981). Like I said, the translations that we obtain are assumed
to be understood, and they serve to re-present (i.e., present again) what we take from an ac-
tually given piece of discourse, just like diagrams and models are used in various versions
of Cognitive Grammar, like that of, e.g., (Langacker 1987, Croft and Cruse 2004, Fauconnier
2010). The actualist intentional understanding of DRT is next shown to give a clue to the
proper interpretation of names. The indexical DRT formalism presents individuals by names,
and projects their resolution. Their purely logical role is captured by natural deduction-style
declarations, while their discourse role is assumed to be captured further by a van der Sandt-
style presupposition projection, with, again, an actualist interpretation. We finally, tentatively,
introduce a necessity, and associated possibility operator, and our proof-theoretic outlook on
interpretation will next be employed against a Kripkean interpretation of identity statements
as necessities. Necessary conclusions should be derived, by logical means, from necessity as-
sumptions.

Our understanding of propositional attitude reports in the fourth class furthers the presen-
tationalist, and non-representationalist, outlook on meaning. Such motivates an interpretation
of their objects in the style of Hintikka, Stalnaker and Lewis, and perhaps Quine, as presen-
tations, in our own terminology or language, of possibilities relative to which we could make
sense of the actual verbal and non-verbal of the agents characterized. The so-called problems
of ‘logical omniscience’ and of the ‘deductive closure’ of beliefs are argued to be a misnomer
for the demonstratively improper use of these attitude ascriptions. The actual use of various
attitude description may vary from context to context, more flexibly even than Stalnaker ob-
served. More challenging has been the question how reported beliefs and intentions of other
people can be seen to be related to individuals assumed to actually exist. This can be seen
to make sense if we can see the relevant beliefs (like the necessities mentioned above) derive
from other beliefs, which are assumed to be joint beliefs about a shared situation, which in its
turn houses the individuals in question. The proper treatment of such locutions then, inspired,
but not guided, by the work of Aloni 2005, also gives us a hand in making sense of talk about
non-existent objects, the subject of the last lecture.

This last subject poses two challenges. How to make sense of talk about things that don’t
exist, that is a problem adequately, but obviously not decisively, addressed by Quine in his
“On What There Is”. Too many linguists and philosophers somehow deploy Quine to support
their unwieldy possibilist, fictional, or representational universes, just because talk of that
there is. (For after all, Quine himself admitted that he had opened the door to speculative
metaphysics, in his famous paper on the “Two Dogma of empiricism”.) The first challenge is
to make sense of such talk, without making unwanted ontological commitments. From the
presentationalist understanding of DRT, the answer to this challenge consists in the method
of intentional reification. Like extensional reification, intentional reification is a form of con-
strual, but one without particular empirical truth-conditional impact. Intentional reification
remains intentional in that it, only, serves to contribute to our understanding of intentional
states or spaces as being coordinated. Its impact is theoretical. The possibility to understand,
and also construct, intentional space, next provides a means of appreciating and evaluating
speculative and perhaps mathematical discourse. The hypothesization, or stipulation, or defi-
nition of a formal or even substantial domain of objects, may serve to disclose an intentional space, which can be made intuitively accessible if it is assumed to elaborate a certain jointly understood and abstract part of our real world. This suggest the possibility of, e.g., a Quinean speculative metaphysical glance at Frege’s famous third realm, as Frege perhaps dreamt of in his Grundlagen (1884), from the arguably phenomenological perspective that Frege briefly sketched at the end of his Gedanke (1918). This final part of the course will be very speculative itself, of course.

**Level and Teaching Goals** The course is classified as advanced, since it aims to address a select group of students with mature logical skills and linguistic / philosophical interests. Even so, I believe, the material is readily and naturally accessible, so it would not be improper to eventually classify it as introductory, for a select audience, that is. The aims are to:

- provide students with a philosophical background appropriate for a Theory of Interpretation and achieve some level in practicing and oneself developing it;
- enhance the understanding of a Fregean *Begriffsschrift*, or a framework like that of *Discourse Representation Theory*, as samples of such a Theory of Interpretation.
- develop a flexible attitude in thinking about meaning in various monolithic approaches to meaning such as embodied in Montague grammar, cognitive grammar, distributional semantics, dynamic semantics, inquisitive semantics, situation semantics, etc.;
- support the student in maintaining a properly positive, so also critical, attitude towards metaphysical thinking (substantialist and representationalist);
- present each student with at least one insight that will occupy (inspire or frustrate) her for a substantial period in her future intellectual life.

**Background of the Lecturer and Previous Experience with ESSLII** The course builds on, furthers and systematizes my previous work of the last seven years or so on dynamic interpretation, indexical inference, compositionality and contextuality, attitude ascriptions and talk about non-existent objects. Most of it has been published¹ and presented on previous occasions² or in master classes³. The Summer School provides for an excellent platform to develop and present the whole in one coherent program of work.

I have attended many ESSLLI’s. I visited the first two as a lecturer and as a student, and I only failed nine afterwards. Over the years I have delivered various contributions to ESSLLI courses and workshops, and I gave two classes (in Saarbruecken, 1998, with David Beaver, and in Trento, 2002 with Robert van Rooij), and one workshop (in Malaga, 2006, with Hedde Zeijlstra). I was the chair of the program committee of ESSLLI Edinburgh in 2005.

I have for quite some time not submitted course or workshop proposals because I figured as the chair of the ESSLLI Standing Committee from 2007 to 2017, and in that capacity I have installed the rule that persons in that capacity, which have a sounding voice in establishing the program, ought not to submit proposals themselves, like the members of the program committee. Since then, a rudimentary version of in conception the same course has been presented at ESSLLI 2019 in Riga for a group of 15 dedicated students and colleagues.

The present proposal can be called “Old School”, in that it does not contribute to a current popular theme, neither does it provide an overview of recent work on a topical issue. Like in the old days of ESSLLI, I hope the course can be appreciated for its own sake, and that it may serve in contributing both to the maintaining of a common ground in classical logico-philosophical issues, and to the actual defining, elaborating and evaluating all the current work that can be subsumed under the umbrella “Theory of Interpretation”. I would therefore be very happy and honored if the programme committee judged this class suitable for presentation.

External Funding Will be provided by the lecturer’s home institution.

References
[This is list of references relevant to the course.]


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