

The Riddle of Dependences. How to connect entities, across pragmatism, phenomenology, and structuralism

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Abstract. Dependence relations between units analyzed play a central role in many versions of structuralism. This paper investigates such dependences with the point of departure in the simple, three-type calculus of unilateral dependence, mutual dependence and independence, occurring in both Husserl's Logical Investigations (1900) and Hjelmlev's Prolegomena (1943). The main aim of the paper is to chart three further developments of the three-dependence scheme, in Peirce, in the Hjelmlev of the Resumé (1973), and in Ingarden. Each of them constructs considerable complications of the simple scheme deemed necessary to chart basic structures of categories and meaning which the paper sets out to compare.

Keywords: Dependence, structuralism, Peirce, Husserl, Hjelmlev, Ingarden

1. Introduction

It is a strange fact that several important scholars of the 19th and 20th centuries preoccupied with issues of meaning and existence placed calculi of *dependences* at the center of their doctrines. The immediate reason is that they all recognize that in the world, in meanings claiming to refer to it, or in both, phenomena occur which are possible only if other phenomena also occur. The relation between such phenomena is one of *dependence*, and attempts to formalize it are seen, by such researchers as Charles Sanders Peirce (1839–1914), Edmund Husserl (1859–1938), Roman Jakobson (1896–1982), Louis Hjelmlev (1899–1965), and Roman Ingarden (1893–1970) as a crucial theoretical endeavor. Thus, the formalization of dependencies

is located at the epicentre of their respective doctrines. The special place of the five researchers mentioned here may be indicated by the fact that none of them clearly belongs to the two main schools of thought diverging through the 20th century, i.e. continental and analytical theory. To adherents of the continental school, dependence calculi would soon seem too formal, whereas the overarching theories of the five appeared to be too ambitious or even metaphysical to analytically minded researchers.

A central locus connecting ontology and meaning in dependences is Husserl's 3rd and 4th Investigations in his 1900–1901 classic *Logische Untersuchungen*, introducing an elementary triad of dependency types. This demonstrably influenced Ingarden, and to some degree also Jakobson. The influence on Hjelsmslev may be more indirect, while Peirce, as in many other respects, was working independently. I shall begin by briefly covering Husserl's argument for an elementary triad of dependency relations, which can be found, in different garbs, in all of the gang of five. But my main issue in this paper is to scrutinize how three of the figures mentioned, viz. Peirce, Hjelsmslev, and Ingarden, went on to take this elementary triad much further, each in their idiosyncratic way, to form more complicated and ambitious systems of dependences and dependence-related categories in logic, linguistics, and ontology. In all of the five, the relevant dependences are structural, simultaneous or synchronous relations, e.g. between an object and its properties, or between a sentence and its constituents.

It should, however, be stated clearly at the outset that the relations charted are not those of temporally extended cause-and-effect chains which might, sometimes, also be called "dependences".

2. Husserlian dependences

Edmund Husserl's early masterwork *Logische Untersuchungen* consists of a large Prolegomena and six investigations.¹² The former lays out Husserl's fundamental antipsychologism: what he aims at is general, logical, and phenomenological structure, not properties

12. Husserl 1975, 1984, Eng. version Husserl 1970.

of the human psyche in particular.¹³ The six investigations form one overarching argument: Beginning by 1) distinguishing signs endowed with meaning from signs merely indicating objects, Husserl goes on to 2) consider abstractions as a special subclass of the former, and 3) to make a crucial distinction within the set of abstract concepts, that between *parts* and *moments*. The former, also called “genuine” parts, are characterized by being separable, such as a leg of a table. The latter, “*unechte Teile*”, or moments, are inseparable, such as the surface of a table. The latter, as against Aristotle, include what is normally called properties, simple or relational, described by predicates.

These distinctions give rise to three different possible relations between parts and wholes: they may be *independent*, *unilaterally dependent*, or *mutually dependent*.¹⁴ A moment, for instance, is unilaterally dependent upon the object of which it is a part, or, as Husserl puts it, it is *founded* on that object. This theory of formal ontology is immediately put to use to frame a novel theory of the *a priori*, viz. that *a priori* conditions are precisely relations of foundation. The Husserlian theory of the *a priori* radically differs from the Kantian idea that the *a priori* consists in subjective conditions of thought, in that Husserl locates the *a priori* conditions in the object. This is why we may be in the wrong about *a priori* structures. As objects have form and matter, this paves the way for Husserl’s distinction between formal and material (or regional) ontologies – the former charting *a priori* structures of all possible objects; the latter charting *a priori* structures of specific regions or domains of existence.¹⁵ Special sciences, then, are founded on structures of regional ontological

13. This section summarizes parts of ch. 7–8 and 11 of my dissertation *Diagrammatology* (2007) where I claimed, in ch.7, that Hjelmlev’s further dependence calculi “necessitates further research surpassing the scope of this chapter”. In a sense this old debt is what I hope to pay a part of in the present paper.

14. Husserl 1984, 264–65, cf. also Smith (ed.) 1979; Smith 1994.

15. Husserl himself distinguished, top-down, three large fields of a regional ontology, the physical, the biological, and the psychical, while some of his important students rather worked bottom-up in devising regional theories of “social acts”, particularly judicial utterances (Adolf Reinach) or pure intentional objects, particularly literary fictions (Ingarden). On Husserl’s notion of the *a priori*, cf. Smith 1996.

concepts, which develop and are clarified along the development of those sciences, ultimately organized in foundation or dependence structures. In investigation 4, Husserl immediately elaborates his new ontological theory to focus on the ontology of grammar with noun and sentence, respectively, as the units on which other linguistic phenomena depend. In investigation 5, the same conceptual machinery gives birth to the first version of his *theory of intentionality* with the conscious, intentional act having four defining moments, its *quality*, *matter*, *representative content*, and *object*. The very starting spark of Roman Ingarden's momentous work, to which we return below, can be said to be the issue whether the object is in fact a *moment* of the intentional act (leading to idealism), or rather a *genuine part* of the act (leading to realism). So, the part/moment distinction may carry huge metaphysical implications. The long investigation 6 by Husserl develops an entire phenomenological epistemology based on these prerequisites, and was subject to a series of later revisions, again much contested exactly by Ingarden.

As to the issue of how to found these relations of foundation, our other four protagonists diverge. Peirce had developed his own doctrine of dependences and categories long before Husserl, ever since the 1860s, but he got hold of a copy of the *Logische Untersuchungen* briefly after its publication. Adopting Husserl's term "phenomenology" (later "phaneroscopy", and much else), Peirce rearticulated his category and dependence doctrine as an investigation of elementary categorical possibilities, bracketing existence in a phenomenological reduction. In the mature version of his three-category doctrine beginning in the 1880s, Peirce enriched that theory by a theory of "degeneracy", boosting it to hold a total of six categories. This had serious consequences for metaphysics and semiotics alike. Roman Jakobson was influenced by Husserl's third and fourth investigations in his linguistic structuralism, as has been argued by Elmar Holenstein.¹⁶ He coined the notion of "structuralism" in the late 20s, and his conception of struc-

16. The degree and timing of the influence of the *Logische Untersuchungen* on Jakobson, however, is contested. Koerner 1997 argues that explicit references to Husserl is found in Jakobson only beginning in the late 1930s so that the influence may be

ture, particularly his asymmetric binarism summed up in his and Troubetskoy's *marked/unmarked* distinction, is informed by Husserl's dependence calculus. Hjelmslev, of course, was Jakobson's friend – and antagonist – in the nascent international linguistic structuralism of the 1920–30s (cf. Jensen and Gregersen, this volume). It is well-known that Hjelmslev's increasingly austere, formal and would-be autonomous version of structuralism, possibly inspired by logical positivism, was inimical to Jakobsonian theory. Issues were Jakobson's binarism as well as his metaphysical inspirations from primarily Husserl and Peirce. Still, Hjelmslev's work *Omkring sprogteoriens grundlæggelse* of 1943 (*Prolegomena*, 1953/1961) actually defines exactly the same triad of dependences as those we found in Husserl's third investigation. This was pointed out, inter alia, by Paul Diderichsen.¹⁷ Hjelmslev, in fact, does not refer to Husserl, so it is not known whether he got the idea from indirect inspiration or whether he independently came to the same result. Already in his works of the 1930s, like *Sprogssystem og sprogforandring* (originally 1934) and *Catégorie des cas* (1935–37), Hjelmslev had elaborated further on dependences. And in the full-blown theory (only being published, in an English version, in the 1975 *Résumé of a theory of language*), to which *Prolegomena* was the prolegomena, his dependence calculus had diversified into a complicated structure with seven different opposition categories to which we shall return below. Finally, Ingarden was a direct pupil of Husserl's during the 1910s, in which period he gradually diverged from his master's increasing idealism. Actually, most of Ingarden's impressive work has its origin in an attempt to refute, from within the phenomenological tradition, that idealism. Ingarden adopted from that tradition, however, precisely the groundwork of the dependence calculus, which he, in the wartime first volume of his masterwork *Der Streit um die Existenz der Welt*, elaborated to diversify it into four different “existential” dependence types. So, both Peirce, Hjelmslev, and Ingarden radically developed and diversified an originally simple

one of affinities discovered by Jakobson “post rem” after the development of his own brand of structuralism in the 1920s-30s (Koerner 1997, 156).

17. Cf. below.

three-dependency theory. Why did they do that, and how do their improvements compare?

3. Peirce

Peirce famously took as the metaphysical basis of his philosophical system three basic categories, which he had developed already in the 1860s, in one of the many versions called *Quality*, *Relation* and *Representation*. Later, this was generalized to *First-*, *Second-* and *Thirdness*. These categories were derived from the structure of propositions – Peirce’s theory thus being a sort of logical, rather than linguistic, structuralism. Three aspects of proposition structure were 1) the Predicate, 2) the Subject, and 3) their mutual relationship in Propositions, following the Kantian idea that the development of metaphysical concepts should be allowed on the basis of logical concepts only.¹⁸ Ontologically, the three categories chart three different kinds of being, sometimes called *possibility*, *actuality*, and *reality*, later *may-bes*, *existence*, and *would-bes*. Importantly, the ability to tell these categories apart lies in a capacity of *distinctions* of which Peirce very early named three (“On a New List of Categories” 1867): *dissociation*, *prescission*, and *discrimination*.¹⁹ The idea is that there are three modes of separation between parts which may be undertaken in the analysis of a phenomenon: If we start with the most coarse, i.e. being able to distinguish *independent* qualities, e.g. red from blue (*dissociation*), we may go on to distinguish what may be supposed to *exist* without the other, e.g. space from color (*prescission*) and end with the most subtle, viz. being able to distinguish what may only be *represented* or *thought of* separately, e.g. colour from space (*discrimination*). This terminology remains constant in Peirce, and in the *Syllabus* (1903), the three modes of separation are directly connected to the definition of the three categories:

18. Cf. Stjernfelt 2021. On criteria for relations between logical formalisms and ontology: Smith 2005. On Peircean logic representations: Pietarinen 2006.

19. Cf. CP 1.549. References to *Collected Papers* are given by CP plus vol. and paragraph, to *Essential Peirce* by EP plus vol. and page.

In order to understand logic, it is necessary to get as clear notions as possible of these three categories and to gain the ability to recognize them in the different conceptions with which logic deals. Although all three of them are ubiquitous, yet certain kinds of separations may be effected upon them. They correspond to the three categories. Separation of Firstness, or Primal Separation, called Dissociation, consists in imagining one of the two separands without the other. It may be complete or incomplete. Separation of Secondness, or Secundal Separation, called Prescission, consists in supposing a state of things in which one element is present without the other, the one being logically possible without the other. Thus, we cannot imagine a sensuous quality without some degree of vividness. ... Separation of Thirdness, or Tertiary Separation, called discrimination, consists in representing one of the two separands without representing the other. If A can be prescinded from, i.e. supposed without, B, then B can, at least, be discriminated from A. (EP II, 270).²⁰

To sum up, *dissociation* distinguishes independent parts, *prescission* distinguishes a founding part from a founded part, while *discrimination* distinguishes all that can be represented in isolation, such as founded parts, be they in unilateral or mutual dependences – to rephrase Peirce’s distinction types in Husserlian foundation lingo. Not only are the three distinction types defined 1–2–3 with reference to the categories; these distinguishing abilities are also what make the very separation of Peirce’s basic categories possible in the first place. None of the three may be dissociated, however, but:

It is possible to prescind Firstness from Secondness. We can suppose a being whose whole life consists in one unvarying feeling of redness. But it is impossible to prescind Secondness from Firstness. For to suppose two things is to suppose two units; and however colourless and indefinite an object may be, it is something and therein has Firstness, even if it has nothing recognizable as a quality. Everything must have some nonrelative element; and this is its Firstness. So likewise it is possible to

20. Such abstractions in the sense of attention focusing signs differ from Peirce’s “hypostatic” abstraction creating a new, second order object out of a predicate; see Stjernfelt 2007, ch. 11 and Stjernfelt in press a.

prescind Secondness from Thirdness. But Thirdness without Secondness would be absurd (*ibid.*).

Thus, as there is a foundation relation between first and second, and between second and third, the lower categories can be prescinded from the higher while the higher may be discriminated from the lower only. Even if presented in quite a different clothing and with the emphasis on the epistemological-logical tools to track dependences, the structure of the dependence calculi at the bottom of Peirce's metaphysical categories and Husserl's refoundation of the *a priori* are, in short, identical.

Peirce, however, went on to refine this category table by an additional apparatus of *genericity*. It is mentioned already in his first formalization of predicate logic, the second of the papers on the "Algebra of Logic" of 1880/1885, and is raised into ontological prominence in his first comprehensive sketch of a metaphysics in "A Guess at the Riddle" 1887. From then on, they become a standard part of his architectonic, featured e.g. in the "Pragmatism Lectures" of his *annus mirabilis* 1903, his Letters to Lady Welby 1904–8, etc.

A concise way of presenting the conceptual machinery is presented in the "Guess at the Riddle":

... the whole book being nothing but a continual exemplification of the triad of ideas, we need linger no longer upon this preliminary exposition of them. There is, however, one feature of them upon which it is quite indispensable to dwell. It is that there are two distinct grades of Secondness and three grades of Thirdness. (CP 1.365)

Peirce goes on to explain how he generalizes the notion of genericity from the geometry of conic sections (ellipses, hyperbola, circles, parabola, etc.). The generic cases are ellipses and hyperbola, while parabola and circles only appear as limiting cases with singular variables of conic equations. Still "rarer" or more degenerate are the single point or two parallel lines, which may appear when still more variables vanish. So, there are *degrees of degeneracy*. Peirce develops this analogy in the following passage:

Nearly in this same way, besides genuine Secondness, there is a degenerate sort which does not exist as such, but is only so conceived. The medieval logicians (following a hint of Aristotle) distinguished between real relations and relations of reason. A real relation subsists in virtue of a fact which would be totally impossible were either of the related objects destroyed; while a relation of reason subsists in virtue of two facts, one only of which would disappear on the annihilation of either of the relates. Such are all resemblances ... (ibid.)

Peirce mentions the example of two persons being alike in being Americans. This may be dissolved into two independent facts, each of them being an American. Not so the relation of Cain killing Abel – it may not be dissolved into two independent facts, i.e. that of killing and being killed. So, the former relation is degenerate, the latter not so. Contrasts and comparisons similarly are degenerate relations of reason.

Going to Thirdness, now, “... there are two degrees of degeneracy. The first is where there is in the fact itself no Thirdness or mediation, but where there is true duality; the second degree is where there is not even true Secondness in the fact itself.” (3.166). A pin fastening together two things is degenerate in the first degree – if either of the two is annihilated, the pin and the other will still exist in a real, dual relation. All sorts of mixtures are of this same nature, so-called “accidental thirds”. Even more degenerate are

... thirds degenerate in the second degree. The dramatist Marlowe had something of that character of diction in which Shakespeare and Bacon agree. This is a trivial example; but the mode of relation is important. In natural history, intermediate types serve to bring out the resemblance between forms whose similarity might otherwise escape attention, or not be duly appreciated. In portraiture, photographs mediate between the original and the likeness. In science, a diagram or analogue of the observed fact leads on to a further analogy. The relations of reason which go to the formation of such a triple relation need not be all resemblances. Washington was eminently free from the faults in which most great soldiers resemble one another. A centaur is a mixture of a

man and a horse. Philadelphia lies between New York and Washington. Such thirds may be called intermediate thirds or thirds of comparison.

Even if obviously the most degenerate of cases, the examples go to show that they are regarded as important by Peirce for their possible role in processes of reasoning and investigation.

This extension of Peirce's elementary category list to one of six which may be numbered 1, 2.1, 2.2, 3.1, 3.2, 3.3, respectively, proved to become an important motor, not only in classifying and relating empirical sciences such as in the "Riddle", but also in Peirce's further theory development. Thus, Peirce's classic trichotomy of *symbol-index-icon* may be reinterpreted so that indices and icons are first and second degree degenerates of symbols, respectively, or that propositions and terms (Dicisigns and Rhemes) may be first and second degree degenerates of arguments.²¹ The degeneracy apparatus may even drive theoretical innovation, particularly in the fertile years after 1903, such as when Peirce derives, from genericity categories, the idea that while there is only one main type of Abduction, there must be two of Deduction (corollarial and theorematic)²² and three of Induction (simple, quantitative, and qualitative). Or when he elaborates his original semiotics by saying that a sign must have two objects (immediate and dynamic) and three interpretants (immediate, dynamic, and final). In Husserlian terms, the degenerate cases would be those in which no real founding dependence relation is at stake, despite the fact that it seems, on the surface, to be the case. The relata of degenerate relations are, in fact, independent. But that does not imply that they are only irrelevant surface phenomena – they are still brought together by generic forms. Instead, they give rise to the idea that all Secondness and Thirdness phenomena must have two and three subtypes, respectively.

To sum up, Peirce's development of his elementary calculus of dependencies to yielding six instead of three categories is a formal

21. Cf. Stjernfelt 2015. On the central role of logic and propositions in Peirce's semiotics, cf. Bellucci 2017, Stjernfelt 2014, 2019; in press.

22. Cf. Stjernfelt 2014, ch. 10

move motivated by introducing a new constraint into the system, viz. that of genericity. It is formal in the sense that it does not, in itself, predict the content matter of the new subcategories, which derives, rather, from the specific semantic domains of Second- and Thirdness concepts subjected to the enlarged dependence calculus.

4. Hjelmslev

While Peirce first generalized his categories from the structure of logical propositions – and then developed them in scrutinizing the relations between the categories – Hjelmslev’s use of the three dependences is explicitly meant as a central descriptive tool of his structuralist theory of language, i.e. glossematics. The *locus classicus* is the *Prolegomena* of 1943 where the presentation is couched in a proliferation of new terminology even surpassing Peirce in numbers. To Hjelmslev, linguistic form is sharply distinguished into two independent fields, expression and content, and each of these two fields should be charted by analysing them into systems of units, so-called functives. The functives are connected by dependence functions.

Exactly as in Husserl, three possible dependences between two functives are listed: *determination*, *interdependence*, and *constellation*, respectively (cf. *Résumé*, 60), the latter being independence or the absence of dependence). Simple dependence is at stake when one part requires another for its presence, but not vice versa. Interdependence appears when two parts mutually require the presence of each other and consequently only appear together. Constellation, finally, occurs when the occurrence of two parts is free, and both of them, one of them, or none of them are possible appearances. The identity of this dependence calculus with Husserl’s 1900 system is striking.²³ The central role of dependences is evident from the often

23. There is no any mention in Hjelmslev as to the roots of his triad of dependences which is merely “predicted” in the quasi-logical language of the *Prolegomena*. While the co-founder of the Copenhagen circle and opponent Viggo Brøndal may refer to Husserl, just like their common disciple Paul Diderichsen would do decades later, there is no mention of any phenomenological inspiration in the *Prolegomena*. Diderichsen several times remarks upon the similarity between the “three main

repeated idea that objects are really “nothing but intersections of bundles of dependences” (Prol. 23).

Hjelmslev further applies this three-dependence system in two variants, pertaining to *process* and *system*, respectively. Process and system are defined by *both-and* and *either-or* relations, respectively, that is, what is traditionally referred to as syntagmatic and paradigmatic relations.²⁴ In these two fields, the three-dependence system is specified as *selection*, *solidarity*, *combination*, and *specification*, *complementarity*, *autonomy*, respectively (Prol., 37; *Résumé*, 60). *Selection*, one-sided dependence in linguistic linearisation, may be in evidence, for instance, in the relation between main clause and relative clause (a relative clause may not occur without a main clause, while the opposite is not the case). *Solidarity*, two-sided dependence, occurs for example at the sentence level between the category of noun phrases and verb phrases, and *combination*, pure compatibility, is found e.g. between two main clauses or the two parts of a compound noun.

Linguistic analysis is pursued, now, by beginning with the discourse as an undivided whole, going through successive phases of partitioning discourse into invariant parts, the functives, registering the internal functions holding between them. Having exhausted this description at a given level, analysis goes on to repeat the procedure

types of grammatical connexion” in structural linguistics and Husserl’s mereological analyses from *Logische Untersuchungen* (Diderichsen 1966, 107 (1947); 137 (1948); 207 (1952)) but he gives no indication as to any relationship between Husserl and Hjelmslev, and the only early reference to Husserl in Hjelmslev is pejorative. Three possible interpretations (at least) seem to compete. One is, of course, that Hjelmslev came upon the idea of a dependence grammar independently; another is that the absence of references is due to the radical and autonomy-claiming linguistics he strives to found. Unlike his companion Brøndal, much more Jakobsonian in spirit in his reference to the philosophical tradition and to a multiplicity of sources for his version of structuralism, Hjelmslev wants to liberate himself from any metaphysics, inspired as he is by logical positivism, especially in Carnap’s version. Maybe he would see too much metaphysical heritage in a reference to phenomenology? A third possibility would be influence via an intermediate (so as for instance Anton Marty; both Jakobson and Brøndal seem unlikely in that role) or from a common source of inspiration (possibly Brentano?).

24. Hjelmslev would call such relations “functions”; for the sake of comparison, we stick to the notion of “relations”.

as to the internal structure of the elements found at a given level. The open inventory of possibilities at the higher levels makes place for smaller, closed paradigms of correlated morphemes and syntagmatic relations at the lower levels inside sentences, and the procedure is supposed to be repeated until a level of simple “figurae” is reached in each of the two domains. This level, then, is where the clear distinctions of bound articulation cease to hold. In the consistent parallelism between the analysis of content and expression, the entire descriptive apparatus is taken to be pertinent to both. The very first partitioning is supposed to give the two mutually dependent functions *expression* and *content*, thereafter would follow (e.g.) periods, sentences, paradigms, morphemes, etc. The system of paradigms of morphemes on the content side of language, such as those found in his large study of case, particularly occupied Hjelmslev.

It turns out, however, that the distinct triad of dependences is only the superficial and derivative upper level of a much more complicated structure informed by *participation*. This comes from Hjelmslev’s career-long insistence that languages, even if possessing logical features and, among other things, facilitating reasoning, are not at all logical through-and-through; they are informed by, even structured by, what some have called ‘magical thinking’. Hjelmslev took the notion of participation from the French anthropologist Lucien Lévy-Bruhl (1857–1939) and, influenced by his notion of “prelogical” thought, Hjelmslev coined the notion of “sublogic” to refer to linguistic structure making both logic and prelogic possible. In Lévy-Bruhl, “prelogical” thought was exemplified in the idea that some person may be, simultaneously, identical and non-identical, with some particular parrot in the woods. In Hjelmslev, participation is defined by the phenomenon that opposed terms may share content – and making it a general prerequisite to linguistic dependences, he stripped the term of Lévy-Bruhl’s evolutionism (supposing a development from a primitive pre-logic to a more sophisticated logic) to make it an elementary phenomenon at the basis of all language and thought.²⁵

25. This step in Hjelmslev may be compared to contemporary ideas such as in Cassirer whose system of primitive, mythological “Ausdrücke” only give rise to

Participation, again, holds for both content and expression, and in the content side of language, the participation idea is formalized in a calculus of so-called “concept zones”, developed in books such as *Sprogssystem og Sprogforandring* (originally 1934) and *La Catégorie de Cas* (1935–37). As mentioned above, Hjelmslev was particularly interested in understanding the implicit semantics of the large morphological categories of languages, such as case, tense, gender, number, etc. Such concept zones approximately correspond to “semantic domains”, and Hjelmslev’s Saussurean idea is that such domains are basically grasped by means of oppositions: they are divided into opposing end zones framing a middle neutral zone. This gives us three zones but that is only the simple structure. The three zones are subjected to a series of possibilities of *weighting*. The whole of the concept zone is seen as a sort of “ballot” which may be filled out in different ways, resulting in terms with different emphases across their zones. As Lorenzo Cigana has convincingly shown in his 2014 Ph.D. dissertation (2014a, now see Cigana 2022) and collateral publications (2013, 2014b, 2019), the formalization of these “sublogical” participation phenomena occupies a central axis of Hjelmslev’s synthesis of glossematics in the spartan algebra of his compact chef-d’œuvre *Résumé of a Theory of Language* (originally in Danish, only published in 1975 in an English translation). We cannot do full justice to the details of this complicated theory with hundreds of definitions in this context (Cigana 2022, §§ 2.5 ff.) but let us give an outline focusing upon the relation between participation and dependences.

In the *Résumé*, the more detailed linguistic analyses of the 30s are left behind in presenting a general theory of linguistic categories. The book contains long series of sparse definitions interrupted only by rules and notes and it is only very sparingly adorned with linguistic exemplification. Thus, even if providing a condensation of

clear, truth-claiming propositions with the development of “Darstellung” to achieve scientific status in “Reine Bedeutung”. Also here, the “Ausdrücke” corresponding to a mythical worldview, will never be left behind in the development of civilization but remains as an indispensable prelogical basis for all further articulations, cf. Cassirer 1923–29; Stjernfelt 2000.

Hjelmslev's mature theory, the book counting as the final (though unfinished) presentation of the glossematic system, never reached a large audience. Appearing posthumously at a date when Chomskyanism and other currents had long since overtaken structuralism as being cutting edge linguistics, its status is rather that of a hidden bible of formal glossematics.

The long development of "sublogical" structure in the *Résumé* is followed by a briefer development of the more uncontroversial, well-defined level resulting from going passing from a primordial level of "free articulation" to "bound articulation". Here, sublogical participation phenomena may give rise to "exclusions" where shared content between opposites is ruled out. In the analytical procedure, however, the starting point is always the more restricted, bound articulations. Cigana, arguably the most thorough interpreter of this fundamental part of glossematic theory, aptly calls the relevant paragraphs *Ggb3.1–2 in the first half of the *Résumé* a "path through a labyrinth" (457). Sublogical participation, however, is not a diffuse swamp of floating content, but possesses its own structures to be described.

This description takes place in five steps, and we cannot go into details here but only attempt to give a picture of the relation of the dependence calculus to the participation phenomena. The steps are as follows: 1) The three possible parts of the concept zone are described by the Latin letters *a* and *b* for opposed contents, and *c* for the intermediary neutral zone. Then, 2) two levels of *emphasis* on different parts of the zone are indicated by filling in the ballot by striking through the related concept zone part by a diagonal if covered, by two crossing diagonals if covered with insistence. This calculus of semantic weightings, 3) gives seven different possible types of structuring the concept zone, named by the Greek letters α , A, β , B, γ , Γ , Γ_2 as follows (*Résumé*, 29):²⁶

26. The three vertical dots notation indicates the units considered are in the *system* side of language built from correlations; the opposite, the process side built from relations, is indicated by an R.

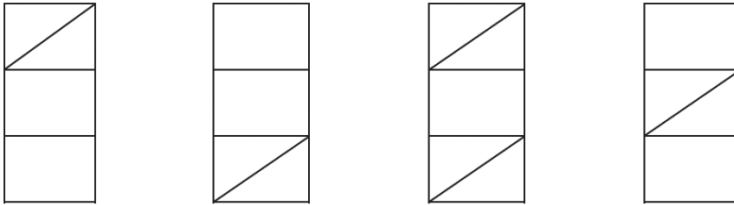
systems with any number of members, pertinent for different morpheme systems across languages, e.g. the different case systems of *La Catégorie des Cas*. These seem to be the significant background material, motivating the much more general theory of the *Résumé*. In the *Sprogssystem og Sprogforandring*, such combinations up to paradigms with six members are listed; in the *Résumé*, combination possibilities up to 13 members are meticulously computed.²⁸ The seven types result from solidarity laws restricting free combination: Certain members among the total of seven necessarily occur together and certain couples of elements occur along with other couples.²⁹ Moreover, 5) another complicating development results in the pairwise combination of content types into “polarities” which define linguistic categories, yielding 9 possible pairs.

Until now, we have considered the complications of sublogical structures, but concept zones articulated by participation may also be simplified and made “logical-exclusive” (in parts of languages themselves, not as a result of linguistic analysis) by the important process of *exclusion*: “Any participation (participant-correlation) can be transformed into an exclusion (field-correlation)” (*Résumé*, 23). In the transition from the vast amount of sublogical possibilities in free articulation and to the narrower sets of possibilities of bound articulation, all participation is reduced to exclusion characterized by clear category members no longer sharing content. Thus, “Any contradictory exclusion can be transformed into a contrary participation, and any contrary participation into a contradictory exclusion”, just as the converse transformation between contrary exclusion and *contradictory* participation holds (*Résumé*, 24–25).

28. The resulting lists, however, differ considerably, cf. Cigana 2022, 190 ff.. Here the possible combinations members of categories of the *Résumé*, up to seven members: 1) Γ_2 ; 2) αA ; 3) $\alpha A \Gamma_2$, $\beta B \gamma$, $\beta B \Gamma$, 4) $\beta B \gamma \Gamma$, $\beta B \gamma \Gamma_2$, $\beta B \Gamma \Gamma_2$; 5) $\alpha A \beta B \gamma$, $\alpha A \beta B \Gamma$, $\beta B \gamma \Gamma \Gamma_2$; 6) $\alpha A \beta B \gamma \Gamma$, $\alpha A \beta B \gamma \Gamma_2$, $\alpha A \beta B \Gamma \Gamma_2$; 7) $\alpha A \beta B \gamma \Gamma \Gamma_2$.
 29. Rg. 16 in the *Résumé* (rendered like this in Cigana 2022, 274): “ $(\alpha \leftrightarrow A) \mid (\beta \leftrightarrow B) \leftrightarrow (\gamma \mid \Gamma) \mid \Gamma_2$ ”, where “ \leftrightarrow ” is solidarity and “ \mid ” the converse, autonomy, meaning that the Alphas must be present both, as must the Betas, while the Gammas may occur together or not. A level higher, the Betas and Gammas, as pairs, must appear together, while their relation to the Alphas is optional. The motivation for this crucial “Law of solidarity” is not easy to fathom.

In this way, sublogical categories where contents overlap, may be cleansed by exclusion. At the bottom, importantly, all correlates are by principle assumed to remain participative (*Résumé*, Reg 11, 12, 23).

While the sublogical “Free Articulation” takes place without reference to any particular dependence function, “Bound articulation” takes place with reference to one among the three dependence functions. And the step from sublogical Free to logical Bound articulation implies that the “most” sublogical pair, with extreme participation, viz. *a* and *A*, is excluded completely, while, in the Beta-Gamma elements, reduction to exclusive content zone boxes not sharing content with other such boxes, gives a much simpler picture. The main such reduction results in the simple set of four possibilities β - Γ of three-content zones with simpler emphases only:



(*Résumé* 50–51; simplified graphics adopted from Cigana 2014a: 559).³⁰ Now, these elements chart the logical possibilities of *a*, *non-a*, both *a* and *non-a*, neither *a* nor *non-a*. Here, the first three elements may directly show the relation between the three main dependence types of *interdependence*, *constellation*, *determination*, while the fourth concerns the non-applicability of any function. Furthermore, each of the three dependence functions may be mapped after the same four-category scheme, such that functives involved in systematic *selection* (*determination* in the process realm) may be sorted after: 1) selected, 2) selecting, 3) both selecting and selected, 4) neither,

30. A simpler, contradictory version with four possibilities β - Γ of two-content zone combinations needs not occupy us here (*Résumé*, 51):



respectively. The resulting “bound articulation” is, as Cigana says, the field for the standard glossematic methodology (551) with its logical-exclusive correlations between members of paradigms.³¹ But it is only relevant: 1) from a point in the ongoing analysis process where the open series of chapters, sections, sentences including indefinitely many members in larger text parts cease to prevail, and consequently closed, finite paradigms appear in the analysis. And, 2) at the utmost point of analysis where the final level of glossemes are again subject to free articulation. So, the realm where bound articulation with the three simple dependences holds, is a sort of mesoscopic realm of sentence grammar. It is bounded from above by the more open macroscopic, transphrastic realm, and from below by a microscopic realm of the final inventory of elements, in which we do not consider which functive presupposes the other, but rather how functives are distributed within a category.

Thus, at this intermediary level of bound articulation only, with exclusive concept zone boxes and with bound paradigms with a small, finite number of interrelated category members, the standard three dependences operate. After the arduous, sublogical description of participation types in the *Résumé*, the standard system of dependences across process and system, relation and correlation, is derived as a result (51) and summed up schematically (60). Thus, in Hjelmslev, the dependence calculus shared with Husserl is presented as logically exclusive and pertinent only to a mesoscopic level of analysis addressed by traditional linguistics, but possible only as nested within a more basic, yet also more comprehensive, foundation of sublogical participation. A central issue in this amazing theory is that clear principles for which concept zone combinations are rendered possible are never made explicit (step 2) above). The same goes for any clear principles for which combinations of sub-

31. Cigana compares bound and free articulation, in a strong metaphor, with macroscopic Newtonian physics and microscopic quantum mechanics: the former holds sway in standard analysis but must yield when a microphysical level is reached in which quantum phenomena necessitate other descriptions. In the same sense, dependence descriptions of bound articulation is taken to be the standard procedure having to yield, however, to sublogical-participation description when necessary.

logical contents into systems of paradigm members (step 4) above) are allowed. Statements are given but they are not clearly motivated. These systems thus remain a seductive and challenging torso.

If bound articulation to be studied by means of dependences is indeed the main glossematic analytical approach, it must, however, yield to participation whenever it proves insufficient, cf. the rule Rg 24 of the *Résumé* (49): “If it is impossible to identify unambiguously each correlate under a category through bound articulations, the result of the free articulation provides the only designation of the correlates”. Thus, the designation of correlates as sublogical participants “can be introduced everywhere where it is impossible to identify each correlate unambiguously through a bound articulation” (ibid.). So, it cannot be determined beforehand how much of linguistic structure will obey clear dependences between exclusive units – participation phenomena like syncretisms, overlapping, gradualism, etc. may, in many cases, prove ineradicable. Precisely for this reason, an extreme participation is postulated as the default state of any system, since participation “can” be reduced to exclusion, but not vice versa. While sublogical structuring is taken to be basic and giving rise to logical dependence structuring as a secondary derivative, analysis has to proceed in the opposite direction, charting as much structure as possible by exclusive logic, but still ready to admit participation when failing to reach exclusive definitions.

This is not the place to penetrate the difficult issue of the transformation from free to bound articulation and vice versa in Hjelmslev’s algebra, occupying hundreds of pages in Cigana’s reconstruction. Suffice it to say that the three dependence types so central to glossematics are not, unlike what we have shown to be the case with Peirce or Husserl, taken as primitives, but rather are seen to be the result of a theoretically crucial process of emergence taking us from the vast fauna of sublogical systems to the much more restricted set of logical possibilities between which clear dependences hold.

In a certain sense, however, on a very general level, some resemblances between Peirce’s and Hjelmslev’s doctrines may be noted. Both of them find, beyond the level of clear categories between which dependences hold, a level of more primitive categories de-

finer by a relaxation of restrictions required at the upper level. In Peirce: degeneracy in which parts of the definitions of Second- and Thirdness concepts cease to hold and give place for vaguer, but still indispensable concepts. For Hjelmlev: the realm of sublogic where exclusion ceases to hold and gives space for participation in all of its proliferating subtypes. In Peirce, degeneracy yields simpler subtypes of generic notions (such as icons and indices from symbols) which, at the same time, may form *parts* of those generic notions (icons and indices typically forming parts of symbols). Taken in isolation, doubly degenerate concepts such as icons, if considered in isolation, are but vague, and the distinction between them and their object may become fluid. Moreover, Peirce's general insistence upon the metaphysical priority of continuity over discrete phenomena³² indicates the possibility of continuous transformations between concepts referring to the latter – in a certain sense corresponding to the fusion and merging phenomena in Hjelmlevian sublogic.

In Hjelmlev, the relaxation of exclusion gives rise to participation phenomena appearing in discourse even if not subject to strict dependence relations – syncretisms, overlappings, and polarities within a category.

A decisive difference, however, remains that Peirce the logician studying how people *ought* to think, would take the degenerate categories to be understandable only on the basis of their generic “ancestors” derived from logic, while Hjelmlev, the linguist, would see logic as a derived product of the primitive, non-normative, condition of participative thought and language, such structures facilitating *all* thought including its many non-logical varieties.

Still another development of the three dependences may be found in one of Husserl's closest disciples, Roman Ingarden.

5. Ingarden

As mentioned, the recurring theme of Roman Ingarden's long career as a philosopher grew out of a disagreement with his phenomenological master already when he was in Germany in the 1910s.

32. Cf. Stjernfelt 2007, Appendix.

The first generation of Husserl scholars – besides Ingarden, Adolf Reinach (1883–1917), Edith Stein (1891–1942), and others – seem to have immediately experienced Husserlian phenomenology based in the *Logische Untersuchungen* as a realist position. Consequently, they were surprised to see indications of a more subjective idealist direction with the publication of Husserl’s *Ideen* in 1913. During the following years, Ingarden became convinced that he had to develop phenomenology in a realist direction as against Husserl’s nascent “transcendental phenomenology”, and so his first book *Essentielle Fragen* (1925) began what would turn out to be a lifelong struggle with the realism/idealism issue. The idealism, which Ingarden felt compelled to attack, was not objective idealism, the issue of the reality foundation of general concepts, but modern, post-Cartesian, subjective idealism claiming that what appears as the real world is in fact, at bottom, the product of subjective intentional acts. Ingarden’s most well-known work, the 1931 *Das literarische Kunstwerk*, constitutes a major argument in this strife: by developing the regional ontology of intentional objects, with fictitious objects as his main example, Ingarden wished to show that their ontological structure differs on a number of counts from those of real world objects. The latter, so the argument goes, could not be, like the former, mere products of intentions.³³

So, apart from proving to be one of the seminal works of 20th century literary theory, *Das literarische Kunstwerk* develops the general notion of “pure intentional objects” to cover objects understood as *moments* – rather than *parts* – of intentional acts. That theory, in turn, would contribute to inform the central achievement of Ingarden’s career, the magisterial, if unfinished, multivolume work of *Der Streit um die Existenz der Welt* (1947–74).

The first two volumes of the work were written in Polish during the extreme conditions of WW2 in Poland, only to be rewritten in German by the author himself and appearing in Germany in the 1960s, while an English version of the first volume came out in 2013, and the remaining volumes are only currently being translated. The overall structure of the book follows a number of basic

33. Ingarden 1965; see also Smith 1979, 1980; Stjernfelt 2007, ch.17.

Ingardenian distinctions, namely those of Existential Ontology, Formal Ontology, and Material Ontology, respectively. Every possible object has an existential mode, a formal structure, and material qualities. The two latter concepts, of course, stem from Husserl's *Logische Untersuchungen*, where they address structures shared by all possible objects vs. structures shared by objects belonging to a certain region of being. Existential Ontology, Ingarden's addition, has nothing to do with existentialism, nor indeed with ontology in the narrow sense of a doctrine of what actually exists. Rather, it approaches eidetic phenomenology or Peircean phaneroscopy, or, again, conceptual analysis in analytical philosophy, in the sense that it scrutinizes the totality of merely possibly existing object categories – under a phenomenological bracketing of existence, as it were. All of the project's initial two volumes, then, pertains to what *may* exist, while metaphysics proper, the general description of what *really* exists in this world, was the purported task of the third volume which never properly came into being.³⁴ A large chunk of it, however, appeared much later, in 1974, dealing with the causal structure of the real world.

In the first volume of the *Streit*, however, the main thrust of Ingarden's argument rests on a generalization and further subarticulation of Husserl's dependence calculus. Possibly existing objects must be defined, so Ingarden argues, on the basis of which dependence relations they have to other objects. Their place in such dependence structures defines which types of "existential moments" they possess. This is developed in the first part of the book, adding, in the second part, a detailed analysis of time. Here, Ingarden claims that the past, present, and future must be described as all of them existing, albeit endowed with different modes of being: Actuality, Post-Actuality, Empirical Possibility, and Non-Actuality, respectively. This parallels Ingarden's distinction between three kinds of temporal entities: enduring objects, extended processes,

34. On this phenomenology-metaphysics issue, Ingarden resembles Peirce who also took phenomenology to generally study all what could possibly appear while metaphysics was a dependent endeavour studying general aspects of *this* world, cf. Stjernfelt 2016.

and momentaneous events. Furthermore, distinctions pertaining to types of temporal existence are drawn between the monadic moments of Fissuration, Non-Fissuration, Fragility, and Persistence.³⁵ Finally, Ingarden distinguishes three types of ontological domains: ideal qualities, individual objects, and ideas – remarkably close to Peirce’s three realms of Firstness qualities, Secondness individual objects or reactions, and Thirdness general ideas or patterns.³⁶ All of these different possibilities of existential moments, of course, are partially independent and may be combined; the resulting ontology is impressive in its width and its detailed categorization of possible types of existence.³⁷

We shall in what follows focus upon the elementary calculus of dependences from the first half of *Streit*’s vol. I.

Let us go directly to discussing the four different versions of three-type dependences Ingarden found it necessary to develop to chart all possibly existing objects. He distinguishes between:

1) *Autonomie vs. Heteronomie* – which is: an entity having its whole foundation of being within itself, vs. the dependence of an entity for its existence and its entire repertoire of qualities on another entity.³⁸

2) *Ursprünglichkeit vs. Abgeleitetheit* – which is the inability of an entity to be created or destroyed by another entity, vs. the dependence of an entity on another in order to come into existence.

35. Cf. Johansson 2009, 2013, Millière 2016; fissuration/non-fissuration refers to whether an object’s existence takes place in the flow of time or not, while fragility/persistence pertains to whether an object – like multi-cellular organisms – will perish or not.

36. Ingarden 1947–74 I, 39; II,1, 60. As in Peirce, ideas-- or representations – are two-sided and possess an aboutness regarding some content.

37. Peter Simons has synthesized all of Ingarden’s distinctions and ontological subtypes in one impressive, drop-shaped diagram, “Ingarden’s tear”, with 15 interdefined regions of being, summing up the products of all the distinctions mentioned. The diagram is published as an appendix to Johansson 2009; also in Stjernfelt (in press).

38. Ingarden 1947–74, Eng. version of vol. I, *Time and Modes of Being*.

3) *Selbständigkeit vs. Unselbständigkeit* – which refers to the lack of requirement, in an entity, to form a whole with other entities in order to be existent, vs. the dependence of an entity that can only exist if it coexists with something else within the confines of a single whole; and, finally

4) *Unabhängigkeit vs. Abhängigkeit* – which is when an entity is not only *selbständig* but also does not require the existence of any other *selbständige* objects, vs. the dependence of an entity on another in order to remain in existence.

I initially presented the four dependence types in German as they have been translated in different ways in English.³⁹⁾ In what follows, I shall, however, stick to the English translations of Ingarden 1964: 1) *autonomy vs. heteronomy*; 2) *originality vs. derivation*; 3) *separateness vs. inseparateness*; 4) *self-dependence vs. contingency*.

The first distinction comes out of the ontological effort undertaken in *Das literarische Kunstwerk* in so far as “heteronomy” is what characterizes “purely intentional objects”, like that of fictional characters or, indeed, all objects as they are immanently described in and by intentional acts. Heteronomy is also the form of being of future, empirical possibilities. All heteronomous objects are characterized by Ingarden’s famous “Unbestimmtheitsstellen”, that is, spots of indeterminacy. There are a lot of properties of Donald Duck or of the cake I am about to bake tomorrow, which are indeterminate. Properties of Donald not mentioned in the canon of Walt Disney, Carl Barks, etc. are simply indeterminate, just like the issue of whether my apple pie will be burnt in the oven or not – given that the future needs not, on the ontological level, be determinist (whether that is the case in reality is an issue for later, metaphysical investigations). Thus, heteronomous objects are in a sense the “weakest” among dependent objects; even dependent objects in the other three dependencies are autonomous, such as, for instance, the contingent moment of red color in an object, which, by the first dependence character, are autonomous.

39. Ingarden 1965–74, 27–30.

In the next dependence, originality pertains to objects, which cannot have been created. Examples are the personal God, or a Platonic idea of the Good (the examples are Johansson's); other examples may be ideal relations such as those of mathematics. Objects lacking originality, by contrast, are said to be derived. This dependence relation largely distinguishes ideal objects, states-of-affairs and relations from actual ditto, the latter taken to be dependent upon the former.

In the third dependence, separate entities may exist in themselves, while inseparable objects are dependent upon some other objects for their existence. This comes close to Husserl's original distinction between parts and moments where the latter comprehend properties of objects. Properties and events, e.g., are inseparable from objects and processes, respectively.

Finally, in the fourth dependence, any organism possesses, as such, the moment of self-dependence. The very same organism, however, as a parent holds the moment of contingency, because its parenthood depends upon the existence of progeny. As Johansson says, this is an ontological way of distinguishing monadic from relational, polyadic predicates. Past, present, and ideal objects are separate.

These four versions of dependence contribute a large deal of structure to Ingarden's ontological zoo of beings. The only possible entities being independent in all the four senses of dependency, are monotheist Gods, maybe Spinoza's universe of which everything else is but modes. Ingarden's ontology, however, does not address the metaphysical issue *whether* such absolute beings exist, only that they belong to the realm of the ontologically possible.

The general combination of the four dependences with Ingarden's series of other existential modes gives rise to four overall categories of entities – again, without taking it to be the task of ontology to decide whether any of them actually exist in our world. They may exist “(A) Absolutely (and be absolute entities), (B) Extratemporally (or ideally, and be ideal entities), (C) Temporally (or really, and be real entities), (D) Purely Intentionally (and be fictional entities)”, (as resumed by Johansson 2009). They are only, however, the general framework for a much more detailed fauna

of possible ontological beings adding further distinctions. Thus, dependences are taken as a very central tool by Ingarden in order to chart elementary relational predicates of possible forms of being – while temporal and endogenous properties of the same beings are taken care of by monadic predicates.

6. Perspective

The three scholars discussed here take their overlap with Husserl's elementary triad of dependences in very different directions. However, in all of them, the dependence calculus remains at the heart of their doctrines, and further developments of it are crucial to the sophistication and idiosyncratic character of all the three of them.⁴⁰

Peirce's combination of dependences, charted by his triad of attention-focusing abstraction types, with the degeneracy idea permitting the partial relaxation of relational characteristics of dependence-defined categories, gives him a tool, which serves at least two purposes: to integrate the growing number of triadic distinctions of his theory as not just the repetition of the same metaphysical schema over many different areas and problems, but also an inter-

40. An argument against the comparison of this chapter may say: are the similarities between the dependency theories mentioned not superficial only. Is there not an enormous difference between investigating dependences in reality and in language? Is it not completely different ontological and epistemological aims, respectively? I think not. Any attempt at "epistemologizing" away ontological issues invariably ends by facing the issue of the very nature of the devices of knowledge they claim lie behind what is naively conceived as real. Be it language as in Hjelt and much of structuralism, be it societal structures as in social constructivism, be it cultural norms in social anthropology, be it inherited brain structures in evolutionary psychology – the prioritizing of such sources of knowledge exalts a particular selection of reality to ontological prominence: language, society, culture, biology. Bottom line, such attempts are no less ontological than the assumedly naive realism they started out attacking; rather, they are *reductionist* ontologies because they presume that all of reality really depends on one of its subsets only: language, or society, or culture, or biology. Moreover, they are themselves dependence theories in their claim that knowledge *depends* upon language, society, culture, or biology exclusively. The upshot seems to be that no matter how many epistemological manoeuvres one might make, you still will not be able to escape dependences and ontology.

nal, rational, generation of subtypes of Secondness and Thirdness phenomena. In Peirce's monism, those categories are immediately taken to be relevant for mind as for nature alike, finding the six resulting categories both in reality and in its representations. Peirce stuck to the Kantian principle that metaphysical categories should be derived from logic only, granting that the six-category scheme with its roots in mathematics and logic would immediately deliver categories applicable in metaphysics as well as in the empirical special sciences.

Hjelmslev rarely, if ever, spoke explicitly about ontological issues, and with his inspiration from logical positivism, he obviously sought to minimize ontological commitments. Still, forming part of the linguistic turn, he elevated language and linguistic distinctions to a high and central position to which other observers might ascribe ontological prominence, particularly when he, in his famous, ambitious conclusion to the *Prolegomena*, predicts that glossematic linguistics will be the entrance to all other articulated knowledge and thereby realize the goal of "humanitas and universitas". So, elementary distinctions drawn at the bottom of glossematics still may end up as crucial structures if not of the world itself, then in any possible understanding of it.

To Ingarden, disciple of Husserl, yet taking his philosophy in a realist direction not so alien to Peirce's, Husserl's dependences of the *Logische Untersuchungen* remain a central tool in the construction of ontology and hence, any possible metaphysics. His diversification of dependence relations into four elementary types bears witness to an attempt to rationally distinguish between possible ontological domains such as deities, ideas, objects, properties, purely intentional objects, etc., requiring specified dependence types with different scope and strength for their description. The wanting metaphysical part of material ontology of his investigation, however, leaves open how these dependences would prove to incarnate in the real world of metaphysics and the special sciences.

A vain hope of this paper would have been to reach a common level of description where the dependence theories of Peirce, Hjelmslev, and Ingarden could be articulated in a metalanguage making possible if not their integration, then at least their clearer

comparison. That remains, for now, a desideratum. Suffice it to say that with the continental and analytical schools seemingly being about to exhaust their separated development possibilities and, after a century apart, approaching mutual communication if not reunification, dependence calculi for the charting of what is and what could be, in reality, signs, or both, provide a resource in the archives of 20th century thought which might once again prove valuable.

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