

University of Tartu  
Department of Semiotics

Thorolf van Walsum

The biophenomenal activity of symbolic semiosis conceived through Lacanian  
psychoanalysis and Terrence Deacon

Master Thesis

Supervisor: Ott Puumeister

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I hereby declare that I have written this Master Thesis myself, independently. All of the other authors' texts, main viewpoints and all data from other resources have been referenced.

Author: Thorolf J. van Walsum

Date: 20/05/2024

Signature:

A handwritten signature in blue ink that reads "Thorolf J. van Walsum". The signature is written in a cursive style with a large, prominent loop at the end of the last name.

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## **Introduction: Deacon & Psychoanalysis for Biosemiotics**

It is the author's view as a biologist that the crisis facing the world today is a crisis of ecology. Biosemiotics, a discipline concerned with the qualitative processes of life, holds the ethical position of possible amendment between the human and nonhuman worlds by merit of its study of meaningful relationships in nature. Despite this, there remains uncertainty regarding the means approach to biological experience, as well as its grounds for critique regarding reductivity in science. Traditionally, the subjective life-world has been philosophically rescued from its scientific entrapment by the work of phenomenological analysis, which posits a sort of spontaneous or transcendental subject of the *umwelt*. These approaches are largely dated; their conditions of relevance and presupposition are, it is unfortunate, dated. As predictive or explanatory models progressively gain accuracy and thus shrink the margins of what can be considered outside of deterministic activity, the ethical arguments made on behalf of living systems' agency is similarly and inevitably put two answer for their discrepancies with realistic systems. Put shortly, the in-itself subjectivity of the *umwelt* is no longer a tenable offering to prevent a purity of rationalism. It must be possible to account for agency, identity, qualitative experience and semiosis, in a manner that does not contradict rational determinisms but effectively subverts it. Biosemiosis, now more than ever, needs theories compatible with material process to be able to stake its ground. This thesis' project is to present a material understanding of the subjectivity present in symbolic systems and language.

As such, this thesis suggests that biosemiotics look abroad from text-oriented or transcendentalist philosophies of subjectivity, here represented by the existential biosemiotic agency of Martin Tønnessen and Kalevi Kull's semiotic model of the organism, with whom this thesis begins. In our interest in subjective, qualitative, experiential biological worlds, we propose a transition from a phenomenological approach to biosemiosis to one that is psychoanalytic. The reasoning for this is simple: the paradoxes which define approaches such as textual or phenomenological approaches may be situated within a larger continuity of material processes, namely the contradictions of symbolic referential logic, which is dealt with sensitively in the psychoanalytic tradition. Rather than identifying all apperceptive activity with an spontaneous transcendental ego or all semiosis with the ultimate activity of arbitrary choice, psychoanalysis

views the paradox of reference as a product of organic processes which are themselves bound up in the paradoxicality of temporality, space, and death.

We wish to legitimate the use of psychoanalytic interpretive frameworks in the context of biosemiotic analyses. The most immediate advantage here held is psychoanalysis' characterizing sensitivity to the biological function of symbolism, namely in symbolism's psycho-sexual organization and organismic desires. Either as an olive branch to ensign cross-school compatibility or a positive work in its own right, the theories of the Lacanian psychoanalytic tradition have been incorporated with the biosemiotic theories of language of Terrence Deacon, having, as they do, a shared number of complimentary hypotheses. The two most crucial axioms approached by both Lacan and Deacon presented here are the problems of arbitrariness in signification and the problems of the determination of the syntax.

Our thesis is divided into two sections, both of which share the fundamental aim of demonstrating compatibility between the Lacanian tradition and the work of Deacon and the secondary aim of contrasting these two traditions to alternative approaches popular in the biosemiotic environ. The first section is logically-positive, and seeks to show the compatibility between the purely formal characteristics of the symbol's relation to the speaking subject. Its main work is assimilating the Lacanian notion of 'the signifier' into Deacon's framework. The second, provisioned by logical compatibility to material law, investigates the embodiment of this signifier in psychoanalytic and Deaconian theories of development. This primarily features the work of Kristeva, whose psychoanalytic approach to the biology of poetic processes framed substantial consequences for the phenomenological tradition. A new psychoanalytic stage, 'the worldbuilding stage', shared with the deictic and mimetic stages and responsible for the creation of the sense of pre-syntactical/pre-Oedipal spatial intuition and thus sense of worldhood, is introduced.

Another crucial effect of introducing the Lacanian signifier to Deacon's theory of symbolic language is the chance to account for the absent theory of non-arbitrary subjectivity from Deacon's pragmatist modelling. This is made possible by analogy of both school's logics. Firstly, both the Freudian tradition and Deacon identify the original function of the symbol as being repressive, either in a contractual monogamy imposed following patricide (Freud) or the marital symbol necessitated by tool use and hunting (Deacon). Secondly, the identification of symbolic cognition with a conflict between cortical and midbrain regions. Both Deacon and the

psychoanalytic tradition favour holistic (and not modular) approaches to the presence of symbolism in the brain. Thirdly, the negativistic definition of signs shared in part by Lacan, Deacon, and Saussure are given and compared. This allows our positions to relate to similar approaches to the paradox of the sign, such as the semiological. These three formal similarities will serve as logical justification of our introduction of Lacanian subjectivity to Deacon's material framework.

Paradigmatic changes suggested by this thesis are primarily oriented towards the problem of arbitrariness, which, when ontologically privileged, exist in opposition to the possibilities of causality and overly privilege the existence of an arbitrarily-willing ego. Against this, we note the function of absence in the symbolic and the continuity with material habits these 'absential' functions have, suggesting instead that the fixative image proper to a human biosemiotic subject is not arbitrariness but emptiness. By shifting focus from arbitrariness to emptiness, biosemiotics shifts from emphasizing signification's problems of reference or subjective activity to problems of worldhood and vehicularity, thus imaginatively positioning itself to better approach or discursively represent a-symbolic livelihoods.

Originally conceived as a project of ethical interest, the positions elucidated in this thesis are hoped to have relevance in the establishment of informative, affectionate and sensitive relations or methods of relation to the nonhuman, this thesis does not have the space to fulfill its desired scope. Hopefully, the theoretical core here presented will prove interesting enough to mobilize further critical thought and application, as it shall in the author.

I dedicate this thesis to all who may yet believe, my one love, and Ott Puumeister, who is a dignified academic and does nothing but care for others.

*It's written here: 'In the Beginning was the Word!'  
Here I stick already! Who can help me? It's absurd,  
Impossible, for me to rate the word so highly  
I must try to say it differently  
If I'm truly inspired by the spirit, I find  
I've written here: 'In the Beginning was the Mind'.  
Let me consider that fist sentence,  
So my pen won't run on in advance!  
Is it Mind that works and creates what's ours?  
It should say: 'In the beginning was the Power!'  
Yet even while I write the words down,  
I'm warned: I'm no closer with these I've found.  
The Spirit helps me! I have it now, intact,  
And firmly write: 'In the Beginning was the Act!'  
Goethe 1808: lines 1224-1239*



# **1. The Signifiers of Deacon and Lacan**

## **1.1 Prolegomena**

### **1.1.1 Existing theories of Biosemiotic Agency**

As this thesis concerns itself with the ‘biophenomenal activity’ of symbolic systems, subject matter crosses paths with the phenomenally-adjacent theories of Martin Tønnessen and Kalevi Kull. In both cases, this is justified on the basis of a conflicting relation to arbitrariness. Tønnessen’s work in biosemiotics may be summarized as a biological existentialism, used to ethically represent and describe human and non-human perspectives and agencies. Consistently, his work engages the phenomenological tradition (notably Husserl and Merleau-Ponty) via the concept of the *umwelt* in order to articulate a qualitative and naturalistic existentialism, capable of accounting for activity, subjective worldhood, and humanity’s alienated relation to language (see Tønnessen 2015a, 2015b, 2017 and 2021). One consequence of Tønnessen’s thorough connection of the phenomenological tradition to the biosemiotic is a shift away from the notions of transcendental subjectivity/objectivity and towards the existentialist position of relative meaningfulness: “As we argued above, it is meaningless to search for the initial physical cause of a human action. Instead, biosemiotics is focused on the emergence of biological meaning in living processes.” (Tønnessen and Sharov 2021:163) The point of disagreement taken between this thesis and Tønnessen’s work is upon its ultimate reliance on the existential subject to affirm materiality. The antithesis struck between physical causation and biological activity serves as ground to attribute ontologically affirmed semiotic freedom to biological agents; effectively, there is an existential subject located in the threshold of life and non-life. Anthropomorphosis is primarily prevented by nominating this subjectivity as an agent, i.e., an actor who is nevertheless not entirely spontaneous or transcendently free.

Semiotic freedom requires methods of interpretation that associate incoming signs with interpretants. All actions are executed via such methods, and we consider them as essential components of autonomy. However, it is a common mistake to assume that interpretation methods are always conscious and rational. (Tønnessen and Sharov 2021:163)

As such, Tønnessen’s phenomenology remains ontologically aligned to existentialist or phenomenological materialisms, which, though seemingly subverting the transcendental ego in a

processualist move towards agency, effectively re-encode it into the autonomous semiotic freedom of interpretive processes themselves. To the degree that this interpretive agency is thereby imagined as an unrealized byproduct of human cognizant activity, the activity of symbolic reference itself, is insufficiently factored on the level of ontological mapping. The freedom of semiotic agency is a freedom in the specifically existential sense, and as such the critiques presented on psychoanalysis' critical relation to existentialism carry by extension begun but yet-unrealized critiques of Tønnessen's existential grounding.

In the same way that Tønnessen's agency is an existential given, Kull's theoretical work focusses on the locus of biosemiotic agency that appears in the subjective 'irreducible present'. For Kalevi Kull, as with Tønnessen, biosemiosis differs from biophysical determinations on the grounds of a phenomenologically-given logical incompatibility between the two positions. The argument goes that, in order for a computation or description of a phenomena to be made, a phenomena and its description must in some way be equivocated. For this to be possible, there must be some sort of phenomenal locus upon which these two phenomena may be presented, and thus associated; this is Kalevi Kull's phenomenologically-irreducible 'specious present', evidently similar in concept to a sort of *tabula rasa*. Similarly contrasting with biophysical positions, Kull's biosemiotic agent is legitimated by this specious present, ideally the Kantian subject of the *umwelt*, which logically and necessarily contradicts with pure physical determinisms.

This is a breakpoint—biophysics almost cannot describe it. This is because the biophysical description is computational, that is, sequential, while in order to choose, the possibilities must be provided simultaneously. This can only be the case if time stops for a moment. And this indeed happens in the subjective present. (Kull 2015)

It is in this site of the specious present that ontological, biological arbitrariness makes itself evident. In that this descriptive/equivocating/choice-making agency exists at the subjective paradox of the present temporal moment and is already in conflict with logical determinations, Kull's system justifies the attribution of arbitrary choice to the biological organism on the grounds that indeterminacy coincides with freedom.

Logical incompatibility itself implies indeterminacy— the situation in which there is no algorithm to determine the action; therefore, it implies free choice. According to such

understanding, an agency is a process of having to make choices. Choices can be arbitrary, so the agent does not necessarily require any purpose or goal when making a choice. This is a situation in which there is an absence of rules– it is freedom (of choice); in certain limits, of course. The rules (or habits) will be set as a result of the repeated choices. (Kull 2023)

In both cases, the constitution of the agent *which exists at* the locus of semiotic freedom or arbitrary choice do not consider themselves to be claims made within a certain perspective informed by symbolic modality or human biological motivation. This is precisely the value of the psychoanalytic perspective. Where questions of freedom, arbitrariness, and transcendental indeterminism are asked, as *should* be regarding the ethics of biological agents human and nonhuman, psychoanalysis is capable of accounting for both the consequences of symbolic modalities of semiosis implicit in human cognizance and for the desires represented thereby.

### **1.1.2 A Material understanding of the Subjectivity Present in Language**

To present a material understanding of the subjectivity present in language, it is first of all necessary to give a logically-lawful genesis of language. This would correlate with our treatment of language being consistent with the laws of matter. The most expansive and considerate argument on the origins of language made in this line, to date, is that of Terrence Deacon. We will be engaging both of his critical texts, 2011's *Incomplete Nature* and 1997's *The Symbolic Species*. The former will be crucial due to its construction of a metaphysic compatible with both natural science and the emergence of a linguistic system compatible with psychoanalytic subjectivities. The latter is of greater interest, as it matches evolutionary logic to contemporary neuroscience and the archaeological record to ground the function of symbolic language in the human organism, *as* organism. Our treatment of *Symbolic Species* over but with *Incomplete Nature* marks our disinterest in metaphysics that are not considered in constitutive continuity with organismic processes.

The logical essence of Deacon's linguistic theory is that symbolic signs have become 'ungrounded' relative to their organismic context. This occurs when signs, i.e. words spoken or written or rituals codified, become abstracted, no longer requiring a spatial or temporal contiguity between the sign and its referent. As such, Deacon's scientific work is of interest to all philosophies who are interested both in biological processes and sign arbitrariness, as it

represents the most convincing argument to date for linguistic signification that is continuous with both available scientific reasoning and the existence of a linguistic signifier that does not have a correlation of necessity between signifier and signified.

My goal is to recast the concept of linguistic convention in semiotic terms in order to disentangle it from the linguistic convention as mere arbitrary mapping between signifier and signifieds. [...] This arbitrariness in the relation between sign vehicle and referent properties is enabled by the non-arbitrary iconic and indexical structure of between-symbol relations. (Deacon 2012:4)

Deacon's language models are further compatible with language's biological pluralism. Deacon's theory is defined relative to other theories of language's biogenesis, such as those of language innatists (Stephen Pinker) and syntactical cognitivists (Chomsky), in two regards. Firstly, Deacon shows that symbolic thought is not located simply in an ultimate 'language center', such as was thought to be the case in 'modular' attributions of language's essential functioning to Broca and/or Wernicke's area;

Once we abandon the reification of language areas as modular language algorithm computers plugged into an otherwise nonlinguistic brain, it becomes evident that language functions may be widely distributed and processed simultaneously in many places at once. (Deacon 1997:293)

Against such models, Deacon's 'compositional' theory of language, which identifies several types of regional information processing in the brain and shows the significance of their contribution to language. Because of symbolic code's recruitment of virtually all cranial regions, the activity of symbolic semiosis (abstracted reference) is identified more generally with the reciprocal involvement of cortical areas of the brain with the visceral and muscular midbrain areas than an essential identification with one functional region. As such, Deacon's system is well disposed to interpretations of experience that use a sort of pluralistic dualism in which there is a bidirectional relationship between symbolic and instinctive forces.

This is both structurally and scientifically similar to Freudian psychoanalysis' association of the mutual pressures of conscious and unconscious forces, which was also identified with cortical and midbrain neurological processes through Freud's career. In addition to a

neurological similitude, both psychoanalysis and Terrence Deacon recognize original symbol not as the spoken word but the mark of prohibition, and thus an act of repression, even though both cases spoken language is seen as the dominant medium for the activity of symbolic forms. This turns out to be crucial to the understanding of symbolic language as a dynamic and diverse process, responsible less for than the granting of denoted objects or purely referential convention than for the moulding of behaviour and construction of conscious identity or experience. The original repressive function of symbolism carries to signification the weight of materiality; and with it, a real vitality of language.

The second differentiation that exists between Deacon and language innatists is the radical exteriority that is given to symbolic systems. Symbolic systems exist independently of the individual, constrained by different pragmatic bounds from the biological unit as a result of their ‘ungrounding’ process. The consequences of this fact are drawn in connection to the Lacanian notion of ‘the signifier’, or the synchronic web of symbolic codes that forms the human environment and self-identity. By showing that language’s ideal function is the result of a composition of processes, embodied and environmental, which converge in the body’s spoken language, Deacon gives a significant place to the pragmatics of humanity’s bodily actions as predecessors of linguistic activity. Symbolic systems are therefore imagined through a holism of involved biogenic processes which exceed the cognitivist determinations of innate syntax (Chomsky) and inborn mental images (Pinker) alone. The collectivizing function of symbolic systems results in a constitutively incomplete and constitutively processual conception of language’s embodiment, being, as it is, embodied in different individuals and composed of an incomplete series of embodied processes. Our first chapter concerns itself with the compatibility of the nature of symbolism between Deacon and the psychoanalytic tradition: the logical compatibility of the two models is demonstrated. Our second chapter accounts for the component parts and interactions of this ‘holism’, through developmental psychology and Deacon’s hierarchy of signs: positive consequences are drawn regarding semiotic interpretation.

The full implications of Deacon’s evolutionary account of language requires the revision of several philosophies. By identifying language with a synchronic system that is both material and fundamentally external to the individual organism, the ethics of a Cartesian, phenomenological, existential subject-agent are located in a context of biological constitution

that minimizes the transcendental nature of the ego. This work holds further consequence for biological theories of subjectivity, particularly when biological subjectivity is supposed to be composed not according to the laws of nature but the laws of textuality or semiosis. This problematic is exemplified in the (bio)semiotic subject's identification with arbitrariness and choice. By studying the modality of symbolism, we see the work of the symbolic in ethical systems as well: Chomsky's utopian anarchism is only possible when an equivalent innatism of cognitive syntax is imposed on all human subjects. The human subject, whatever its essence, is certainly found at the end of a long evolutionary process of co-evolution with increasingly abstracted symbolic systems, as Deacon has convincingly argued. The philosophical system best suited to accommodate Deacon's research outside of a strictly scientific context is, for these first reasons as well as others to follow, Lacanian psychoanalysis; though this system, too, will be transformed by contact with Deacon.

### **1.1.3 The Importance of a Lacanian Signifier**

A key concern shared by both the Lacanian canon and Deacon's work is that of the radically externalized, and deeply formative, symbolic tradition of signs that define the human environment and development. This, Lacan calls the signifier. We introduce the Lacanian signifier alongside that which was so popular at the time Lacan was writing (mid-20<sup>th</sup> century), the Saussurean *langue*. The signifier, existing outside of the individual and impressing its codes thereupon, becomes the vehicle for communication between individuals, as well as the formative impress of the individual's behaviour. However, the Lacanian system opposes itself to the Saussurean sign precisely by involving in the Saussurean *langue/parole* dichotomy of synchronic and dynamic symbolic acts a non-linearity of time; there is a *reciprocity* of relation between the signifier and the signified in the conflicts of repression, and thus psychical materiality. This point of structural difference between Lacan and Saussure is effectively made in Slavoj Žižek, though unfortunately never explored further in the direction of the signifier's biology.

As is well known, Saussure visualized this relation as two parallel undulating lines or two surfaces of the same sheet: the linear progression of the signified runs parallel to the linear articulation of the signifier. Lacan structures this double movement quite differently: some mythical, pre-symbolic intention 'quilts' the signifier's chain [...]. The product of this quilting (what 'comes out on the other side' after the mythical – real –

intention goes through the signifier and steps out of it) is the subject marked by the matheme \$ (the divided, split subject, and at the same time the effaced signifier, the lack of signifier, the void, an empty space in the signifier's network). (Žižek 1989: 112)

Taken historically, Lacan's addition to the tradition of psychoanalysis was the identification of Freud's structures of repression, narcissism, and the paradoxical death drive to the work of ideational, abstracting symbolic functions, or the Saussurean signifier. Biologically, the Lacanian signifier is incorporated to the subject via the alienating abstractions of the mirror stage (the subject's identification with his own image) and castration (the subject's subjugation to social authority), but ultimately manifested in speech (*the unconscious is structured like a language*). The Lacanian signifier is a slave-driver of psychical material; the signifier does not so much 'refer' as repress the signified into the semblance of a reality, symbolically-coded, which constitutes the human's worldhood.

Symbols in fact envelop the life of man with a network so total that they join together those who are going to engender him 'by bone and flesh' before he comes into the world; so total that they bring to his birth, along with the gifts of the stars, if not with the gifts of the fairies, the shape of his destiny; so total that they provide the words that will make him faithful or renegade, the law of the acts that will follow him right to the very place where he is not yet and beyond his very death; so total that through them his end finds its meaning in the last judgement, where the Word absolves his being or condemns it—unless he reaches the subjective realization of being-toward-death. (Lacan 1953:231)

The consequence of this, and its concern for the interest of this thesis, is that the reciprocal relation between symbolic systems and individual organisms is found to be conflictual and, at base, closer to a definitive paradox than arbitrariness. Because Lacan's subject is not a priori but implicated in the workings of the signifier, speech cannot be imagined as an act of intentional communication *per se*, i.e. the ideal sharing of information or establishment of understanding, but an act of *force*, carried along in biological motivations. In this sense, Lacanian analysis minimizes transcendentalizing suppositions and aspires to understand materialistic continuity, making it realistically compatible with Deacon's pragmatism, while being able to nevertheless situate a study of experiential subjectivity.

## 1.2 The Symbolic Logic of Deacon

### 1.2.1 The Reference Problem

The first problem to be explored is the hierarchy of Deacon's semiotic relationships which resolves the problem of the arbitrary signifier by showing symbolic reference to be derivative of pre-existing indexical inferential modes which connect iconic meanings. In *'The Reference Problem'* section of *The Symbolic Species'* second chapter, Deacon deals with the apparent contradictions of the function of 'reference' in language. It is not evidently necessary to Deacon that saying the word 'ball' would have a recipient conjure up the mental image of a ball, as a Saussurean sign would correlate to a conceptual image. Communicational signs have much less to do with discrete, imagistic objects of interest so much as desired or feared result. As such, virtually any sign can come to be associated with any kind of meaning, provided it is contiguous to a result interesting to a subject. Behaviouralist experimentations on pigeons, for instance (Deacon 1997:65), show that a pigeon is quite capable of learning associations between arbitrary signs and consequences, even using these signs to communicate intra-individual solutions to problems in accessing food. When viewed from this level, the associations of signs-objects or signs-stimuli are quite strictly behaviouralist, and determined by simple associationism. Plainly, this is insufficient to account for symbolic communication.

All [associationist behaviourisms] rely on a relatively stable correlation with what they refer, in order to refer. This is not true of words. Or not in the same way. If our use of words failed to correspond in *some* way with the things in the rest of the world, they would be of little use, but there is something rather odd about this correspondence. [...] A learned association will tend to get weaker and weaker if some significant degree of co-occurrence of stimuli is not maintained. [...] There is some kind of word-object correspondence, but it isn't based on a physical correlational relationship. (*Ibid*, 67-68)

The word-object correspondence is too deviated from physical contiguity to be accountable by purely behaviourist proofs of association. For acts of signification to be given an effective, biological understanding, a midway must be found between absolute contiguity of sign-to-behavior relations and some absolute arbitrariness of ideal symbolic-semiotic activity. This requires a mutual shift away from the determinism of contiguity and the indeterminism of arbitrariness; to remain productive, this shift must occur within a system that still recognizes the



importance of contiguous association for the maintenance of semantic competency. As such, Deacon follows the pragmaticist semiotician and philosopher Charles Sanders Peirce in presenting three different types of interpretive relation: the icon, the index, and the symbol.

### **1.2.2 Icon, Index, Symbol**

Deacon's modes of significant relationships form a logical hierarchy in accordance with these three types of relation, which thus satisfy our descriptive system's conditions. The elementary significance, the iconic, can be immediately related via similarity between the sign and the object; thus, the red image of an apple bears an iconic relation to a real apple; the object *is* the sign, and vice-versa. In a naturalistic example, iconicity can be found in relations of camouflage, in which a species renders itself iconically similar to its undesirable environment so as to escape the scrutiny of predation or evade the wariness of prey. Deacon associates iconicity with recognition, or differentiation; which, in turn, requires the presence of an interpreter, who has an indexical, interested relation to the iconic object. "Iconic relationships are the most basic means by which things can be re-presented. It is the base on which all other forms of representation are built. It is the bottom of the interpretive hierarchy." (*Ibid*, 77)

An index is, so to speak, one degree of abstraction away from iconicity, existing as a contiguous associate of an iconic element. The most common example is that of smoke to fire; while there is nothing *iconically* significant in smoke of fire, the co-appearance of smoke with fire creates a contiguous relationship that 'points to', indicates, fire in the sign that is smoke. Indexical relationships are thus derived from correlative associations between collections of iconic signs; fire is iconic, smoke is iconic, their consistent relation makes one indicative of the other. "The indexical competence is constructed from a set of relationships between icons, and the indexical interpretation is accomplished by bringing this assembly of iconic relationships to bear in the assessment of new stimuli." (*Ibid*, 77)

The typically learned-associative nature of indexical relations leaves them open to the introduction of new signs. We can imagine an arbitrary code's association with a particular stimuli, such as is the case in behaviorist 'Skinner box' experiments; because of contiguity between the space and time of arbitrarily chosen signs and their effects, animals are able to associate otherwise insignificant stimuli to interests. This has also held true for social communications. In a behaviouralist system, iconic and indexical modes of reference suffice

completely to account for behaviour, as all behaviour is thought to be reducible to habitual association. This habit-formation, when identified with human language, reduces linguistics to pure associationism; overenthusiasm of this type in theories of communication is what legitimates Saussurean arbitrariness.

This leads us to the mode of reference most intriguing to us here; that of the symbol. As Deacon writes, the symbol requires neither iconic similarity nor indexical contiguity, per se, to function as a symbol. It is the logical *modality* of symbolic reference, rather than its composition as ‘conventional’ or ‘arbitrary’, which defines it. The symbol is the indicator of an indexical relationship; it is originally constructed as the index of the index. As such, the vehicle of symbolic meaning requires no iconic or contiguous relation to an original, natural, iconic object. This vehicle, by merit of its twice-removed relationship to iconicity, is thus a slippery referent subject to different pragmatic laws than those prior modes, in that symbols may refer to concrete indexical contiguities and thus be symbol-index, or to other symbols, and thus be symbol-symbol. This conception of symbols as being the logical product of a second-degree abstraction from indexicality has its advantages.

### **1.2.3 Symbolic constitution: token-index and token-token relationships**

Once the original symbol is constructed as the indicator for another index, the possibility for new, adjacent symbols to exist arises. To the extent that it is favourable to establish other, similarly-abstracted symbols, new symbols arise and associations/differentiations come to exist between them; as such, the referential function of a symbol quickly becomes *split* between denotative indexical functions and intra-symbolic associations. The symbol may have originally served as the index of another index, but it ultimately came to indicate relations to other symbols. It is for this reason that Deacon introduces his idea of the ‘token’: an icon determined *not* by natural iconic similarity, but by its conventionally-given set of symbolic relations. The token is the icon of the symbolic. Being born or introduced to an environment where symbolic communication is at play, thus, the tokens used in one’s environment (such as ‘banana’ and ‘apple’) have indexical relationships to their referent despite the token’s non-contiguous relation thereto. As complexity increases in symbolic systems, a transition may begin to be made between a token’s indexicality and a token’s linkage with other tokens, leading to combinatory, ‘logical’ relationships between tokens.

Although indexical reference of tokens to objects is maintained in the transition to symbolic reference, it is no longer determined by or dependent on any physical correlation between token and object. This makes a new kind of generalization possible: logical or categorical generalization, as opposed to stimulus generalization or learning set generalization. (*Ibid*,88)

The constitutive balance struck between token-index and token-token relationships in the organization of symbolic systems points to two different directions that may be taken in the treatment of symbolic systems. As is the case in the arbitrary signifier of semiology, words originate by differentiation from other words and *not* by a necessary contiguity between signifier and signified, have over-emphasized the token-token constitution of symbolic systems. Conversely, cognitive naturalists such as Lakoff & Johnson (1980) derive symbolic meanings purely from their indexical, metaphorical intricacies, and thus pay essentially no mind to the differentiative structures of symbolic systems themselves, over-naturalizing the brain and language. Deacon, if coupled to Lacan, is prepared to take a radically middle-road, in which a disembodied signifier, which is composed of chained linkages of tokens/signs (Deacon/Lacan) has *real formative potential* for the human organism, while still being ultimately derivative of indexical, natural, relations.

#### **1.2.4 Deacon & Lacan on arbitrariness**

Of the two relationships present in symbolic reasoning, Lacan definitively approximates an emphasis on token-token relationships; for Lacan, ‘a signifier is that which represents a signifier to another subject.’<sup>1</sup> In this tautology, we can see Lacan’s preparation to treat symbolic signification as a properly token-token. However, despite the relation that is made between the signifier and the subject that would seem to approximate the semiological perspective, the Lacanian signifier is definitively hosted in the context of a biological subject: the signifier is being enunciated by a biological, libidinal subject and originating in a structuralist anthropological history. As such, the signifier’s representation of another signifier is not arbitrary in a dissociative sense, but rather located in tandem with the repressive constitution of the subject. A closer study of this fact may accidentally result in a return of Lacan from his currently

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<sup>1</sup> (Gomez 2019) points out this is remarkably similar to Peirce’s definition of a sign, for whom the sign is ‘something that represents something to somebody’

popular reception as a philosopher of indeterminacy. This ‘grounding’ of the signifier in the enunciating body may be found in the unconscious’ fundamental root in vocalized speech:

I would like to say that we find in Freud’s articulations a quite unambiguous indication that what is involved in this synchrony [of consciousness’ relation to sensory perception] is not only a network formed by random and contiguous associations. The signifiers were able to constitute themselves in simultaneity only by virtue of a very defined structure of consistent diachrony. [...] Freud shows clearly that, for us, at the level of the last layer of the unconscious, where the diaphragm functions, where the pre-relations between the primary process [i.e. instinctual drives] and that part of it that will be used at the level of the pre-conscious are established, there can be no such thing as a miracle. *It must*, he says, *have a relation with causality*. (Lacan 1978:46)

Arbitrariness is problematic. Wherever a fundamental non-relation is given without elaboration or delimiting context, in other words where causal continuity is dismissed, speculative scientific progress is prohibited and individually-delimited speculation is indulged. Concerning biosemiotics, this should make arbitrariness quite problematic, for as long as biological causation, and thus organismic motivation, is at issue, a position of absolute arbitrariness (over, say, a general ‘preference’ of selection that might result in a seemingly arbitrary selection of objects from an environ) deprives the subject in question from having true, real-world agency. Kalevi Kull’s position that life is ‘Arbitrariness to some extent restrained by motivation’ (2023: 179) must be inverted. In this regard, the relationship of Lacan’s signifier to arbitrariness is located at the individual, psychological level: the signifier is ‘arbitrary’ insofar as it exists outside of the individual’s life-history, causality being held.

For Terrence Deacon, arbitrariness is not a tool to be used but an obstacle of science, to be ultimately overcome. “This focus on arbitrary correlation as the defining attribute of symbolic reference is a serious oversimplification that collapses critical distinctions between sign vehicle and referential properties.” (Deacon 2012: 10) To approach symbolic operations in an organism from a *logical* standpoint, therefore, the arbitrariness of the signifier must be contextualized by its position of derivation from indexicality, and thus biological circumstance. Thought in light of what has thus been established, a true equivalence of choice, arbitrariness, may only be imagined when an interpretive *equivalence of options* is posited. In that all iconicities are composed of

some degree of naturally-concerned significance, i.e. for consumption, of threat to life, or of comfort, the equivalence of possible actions supposes the sort of reference that first appears only in the token-token condition of reference, in which each icon has hypothetically equivalent status, as one word denotes in the same way another does. This true equivalence which grants an either-or to the subject is obviously a derivation of categorical logic, in which options do not exist as in-themselves affinities or repulsions but already-abstracted possibilities which exist before a discerning subject. The Lacanian real is *causal*, forceful, and thus compatible with naturalism; the Lacanian subject is ontologically non-arbitrary. Arbitrariness, as freedom from reference, must be historically-epistemologically located and thus shown to be scientifically subordinate to a generality of function- not ontological status.

### **1.3 Evolutionary Origins of Symbolic signification**

#### **1.3.1 From Logical to Material: requirements for the Signifier**

A conclusive point of shared interest between Lacan and Deacon, then, is the understanding of a dynamic-organismic function exerted by the symbolic upon the organism that supercedes pure denotation. While, as Deacon says, the symbolic must have *some* indexical relationship to the organism's environment, the functions of symbolism far exceed object-reference. What then could this original symbol, this indication of an indexical relationship, *be*? It is hard to imagine that the pre-hominid species of several million years ago would find sufficient evolutionary motivation to begin using the word 'apple'. There is a hint in the function of the symbol. For Lacan, the relationship of signifier to signified is essentially one of repression; the signifier represses the signified, thus *producing* referential signification with denoted objects.

For compatibility to be shown between Deacon and Lacan's positions, we must therefore expect that the original index-of-index reference that would serve as the primordial symbolic logic fits certain criteria. Firstly: it *should* be evolutionarily justifiable. The emergence of symbolic operation is material, scientifically accountable, not arbitrary. Secondly, its function should be a primarily *behavioural*, and not descriptive, function. For Lacan to be compatible at this essential structural level with Deacon, the signifier must be a referential mode that serves to *repress*, and thus *transform*, instinctual codes, working specifically in the symbolic logical mode of reference.

### **1.3.2 Origin of the signifier: Castration and societal organization**

The problem of the non-equivalence of the arbitrary sign is substituted for another sort of paradox in both Deacon and Lacan, that of the un-realization of sexuality. Central to Deacon's evolutionary theory of the signifier is its appearance in history as a prohibitive function, enforcing reproductive fidelity in early human groups. As Deacon (1997) points out, mixed-sex social groups of animals who show significant care and provisioning of resources to their offspring, is evolutionarily inexplicable without some sort of anomalous intervention. The presence of high-fidelity monogamy in populous human societies concretely appears as a paradox in this light. This is made clear in its contrast to evolutionary reasoning. Deacon's evolutionary logic (*Ibid*, 387-389) states:

1. That paternity certainty, i.e. the male's certainty that a child is 'his', will be correlated to offspring investment. The more certain a male is that the female's spawn are genetically his, the more care will be given to those offspring. This economizes the male's fitness.
2. That sex-mixing in social groups correlates to potential infidelity, and thus negatively to paternity-certainty and paternal investment.
3. That higher group sizes will have higher potential for group exploitation, which will thus correlate groupsize to increasingly disruptive, anti-cooperative, behaviours.

In mammalian species, sexual access is almost invariably determined by either rank and ongoing competition, and thus polygyny (in cooperative societies) or courtship followed by isolation (non-social mammals). Both opposing strategies find a way to modulate the sexual relation. Modern human societies are large, cooperative, mixed-sex groups in which males invest significantly in offspring. This arrangement, compared to the competitive cooperation found in a lion's den or the isolated monogamy of the beaver's dam, is highly volatile: the sexual tension is relieved by neither polygyny nor isolation. Evolutionarily speaking, there must be an exceptional justification for this; the intervening factor is symbolic code.

Deacon proposes that symbolism's appearance was coextensive with the sudden entry of meat into the human palate that derived from tool use, beginning approximately 2.5 million years ago. The simultaneous introduction of meat and rudimentary symbolic reference is corroborated by shifts seen in the archaeological record at this time, with Australopithecenic skeletons showing increases in canine and skull size. Tool use, which brought with it regular access to

bone marrow as a significant source of nutriment, as well as hunting behaviour, introduced new selective function to cooperative groups of humans. This novel food source changed the demands placed on reproductive strategies, and thus of social group organization.

This clearly marks the beginnings of the shift in selection pressures associated with changes in the brain relevant for symbolic communication. [...] The key to unlocking this mystery, I think, does not have to do with the cognitive difficulties of hunting or the use of communication or increased intelligence for toolmaking. What is important about this shift to a novel food source is the unprecedented demands it placed on the whole fabric of social group organization. (Deacon 1997: 386)

The advent of hunting behaviour carried with it a dimorphism of foraging strategy between the sexes. While women in foraging societies contribute equally to the caloric diet as do men, a mother with a dependent infant encounters disproportionate difficulty in scavenging or hunting than do men, on whom infants do not necessarily depend. Furthermore, newly-possible tool-mediated cooperative hunting, such as would be at play in a paleolithic mammoth-hunt, encourages formations of larger cooperative societal groups. Thus, with tool use and meat diets, there is an increase in *potential investment* by men, the ability to consistently hunt or scavenge meat, an increase in potential female dependence which correlates to this potential investment, and an overall increase in group size. The sexual-organizational contradiction present in this would-be pre-symbolic society is further problematized by the removal of potential mate-guarding solutions; if groups of men leave a tribe to hunt, their mates are not being guarded against infidelity, and thus paternity uncertainty rises with meat collection. Deacon writes “[the innovation of tools and meat-eating] pits two critical reproductive problems against one another: the importance of pair isolation to maximize the probability of sexual fidelity, and the importance of group size for access to a critical resource [meat].” (*Ibid*, 388)

As the female evolutionary strategy seeks to maximize paternal investment, and the male evolutionary strategy seeks to maximize paternity certainty, the requirement for, or evolutionary advantage of, some effective mediating guarantor grows. In effect, the regulation of mating that is established naturally in polygynous or independent (lion or beaver) mating strategies must be supplemented to accommodate the benefits of meat. Without some yardstick of fidelity, that is to say some causally-efficient sign or mark onto which the sexual contract may be established, the

group will collapse into polygyny or individuality, and thus become out-evolved by groups capable of establishing a mating contract. This mark would be socially recognized across individuals; as Deacon points out, ‘In no other species is there such direct involvement by the larger community in the maintenance of sexual exclusivity between individuals.’ (*Ibid*, 400) What is therefore required is some kind of rudimentary marital mark becomes the sign-vehicle of partnership, allowing partnership in the absence of a partner, and thus mate fidelity and a stabilized social group. An immediate example is the wedding ring: a conventional symbol which serves to mark individuals as privately-committed sexual beings. In modern societies, if adultery to be committed, the wedding ring must be taken off, or society may either not take interest in the available party or disapprove of the deviant behaviour. “Sexual access and a corresponding obligation to provide resources are not just habits of behavior; [...] Sexual access is a *prescription* for future behaviours.” (*Ibid*, 399).

Deacon thus proposes that the origins of symbolic logic lie, evolutionarily, in a suspension of polygyny and support of cooperativity that would require a symbolically-logical marriage of sorts. In addition to the evolutionary coherence of this proposition, this is especially significant in that it locates symbolism not in vocalized linguistics, but in environmental-societal organization, in particular sexual prohibition. The symbolic species must be able to see the other as though it had an other present; the mate is guarded, though their mate is *in absentia*. In Freud’s anthropology, too, the issue of the law’s triumph over polygyny in prehistorical societies is centerfold. In its mythical conception, the Freudian myth of the prehistoric father is as Ymir or Kronos in the Eddic or Greek pantheons; slain by his following generation for his existential tyranny. The divine organization of following generations is canonized by the murder, and the world’s cosmological reality is established; Ymir’s flesh is used to fashion the earth.

When imagined in natural human societies, this myth follows the narrative of a collection of younger males slaying the dominant, polygynous, male, thus winning access to his liberated females and establishing a fraternal equivalence of marital mating fidelity. “One day the brothers who had been driven out came together, killed and devoured their father and so made an end of the patriarchal horde.” (Freud 1989a:501) Freud’s primordial father, sacrificed, becomes the contractual agreement that officiates the sexual prohibition that serves as the fundament of symbolic society. Although Deacon’s model makes no mention of a traumatic murder to codify



the symbolic prohibition in memory, the moment of the symbol's appearance being one which installs sexual prohibition and fraternal group identity is shared. The absent, murdered father becomes the presence of the sexual prohibition that upholds monogamous equality; the symbolic sign, in its primordium, serves a repressive function.

This is, of course, read from within the same framework as the Freudian Oedipus complex, in which the child competes with the father for maternal affection. Except, whereas the primordial father is sacrificed and consumed, the Oedipal father upholds his monopolization of the Oedipal mother's affection. The child of the Oedipus complex enters into competition with his father so that he may, eventually, be castrated, and thus brought into societal order by the prohibition of the mother. Following castration, the child follows the promises of the father, identifying with him faithfully as the effective substitute or deferral of maternal love. The effect of this arrangement is of a different order than the mutual fraternal prohibitions constructed by patricide. Rather than the father being overthrown and his females won, the Oedipal child learns subservience to the Oedipal father's law, his sexuality being guaranteed by the symbolic order rather than won over to install symbolism in hindsight. The Freudian reading of the Abrahamic myth of castration upon the formation of a covenant is here present; castration, which is the traumatic mutilation of male genitals, serves to incorporate the young into a legalistic, prohibitive human behavioural system. Whereas the primordial horde is organized by the vital overthrow of the father, the Abrahamic family establishes its sexual ordering by a traumatic genital event and a mark that conventionalizes a member into the family's divinely-aspirational tradition.

There is thus a brutal similarity between the positions of psychoanalysis and Deacon in that both recognize the root of symbolism not in vocalization or tool use, but socio-sexual organization via marked prohibition. This connection is furthered with a closer understanding of the psychoanalytic point. Contra literal interpretations, the myth of the primordial father does not allude to an actual historical event of patricide so much as it does to the present-absence of the primordial lawful father. The absent spectre of the murdered father is universalized to the murderous subject; fear and aggression are exchanged for guilt and memory, and thus the symbolic castration promises social fidelity forevermore. Symbolic codes, founded in the sexual prohibition created in symbolic agreements of fidelity (and shortly thereafter incest-prohibition),

‘marriages’, are marks that really stand in for causal relations. The marks are non-arbitrary, despite not being directly contiguous; they have the socio-sexual function of upholding a societal order that is neither polygynous nor strictly privatized. In Deacon’s terms, the castration or the wedding-ring is the icon of the socio-sexual index; a legisign, a symbol. In both cases, Freud and Deacon, the primordial marital sign stands in for an absence of another thing, an indexical social rule, serving as the departure point for abstractive logic being applied to social organization. Lacanian psychoanalysis, in its structuralism, does not focus so much on the mythological root of the primordial symbolic patriarch as it does the formality apparent in the myth. This present-absence of the Father, the rudiment of the symbolic code that is transmitted in the Oedipus complex, is what Lacan would call ‘the name of the father’, and serves to structure the post-Oedipal child’s incorporation into the symbolic order. Lacan’s French term, ‘le nom-de-père’, is here relevant as a play on words equivalent with ‘le non-de-père’, the *no* of the father (see Lacan 2002c:462). The confusion between the symbolic *name* of the father and the symbolic *prohibition* thus implicates one in the other, marking them as simultaneous.

To take Deacon’s research seriously, we must further accept that symbolism has not been an additive feature of humanity’s evolutionary history, but transformative. To Deacon, the information-processing requirements for a mark of sexual prohibition are much less than the requirements posed by the full weight higher-order symbolic abstraction seen today. On an evolutionary timescale, as the benefits of cooperation (facilitated by prehistoric marital rites) were sown and larger groups began to form, higher capacities for abstractive symbolic logics would be positively selected for and would, later on, associate with humanity’s enlarged pharynx, lowered larynx and increased cranial size to begin associating phonemes to symbolic meanings. Thus, although initially symbolic codes would be marked by physical referents (i.e. a wedding ring), language would come to ‘monopolize symbolism’, vocal articulation becoming the new medium of symbolic communicative effects. Apparent adaptations for higher symbolic loads or complexity of symbolic processing in humans, such as enlarged heads, prolonged developmental periods and neoteny (Deacon 1997), are therefore evolutionarily a result of humanity’s dependence on symbolic systems of information; both for nutritive survival and sexual organization. The association with symbolism, sexuality, and prohibition is therefore fundamental and originary.

## 1.4 Dynamics of the signifier

### 1.4.1 The physiology of the symbolic

In order to associate the Lacanian signifier, which generates a traumatic diversity of form and position in human subjects, to Deacon's natural scientific perspective, the minimum evolutionary or Freudian reason of the symbol's origin must be supplemented. As Deacon points out, there is no reason for this original symbol to be vocalized. The first circumstances that encouraged the emergence of a symbolic mark, marital fidelity, are symbolic in the *logical* sense, not yet privileging the spoken word; vocal articulation "was not likely to have been the sole, or even the major vehicle, for the earliest forms of symbolic communication" (*Ibid*, 358).

It is nevertheless the case that the recent dominant mode of symbolic communication in humanity is linguistic speech. There is evolutionary reason for this. As symbolic signs differ from indexical relationships by their loss of spatial-temporal contiguity, symbols are essentially characterized by a relative freedom, or potential diversity of reference; we could choose from an arbitrary number of referential vehicles for marital marking, rings, tattoos, mutilations... By virtue of the symbol's constitutive non-contiguity, modes of significance that are well-disposed to high degrees of variance, those which have high potential to become vehicles for non-contiguous meaning, are especially well-suited to becoming vehicles for the symbolic: the vehicular mode of symbols will follow the referential logic of symbolic communication.

Two requirements thus must be fulfilled for embodied speech to become an adequate, let alone dominant, vehicle for symbolic signs: a relationship of significant non-necessity must exist between vocalization and indexical embodied states, and vocalization itself must be capable of producing a diversity of differentiable phonemes which would be sufficient to uphold webs of complex, symbolic, and thus ungrounded, meanings. Deacon points to two key physiological factors which define the potential establishment of association between vocalizations and symbolic intent: neurological interference of the cortices in the midbrain and an expanded range of possible vocalizations.

Firstly, the *typically strict* mammalian association between visceral-motor centers, which are responsible for muscular movement and vocalization, become connected to prefrontal cortexes. This is made possible by another apparent requirement, encephalization and shifts in developmental strategy, which facilitates a larger prefrontal cortex and higher interregional brain

connectivity, respectively. Secondly, the descended larynx of humankind compared to other animals and apes, which opens the possibility for the articulation of new ranges of sounds that may be later co-opted with symbolic phonemes. Once positive, pro-symbolic evolutionary selection picks up, increasing association between prefrontal cortexes and midbrain-cerebellar areas is then logically expected, as well as increasing informational capacity (and thus, over time, size) in the prefrontal cortex.

#### **1.4.2 Criteria 1: Skilled vocalization**

The first physiological criterion is the association of prefrontal and midbrain-cerebellar regions in the brain. In most mammals, the visceral muscle systems that are responsible for vocalizations are not involved with other brain areas; they operate autonomously. Without cortical involvement, cries tend to follow a strictly coded stimulus-response organization. In humans, pyramidal neurons connect cortical regions of the brain to midbrain regions responsible for visceral sensation and muscular control. In regard to the relative independence of visceral-vocalization neurological circuits, Deacon affirms that:

The visceral muscle systems that are most directly involved in mammal vocalizations are not well suited to this task [skilled vocalization], precisely because these systems must be capable of operating autonomously, according to a few set motor programs. Such programs are the epitome of modular brain functions that are closed to any interference from other systems. (*Ibid*, 237)

In order for learned, skilled movements to arise, areas of the brain not otherwise necessary for visceral movement must become involved. Regarding humans, cetaceans and birds, the three groups which exempt this reasoning, Deacon writes “What these exceptions to the rule [of innate vocalization-somatic state connection] share in common is what they avoid: leaving vocal communication under the control of the visceral motor systems of the brain.” (*Ibid*, 237)

There is not an entirely stark distinction between the cortical-brainstem projections that exist in humans and do not exist in mammals. Typically, mammals show no cortex-to-brainstem projections save for a connection to the reticular premotor motor nuclei, responsible for the direction of the gaze. Primates, whose life strategies involve complex locomotion, facial-gestural communication, and occasional tool use, distinguish themselves from other mammals in that they show cortical-brainstem projections to the facial, trigeminal, and hypoglossal motor nuclei.

In addition to these brain areas responsible for voluntary, complex, control over the movements of hands, fingers, faces and tongues, humans also show significant cortical projection into brainstem regions associated with the larynx, breathing, and visceral motor control. Thus, the criteria for *skilled, learned* vocalization that is seen in birds and cetaceans is also met in humans.<sup>2</sup>

### **1.4.3 Criteria 2: Cortical expansion**

Perhaps surprisingly, this projection pattern of neurons running to the midbrain is caught up with shifts in cranial size and developmental strategy. Despite the straightforward and popular notion that humanity's differentiation from the apes was a matter of the evolution of brain size, the convenient fixation on brain size or brain-body mass ratio explanations of symbolic communication have excluded approaches more attuned to the formality and logic of symbolic communication. Cranial expansion played a significant role in the uptake of symbolic possibility, but a simple brain size correlation to intelligence is uninformative. Neither intelligence, nor brain size, is a simple trait; Deacon writes

If a unique function (language), global assessment of function capacity (intelligence), and the crudest possible measure of brain structure (size) have anything to do with each other, it will probably be discovered in the neurobiological details and not in global extrapolations from these most superficial features. (*Ibid*, 148)

There is another, tempting, and more accurate mode of describing changes in form of information processing that roughly aligns with phrenological approaches. By observing the changes made across evolutionary time in the human skull, allometric analyses can project a different allocation of space to different brain regions, and thus map rough shifts in brain functionality beyond mass=intelligence. The great movement towards encephalization in humans suggests a correlated movement towards voluntary action, planning and consciousness, which

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<sup>2</sup> It is perhaps additionally noteworthy, as Terrence Deacon has deemed it, to mark the nature of humanity's cortical-brainstem projections as significant both in presence and in quantity. Not only are cortical pyramidal neurons present in the visceral *and* skeletal motor portions of the brainstem, but a tremendously increased projection to spinal respiratory neurons is present, as well. Should neurological factors be granted evolutionary dignity, this fact strengthens the importance of increasingly-skilled control of vocalization via increasingly-voluntary respiration.

functionalist models of the brain ascribe to the prefrontal cortex<sup>3</sup>. Notable shifts in brain region size between apes and humans are defined by their doubling of cerebral cortex (202% increase) and marginal (~115%) increases to the auditory lobe, as well as significant decreases to motor and visual regions (35% and 60% relative to ape brain size, respectively). However, Deacon notes, the degree of encephalization, too, does not necessarily correlate to capacities for symbolic communication, as is exemplified in the contrast of the human encephalization to that of the chihuahua. The distribution of brain mass, as in the encephalized chihuahua, simply does not have enough explanatory power to account for changes in function as radical as symbolic vocalization.

The high degree of plasticity in neurological form makes it radically subject to differences of form which derive from differences of development. Whereas the impressively-encephalized chihuahua (which also ‘benefits’ from high brain-body ratios) develops quickly and in the womb, the prolonged developmental period and the relatively early birth of human children facilitates the development of neurological patterning that favours increased inter-regional projection; most notably appearing in the aforementioned cortical projections to the midbrain and brainstem. Deacon writes:

The divergence in size of the human dorsal versus the ventral forebrain has shifted connectional patterns in ways that are radically different from other species’ brains. These turn out to be critical to understanding two of the most central features of the human language adaptation: the ability to speak and the ability to learn symbolic associations. Specifically, I [...] argue that the ability to produce skilled vocalizations can be traced to changes in motor projections to the midbrain and brain stem, while the ability to overcome the symbol-learning problem can be traced to the expansion of the prefrontal cortical region, and the pre-eminence of its projections in competition for synapses throughout the brain. (*Ibid*, 220)

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<sup>3</sup> ‘The representation of temporally complex events might underlie PFC involvement in general intelligence, decision-making, and executive function.’ – *Functional localization within the prefrontal cortex: missing the forest for the trees?* Wilson et. al 2010

#### **1.4.4 Criteria 3: Articulate speech**

This leaves humanity's descended larynx, responsible for its range of phonetic articulation. The contrast with avian communication is again informative. Whereas mammal vocalizations generate sound from the laryngeal muscles, located in the throat and associated with glottal muscles, the bird's syrinx is in the chest. Whereas the physiological and evolutionary location of the larynx is associated with the muscular, spatially-liberal tongue, the syrinx is associated with the rib cage, and thus flight muscles. This is why kicking a dead chicken will invariably produce a confused squawk. The intrinsic linkage between flying, breathing, and vocality in avians puts a strong evolutionary constraint on possible vocalizations. Deacon writes "an ability to adjust related breathing and wing movements thus required involving the skeletal motor systems also in the control of air flow. Since the control of air flow is the basis for sound production, this too has come under more deliberate control as a side effect of the evolution of flight." (*Ibid*, 241) Whereas avian vocalizations associate functional space with breath and flight, human vocalizations cohabit primarily with the oral alternation between breathing and consumption, resulting in two different evolutionary definitions of a species' vocality.

The descended larynx of modern humans, relative to australopithecines and apes, additionally correlates to relative expansion of the cranium in human evolution. As humanity evolved to be increasingly erect and their *bauplan* shifted towards prefrontal expansion as resulted in a few changes which correlate to an expansion of phonetic range. The tongue is lower in the mouth of humans compared to apes, and the pharynx (back of throat) is relatively enlarged. This brings with it a significant increase in the role of the tongue in modulating the shape of the pharyngeal and oral cavities; and thus, a significant range expansion of potential vowel sounds. Deacon, following the work of Phil Lieberman, writes that "the major result is that the sounds that comprise the vowel components of speech are much more variable than could be produced by any other ape, and include such extremes of resonance combinations as the 'ee' sound in 'tree', and the 'ah' sound in 'flaw', both of which require the pharyngeal space [...] to be relatively enlarged." (*Ibid*, 357)

#### **1.4.5 Counter-current processes in Symbolic Activity**

The extensive neurological, physiological, pragmatic interpretations of humanity's adaptations to symbolism, investigated in *The Symbolic Species* and here summarized, have later been refined and specified into a more geometrically-appropriate metaphor. Because of the

uniquely central importance that afferent projections from the cortices to the midbrain visceral systems, Deacon (2017) has refined this process to what he calls ‘counter current information processing’. Following the metaphor of blood-oxygenation strategies employed in the gills of fish, in which internal blood flow runs against the current of external water (matching minimally-oxygenated blood with minimally-oxygenated water and maximally-oxygenated blood with maximally-oxygenated water and thus maximizing oxygen uptake), Deacon illustrates that the impulses originating in the midbrain/brainstem pulse outwards to cerebral cortices just as the pyramidal cortical neurons return impulses to the midbrain. Without entering the depth of neurological consideration for the brain’s tissue-layers that Deacon does, what we find is that, as a result of cortical projections into the visceral midbrain, there is a mutual-directedness in the human neurological formation between the midbrain, instinctual impulse and the prefrontal’s. To quote Deacon,

One way to think of their relationship is that information developing along a limbic-to-specialized pathway is progressively differentiated by interacting with information being relayed along the inverse-parallel specialized-to-limbic pathway. Indeed, precisely this stepwise interchange of attributes at each stage is what is required to differentiate vague mnemonic and intentional processes to the point where they produce the attentional focus and behavioral response patterns that are optimally fit to current conditions. (Deacon 2017:17-18)

It is here important to note the holism with which Deacon attributes language’s ‘place’ in the brain. *Contra* modular conceptions of the brain’s languaging which ascribe certain areas privileged positions in essential linguistic function, the impress of symbolic modes across the human brain’s expanded and midbrain-afferent cortex finds its ideal form in the reciprocal flow of information. The prefrontal cortex interferes with otherwise-autonomously operating limbic centers, just as the drive of the midbrain pulses efferently out to the cortex. This is remarkably similar to the, albeit dated, drive-neurology of Sigmund Freud which would serve as the auspicious root of Lacan’s later structural programme. This is not the least for Freud’s prescient skepticism on the Broca area’s reception as the ‘language center’ for the brain, preferring rather to see the Broca’s area as a contributor to *one facet* of the linguistic process which all-too-conveniently fitted the notions held on language’s essence by his contemporaries. For Freud, the



unconscious-conscious systems that would be subjected to Freud's rational, suggestive, talking-cure to the patient's desires and automatisms, are better understood by deep, efferent pulses originating in the midbrain and then responded-to by the conscious cortical systems.

#### **1.4.6 Freud's transition from a natural to a structural model**

There is a historical trajectory that Freud followed in coming to this structural position of psychoanalysis, which is illustrative of what will ultimately become Lacan's symmetry to Deacon. By drawing this trajectory, Lacanian psychoanalysis may be introduced in historical tandem with Freud and structural tandem with Deacon. What is most important in conceiving the psychological model that would compliment Deacon is the autonomy of the symbolic, as the symbolic is not exclusively determined by innate, i.e. genetic or proteomic codes, but the trans-generational and accumulated environmental inertia of symbolic forms. Symbols are located 'outside the brain' (*Ibid*, 109). Secondary to this is the holistic activity of these symbols across brain regions; symbolic systems cannot be accounted for by grammar, metaphor or metonymy alone, as they are compositionally derived of processes all across the brain. These criteria are well compatible with psychoanalysis.

Concerning holism, it is of course notable that Freud's career concern originated in the biology of psychosomatics effects and neuroses, to which the talking cure was applied. The early Freud may here be defined by two theoretical traits: his early, 'topological' model of the psyche, and his adherence to the pleasure principle. The pleasure principle asserts that the biological purpose of motivated action was to attain a lower, relaxed, energetic state via a cathexis of energy; thus, organisms were motivated by their tendency towards comfort. This principle, which owes its logic to Aristotle's notion of pleasure's catharsis, could be trusted in mapping the sexual organization of the human organism and thus for the illuminating perspective of psychotherapy. By identifying one's traumas and integrating them into conscious life through expressive speech, in therapy, or sublimation, following therapy in life, the human's physiological state could be corrected to a new desired state.

As Freud's career progressed, however, this model began to require clarification. Freud's 1914 *On Narcissism: An Introduction* introduced the psychological entity of the 'ego ideal', foreshadowing "the restructuring of Freud's theory of mind" from topological to something structural (Gay 1989: 545). The ego ideal was a pole around which the conscious ego orbited,

that for which it reached; the ego ideal is the site reserved for the *Übermensch* and the Antigone, the subject's ideal identification. In this essay, Freud would articulate a differentiation between an 'ego-libido' and an 'object-libido', in which sexual cathexes could be realized *not simply* in relation to satisfying objects, but also in the auto-eroticism of one's self-image. That is to say, there is a pleasure in *being who you want to be*, given by the self-image's relation to the ego ideal, that is distinct from the pleasure of instinctual satisfaction. As a consequence of metapsychological argument, Freud made a categorical distinction that created a space in which conscious images had an impact on the human organism that was differentiated from instinctual impulse. This novel stress given to the importance of the imagistic-symbolic dimensions of human sexuality would determine Freud's later work, in which the psyche was thought of as being determined less by naturally-given objects or needs, and increasingly to the effects and extent of repression on primary processes. This turn had a historical dimension, in Freud's departure from the monistic psychology of Jung.

On his path from a topological psychical model, which viewed humans as being determined primarily by their unconscious instincts, to a structural model, in which an active interplay between ideals of the ego and the objects of catharsis better accounted for psychic organization, Freud undertook the project of creating a metapsychological exposition of his psychoanalysis. Between 1915-1917, Freud published only the first five of his metapsychological essays, including the famous *The Unconscious* and *Mourning & Melancholia*, and, going against the advice of his peers who encouraged publication, destroyed the remaining seven. In these essays, the new problematics of ego/object libidos were explored in depth. The famous distinction between mourning and melancholia required the notion of ego-libido: one mourns when one has lost an object, and one is melancholic when one has lost an object that cannot be identified. As such, mourning is the pleasurable act of the ego which satisfies the absence of a known object of libido, an object which relates directly to the ego, while melancholia is a state affecting the ego-libido in which the removed object is unknown to the ego and thus is painful but cannot be mourned. Each position is constituted by a relative position of the ego to loss, and thus entailed a metamodelization of the psyche that employed the opposition of ego-libido to object-libido. This dichotomy, particularly its adherence to the cortical location of the ego and the midbrain location of the id, thus anticipates Deacon's counter-current structure of symbolic processes.

#### 1.4.7 Freud's drives and their budding revision

In order to exceed purely structural formulations pleasure given to the ego and the object, the nature and concern of Freudian libido must be given. Freud's biology identifies several erogenous zones, which correspond to biological functioning and are responsible for a 'drive'. This includes the oral drive, the erogeneity of chewing, swallowing, consuming, and the scopoc drive, the erogeneity of peeping, seeing, watching or staring. Presumably, all organismal instinct is constituted by a 'drive' of some sort; the Freudian drive is not far in this from the Uexküllian functional cycle. In one of these five remaining essays, *Instincts and their Vicissitudes*, Freud attempted to trace the path of stimuli through the organism, eventually ending in action. The model initially cites the reflex arc;

Let us try to give a content [to the notion of an 'instinct'] by approaching it from different angles. First, from the angle of *physiology*. This has given us the concept of a 'stimulus' and the pattern of the reflex arc, according to which a stimulus applied to the living tissue (nervous substance) *from* the outside is discharged by action *to* the outside. (Freud 1989b: 564)

Beginning with the model of the linear reflex arc and the pleasure principle, Freud began to craft a model of the nervous system which assigns itself the task, 'speaking in general terms—of *mastering stimuli*.' (*Ibid*,565) This general 'mastery of stimuli' includes both the satisfaction of desires through the attainment of desired objects, giving catharsis, and the authority of the ego which seems to exercise control over stimuli.

The linear reflex-arc like model of the *Instincts and their Vicissitudes* drive had to be accommodated to the new theory of ego-libido presented in *On Narcissism*. If the object-libido found its catharsis in the release brought by a meal or ejaculation, what pleased the ego? *Instinct and their Vicissitudes* was published alongside *Repression*, in which Freud further elaborated the biological orientation of ego-libido presented in *On Narcissism* to the object-libido. This essay posited that the positive libidinal function of cortical processes was the repression and condensation of original instinctual drives. The result of *Repression* was a pressure-counter-pressure of, on one hand, instinctual drives that pulsed from the unconscious, and on the other, the enjoyment of repressions exerted by cortical conscious thoughts.

We may suppose that the repressed exercises a continuous pressure in the direction of the conscious, so that this pressure must be maintained by an unceasing counter-pressure. Thus the maintenance of a repression involves an uninterrupted expenditure of force, while its removal results in a saving from an economic point of view. (Freud 1989c: 572)

Repression's mode of function is, essentially, denial. The ideational ego-libido's interfering refusal on the instinct, '*I would never do that*', does not nullify the instinct entirely, but cathects it into the partial satisfaction of a fixation, in which the repressed instinct may graze its satisfaction without outright realization of its desire for an object through the ego's strain. The fixative solution of the ego-libido to the refused aim [*Ziel*] results in the sublimation of the impulse, which, *qua* fixation, repeats outside of the instinctual circumstance of stimulation. Freud's discovery of ego-libido eventually required that drive-object relations could no longer be conceived of as being independently responsible for the psyche's constitution: the fixative relations that appear in fetishes and perversions could no longer be accounted for by derivation from supposedly natural points of reference or innate drives, nor 'imprinting' behaviour alone. Thus, with the introduction of the ego-libido, the Freudian system became dualistic.

#### **1.4.8 Lacan: giving the mode of ego-libido**

Despite Freud's trend towards a structuralist psychoanalysis which respects psychological symptoms as being primarily given by dynamics of repression, the closest he came to substantiating the mode of repression's delivery was his association of repression with cultural identity and ethics. How then can one study humanity's relation to or situation in cultural milieus and symbolic thought if this milieu itself is not given some tangible form? Lacan's major contribution to the Freudian psychoanalytic tradition was its integration into the structuralist tradition of the time, which revolved around the referentially-disconnected Saussurean signifier.

This signifier intervenes in the human subject at the same place that the ego-libido and object-libido seem to contradict. Naturally, in that the conscious-unconscious dichotomy in Freud is constituted by a pressure-counterpressure of instinct and repression, Lacan's identification of repression with the signifier leads Lacan to posit that the unconscious is 'structured like a language'. The unconscious is produced by the repressions of the signifier. The addition of the signifier to the Freudian formulation carries with it other contradictions to be dealt with; as the signifier is semi-autonomous from the individual, 'ungrounded', and yet

definitive for individual development, the signifier seems to deprive any possibility of *natural* indexicality. This can therefore give the illusion that the human is determined arbitrarily (in that they do not correlate to natural determinations). Conversely and in spite of this, humanity's being *qua* material organism prevents the internalized arbitrariness of the signifier from ever becoming transcendental or infinite.

In order that this involvement of the signifier in the human organism be rationally feasible, some sort of organic connection had to be made to facilitate the uptake of the symbolic signifier in a developing human. For Lacan, the human is integrated into the repressive, disconnected images of the symbolic through the mirror stage. Occurring at 3-4 months of age, the mirror stage is a hypothetical developmental event in which the crawling toddler props themselves up against a mirror, confronting, for the first time, their image. In this event, a new element enters the individual's biological constitution. The child, identifying with this handsome image they are confronted with, establishes a self-reflective interest in which their '*imago*' is equated with their instinctual being, and thus attempts to eclipse it. The mirror stage establishes a substitutive, repressive relation between the disconnected image of the child and their experiential world. This initial narcissism of the *imago* serves as the basis for the subsequently alienated, conceptual objectivity of the adult's world; the child's identification with the *imago* developmentally precedes the signifier/signified (tree and 🍀) split. In the mirror stage, Lacan installs the narcissistic gaze as a fundamental and unavoidably-involved part of the signifier's adoption. The image of one's own body, encountered by the child, attempts to unify the real experiences of the child into one unary feature. In this way, the early narcissism of the mirror stage serves to install an early sort of dominance of the image over the experiential thing; which, in turn, serves as the model for the establishments of objects as conceptual objects, and the repressive dominance thereof over the real thing.

First of all, there is, in fact, a narcissism connected with the corporeal image. This image is identical for the entirety of the subject's mechanisms and gives his *Umwelt* its form, in as much as he is a man and not horse. It makes up the unity of the subject, and we see it projecting itself in a thousand different ways, up to and including what we call the imaginary source of symbolism, which is what links symbolism to feeling [...]. To be sure, this way of

functioning is completely different in man and in animals, which are adapted to a uniform *Umwelt*. (Lacan 1973:125)

Concerning later developments of the subject's position in the symbolic, the mirror stage establishes the ego-ideal, the most perfect version of the subject's self, which is later integrated into a broader societal symbolic system following the conclusion of the Oedipus complex. At this later stage, the development proffered by the mirror stage is responsible for the subject's capacity to imagine images and sensations via words and phrases. Even in its earliest developmental impositions, the Lacanian signifier is already alienating; the *imago* of the mirror stage is simultaneously the image of the ideal self and the other. The original *imago* serves as the self-referential first model of all later conceptual images. In Freud's investigation of narcissism, the ego-ideal that is apparent in narcissism is subsumed to the more general authority of the super-ego.

It would not surprise us if we were to find a special psychological agency which performs this task of seeing that narcissistic satisfaction from the ego-ideal is ensured and which, with this end in view, constantly watches the actual ego and measures it by that ideal.' [*Quoted from Freud's On Narcissism*] This hypothesis of a special psychological agency, which would thus have vigilance and security as its function, will eventually lead us to the super-ego. (*Ibid*, 134)

The superego, which is identified in censorship and is responsible for the feeling of being 'watched', is replaced in Lacan by the impress of the signifier. A remnant of the topological schema, the superego is a hypothetical entity that sutures the subject's desires to the identification with their ego-ideal through ominous threats of social reprimand and judgement. Only, because the function of signification is involved in far more than the gaze or judgement purely and simply, and the signifier is not in the end reducible to the symbolic father, Lacan's connection of the ego-ideal figured by the subject's *imago* to the signifier required deviation from the omnipresent superego. Though signification is fundamentally repressive (ego-libidinal), the relationship to the original threat of castration that installs the subject into the entirety of the symbolic order is distant. For this reason, the signifier installs itself with two evident dimensions concerning the subject: the ego-ideal, which appears in the subject's narcissistic self-

identification, and the ideal-ego, which represents the symbolic schema for that ego-ideal's integration within a societal whole.

In other words, it's the symbolic relation which defines the position of the subject as seeing. It is speech, the symbolic relation, which determines the greater or lesser degree of perfection, of completeness, of approximation, of the imaginary. This representation allows us to draw the distinction between the *Idealich* and the *Ichideal*, between the ideal-ego and the ego-ideal. The ego-ideal governs the interplay of relations on which all relations with others depend. And on this relation to others depends the more or less satisfying character of the imaginary structuration [i.e., the success of one's search for relief]. (*Ibid* 141)

We can associate, on one hand, the appearance of the ego-ideal's *imago* to the token-index relationship formed between the symbolic and the world, and the Oedipal castration of the subject to the token-token autonomy of the symbolic world into which a subject attempts assimilation. Where the mirror stage installs the original possibility of the subject's identifying relationship to alienated images, the radical independence of the symbolic order and the relative smallness of the subject comes about through castration; the ideal-ego of the mirror stage is assimilated into the total social order, the ego-ideal. The mirror stage thus helps install the narcissistic function and the repressive ego-libido in development, giving subjects the continuity between absolute behaviorism and absolute arbitrariness required for the biological relevance of Lacanian symbolism. This relationship formed with the other, or the *imago*, is, of course, non-arbitrary; the signifier actively warps the subject's embodiment just as it restructures it. There is a violence between the body and the signifier, an antagonism of simultaneous creation and destruction.

#### **1.4.9 Desire**

A result of the signifier's violation of the subject's body is a radical revision, or reconstitution, of the subject's objects of interest in drive satisfaction. The hope for a proper object in the Freudian sense which could satisfy the subject's drive is further effaced by Lacan's account of the symbolic. Since virtually all of humanity's dealings are involved, simultaneously, in the repressive-repetitive processes of ego-libido and the needful instincts of object-libido, a new concept, different from 'need' (which can be answered with some truly satisfying object) is required. This concept is desire, which Lacan describes as a 'lozenge' which is inserted at the

crossroads of repressive ego-libido and needful object-libido, a pleasure that is simultaneously satisfying and deferential, a conceptual sealant which accounts for the paradoxical lack of necessary objects in the human world. As a consequence of this shift in object-constitution, the treatment of ‘drives’ must similarly be translated into this new, symbolic perspective.

Lacan’s idea of the partial drive, as its name suggests, is only partially ‘satisfying’, being the drive constructed in light of desire; it approaches its object, circulates about it, and then returns to its partially-repressed state to be later re-iterated; much as a functional cycle would. Where a totally-satisfying object would be found is instead, as a result of humanity’s relationship to the symbolic, an *objet petit a*, an object of desire, complicit in the symbolic order and orbited by the approaches of the partial drive. The *objet petit a* can be thought of as the apparent ‘screen’ for our desires, the candy-wrapper which sells the bar. The partial drive is therefore the course of libidinal, vital relation for a subject to an object that is always-already involved in the symbolic signifier, just as tearing the wrapper is implied in eating the chocolate.

Desire and the partial drives must therefore be connected to speech. The linkage of the abstract to the visceral in speech activity is natural when held in light of Deacon’s research, which associates the abstraction of symbolic systems to the evolved association of cortices to visceral, vocal neural circuits; however, it realizes a personal dimension when Lacan writes ‘desire is interpretation’, identifying again the activity ego-libido at its intersection with object-libido with the act of speech that constitutes therapy. Through the subject’s repressed constitution by the signifier and their activity of openly expressing thoughts and desires, the sexuality of their organismic and unidealizable world-relation is brought into analysis.

Let us place ourselves at the two extremes of the analytic experience. The primal repressed is a signifier, and we can always regard what is built on this as constituting the symptom *qua* a scaffolding of signifiers. Repressed and symptom are homogenous, and reducible to the functions of signifiers. [...] At the other extreme, there is interpretation. [...] As [interpretation] draws to its end, interpretation is directed towards desire, with which, in a certain sense, it is identical. Desire, in fact, is interpretation itself. In between, there is sexuality. If sexuality, in the form of the partial drives, had not manifested itself as dominating the whole economy of this interval, our experience would be reduced to a mantic, to which the neutral term psychical energy [i.e. the Jungian approach] would



have been appropriate, but in which it would miss what constitutes in it the presence, the *Dasein*, of sexuality. (Lacan 1978: 176)

#### **1.4.10 The death drive**

There is one final structural point to be made regarding the scientificity of signification, which was previously only lightly mentioned. This is the philosophical problem of the death drive. Following Freud's departure from monism, his structuralist approach culminated in *Beyond the Pleasure Principle*, in which the theory of the death drive was produced. Reasoning that the genesis of organic life was a departure from inorganic substance, appearing and disappearing several times before overcoming the thermodynamic constraints of higher organization, the theory is made that all organic life is bound by its trajectory towards collapse, and thus all life exists in relation to its drive towards death. The virtuality of the death drive, its metapsychological or even metaphysical status, naturally implies that this reduction-to-nothing life is bound in involves a hierarchy of stable arrangements. On the one hand, an obvious candidate for such a structure is the Weissmanian germ line: individuals live lives superfluous to the germ line, which they immortalize by reproductive transmission, thus carrying on as a living species and not collapsing to return to inorganic ashes. However, the holistic virtuality of the death drive requires it be present, too, in the living activity of symbolic networks. Due to the repressive effect of the signifier and the trans-generational, superorganismic mode of symbolic transmission, the death drive in humanity is made evident in the libidinal sacrifices made to repression, which are rewarded with the relative immortality of sociality and symbolic works.

The death drive thus becomes a philosophical device which situates all organismic being on its trajectory forward in time. The presence of the death drive in subjective formation is exemplified by Freud's story of the 'fort-da' game. A child, who has attained perfect social composure in the face of parental negligence, transfers his parent's mode of treatment onto his toys, which he repeatedly throws away. This suggests to Freud that he has answered instinctual needs for attention and intimacy by the pleasure of their repetition, creating a situation in which the child's social behaviour gratifies his ego, which participates in the dejection of individuals. When given a spool, an object attached to a string, the child affirms that this pleasure is specifically in *repetition* by throwing away the toy and recalling it with great pleasure. This may be seen as proof that the organism is subjected to repressive forces far earlier than the advent of

the conscious ego, the mirror stage, or Oedipal castration. Thus, the reiteration of traumatic experiences is a more general consequence of our species' symbolic nativity. This is why the death drive should be seen as the crowning achievement of Freudian structuralism. The very idea of a naturalistic 'pleasurable state' which an organism may obtain, as well as the 'objects' that might cathect it there, is called into question by the death drive. In the end, the disorienting relativism of the death drive penetrates to the heart of the psyche, leading Freud to finally be capable of positing a 'primary masochism'.

Clinical observations led us at that time [the time of the topological, 'pleasure-principle' model] to the view that masochism, the component instinct which is complementary to sadism, must be regarded as sadism that has been turned round upon the subject's own ego. But there *is no difference in principle* [due to the death drive] between an instinct turning from an object to the ego and its turning from the ego to an object—which is the new point under discussion." (Freud 1989d:622)

The death drive as a metaphysical-metapsychological object of interest may here account for one final differentiation between the psychoanalytic approach to language and Terrence Deacon's. Following his success in *The Symbolic Species*, in which symbolic processes were recognized as an emergent product of indexical referential processes, Terrence Deacon's meta-scientific project, *Incomplete Nature*, justified emergent processes to the natural sciences through a series of logical forms of matter's organization. Like Peirce before him, Deacon realized that energetic matter will tend to self-categorize in correspondence to logical types of organization. Deacon proposes:

- *homeodynamic* habits, in which dynamic processes serve the holding of homeostasis,
- *morphodynamic* habits, in which dynamic processes serve the generation and propagation of a certain form, and
- *teleodynamic* habits, in which dynamic processes serve a purposive function, thus having a 'normative or evaluative' character.

In tracing the hierarchy of habits and determinisms that matter forms, Deacon's meta-scientific theorization arrives at a place that is remarkably similar to that of Freudian metapsychology. In the first case, Deacon subscribes to the same applicability of thermodynamics

to organic processes that Freud does: recognizing that, on one hand, the existence of life contradicts the second law of thermodynamics, that of the movement towards entropy, and on the other, the fact of deviation from entropy holds within itself a paradoxical unthinkability.

Though life is characterized by its success at circumventing the near inevitability of thermodynamic degradation, this does not mean that the global thermodynamic trend is reversed—only that living processes have created protected local domains [...] that generate order and new structural components at the expense of a net entropy increase in their surroundings. (Deacon 2011:175)

The existence of life simultaneously moves towards a higher-entropy state, in its ultimate collapse, and the establishment of a lower-entropy stasis, the establishment of order. The death drive is the manifestation of this paradox at the psychological level; the necessity of a reduction to inorganicism, and the contradiction of this ‘pleasure principle’ that life’s existence presents. The ultimate philosophical consequence of the death drive’s presence is the contradiction that gives rise to both the proof of subjectivity and time. Just as the materially proven derivation of morphodynamic processes from homeodynamic/thermodynamic processes requires some possibility for change in the material organization of reality, the transition of dynamic organizational states implies the virtual presence of a teleological principle. “Life’s paradoxical dependence on morphodynamics, but its inversion of its most characteristic consequences, suggests that an additional dynamical inflection separates living processes from morphodynamic processes[, teleodynamics].” (Deacon 2011:177)

If the thermodynamic principle realized itself immediately and without contradiction, as would be the case if all dynamic processes resolved according to their ideal formulation rather than according to their dynamic material behaviour, then the momentary flash of morphology that life represents would simply not exist. It is because of the ontological contradiction of the death drive, and thus of present dynamic life in a world that does not collapse to its inevitable thermal condition, that life is *presently* lived. The negativistic vitality of the death drive, subtracting entropy and generating contradiction, which is unassimilable to pure thermodynamic explanation and responsible for the expansion of living temporal forms, abstraction, and the collective repression of symbolism, is the material condition of subjective being-in-time’s paradoxical association to natural explanations.

Despite the apparent omnipresent transcendence of the death drive, however, is the pre-teleological importance of thermodynamic and morphodynamic processes. The transcendental principle which the death drive presents is, in effect, an explanatory red herring, as it embodies the purified contradiction of subjectivity, metaphysics, and time that is involved in all material processes without concerning itself for the particularity or quality of these processes. Both in philosophies of psychoanalysis and in the natural sciences, the death drive denotes absolutely nothing that can be differed from positive description, and thus is best left as a latent principle which qualifies the necessary non-totalization of the world. Deacon ends *Incomplete Nature* with a proposition for emergent consciousness which locates this consciousness as derivative of thermodynamic and morphodynamic processes. As such, the teleodynamic is not equivalence to cognition so much as the future-orientation that is implied in the emergence of higher-order material recombination. In psychoanalytic terms, this is analogous to the distributive state of libidinal energies and drive formations, which are better factors to account for the psyche than the death drive alone, and in both senses critical of potential identifications of the transcendental with the personally subjective.

[E]very mental process will inevitably reflect the contributions of these necessary lower-level dynamics. In other words, certain ubiquitous aspects of mental experience should inevitably exhibit organizational features that derive from, and assume certain dynamical properties characteristic of, thermodynamic and morphodynamic processes. To state this more concretely: experience should have clear equilibrium-tending, dissipative, and self-organizing characteristics, besides those that are intentional. These are inseparable dynamical features that literally constitute experience. (Deacon 2011:328)

The death drive is not a stable element to be treated by philosophy. Because of the virtually-foundational position given to the death drive in Freud's meta-psychoanalytic position, it is unignorable; similarly, because of the death drive's participation in symbolism and thus consciousness, the meaning of this trajectory towards death is metaphysically tempting for all trying to identify consciousness with a transcendental principle. Much of the philosophy that has followed Lacan's work, notably its neo-Hegelian school, has taken the traumatic paradox of the death drive as a tenable foundation for structural philosophy; which has its own value. Exemplary in this is the work of Adiran Johnston, who works hard to bring Terrence Deacon's

*Incomplete Nature* into a neo-Hegelian philosophical context. The unfortunate result of this approach is that the death drive can serve as a fetishistic object for all those who concern themselves with consciousness or subjectivity, insofar as there is a strong and insistent reason to find a virtual death drive in all drives, and thus eschew biological approaches. We differ from such philosophical approaches in this by suspension of interest in any noetic essentialism of the death drive.

There are a few justifications for our suspension of interest in the death drive. In the first place, the death drive may only be known as-such once a symbolic abstraction from embodied processes of instinct and repression is made which accounts, in a virtual representation, for the movement of all drives. In other words, the existence of a ‘death drive’ cannot precede its invention in a Freudian meta-psychology, being itself a symbolic invention that articulates a totalized- metaphysical or metapsychological- account of the psyche. This being the case, the death drive mustn’t be valued over the totality of the processes that precede its invention. By locating in Lacan’s theory of drives as impacted by the signifier a radical similarity to sciences of language and cognition that we have today, via Deacon, the death drive may be returned to its proper place behind the veil of seemingly positive claims. While the mystery of the death drive is a requirement for any science which seeks to adequately account for a subject’s being in time, it is better not given total privilege over logical descriptors. It is better to speak of life than death.

### **1.5 Modes of the Signifier: Absence and Paradox**

Having thus far affirmed parallels between Deacon and Lacan’s referential arbitrariness of the signifier, the symbol’s origin in sexual prohibition, and shown direct homology between psychoanalytic conscious/unconscious models of symbolism to Deacon’s own neurological studies, all that remains is to address the properly structural nature of the symbolic signifier. Although it has been established that the symbolic is derivative of material concerns, repressive in function and apparent as result of the conflict of midbrain and cortical processes, yet untreated is the relatively autonomous organization of the signifier. In spite of categorical opposition to arbitrariness, the recognition of a specifically token-token modality of indexically-rooted significance is required for an accounting of symbolism in the semiotic context. This particularly autonomous mode of the symbolic can be seen as the root cause for the mistaken attribution of arbitrariness, figured in the fact that Saussure required arbitrariness in order to study language on

its own account. For Lacan, the signifier is conceptually rooted in Saussure; as such, we must deal with the Saussurean signifier.

### 1.5.1 The Saussurean Signifier

Recognizing, as one was bound to in the late throes of European Colonialism, a tremendous diversity of linguistic meanings in the world, Saussurean structuralism is iconic for its shift from naturalistic referential systems (i.e. the biblical myth of Adam, in the garden of Eden, giving names to all creation) to a system in which the signifier and the signified were treated as constitutively divided. Because of the rift between the signifiers of different linguistic systems observed across history and across the world, the explanatory roots of language *could not be accounted for* by studies of the natural world; which is, concerning semiology, the signified itself.

In seeking a rational system that would be able to model the differences in phonetic and semantic meaning of signifiers that was not an associate of the natural sciences, whose models were insufficient to account for the quickly-changing nature of language, the Saussurean signifier maps its organization by a reference between linguistic signs alone; and thus, upon pure difference between those signs. The sign is defined by its relation to other signs, alone; and, as this relation is linguistic and thus exists in the absence of any alternative natural quality, the sign is positively defined only by its negative relation to other signs: the sign is the signs that it is not.

4. *The Sign Considered in Its Totality.* Everything that has been said up to this point boils down to this: in language there are only differences. Even more important: a difference generally implies positive terms between which the difference is set up; but in language there are only differences *without positive terms*. Whether we take the signified or the signifier, language has neither ideas nor sounds that existed before the linguistic system, but only conceptual and phonic differences that have issued from the system. (Saussure 1959:120)

As a consequence of the Saussurean sign's constitution, a sign is never found alone or in-itself, but in a chain of signifiers, linked, associated, and differentiated in one another. Within the concept of horse is the non-being of a donkey; within the 'animal' is the non-being of the 'plant'. The brilliance of Saussurean structuralism is its dogmatic focus on token-token relationships in symbolic systems. The logic of this linguistic formulation is validated in Deacon, who views the

symbolic basis of a ‘word’s meaning as “mediated, additionally, by the elicitation of other words (at various levels of awareness).” (*The Symbolic Species*, p64) Without Saussure’s work, the radical exteriority of the signifier, the radical differentiation between pre- and post-semiological sciences, would be unfeasible. The correlate of this radical exteriority is in-built obsolescence; precisely its arbitrariness. The discontinuity that the semiological sign has to the rest of the natural world, which was its initial condition of procession, is both logically unjustifiable and qualitatively pallid in its descriptive potential. The Saussurean signifier has no conception of embodiment, materiality, affection, or caring subject worth its own being. Saussurean semiology is unflinching on this issue.

But it is quite clear that initially the concept is nothing, that is only a value determined by its relations with other similar values, and that without them the signification would not exist. (Saussure 1959:117)

### **1.5.2 Lacan’s chain of signification**

Lacan, in keeping to the general validity of Saussure’s structuralist formulation of the symbol, i.e. the Saussurean emphasis on token-token relational organization, presents the existence of the signifier in ‘the signifying chain’. While the Lacanian chain of signifiers upholds the same ‘negative’ aspect of differentiation that Saussurean semiology originally did, Lacan identifies the modality of this differentiation not with a pure negation, but with the associative-substitutive processes of metaphor and metonymy. Because one word is caught up in another, in the motivated context of a speaking organism or a psyche, one signifier metonymically *implies* or *indicates* several others. Metaphor, on the other hand, is the substitution of one term for another, which generates contradiction between signifier and signified.<sup>4</sup> The logical operations of metaphor and metonymy are both seemingly embodied, formal types of the signifier’s processing, and entirely absent from Saussure’s *Course in General Linguistics*.

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<sup>4</sup> This coincidence between Jakobsonian metaphor/metonymy of signification and Freud’s earliest notes of ‘dream work’, condensation and displacement, was, so to speak, a feather in the hat of Lacan’s early career. Condensation, in which a plurality of associated images found representation in a solitary object in the dream, paralleled the condensational association of metonymically-associated signifiers. Displacement, on the other hand, represented a transference, metaphorical substitution in that psychical material could be transferred onto another entity.

The negativistic association of signifiers that originally appeared in Saussurean differentiation, the sign's definition via exclusion of another sign, found a new motivation in Lacanian psychoanalysis. Through metonymic associations, the relationship of a single signifier to another becomes an association charged with a potential to fulfill the absences of its semiotic environ. Metonymy allows one to fill in the blanks; 'I'm just going out to the \_\_\_\_'. The several implied words that leap at the blank space are a product of the signifier's abstract charge. The structural exclusivity of a sign's nature posited by Saussure finds in Lacan the positive modality of an implied presence; or, when no true word presents itself, a concrete absence.

This concept of the sign is thus strictly naturalizable via Terrence Deacon's notion of the 'absential feature'. This neologism is defined by Deacon as "phenomena whose existence is determined with respect to an essential absence." (Deacon 2011:11) The implicative mode of the token-token or word-word metonymic relation of signifiers means that a singular word is defined by its myriad association with other, impossibly present words. This holds true even when meaning is explicitly given; 'I'm just going out to the store' is not reducible to a pure factual statement, as even the temporal act of reading the completed sentence shows that individual words are delivered in abeyance of one another. "This paradoxical intrinsic quality [...] is irrelevant when it comes to inanimate things, but *it is a defining property of life and mind.*" (Deacon 2011:11) This is the closest we can come to an illustration of the Lacanian unconscious; the conscious' defining absence. Formally constituted as a language, the sum total of signifying absence in a statement is testimony to the work of the unconscious. For Lacan, this symbolic token-token of signs can only have meaning when it exists within some chain of signification. Deprived of its metonymic context, the sign is as the post-apocalyptic paper money; worth only the metabolic energy that constituted the word. This conceptual purification has its correlate in reality, with which we began this chapter: the first symbol is the mark of absence.

Thus the symbol first manifests itself as the killing of the thing, and this death results in the endless perpetuation of the subject's desire. The first symbol in which we recognize humanity in its vestiges is the burial, and death as a means can be recognized in every relation in which man is born into the life of his history. (Lacan 2002a:263)

In the aforementioned Deaconian context, the primordial symbol, a marital mark, is the standing-in of an indexical mate-to-mate relationship which guarantees sexual fidelity. Its



correlate in the Freudian tradition is the murder and consumption of the sexually-tyrannical father, whose contractual murder guarantees the primordial repression of pre-history, the first symbol is the father's unforgettable grave. In both cases, the symbol, as indicator of an index, serves symbolic function only when it is capable of indicating that which is absent; having an abstracted, metaphorical substitution of the absent mate and/or dead father, which, per emergent logic, must have some sort of indexical relationship to the absent relation. The symbol is defined by its reference to absence. The primordial symbol, the primordial repression, and the constitutive absence of the symbolic are all strictly continuous.

### **1.5.3 Temptation of teleology**

One key and structural consequence of the metonymic, absentially-motivated chain of signification is that the arbitrariness which characterizes semiological and post-semiological semiosis is inextricably bound up with absence. Historically prior to the establishment of an autonomous series of token-token symbolic relations which could evolve independently of their indicated points of reference (and thus be relatively arbitrary), as well as *logically* prior to the possibility of the either-or substitutability of one symbol for another in a metonymic chain (and thus, again, be relatively arbitrary), is the function of absence. As such, the agential *choice* that would appear to be correlated to the arbitrariness or alternativity of signification is, more primordially, an agent's exposure to *emptiness*. Choice, *qua truly* arbitrary, can only occur when there is a true scission between the subject and the object, or in other words, a complete integration of the signifier and mastery of the ego; which, for as long as the subject is an organism, is impossible. This co-appearance of arbitrariness and emptiness in the signifier appears in Julia Kristeva's reading of the Oedipus complex: "In this respect, the arbitrariness of the Saussurian sign has placed us in front of a *bar*, or even an *emptiness*, that constitutes the referent/signified/signifier relationship, of which Lacan has merely taken up the 'visible' aspect in the *gaping hole* of the mirror stage." (Kristeva 1997b: 139) This relationship between the emptiness of the alienating signifier and the body will be the starting point of our second chapter.

The absential nature of the symbol pre-exists the symbol in other pre-symbolic absential functions, which predictably problematizes positions which reify arbitrariness. Before there was symbolic freedom of reference, so too was there slippage of reference in physical or living systems. The absential far pre-exists the symbolic semiotic, and one cannot equivocate the other.

It may be said that the earliest tool, something resembling a stone axe, had a significant absential function in that the physical force it could produce had value qua-tool precisely in the fact that the stone axe could be swung at anything: the positive feature of an axe is its general applicability, or its absence of strict correlative function (such as the particular use of a stick to manipulate termites). This *virtuality* of the absential feature is identified by Deacon with teleodynamics: whatever orientations towards absent conditions exist in material phenomena, they are unified by the Aristotelian notion of the final cause or telos, insofar as the teleological end of a phenomena is its initially-absent purpose. “In an important sense, [teleological] purpose is more complex than other absential relationships because we find all other forms of absential relationship implicit in the concept of purpose.” (*Incomplete Nature*, p25) In the same way, by the very fact that teleodynamic processes have come to supervene on morphodynamic processes, we may abstract that the teleological possibility of teleology itself has virtually existed since the conception of matter: philosophically, this means that all presence has contained the seed of absence, and the material ‘we’ have been involved in the realization thereof.

The supreme temptation of this fact produces an effect analogous to that which has been seen in post-Lacanian analyses of the death drive: a fetish. Elsewhere, the identification of the teleodynamics with the arbitrary signifier and thus arbitrariness with final cause has led certain biosemiotic semiologists to posit the evidence of a sort of transcendental relief of the human subject’s materiality, insofar as, through the advent of the arbitrary signifier, true teleological purpose, in true arbitrariness, may be realized. Thus, such positions posit possibility true choice-making agency, transcendently achieved. This is confused on a number of accounts, not the least because the logical requisite of such a blunder is the actual equivocation of absence and purpose. Ethically, this amounts to pan-repressivism, or total ego-libidinalization, metaphorically analogous to the complete evacuation of space. Viewed from a potentially inhuman perspective, the identification of purpose with arbitrariness is not a metaphysical revelation but the particular perversion of an animal who believes it necessary to be, in no way, determinable. Realistically, we find that those committed to such ideas do not achieve such starry heights as they do the sufficient narcissism to satisfy the time being, a deeply-interiorized tyrannical ubermensch.

Ultimately, the primacy of absence in signification leads us not to arbitrariness, but to paradox. Arbitrariness, existing at the level of erroneously equivocated word-word metonymies,


is already subsumed by the processes of libidinal motivation, whose unshakeable initial relationship to the symbolic order better resembles repression and emptiness than referential arbitrariness. As was seen in the death drive and again in the hypothesis of arbitrary teleology, metaphysical tactics of approach to signification result only in the imagination of virtual realities which serve to mute complex relationships. The temptation of a unary feature repeats naturally, but may be realistically situated as a particular biosemiotic activity via psychoanalysis. The location of the nature of symbolic signification is better approached heuristically, with reference to embodiment wherever it is relevant, if it is to be approached at all.

## 2: The Signifier's Embodiment

### 2.1 The Embodiment of Emptiness

#### 2.1.1 The Mirror Stage

With the logical, evolutionary, metaphysical and structural-neurological dimensions of the signifier's existence accounted for, we must turn to the concern of the actual biosemiotic *modes of embodiment* by which signification exists. To present this thesis as roundly biophenomenal, however, it is necessary to cross from theoretical justifications of semiotic activity over into concrete, embodied modes of this semiotic activity's material appearance, as well as posit their connections to alternative theories of processual existence, namely the phenomenological and the empiricism of Deleuze and Guattari. This chapter will therefore present the authoritative psychoanalytic perspectives on the relation between developmental stages and semiotic development, namely those of Lacan and Kristeva, as well as demonstrate certain formal oversights made by the psychoanalytic approach to embodiment and acquisition of symbolization which can be remedied and expanded-upon by further connection to Terrence Deacon.

A reasonable starting point is the Lacanian mirror stage, in which the identification of the child with their own image in the mirror serves as the original developmental signifier-signified antagonism upon which all further imagistic signifiers are, ultimately, built. In the mirror stage, the child of four months recognizes their image in the mirror. In doing so, they are given a unary identification, a discrete and external object that is 'me', which results in the conflict of identification between the child's embodied being and their external self-concept. In the externality of this 'me' is the simultaneity of the self and the self-as-other, and thus the constitutive alienation which, for Lacan, defines humanity. This *imago* constitutes the primordial 'image', as well as the imagistically-dissociated other, that goes on to structure the subject's experiential world. There are therefore two consequences for the organism from the mirror stage: firstly, all imagistic activity involves a re-invocation of the primordial *imago*, upon which dissociated concepts are modelled. Thus, where we find a correlation between tree and , we

find an echo of the developmental moment, which is the mirror stage's *imago*. Secondly, the imagistic abstraction of the self-concept, which is identical to the generation of the concept of the individuated other, serves to contextualize organismic experience in a socialized abstraction that coincides with space. As such, the mirror stage is necessary for the subsequent development of a simultaneously embodied and alienated signification, in which the signifier may act in relative independence from the signified; additionally, the relationship to the mirror is a relationship of evacuation, expansion in space, and localization-among-other.

The notion of the role of spatial symmetry in man's narcissistic structure, is essential in laying the groundwork for a psychological analysis of space, whose place I can merely indicate here. Animal psychology has shown us that the individual's relation to a particular spatial field is socially mapped in certain species, in a way that raises it to the category of subjective membership. I would say that it is the subjective possibility of the mirror projection of such a field into the other's field that gives human space its originally 'geometrical' structure, a structure I would willingly characterize as kaleidoscopic. (Lacan 2002b:99)

This derivation of human spatiality from the mirror stage may be problematic insofar as the existence of a spatialized environment, an *umwelt*, necessarily pre-exists the human mirror stage in that other, nonhuman organisms, participate in territories and spatial organization. This is clarified by Lacan's treatment of human spatiality as being 'geometrical', or formalized by participation from the other's perspective. In order that this hypothesis might be legitimated, Lacan holds that territorial spatiality as relative to the 'other' of a species pre-exist the human experience, thus allowing that human territoriality might be derivable from comparative animal psychology. Turning to ethology, Lacan connects his theory of the mirror stage to Konrad Lorenz' work with sticklebacks. The male stickleback populates his environment with nests, little icons of his work, with which he impresses the female and seduces her to lay eggs with him. This behaviour is in part organized by a relationship to the stickleback's conspecific; between thresholds of reaction to an image of another male stickleback, where a proximate image produces aggressive behaviour and a distant image produces indifference, a decoy male stickleback placed at the threshold of territorial aggression and indifference will induce frantic nest-digging erotic behaviour in the stickleback (see Seminar III, *The Psychoses*, p94-96). The

image of the other, or the image of the self, is libidinized into territory prior to specifically humane narcissism.

Thus, the mirror stage serves, for Lacanian analysis, as a focal assumption on the ethology of the human subject, legitimating Lacan's structuralist and dialectical alienation-oriented programme. The self-referential imagery of the mirror stage grants an imaginary symmetry of image and reference that serves as a structural locus that gives rise to all abstracted, symmetrical, imagery; in purest form, to geometry itself. In this thesis, which is attempting to accommodate biosemiotic realities to the signifier in a non-arbitrary sense, the mirror stage represents a mode of relation characteristic to the symbolic human organism that inevitably confounds the symbolic's participation in space; and thus affirms our thetic opinion of shifting from a conception of the signifier's arbitrariness to that of the signifier's emptiness. Deacon's logical situation of the original symbol, which is first the token's indicator of an index and subsequently a series of token-token indications, finds an embodied model of an early developmental token-index relation in the relation of the *imago* to the organism.

This advantages the psychoanalytic perspective over phenomenological schools which view the human subject as inevitably bound in an existential contradiction of self-responsibility or transcendental creative action, such as a Kantian reading of the *umwelt* as generated by transcendental subjectivity, in that psychoanalysis locates existential paradox on a material or organic continuum of the organism's failure to assimilate to its self-image. As such, the paradoxicality of the phenomenological signification is deferred to questions of biological existence; though the contradictions of subjective participation in the symbolic was essentially enough for Lacan's career appetite.

The mirror stage, because of its close association with the imagery of the signifier, is a very good *minimum* of embodiment to be deployed by a doctrine that privileges the laws of the signifier over the embodiment of the subject. While being aware of the rules and legitimacy of the mirror stage, we can clearly see that the mirror stage, alone, is insufficient to account for the embodiment of the symbol; or the multifarious modes of 'emptiness' that participate in symbolic signification.

### 2.1.1 Kristeva's Oedipus Complex

The work of the psychoanalyst and semiotician Julia Kristeva substantiated a large degree of this unfinished work involved in the body's processes of signification. The most stable point of contrast between Kristeva and Lacan may be their differing reading of the subject of the Oedipus complex (see Oliver 1991). Whereas the Lacanian subject is primarily determined by the symbolic signifier, and thus a dialectical relation of the subject to absence and prohibition, Kristeva is to a much larger degree concerned with the subject which precedes Oedipal castration and the metonymic signifier, or serves as the biological precondition of symbolic subjectivity. As such, her writings necessarily study the philosophical and biological preconditions of Lacanian symbolic signification, and therefore concern this thesis.

Following the advent of the mirror stage's *imago*, the abstracted token-index form of signification which pre-exists a metonymic chain is consummated into a self-referential token-token structure by the imposition of the symbolic father. As the pre-Oedipal child's ego develops, it is unbounded, and relates to the mother's affection freely, imaginatively capturing the affection and attention of others. Although the child begins to project themselves outwards in space, both through phenomenological projections of *imago*-derivative concepts and through identificatory associations to the world, castration intervenes to prohibit and shape behaviour according to an absent norm. Following castration, the ego-libido turns its attention (in part) to the strength of metonymic, token-token, relations. It is thus in the differential approach to the Oedipus complex that Kristeva's accusation that Lacan over-emphasizes metonymy is made manifest, as well as reason to anticipate Kristeva's subsequent interest in metaphor and mimesis.

This codification of castration becomes the father's omnipresent absence, or prohibitions on the mother: the father monopolizes the mother's love (and thus the immediacy of affection in general). As there is virtually no 'place' which this prohibition does not exclude, potentially repressing certain kinds of behaviours just as it does repressing certain kinds of the ego-ideal's phenomenological projections (i.e. 'don't do that' and 'don't even think about it'), the absolute intervention of the father's potential is coextensive with the absolute intervention of the signifier,

to which any indexical regularity may be tied<sup>5</sup>. Affirming the role of the mirror stage in the constitution of signification and spatial intuition, Kristeva writes

Castration puts the finishing touches on the process of separation that posits the subject as signifiable, which is to say, separate, always confronted by an other: *imago* in the mirror (signified) and semiotic processes (signifier). (Kristeva 1997a:42)

By this model, the absence which characterizes the signifier becomes *both* the absent-presence of the father, as would be the superego, and the absence-emptiness of the mother's womb. In their object-libidinal functions, which become quickly bound-up in the imaginary projections of the *imago*, the pre-Oedipal drives serve as creative tools for the capturing-lure of the mother's attention. This simultaneously concerns behaviours of pleasant self-image, such as the imaginative acts dancing and drawing, and vocal requests, the child's demands. For Lacan, as the child's pre-castration relation to and dependence upon the imaginary other accelerates, i.e., as the mirror stage continues without castration, the child begins to project their own hungry-for-love impulses onto the imaginary other that is their mother. The Lacanian pre-oedipal mother then appears, to the child, to enter a *quais quem devoret*, a beast wandering openly to devour<sup>6</sup>. The result is that the mother, following the advent of the mirror stage, becomes a screen for the horrors of consumption if the child is not integrated into the castrating, metonymic, ego-ideal. In that Lacan is primarily concerned with post-Oedipal, and thus structuralist-linguistic subject of psychoanalysis, this projection of the child is imagined to be precisely that; *the projection of the child*, rather than an affectionate, albeit precarious, interplay between the pre-Oedipal child and the mother. Kristeva's restitution of the Oedipus complex involves the imagination of precisely that pre-signified, and thus pre-signifier, eminently speaking subject. The initial separation of the mother becomes a mutual-devouring, both of the primary narcissism which is in-desperation for the mother's love, *quais quem devoret*, and the actual mother who responds.

It is this difference which leads, on the one hand, for Lacan to posit that the father is coextensive with the symbolic (i.e. the father does not pre-exist castration), and for Kristeva to

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<sup>5</sup> This is the Oedipal reasoning behind Lacan's association of 'reality' with 'the signifier'; the father nearly totalizes, and thus the work of the signifier nearly totally accounts for a subject's reality.

<sup>6</sup> For a full treatment of this approach, see Seminar IV, *The Object Relation*, Lecture XI: The Phallus and the Unsatiated Mother (p204-225)



posit the existence of an *imaginary*, pre-Oedipal, father. This is because, prior to the instantiation of the castrating signifier, the child's identification with the desire of the mother leads them to, *via* the mirror stage but also preceding it, effectively share the place of the father, in which the child and the father's phallus are undifferentiated. What, then, is the nature of the pre-Oedipal, pre-metonymic, vocal and imaginative body? Plainly, actions of approach to this childlike, innocent and yet-to-be-judged sexuality cannot be made through rational approaches alone. Lacan, a strict and brilliant structuralist, never did: the fact that even the Freudian essays on childhood sexuality follow a dialectical unfolding sufficed for Lacanian analysis. Kristeva's Imaginary father, defined as the ambiguous pre-Oedipal and even pre-mirror stage narcissism (Kristeva 1997b:138), the narcissism that has not yet divided itself into primary and secondary, must be understood as the closest one can come to a psychoanalytic locus of mystical signification prior to, or later in and between signs of, the signifier.

We know that, empirically, the first affections, the first imitations, and the first vocalizations as well are directed toward the mother; it is thus hardly necessary to stress that one's pointing to the Father as the magnet for primary love, primary identification, is tenable only if one conceives of identification as being always already within the symbolic orbit, under the sway of language. Such appears to be implicitly, the Freudian position, which owes its acuity as much to Freud's sensitivity concerning the dominant place of language in the constitution of being as it does to the resurgence of monotheism in his thought. But is there really a difference? (Kristeva 1997b:142)

Because the imaginary father's pre-symbolic being for the child which is situated at the level of the ego's first imaginary abstractions to the *imago*, as well as the drive-economy of demands, needs and performances put on by the child, the advent of the signifier is experienced, first, as a relation to emptiness. The imaginary father's contrast with the symbolic father serves as a site for the developmental differentiation between the semiotic experience of the symbolic law's arbitrariness to signification's imaginary emptiness. The motility granted by emptiness, that is the mode of imagination proper to the imaginary father (later the *chora*) is mimesis; which will be dealt with in our section on acts of poetry. While the token-index relation of the pre-Oedipal child's identification with the imaginary father serves to open the child's world to the images and desires of the other, the tautological *I am who I am* of the symbolic father serves to

incorporate the child into the metonymic token-token order of the signifier, which shows arbitrariness relative to the child/imaginary father's mythological world.

### 2.1.3 The Chora: Ordering the Drives

Beneath the Oedipus complex, beneath the metonymic signification and most of all, beneath the voice, we find Kristeva's notion of the *chora*. According to Kristeva, this term is borrowed from Plato, who introduced the *chora* to *Timaeus* so as to 'confine the Democritian rhythm' (Kristeva 1997a:36) which plagued the Platonic system of image-oriented idealism. The minimized, vocal or gestural kinesis of atoms in the Platonic conception of the *chora* is transformed into the pre-*imago*, pre-signifier *act of articulation* that the body produces via the drives.

The *chora* is not yet a position that represents something for someone (i.e. it is not a sign); nor is it a *position* that represents someone for another position (i.e. it is not yet a signifier either. [...] The *chora* is a modality of significance in which the linguistic sign is not yet articulated as the absence of an object and as the distinction between real and symbolic. (Kristeva 1997a:35-36)

The *chora* being a hypothetical map of the pre-discursive body, it concerns all the modes of gesture, presentation, articulation and pre-egoic expression that the child embodies. It does not organize itself by the motivated direction of a narcissistic 'self' as such; nor does it organize by directive of a paternal 'Other'. Like the Platonic *chora*, which vibrates kinetically within Platonic idealism, the semiotic *chora* constitutes the space and prehistory of all symbolic discourse by its rhythmic pulsations of the drives. Pre-existing and surviving the mirror stage, the *chora* does not know unity or locality: the organization that the drives undergo do not pertain directly to lawful logics as would the ego, and thus 'order' themselves in simultaneous intra-organismic and social (/pre-Oedipal) drive formations through the child's relation to the mother. On these biological grounds, Kristeva posits the differentiation between the 'symbolic' and the 'semiotic', essentially between discursive ideality and the organic body there underwriting it.

Accepting the *chora* as an agent in symbolic discourses would allow biosemiotics to uphold a paradoxicality or illogic of qualitative/subjective experience, or as we shall see phenomenological investigation, *and* an effective continuity with biological forms and reasons. It is further necessary to locate the *chora* in its historical context. Kristeva originally introduced the

idea of the *chora* as an addition to contemporary dialectical materialism, such that the embodied dimensions of syntactico-semantic functioning of language could be accounted for in a pre-cognitive biological context. As such, the historical semiotic-symbolic dichotomy of Kristeva's *chora* is both false in that it presents the irreducibly pluralistic drive-organization of the organism on a unitary plane (a sort of logical 'shadow' of the symbolic), and truly necessary, being closer to assimilating the biological-embodied conditions of symbolic discourse than perspectives which rest within cognitive or phenomenological models of symbolization. There is therefore a historical finitude in the notion of the *chora*; there is no true and final intent in Kristeva to realize biosemiotic subjectivity over dialectical significations.<sup>7</sup>

For Kristeva and her focus on the biological body as the pre-Oedipal psychical ordering of drives, occurring on the plane of the *chora*, this meant a provisional return to the developmental, psychoanalytic biology of Melanie Klein, who built upon the Freudian theories of childhood sexuality and metapsychology in the 1930s. We here return to the conception of the drive, dealt with in Chapter 1, not in terms of the question of the libidinal object (*objekt*) which might transform into the *objet petit a* of Lacanian desire, but on the pressure (*Drang*) of the drive's impulse and its aim (*Ziel*) of satisfaction or release.

The term 'drive' denotes waves of attack against stases, which are themselves constituted by the repetition of these charges; together, charges and stases lead to no identity (not even that of the 'body proper') that could be seen as a result of their functioning. That is to say that the semiotic *chora* is no more than the place where the subject is both generated and negated, the place where his unity succumbs before the processes of charges and stases that produce him. (Kristeva 1997a:37)

The work of the *chora* is both that of giving the subject rhythm, in the form of regularized discharge and contraction of the oral and anal sphincters, and syncopation, when the *chora* disrupts the static regularity that is harmonious form. The mystical and imaginary pre-Oedipal world continues to show its symptoms and eroticisms even following the advent of Oedipality. Nevertheless, the impact of the signifier on the subject remains effectively Lacanian

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<sup>7</sup> We can speculate that this self-situation of Kristeva in a dialectical reasoning is thereby both necessarily finite and a recognition of the finitude of other, non-dialectical systems, though to begin to do so may tempt the repetition of a dialectical materialism.

in its totality, making the post-Oedipal *chora* exist only within the operations of the symbolic. As such, Kristeva's position re-integrates into the Lacanian position of orientation towards desire, essentially structuralist signification. In part from this Lacanian perspective, Kristeva's *Revolution* identifies the simultaneously positive and repetitive general design of drives to uphold a position that recognizes all drives as being, virtually, the death drive. Here Kristeva associates the *chora* with the Hegelian concept of 'negativity'; that is, a pre-judgemental, quasi-transcendental omnipresence of emptiness and contradiction, recognizable in Oriental systems as the "absolute void" (Kristeva 1997a:73). In her already-existing relationship to dialectical materialism, Kristeva is tempted by the Hegelian systems, which seems to run alongside both her logical and developmental claims in its omnipresence of 'negativity'. Nevertheless, the position of biological concern for subjective constitution, the biosemiosis of the *chora*, remains the object of focus for Kristeva and ultimately serves to overturn the Hegelian system's movement towards negative transcendence (see Barrett 2015). Reading and critiquing Leninist Hegelianism for its fixation upon the dialectical 'kernel' of contradiction that serves as the motive force of history, Kristeva's poetics remain devoted to a *biological* a-priori, expanding her concerns beyond dialectical logics in spite of their obvious value. In the end, Kristeva writes of Hegel

What Hegel does not envisage is the moment of the One [i.e., the Hegelian subject that has realized the existence of negativity, and thus has formed a totalizing spiritual affinity with it, *Aufhebung*] is *shattered* in a return of repulsion onto itself, which is to say, a turning against its own potential power for positing and multiplying the One. Nor does Hegelian logic see the heterogenous parcelling of the symbolic, which underlies the symbolic's very constitution and constantly undermines it even while maintaining it in process; [...] The ideational closure of the Hegelian dialectic seems to consist in its inability to posit negativity as anything but a repetition of ideational unity in itself. The exteriority to which it is condemned *in fact* is thus bound up with the ideational enclosure, in which, despite many detours, its trajectory ends. (Kristeva 1997a:84-85)

Just as the 'ideational closure' of Hegelian dialectics ultimately fails to assimilate the heterogeneity of the semiotic body, Kristeva implies that dialectical materialism must, necessarily, integrate into semiotic understandings of the biological body to remain an effective philosophical or semiotic system.

#### 2.1.4 Consumption and expulsion: Orality and Anality

The role orality and anality play in the conception of the *chora* is central. Following Kleinian developmental psychology, Kristeva vaguely associates orality with connection to the maternal and anality with the repulsion of the external world; though repulsion, negativity, is involved in both. The anal stage, being the last undergone before the Oedipal moment and thus closest in dialectical steps to symbolic signification, is a drama played out in the subject around defecation. The erogenous activity of expulsion from the corporeal body, which is associated with socialization and good behaviour (i.e., you pushed the *thing* into the *container*, well done), serves as a model for the bodily expulsion required for externalized objects of interest in general. Prior to the mirror stage's imagistic identification of external 'objects' with their *imago*, the developing child learns to control the pulsations of their body's rejections, thus constituting external-environmental objects first through the control learned over their expulsive constitution. This repulsion serves as a pre-*imago* mode of externalizing the subject's concern. This work done in anality- expulsion- will later be taken up again by the superego, which abstracts significance not by repulsion alone but by repression and prohibition; which are rooted, in part, in the negativity of anality. "Language acquisition implies the suppression of anality; in other words, it represents the acquisition of a capacity for symbolization through the definitive detachment of the rejected object, through its repression under the sign." (Kristeva 1997a:79)

Orality, on the other hand, precedes anality and is associated with ingestion. Just as the child of the anal stage learns to create environmental objects through anal expulsions, the oral child learns to differentiate between 'self' and 'other' through the differentiation between the pleasures of breastfed food and autoerogeneity (babbling, sucking, chewing, etc). In their most general terms, the oral stage thus assimilates the external world, while the anal expels it. The union of the maternal that is present in oral drives allows for the amatory identification with external objects; receiving them, tasting them, digesting and becoming them. The two functions in these stages emanate within later situations concerning signification that the embodied subject will encounter. In the place of orality is poesis and song; vocalization coincides with consumption at the level of an abstract object, a symbolic feast, in which the eroticism of the oral cavity participates in the pleasure of a shared object, sonorous communication or expression. Anality, featuring rejection, takes the place of mastery; the most-compressed aesthetic ideals temper orality into formal speech. It is inevitably not so simple as a consumption-expulsion

dichotomy, as rejection, or ‘abjection’, play, too, a role in orality. Later to be developed in her essay *On Abjection*, which re-iterates the signifying relation of the baby’s negative orality to the mother (via vomiting and burping), Kristeva’s *Revolution* identifies rejection as immanent in the oral drive.

The oral cavity is the first organ of perception to develop and maintain the nursing infant’s first contact with the outside but also with the *other*. His initial “burrowing” movement, which is meant to establish contact—indeed biologically indispensable fusion—with the mother’s body, takes on a *negative* value by the age of six months. The rotating movement of the head at that age indicates refusal even before the “semantic,” abstract word “no” appears at fifteen months. Fusing orality and devouring, refusing, negative orality are thus closely intermingled, as they are in the anal stage that follows. (Kristeva 1997a:80)

Kristeva goes on to identify this importance of orality—the developmentally prime relation to the external world—with the oral cavity and glottis’ capacity to freely discharge energy “through a finite system of phonemes specific to each language, by increasing their frequency, by accumulating or repeating them, and thus determining the choice of morphemes.” (Kristeva 1997a:81) As such, the loosened constraint on vocality that was due to the descended larynx and opened oral cavity (evolutionarily noted in Deacon 1997) becomes not only a heightened potential for the production of variable phonemes and thus symbolic phonetics, but a heightened potential for the oral identification with the external world through Kristeva. The expansion of semantic meaning that arose as linguistic communication dawned coincided with the new possibility of drive-discharge through orality; or erotic vocalization. The voice was thus positioned, from this developmental vantage point, to be the libidinal mode of *both* the repression of the ego-libido *and* the discharges of the object libido. It may then be speculated that erotic orality served as the site of organization for symbolic language.

### **2.1.5 Deictics as Environmental Syntax: Worldbuilding**

For all of Kristeva’s work contextualizing embodiment of negativity processes in the ordering of the *chora* and the divisiveness of the symbolic, we nevertheless find that *The Revolution in Poetic Language*, as well as her subsequent essays, remain too concerned with the Freudian/Kleinian *dialectical* drive-model of the subject to integrate systematically into an

ecologically diverse pre-symbolic world. This is made clear at Kristeva's treatment of the syntax. While Kristeva holds the *chora* to precede the syntax just as it does those symbolic operations which rely upon an established orality, anality, *imago* and castration, it is entirely unclear how the logical operativity of that syntax might have arisen. The dialectical developmentalism of psychoanalysis is, at the point of the syntax, quite lacking in concrete empirical explanation of syntactical regularity and grammar.

This point of weakness in psychoanalysis is compensated by the complementary work of Terrence Deacon. For Deacon, the problem of innate language universals is not so much that their conception excludes from linguistics erotic biological rhythms, so much as they are, *qua* innate universals, given as a reductive tool that excludes more complex analysis. In this, Kristeva and Deacon both take interest in the embodied moment of organization that immediately precedes the syntax. Where the *chora* is, according to Kristeva, regulated by "vocal and gestural organization [...] subject to what we shall call an objective *ordering*, which is dictated by natural or socio-historical constraints such as the biological difference between the sexes or family structure" (Kristeva 1997a:36), no consideration is given to *how* 'gestural' ordering of the subject's world and symbolic predication occurs. For Deacon, the objective and pre-syntactical operations of language are developmentally located in the child's learning to reach, select, grab and point to, which implies both a referential function (I am pointing to that thing) and a transitive social function (pointing works because I know you see me pointing to that thing; I too can see you pointing to things). As such, deixis introduces a rudimentary predicative logic, an organic reason to abstract F(X) relationships via I/you (am indicating) this/that activities. This is logically aligned with Deacon's position on the hierarchy of signs, in which symbols logically following from a re-organization of more essential indexical relationships.

[The dependence of syntax on predication] suggests the following hypothesis: Predicate (argument) structure expresses the dependency of symbolic reference on indexical reference as in Symbol (index). One source of evidence for this semiotic dependency is implicit in the way that deictic procedures (e.g. pointing and other indicative gestures) are used to help fix the reference of an ambiguous term or description, and can even be substituted for the subjects and arguments of a sentence. (Deacon 2018:10)

In developmental psychology, children begin the process of reaching-grasping at 3-4 months of age. In the context of Freudian biology, this makes indicative processes (which precede the establishment of ‘subject’ and ‘predicate’) share developmental time with the oral and anal stages, and, crucially, immediately precede the mirror stage. If the Lacanian imaginary world is populated with discrete images of objective entities in the world derivative of the subject’s *imago*, we may feasibly speculate that the subject-predication of Deacon’s deictic development of the child becomes *associated* with the imagistic relation to the ‘other’ of Lacan, thus giving us an imaginary environment of the child of 6-10 months that is immanently abstracted, imagistic and ordered, while at the same time impending the syntactical-symbolic creative process. As such, the “spatial intuition” given to the mirror stage is preceded by a radically physicalistic world, composed of walls, doors, toys and the mother’s breast. In a sense, this is the Kristevan *chora*, of embodied semiosis, although now far from its original conception in that it is not the pulsative negativity of the body’s drives but *this same embodiment* given an environmental space by way of the deixis of Deaconian language acquisition.

We may summate the coincidence of the *chora*’s pulsative drives, Deacon’s subject-predicate *environmentalizing* structures and the imaginative advent of abstracted images in the mirror stage as the *worldbuilding* stage, insofar as it is these three structures which primarily account for the subject’s identification with a distinctly spatial ‘world’ as such. The world, proper, is both dynamically constituted through the subject’s biological-temporal experience of the organismic drives and opened in space through the rudiments of reference and abstraction thereby provisioned. The worldbuilding stage thus corresponds to mythology, a *pensée sauvage* in its reliance on partially-instated metaphors between iconicities and undifferentiated objects; it is a mystical world, preceding the division of castration, in which affinities abound and the extent of operational logic is composed around the individual experience. The worldbuilding stage is crucial for establishing the architecture of the future subject, but is neither finitely determinate nor perfectly retrievable, existing as it does as a prehistory and precondition of ideation or ideal closure. Following the advent of the worldbuilding stage, the subject undergoes castration, and, through their assimilation into a prohibitive, genital arrangement to the world, the ‘mythological’ world-building is replaced by an adherence to the reality principle; which is to say, the symbolic law of the paternal Lacanian signifier. Following the authoritative imposition of the signifier upon the developing subject, the subject’s phenomenal world becomes associated



with the metonymy of the signifier responsible for shared social-ethical ‘reality’, symbolic reference and apparent certainty/validity with regards to a reference. The mythological world is ‘whisked away’, only to be rediscovered in fantasy or cooperation with that reality itself.<sup>8</sup>

This immediately pre-Oedipal world will, through developmental increases in the ego’s identification and assimilation to the symbolic of the signifier, become subject to further abstractive dissolution in the demands of repression and identification exerted by the ideal-ego which constitutes the authoritative nature of ‘reality’. It is precisely because of the signifying chain’s intersection upon this worldbuilding subject, however, that the world may be re-constituted in poetic activity. While the Lacanian tradition of Kristeva disposes her to consider a *radically alienated* poetic subject, determined by its dialectical relation to the arbitrary signifier, Deacon’s would-be transformation of the *chora* into being a drive-body *which has world* reveals an omnipresence of not just temporal rhythm and relativistic subject-position in the meaning of symbolic processes, but implicit spatial, ecological contiguities as well.<sup>9</sup>

This point may be habilitated in Deacon’s evolutionary pragmatism. Following the evolutionary descent and transition to upright movement, the arms and hands of *Australopithecus* lost their strict association with the motile function of branch-grasping, and consequently allowed appendages to have higher indicative potential. Assuming ontogenetic recapitulation of phylogeny, we could suppose that, just as the abstractions required for symbolic thought are preceded by the embodied/environmentalized incorporation of the syntax in the child, so too is it more fundamentally the reaching-grasping environmental space of prehistoric man that would ultimately lead to abstracted language and its immediate ancestor, tool-use. Environmental space; the reaching for food, the striking of stone, the heat and the shade, the heavens; is itself present in language. This point does not add to any *logic* of our argument, but certainly

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<sup>8</sup> See *Beyond the Reality Principle* (Lacan 2002d), in particular its conclusion, which addresses the quasi-phenomenological nature of the articulating ‘I’s relationship to biological constitution and symbolism. “Two questions arise here: how is the *reality* to which man’s knowledge is universally attuned constituted by these images, these objects of interest? And how is the *I* constituted, in which the subject recognizes himself, by his typical identifications? Freud answers these two questions by again moving onto metapsychological ground. He posits a ‘reality principle’ whose role in his theory I propose to critique.” (*Ibid*, 74)

<sup>9</sup> This makes this psychoanalytic approach compatible with certain ecosemiotic theories of human worldhood; though, doubtless, differing in many respects, and warranting treatment outside of this context’s aims.

strengthens its claim: that the symbol is not so arbitrary as empty, as would be an environment susceptible to the free indication of the hand.

In sum, the temporally-oriented, dialectical and erotic view of the symbol's embodiment, found in the *chora*, coincides and mates with the spatially-oriented, pragmatic position of Deacon to produce the worldbuilding stage, which is characterized by the embodied relations to the other which ultimately compose the requirement for the token-index reference of symbolic motility. The logic of the sign's original indexicality accounts for the essentially selective, transitive, and ultimately predicative symbolic mode of reference by introducing the necessary feature of a spatially-relatable environment. The freedom of reference, or relative arbitrariness, of the Lacanian signifier is re-written with man's material relations. Signification is exposed as being constitutively spatial, while at the same time personally libidinal. This may be seen as a more sensitive approach of the Deleuzian notion of 'territory', which will be dealt with later.

## **2.2 Consequence for Phenomenology**

### **2.2.1 Syntax & Phenomenology**

Because of our interest in this seemingly paradoxical and pre-logical locus of enunciation, which neither succumbs to the apparent arbitrariness of token-token metonymy nor allows totalization of token-index worlding, we must observe the connection between the axioms of cognitivist linguistics and the idealism of phenomenological subjectivity. As our perspective seeks to circumvent the transcendental subject by demonstrating one's participation in the materiality of symbolism, cognitivist interpretations which substitute the enunciation of the phenomenological ego for their innate syntax's articulatory-cognitive function must be passed through. On the one hand, naturalizing the syntax as Chomsky's cognitivism does is a way of upholding the essential unavoidability of syntactical metonymic function in human imagination and articulation. The subject of Chomskyan cognitivism is advantaged over the phenomenological ego by its embeddedness in operatively necessary linguistic functions. On the other, the reification of the syntax amounts to a lack of consideration given to biological preconditions of the syntax, and thus an exclusion of the functioning of the subject's *umwelt* in a way analogous to Cartesian rationalism. Phenomenology, which realizes enunciation to be paradoxical and thus always immanently belonging to the transcendental ego, is compatible with the biological approach insofar as biological processes precede conscious signification and thus

appear contradictory biological consciousness. Phenomenological approaches are disadvantaged by their unrealized debt to syntax, and cognitivist approaches are disadvantaged in their naïve naturalism of cognitive processes. The positions ultimately find accommodation in the psychoanalytic perspective.

Chomsky's essential syntax is supposedly necessitated by the consistency of grammar's development in all human subjects. Deacon summarizes three cornerstones of Chomsky's assumptions: firstly, that grammar was an extremely *logically* complex system, with more latent rules than speakers tend to be aware of. Secondly, that different linguistic systems have diverse surface appearances to them, but share a common 'deep logic' or 'deep structure' (grammar); finally, that the derivation of such a grammatical system from trial-and-error learning with the consistency observed across humanity was logically unthinkable. Chomsky's necessity of innate grammar is supported on grounds of grammar's complexity, grammar's apparent commonality, and the supposed difficulties of its spontaneous learning. The sum result of the three arguments is the creation of a foil against which any speculation on a syntax that is not innately given is unthinkable. As such, the innate syntax is inserted at the site of what Deacon calls an 'argument from incredulity' (see Deacon 1997:103-104). Contrary to Chomskyan cognitivism, Deacon's emphasis that syntax is preceded by the logical operations of deixis, posited in the worldbuilding stage or the token-index modality.

“Grammatical relationships don't automatically come to the fore with all forms of symbolic communication. This is because grammar is a property of symbolic reference that emerges when symbolic reference is amplified by combinatorial operations. Once it is recognized that symbolic reference is not a simple mapping relation, but emerges from a base of iconic and indexical relations transferred to symbol-symbol relations, the main contributions of these underlying semiotic constraints to the structure of language will become obvious. (Deacon 2018:5-6)

Thus, the cognitivist system presumes an autonomy of the cognitive syntax from the organismic context, neglecting token-index modes which pre-exist the syntactical/metonymic token-token mode. This cognitive subject which spontaneously recombines semantic elements via the syntax comes to effectively cohabit the place of subjective enunciation which appears in the phenomenological ego's enunciative omnipresence, in that both are taken as responsible for

possibilities of conscious thought. This alternativity between linguistic cognitivism and phenomenology is specifically dealt with in a footnote to *Revolution in Poetic Language*.

Despite the difference between this Cartesian-Chomskyan subject and the transcendental ego outlined by Benevise and others [i.e. Edmund Husserl in *Ideas*] in a more clearly phenomenological sense, both of these notions of the act of understanding (or the linguistic act) rest on a common metaphysical foundation: consciousness as a synthesizing unity and the sole guarantee of Being. (Kristeva 1997a:60)

The phenomenological ego differs with Chomskyan cognition primarily in its ontic spontaneity, or epistemological indetermination. Whereas a Chomskyan subject is creative because of its recombinatory capabilities given by the syntax, the phenomenological ego is spontaneous because of the subject-object paradox immanent in all cognizance, enunciation or thesis, which unifies under the transcendentalism of the phenomenological ego; theoretically, the phenomenological ego is exempted from essentializing syntactical regulation. The nature of this conflict, specifically, is that which is invoked by Kalevi Kull, whose phenomenological ‘present’ of the biological organism is a moment of logical contradiction (see Kull 2015). Psychoanalysis effectively rehabilitates the relative legitimacy of cognitivism and the subjective quality of phenomenology by viewing signification as a process of the organism’s confrontation with the signifier, and thus as a locus of convergence between linguistic-symbolic modalities and organic composition. Crucially, the phenomenological ego becomes deposed of metaphysical status and transitions to an organic context, in which the transcendental inarticulability of the phenomenological ego is identified with the contradictions of the various heterogenous drive-states that are bound by signification. As such, the phenomenological ego re-appears in what Kristeva calls two ‘thetic’ phases or modes of subjective indication, which correspond to the token-index and token-token modalities of symbolic semiosis. “We shall say that the thetic phase of the signifying process is the ‘deepest structure’ of the possibility of enunciation, in other words, of signification and proposition.” (Kristeva 1997a:40)

### **2.2.2 The Thetic as Precondition for Phenomenology**

This transcendental ego, in phenomenology, is held to be responsible for all thetic relation, or all relations concerning a subject-object dichotomy. The above ‘rehabilitation’ of the phenomenological ego suggests that it may be substituted for two modalities of signifying

activity, characterized by their ‘thetic’ or ‘thesis forming’, predicative, structures. Concerning the logical categories of symbolic signification thus far presented, one may anticipate a categorical difference between thetic activity that follows the token-index mode and thetic activity that follows that of the token-token. In the first type, thetic relations are made regarding the discernments of an individual relative to their world, as would be the case of choosing one preferred food-object over another. In the second type, discernments must be made according to absent indices or symbolic codes, as when opting not to eat at all in spite of hunger. In that both modalities are discerning, both modalities are immanently phenomenological, or potential property of the transcendental ego; however, the impression of thetic activity’s unification under a phenomenological ego cannot precede the ego-ideal of the mirror stage, which is later taken up and codified by the imposition of a metonymic signifier. This is logically problematic for attributions of phenomenological or existential subjects to the nonhuman, as the unification of the organism under the emblem of a unary subject of evaluation is thereby identified with specifically human personhood, seen as an autonomous individual in the mirror and treated as such by their ideological milieu. Only after assimilation into a symbolic signifier can token-index and token-token acts of signification be attributed to the signification of an effective and independent ego, a unary existential agent, or, arguably, exist-as-such. Kristeva treats the totality of thetic, discerning or positioning activity brought about in the psychoanalytic subject as belonging to the phenomenological.

This positionality, which Husserlian phenomenology orchestrates through the concepts of *doxa*, *position*, and *thesis*, is structured as a break in the signifying [i.e. purely metonymic] process, establishing the *identification* of the subject and its object as preconditions of propositionality. We shall call this break, which produces the positing of signification, a *thetic* phase. (Kristeva 1997a:40-41)

To the degree that this is effectively true, the speculations of phenomenology’s meditation upon subjectivity are both logically affirmed as having continuity with material, semiotic processes, and given obsolescence by their inability to materialize their origins as anything but the action of the transcendental agent. The transcendental paradox of phenomenology is substituted for the general paradoxicality of organic symbolic semiosis: “All enunciation, whether of a word or of a sentence, is thetic. It requires an identification; in other

words, the subject must separate from and through his image, from and through his objects” (*Ibid*, 41) The two thetic moments are, in the domesticated subject, impossibly intertwined; the secondary thetic, just as syntax relies on indication, relies on the primary thetic, re-activating it as such via the abstracting activity of the signifying chain.

In other words, the subject must be firmly posited by castration so that drive attacks against the thetic will not give way to fantasy or psychosis but will instead lead to a ‘second-degree thetic,’ that is, a resumption of the functioning characteristic of the semiotic *chora* within the signifying device of language. (*Ibid*, 44)

Treating semiosis as biological, it is necessary to contextualize phenomenological signifying activity as defined by a particular sort of contradiction, which arises in the context of pre-and-post Oedipal significations, typified by token-index and token-token relational modes. This is effectively done in Kristeva’s notion of the thetic, which accounts for subjective activity as well as biological and logical requirements for those types of subjectivity.

### **2.2.3 The Mimetic and the Arbitrary in the two Thetic Moments**

This leads us closer to a possible *necessity* of a psychoanalytic biopoetic, a bio-phenomenology of enunciation which affirms the contradictions and methods of phenomenology and imagines the worlds of others, but leaves us wanting of accountable processes. The primary and secondary thetic moments require closer examination. Token-index and token-token symbolic motilities have logically served thus far. As concerns the description of the subject’s place in the embodied process, however, it is most useful to approach these via the Pre- and Post-Oedipal subject positions of psychoanalysis, with their new additive element of the worldbuilding stage incorporated and differentiated from the existing psychoanalytic work. The corresponding two subject positions that define the two thetic moments are the imaginary and the symbolic father. In the first case, the worldbuilding (post-oral, post-anal, post-mirror stages) constitutes itself around the desire of the mother before castration occurs. The alienation that is involved in this primary-thetic period is not yet one that is de(ci/vi)sive, but expansive, attempting in the Oedipus complex to attract or entrap all affection of the mother. As such, the ego and the world of the developing child is both unifying under the ego-ideal and plastic, reaching for or desiring a fullness of affection. This pre-Oedipal, pre-metonymic state shows a

mystical continuity between the subject and its environment; there is connection and expulsion, without the categorical difference of the secondarythetic.

This makes the nature of the primarythetic, or the ‘worldbuilding’ stage, *mimetic*. The lack ofthetic disconnection to the subject constitutes a web of physical affinities; there is a pervasive ‘likeness’ of the world. Works of copycat repetition and undifferentiated association of external objects and drive states binds the child to their social and libidinal worlds, instilling in them an indexicality that is not yet predicative in the sense of a discrete sign-referent because it does not yet have triadic logical space through which non-associative relations could be asserted. Metaphorical associations of actions and objects precede their realization as discrete ‘actions’ or ‘objects’; the affinity between external objects and states of being is relatively continuous. In that, Oedipally, this mode relates to the entrapment of the mother’s affection, this mode of relation correlates to Kristeva’s notion of the ‘imaginary father’, in which the father is not yet a symbolic ‘no’ but an identification amorphously cohabited by the child.

The mode of this continuous affinity is oriented around the organism in a form of possessivity. In performing for the mother, the child attempts to ‘possess’ her desire; in playing with toys, the child is in ownership of them. The fact of possession exists continuously from the oral stage, in which food is possessed by incorporation, to the abstraction that is property, in which possession is coded via the social signifier and bestowed by the ideal-ego; but, plainly, it is non-equivalent to itself in these modes, appearing as a series of relations that reinvent orality.

This positive, creative mimetic activity has its negative correlation, anticipated previously in the *quais quem devoret* of Lacan. Just as the potential fulfillability of the pre-Oedipal mother represents an imaginative emptiness, the possibility for more expansion, more complex identification, further territorialization of the ego, so too does it recruit greater effort and greater risk on behalf of the subject. This stage is thus, concerning psychoanalysis, also involved in the advent of egoic repression and control; the child of the fort-da game finds an egoic pleasure in the re-iteration of his exclusion from his mother’s presence. Kristeva writes “In short, primary

identification appears to be a transference to (from) the imaginary father, correlative to the establishment of the mother as ‘ab-jetted.’”<sup>10</sup> (Kristeva 1997b:154)

To these Oedipal models must be added the deictic spatiality, or the *world* of worldbuilding. The mimetic ego’s situation in development does not only include parental relations, but all relations of import in the child’s environment. The process of uptaking logical predication means the assimilation of all iconic and indexical relations of the child’s world into a unifying syntactical-thetic perspective. Contained in this is the fact that ecological ‘belonging’, or mimetic identification with the natural world, operates in a way that is analogous to how the pre-Oedipal child identifies creatively with the imaginary father. Where a child is left under the shifting shade of a chestnut tree, the irrhythms of dappling sun-spots influence the continuity and composition of the child’s attentional regularities. The jittery hoppings of a sparrow suggest a similar model of blinking attention be adopted by their observer. We need not only use ecological imagery; a concrete plane gives a sarcastic indifference to one’s presence, a gothic hierarchy associates with the sublime. Ultimately, space holds rhetoric for the same reason that poetry has rhythm: the fact that logic derives from the mimetic space of the worldbuilding stage. As semiosis is reliant to this degree on ecology, a non-dramatic tragedy of the loss of the natural world is found here; ecocide is concomitant to semicide via the differences ecological collapse exerts on the subject’s available worldbuilding material for mimesis. As such, biosemiotic ethical concerns may be concretely located in psychoanalytic development (See Kull 2022, Tønnessen 2017).

The secondary thetic intervenes with castration. “This emptiness which is apparently the primer of the symbolic function, is precisely encompassed in linguistics by the bar separating the signifier from signified and by the ‘arbitrariness’ of the sign, or in psychoanalysis the ‘gaping’ of the mirror.” (Kristeva 1997b:154). The signifier, which is Oedipally established by the intervention of the symbolic father, instantiates the tautological definition of the father and thus the token-token metonymy of the signifying chain. This metonymic breach of the metaphorical mimetic realm serves to reconstitute the subject into the prohibitive ‘reality’ of the signifier, as well as the higher-order formalisms and aesthetics that are associated therewith. A consequence

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<sup>10</sup> This is a play on the ‘abject’ nature of the subject’s doomed worldbuilding exercise coupled to the *jeter* of the *fort-da* game. The mother is ‘thrown out’ by the child in this stage, establishing a sense of control and identity.



of this metonymic disconnection from the metaphorical, to speak generally, is that the castrated child becomes capable of satire. The doubling consequence of castration creates inverse-meaning, the ego's separation from performance. The initial associative relation of the metaphor becomes a substitutive relation via a metonymic disavowal of the imitated object itself, to the degree that higher metonymy is installed. Metaphor is swept up from its initial empathy with environmental or maternal entities and becomes involved in substitutions of meanings across the metonymic chain. The mimetic function, which originally served as a vehicle for primary identification, becomes logically abstracted, and thus apparently derivative of a syntactical chain of associations. A consequence is that the mimetic function of worldbuilding re-appears elsewhere along metonymic signification, thus producing the possibility of computing imaginary worlds that are abstracted from the signifier of the reality principle; or, identification with the fantastic.

#### **2.2.4 The Split Subject & *Tout le Monde***

The two thetic moments thus correspond to two categorically different logical functions in the constitution of the speaking subject: one which constitutes an empathetic world of association animated by mimesis, and one which re-constitutes worlds through the formative impresses of 'reality' through metonymic or syntactical operation. As such, there is reason for the hypothesis that, as the mimetic worlding function associates with the syntax or the transcendental ego's constitutive freedom of motility or arbitrariness, any world might actually be virtually simulated by syntactical/phenomenological transport through the signifier's ability to re-constitute mimetic worlds.

That mimetic function might potentially be realized with anything whatsoever, real or imaginary, subject to 'reality' or otherwise through the contradiction and freedom of enunciation, is a possibility best explored in the philosophy of Deleuze and Guattari. Earlier, the Deleuzian notion of territory was connected to the environmentalized semiosis of the worldbuilding stage: "Territorialization is an act of rhythm that has become expressive, or of milieu components that have become qualitative. The marking of a territory is dimensional, but it is not a meter, it is a rhythm." (Deleuze & Guattari 1987a:315) The notion of territorialization is, to us, an effective mobilization of the semiotic functions of the worldbuilding stage. Affinities are recognized between agencies, assemblages, and a world that is spatialized by animistic interactivity is given

form. The possessive-imaginative mimetic form of the pre-Oedipal, worldbuilding stage, is given philosophical representation in territory, where creation and identification is coextensive.

The expressive is primary in relation to the possessive; expressive qualities, or matters of expression, are necessarily appropriative and constitute a having more profound than being. Not in the sense that these qualities belong to a subject [i.e., a transcendental ego], but in the sense that they delineate a territory that will belong to the subject that carries or produces them. (*Ibid*, 316)

Territory is the simultaneity of temporality and rhythm's expressivity, the ambiguous *temps* in French, with the virtual spatiality of inter-action and organization. This thus leads territoriality's complement to be 'the refrain', the substantification of territorial action, defined as "rhythm and melody that have been territorialized because they have become expressive—and have become expressive because they are territorializing" (*Ibid*, 317). While territoriality is strongly associated with the embodied act human vocality, "Lost, [a child] takes shelter, or orients himself with his little song as best he can. The song is like a rough sketch of a calming and stabilizing, calm and stable, center in the heart of chaos" (*Ibid*, 311), it is derivatively associated with an ethology of birdsong and coral coloration, thus exemplifying its specifically ecological mimetic-sympathetic potential. Like Uexküll's analogia to a biological world harmonized by music, territorializing refrains model the extra-human world; the Deleuzian and Uexkullian both build systemic representations that testify to the musical affinity between *things* of the world, the *umwelt* or the molecule. Both perspectives describe the disparate melodies becoming-of one another, the *umwelt* to the *umwelt* or the molecule to the molecule. By way of the concepts of 'territory' and 'refrain', which we symptomatically read as a modelling of human vocality and sonority, the *umwelten* of other animals- their spatio-temporal, subjective-qualitative worlds- may be *virtually* realized. Concerning ecological worldhood, this makes territory and refrain effective approaches to the semiosis characteristic of the worldbuilding stage, and thus the ecological subjectivity that underwrites an *umwelt* overcoded by language.

Our experience's multiplicity indicated by Deleuze is a multiplicity of processual becoming; and the subjective spontaneity of processual becoming entails becoming-animal, or, at its limit, a becoming of *tout le monde*. An animal, virtually, is its territoriality; to become-animal is to become this expressive territoriality. Expressive refrains organize territorial space,

constituting differential activities of the animal or the molecule relative to the intensive center of territory, a zig forward and a zag back, actions simultaneous to their rhythmic-intensive constitution. This act of ‘becoming’, in which the virtual reality of the other is realized in an act, is identified with the ‘*labor of the refrain*’ (Deleuze & Guattari 1987b:302), pointing, in the concept of *labor*, to a vitality of virtuality which is exemplified in the sonorous refrain.

In pursuing a philosophical position for territory, the spatio-temporal expressivity of territoriality in *On the refrain* is eventually identified with all spacetime, attaining a sort of cosmological status. In a telling statement, Deleuze & Guattari write “Becoming everybody/everything (*tout le monde*) is to world (*faire monde*), to make a world (*faire un monde*).” (*Ibid*, 280) Concerning the philosophizing writer, the hierarchy of forms is collapsed into a single plane of consistency, a single sub-and-supratomistic plane of consistency, always constituted in a double-articulation; a pure empiricism. Concerning the modes thus far here advanced, the Deleuzian system represents a total establishment of the ‘kaleidoscopic’ geometrical perspective of the mirror stage; or, put another way, a complete possession of the world by mimetic worldiness, an aspiration to become *tout le monde*. This thought may seemingly misunderstand Deleuze & Guattari, in that D&G oppose the referentialism implied in mimetic likeness (the wasp does not refer to the orchid), but, in fact, it merely contradicts them.

Concerning the natural-scientific perspective that we have here begun building, this may be situationally problematized on two accounts: firstly, the freedom of ‘becoming’ that is coextensive with the virtuality of expressive reality is not identified as belonging to the consequences of the symbolic *as such*. The paradox of phenomenality is attributed to all existence, and all things are given analogous if not discrete *temps*. If this paradox most strongly exists as a byproduct of natural symbolic activity, then its attribution cannot be ontologically reified except as a limit of the humane capacity to understand, identify and communicate in association with symbolic abstractedness. Yet, the absolute positivism of Deleuze is posited existentially, in spite of its perpetual association with song and aurality. Just as *Of the Refrain* begins with an image of a child in song, it concludes “For the Cosmos itself is a refrain and the ear also (everything that has been taken for a labyrinth is in fact a refrain).” (Deleuze & Guattari 1987a:347) It is perhaps the disturbing strength of affinity between audition and worldhood, which would entail the sort of biological determinism we are here accounting, which leads

Deleuze and Guattari to reject the ear itself, continuing “Why this privileging of the ear, when even animals and birds present us with so many visual, chromatic, postural, and gestural refrains?” (*Ibid*)

This biophenomenal position on symbolic activity differs from that of D&G in this thesis’ realistic subjugation to this fact. The geometrical territoriality of Deleuze and Guattari’s cosmological worldhood is, on the one hand, constituted by pre-Oedipal mimetic worldbuilding relations which serve as predecessor to post-Oedipal metonymic abstractions, and on the other hand made possible by the ‘free motility’ of the second thetic phase, which involves in it the paradox of metonymic representation. This means that the act of ‘becoming’ is not entirely separable from syntactical logics; while the act of becoming or worlding itself requires absolutely no syntax for operation, the alienation that allows for the abstract ‘becoming *tout le monde*’ is immanently involved in linguistic operation and thus closely related to the constraints of syntactical motility. The ‘cosmological labour’ of the cosmological refrain is, virtually speaking, the labour of sonorous speech attributed to the world it aids constitute.

The second problematic of Deleuze & Guattari relative to our biosemiotic perspective is that the omnipotent aspiration of virtual-becoming, the worlding of *tout le monde*, takes as its object this paradoxical freedom of becoming; as such, thus concerning itself with the ‘acceleration’ of subjective time and the repeated, fixative interest in the molecular. In that the human voice becomes the focal point of simultaneous embodiment and disembodiment, through orality, song, advocacy and post-syntactical symbolic re-embodiment, the Deleuzean system of empiricism is shown to be simultaneously the perfect realization of descriptive-worldbuilding activity and worlding’s absolute unattainability. “We go from assembled refrains (territorial, popular, romantic, etc.) to the great cosmic machined refrain.” (*Ibid*, 350) Circumstantial proof of D&G’s absolute-worlding position includes their treatment of literature, which concerns itself with the hypersensitive ‘minor literature’ of Kafka and Woolf, and not the evacuative-tragedies of T.S. Eliot’s *Hollow Men*, whom are tortured by the absolute unattainment of vital affectation; “‘Saturate every atom’, as Virginia Woolf said” (*Ibid*, 329).

The paradox of the act of ‘Becoming’ is doomed to aspire to the absolute realization of all virtual reality (absolute deterritorialization, the plane of consistency) for as long as the fundamentally *embodied* break with the world, a break which subjects one *to* ‘realities’ and

constitutes the paradox of the phenomenological, is not accounted for by the organic voice. A consequence of naturalizing, biologizing, our perspective is the following: all philosophy that is not Deleuzian is a representation which falls too short, and all poetry that *is*, is misguided. The structural naturalism of the unconscious, constituted as a result of the two predicative/repressive thetic breakages, cannot be dismissed or reabsorbed by the ‘double-articulation’ of Deleuzian empiricism, which in the end assumes some sort of subjective worldhood to be present prior to the (symbolic) activity which constitutes ‘the world’.

## **Conclusion: on Biosemiotics, Choice, and Neo-Hegelianism**

The hope of this thesis is to integrate the epistemological approaches of psychoanalysis into biosemiotic activity, thus sharpening biosemiotics' philosophical edge and understanding of natural processes. As has been repeatedly claimed in this thesis, arbitrariness, and thus the arbitrariness of free choice, is an illusion that is certainly derivative of the symbolically-derivative locus of sense of self. The human *umwelt* is constituted in an interplay with symbolism; there is no natural substratum of subjectivity, consciousness, or choice to adhere to which exists outside of the conflict entered with the reality-constituting and material signifier itself.

Our primary criticism is Kull's identification of meaning making with a-priori arbitrary choice. While there is no denial that agency and subjectivity exists, its constitutive nature is not best accounted for by a derivation from pure freedom of activity. The biosemiotic subject *cannot* follow semiology in being defined as acting in an 'Arbitrariness to some extent restrained by motivation' (Kull 2023:179); this ontologizes indeterminacy, and discursively leads to a hypersensitivity that objects to reason being applied to the biological subject as such.

Such an epistemological critique should not exclude all the positives of Kalevian biosemiotics. Where Deleuzian empiricism overreaches in its aspiration for the full realization of virtuality, cast in the gaze of an absolutely empirical metaphysic and thus a misestimation of the human symbolic capacity, Kull's focus on the subjectivity of biosemiotic *umwelten* allows for intricate biological codifications to be accounted for in a conception adjacent to text.

Earlier, I have characterized agency as a system with logical incompatibility. This may look paradoxical since this statement says that agency is illogical. Indeed, logical incompatibility can appear only *between* rules or codes, where non-contradiction is not yet set. [...] As I have argued elsewhere, this is equivalent to the origin of specious present, the finite moment of the Now, the subjective time – because two rules can only be incompatible if they are both *present*, i.e. simultaneous. (Kull 2023:173)

Some identifications can here be made. The mode of equivalence between rules is the idealized totality of the signifier, in which metonymic relations and syntax equivocate signs into discrete objects. In their signifiers as-codeness, they are non-equivalent to their signified, thus

revealing the semiotic and quasi-phenomenal contradiction of explanatory reference. This reasoning seemingly falters when it considers the finite moment of the Now, the subjective time which institutes choice; the simultaneity of options is required for true choice-making. This guiding paradox of Kull's biosemiosis, a *tabula rasa* on which alternative options might be considered and taken by whim of a subject, almost directly opposes dynamic processuality, in which there is no conceivable place for an ideal subjective arbitration to take place. The 'between codeness' or 'contradictory world' is modally identical to the relation between Kristeva's chora and thetic, where the totality of the signifier is, in various modes, both generated and syncopated; but, of course, for Kristeva this site is organized on a biological, and thus material, scale.

In truth, this self-proving necessity of subjectivity and choice can only indulge scholastic navel-gazing if it is not accepted that this ontological self-regard is constituted in part by the oversight that is mistaking one for their own image. The ontic existence of choice-making does not necessarily supercede other forms of meaningfulness; worlding behaviours that pre-exist self-identification, and thus the possibility of *pour-soi* and free-type agency are better accounted by subjective preference or affinity than 'freedom' or 'choice', which implicate an arbitrating subject where determinacy seems to disappear. The questioning of arbitrariness' potential opens the signifier to possible biological meaning, but the logical fixation on the paradox of arbitrary subjective agency fails to recognize its own allegiance to specifically symbolic modalities of relation.

Nevertheless, the recognition of the paradoxical nature of 'the present', and thus the paradox of (any)one's being-in-time, is a good dogmatism with which to combat the deterministic and discompassionate sciences. The place of temporal processes is rightly given to the process of semiosis, making time proper the contradiction unaccountable for by any description. In that this paradox is coextensive with all possible semiosis, all possible process may be imaginatively given subjective being by being questioned on its being-in-time. The *umweb* is a conceptually marvellous device in this light, defined as the sum of distributed umwelt meaning-relations acting diachronically in the present (both intra- and inter-organismically), should logically be useful for the study of biological codes *precisely because* of its formal similarity to the totalized Saussurean signifier of arbitrary referentialism. *Caliban upon Setebos*,

with its sum of codes, may be effectively read as a struggle of one *umwelt* from within the *umweb*. Nevertheless, the mode of this approach determines the quality of the representation, and thus its relative compatibility to truth over neurotic gratification.

The closest philosophical affinity held by this thesis is, in fact, neo-Hegelianism, as it is currently being developed by philosopher Adrian Johnston. As was intimated by the recurrent presence of negative determinisms in our thesis; the absential essence of the symbol, the negativity of the dialectics of development, Kristeva's Hegelianism, the death drive; neo-Hegelianism has a strong compatibility with both Lacan and Deacon's works, and doubtlessly shaped the writing of this thesis. The continuity between Hegel's dialectic of negativity and the efficiency of Deacon's descriptions of materiality and Lacan's calculus of subjective positioning have resulted, elsewhere, for similar logical claims to be made, such as the location of subjectivity in the contradictions inherent of the material process or the reading of Lacan as 'quasi-naturalism':

In fundamental solidarity with Hegel and Deacon, among others, I seek to advance the formulation of such a theory through linking the genesis of the irreducible subject of transcendentalism to specific types of negativities (as absences, antagonisms, etc.). [...] I interpret the full arc of Lacan's teachings from the 1930s to the start of the 1980s as unfolding along the lines of the triad of dialectical materialism, realism, and quasi-naturalism (I defend this reading elsewhere). Assuming for the moment that I have plausible justifications for this rather contentious view of Lacan, his explicit treatments of Kant's categorizations of the negative set the stage for my transcendental materialist furtherance of Deacon's similar absentialist emergentism. (Johnston 2015: 46-47)

Nevertheless, the fixation of the philosophical community upon Deacon's metascientific emergentism in *Incomplete Nature* perpetuates the tradition of fixation to negativity, and thus, like arbitrariness, the exclusion of ecological worldhood. The biogenic activity of symbolic forms, studied by Deacon first in *The Symbolic Species*, is a better condition of knowledge on subjectivities than metascience, taking, as this does, the consequences and not the conditions or context of abstractive existence as its object. If Lacan's psychoanalysis was taken seriously in its developmental, nearly-biosemiotic roots, or Deacon's theories of language acquisition, the substance of this such philosophy would so significantly change (losing its thin linearity of



reason and instead finding a pearl-necklace of possible worlds) that it may no longer be recognizable as philosophy.

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## **Eestikeelne kokkuvõte**

### **Sümboolse semioosi biofenomenaalsus mõistetuna lacanliku psühhoanalüüsi ja Terrence Deaconi kaudu**

Käesoleva magistr töö eesmärk jaotub positiivseks ja negatiivseks. Positiivse külje pealt püüab töö ühendada Terrence Deaconi evolutsioonilis-pragmatilist keeleteooriat lacanliku psühhoanalüüsi arusaamaga sümboolsest. Selle tulemuseks on materiaalne arusaam subjektiivsusest ning paradoksis, mis Terrence Deaconil puudub. Lisaks vaadatakse uuesti üle psühhoanalüütiline mõistmine arengustaadiumitest, mis kipub kõrvale heitma inimorganismi ja keskkonna suhte tähtsuse süntaksi ja abstraktsiooni moodustumisel. Negatiivse ehk kriitilise tahu pealt vastandub käesolev töö valitsevatele eeldustele loomade subjektiivsuse käsitlemisel. Need eeldused kipuvad paigutama arbitraarsuse ning subjektiivsuse aprioorsesse positsiooni suhtes loomade tegevusega.

Terrence Deaconi keeleteooria vaatab sümboleid lähtuvalt spetsiifilisest referentsimodaalsusest ehk denotatiivsest funktsioonist. Kui 'ikoonid' on iseeneses vaateleja jaoks informatiivsed, siis 'indeksid' viitavad külgnevuse kaudu ning 'sümboleid' või (ikoonilises vormis) 'tookeneid' iseloomustab mittekuilgnevus oma referendiga. Nii moodustavad tookenid semiootilisi suhteid, mis võivad olla kas 'tooken-indeks' tüüpi, kus tookenid on seotud konkreetsete kogemuslike indeksitega, või 'tooken-tooken' tüüpi, kus viidatakse teistele tookenitele. Käesolev töö uurib sümboolsust niivõrd, kui teda mõistetakse asetuvat sellesse ristumiskohta.

Mõistes sümboolseid süsteeme samaaegselt tooken-tooken ja tooken-indeks suhete kaudu, saab sümboolse kommunikatsiooni algupärast leida materiaalse pidevuse, mis ulatub praeguseni, ning samuti ilmse paradoksi tähenduse vasturääkivuse ja individuaalse kogemuse tegelike mõõtmete vahel. Tooken-indeks tüüpi suhe nõuab käsitlust sümboolsest semioosist, mis ei mahu üksnes säärase mõistete alla nagu struktuuriline, arbitraarne või kehatu.

Terrence Deaconi ja lacanliku psühhoanalüüsi ühendamise käis kahes etapis. Esimeses peatükis tegeleti magistr töö loogiliste nõuete täitmisega. Teises peatükis uuriti kehalise sümboolse semioosi positiivset modaalsust, ennekõike psühhoanalüütiliste arengustaadiumite kaudu nende

suhetes fenomenoloogiliste süsteemide, kognitiivlingvistika ning Gilles Deleuze'i ja Félix Guattari filosoofiaga.

Kokkuvõtteks: tööd tuleks lugeda suurte tekstihulkadena, mille osad lähevad sujuvalt järgmisteks üle; omaette võetuna jäävad üksikosad mõistetamatuks. Biosemiootika fenomenoloogilise tuuma pihta suunatud probleemid kutsuvad üles tegema rangemat koostööd reaalteadustega, et mõista semioosi ja subjektiivsust. Lisaks ootab tegemist biosemiootilise eetika nüansseerimine ning luuletõlgendus, mis käesolevasse töösse mahupiirangu tõttu ei jõudnud.

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