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Chapter 17

Reason, Language, and Life: Frank Lorimer's Critical Development of Dewey's Approach

Abstract: In this chapter, I wish to draw scholars' attention to Frank Lorimer, a much overlooked figure within Pragmatism, by arguing that he provided an insightful contribution to the "naturalism of continuity with difference" supported by Dewey (Bernstein 2020). Lorimer suggested a continuistic account of the origins of human reason out of previous forms of organic intelligence through the transformation of the latter brought about by the development of human language. Secondly, he worked out a naturalistic interpretation of language development, primarily from an ontogenetic point of view. Particularly insightful are his conception of organic intelligence, his idea of a primarily affective-aesthetic fabric of speech, his thesis about the birth of nomination out of the continuous flow of speech, and the claim that grammar and logic are ultimately grounded in the structures of organic life within a given environment and continue to develop within a symbolic and socially shared medium. Such suggestions prove to be still relevant in the current philosophical debate on naturalism, the intertwining of experience and language in the human world, and the specificities of human cognition with reference to other forms of sense-making.

Keywords: continuistic naturalism, pragmatism, Dewey, organic intelligence, human reason, language

1 Introduction

Frank Lorimer is a neglected figure within pragmatist scholarship, probably because after obtaining his PhD under John Dewey's supervision at Columbia in the late 1920s,¹ he quit philosophy, served as part-time professor of sociology in Washington, D.C. from 1938 to 1964, and devoted most of his efforts to the study

¹ Previously, in 1921, he had received a master's degree from the University of Chicago.

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of demography, becoming President of the Population Association of America in 1946–1947 (de Walle 1985). His investigations focused on population dynamics, particularly at the intersection among fertility, culture, intelligence, and social development—significantly touching upon subjects involving a strong entanglement of biological and cultural aspects.² Somewhat emphatically, it could be said that he concretely tried to enact the pragmatic stance by putting the continuistic naturalism he theorized in his youth into practice.

In what follows, I will argue that Frank Lorimer provides a valuable contribution to the “naturalism of continuity with difference” supported by Dewey (Bernstein 2020, 53) by developing a continuistic account of the origins of human reason out of life—namely, a naturalist yet non-reductive interpretation of the arising of a specifically human form of cognition. In his book, *The Growth of Reason. A Study of the Role of Verbal Activity in the Growth of the Structure of the Human Mind*, published by Paul Kegan in 1929, he focused on the role of language in the shaping of reason, or “symbolic intelligence,” out of already existing forms of organic or “hypo-symbolic intelligence.” In the *Preface*, Lorimer explicitly claims that Dewey’s thought represents the main source of inspiration for his volume; this statement is more than just a formal acknowledgement of the role played by John Dewey as the scientific supervisor of Lorimer’s PhD program at Columbia University. More substantially, I would suggest, Lorimer’s account can be considered a critical development of the view of language and the mind worked out in *Experience and Nature*, a development based on a fruitful engagement with a variety of multidisciplinary resources—from anthropology (Grace de Laguna, Malinowski, Donovan) to linguistics (Jespersen, Ogden and Richards, Morris), from infant to comparative psychology (Baldwin, Luquet, Piaget, Köhler). Dewey possessed and annotated a copy of the book, currently preserved in the Morris Library in Carbondale, Illinois.³

As hinted above, Lorimer’s philosophical position is clearly set within the continuistic naturalism developed by James, Dewey, and Mead. In line with the Classical Pragmatists, Frank Lorimer’s approach is strongly continuistic regarding the development of both language and the human mind out of already existent organic and environmental resources. His attitude is most explicitly stated from the very beginning of his book:

2 See Lorimer (1958). For a complete list of his publications, cf. van de Walle (1985).

3 I discovered Frank Lorimer’s work during a period of study I spent at the Morris Library of Southern Illinois University, Carbondale, upon Kenneth Stickers’ kind invitation. I have already emphasized the importance of Lorimer’s contribution in my book *Human Landscapes* (Dreon 2022), specifically in Chapters 5 and 6.

The processes and organization of communication are continuous with other physiological and social processes, and the evolving structure of intellectual activity (including the *forms* discovered by logical analysis) is a function of the total growth of life prior to and including the growth of verbal activity; the structure and processes of intellectual activity, at all stages, are capable of systematic investigation and genetic interpretation. (Lorimer 1929, 4)

The human mind and language are not *sui generis* substances or faculties, opposite in principle to natural things and entities; rather, they consist of new forms of interaction between organisms and an ever-changing environment, to put it in Dewey's terms.⁴

Furthermore—and again, perfectly in line with the Pragmatist—cognition is considered to be a function of life in Lorimer's approach, and a mode of socio-organic behavior in the case of humans. In other words, it is not understood as a tool for representing reality as it would be independently from human actions. This life-related and non-representational conception of cognition comes to the fore particularly through his definition of “organic intelligence” as something connected to organisms' efforts to maintain or re-cover dynamic forms of equilibrium with their environment—a view that will be worked out more in detail in the next section.

Finally, Lorimer evidently radicalized the Pragmatists' inclinations to engage with a variety of scientific investigations in order to interpret language and the mind—including physiology, anthropology, psychology, and linguistics—without reducing philosophical issues to scientific problems. He put into practice the Pragmatists' characteristic openness to a plurality of scientific approaches and contributions (Bernstein 2020) and did not privilege a single scientific paradigm—as has instead occurred with the recent trend towards naturalization in philosophy,

4 As far as lexical choices are concerned, Franck Lorimer used the word “intelligence” in a broad way, with meanings extending from “organic intelligence” to “free intelligence,” namely, typically human intelligence, characterized by the advent of language and a highly refined capacity to defer references to actually present actions and objects. “Reason” is used exclusively in connection with humans, i.e., as a synonym of free intelligence or even “symbolic thinking”—but Lorimer considered the opportunity to recognize forms of “hypo-symbolic” thinking occurring among non-human animals. “Mind” is also used in a broad sense, corresponding not only to the human mind, but also to organic forms of intelligence. Hence, there is a difference in comparison to Dewey and Mead, who chose to reserve the term mind for humans' intelligent interactions with their environment. In any case, Lorimer shared their idea of a primary connection of mind with life, rather than with representation, as well as a non-substantive, but interactional (and possibly adverbial: see Steiner 2017 and Dreon 2019a) conception of it. Finally, Lorimer did not use the term “cognition,” but I have chosen to employ it as a synonym of intelligence, in order to converse more easily with the current debate.

which has identified a certain idea of physics as its main interlocutor (see De Caro and MacArthur 2004).

In the first section of this chapter, I will argue that according to Lorimer human reason is not generated by the mere advent of language; rather, he claimed that human cognition arises from the deep reorganization or reconstitution of organic intelligence effected by linguistic behavior. In his view, language operates within each individual life (both phylogenetically and ontogenetically) as a powerfully transformative agent producing irreversible changes in previous forms of organic-environmental interaction. This conception was developed through a constructive criticism of Dewey's position, involving a distinctive focus on so-called "organic intelligence."

In the second section, I will provide a picture of Frank Lorimer's naturalistic account of language, focusing on three important claims arising from his book. Firstly, I will highlight his idea of the primarily affective-aesthetic fabric of speech. Secondly, I will succinctly reconstruct his thesis about the arising of nomination out of the continuous flow of speech—involving the claim that nomination is not the primary step in language. Lastly, I will briefly sketch out some aspects of his idea of grammar and logic as elements that are ultimately grounded in the structures of organic life within an environment and which continue to develop within a symbolic and socially shared medium.

Although Lorimer did not develop a specific treatment of gestures, I would argue that his inquiry provides a decisive contribution to the kind of continuistic naturalism which represents an alternative paradigm to parallelism for interpreting the role of gestures in human phylogenesis and ontogenesis (cf. the editors' *Introduction* to this volume). More specifically, I believe that Lorimer's account of human reason as emerging through the transformation of pre-existing forms of organic intelligence caused by language could be considered complementary to Mead's hypothesis of the genesis of linguistic communication out of pre-existing forms of non-verbal, gestural communication among non-human animals. Both research lines are key components of the integrated bio-social account of human language characterizing the pragmatist tradition.

2 Language as a Transformative Agent of Organic Intelligence

Frank Lorimer's contribution to an account of the relationship between cognition and language is not a simple extension of Dewey's position, but—I would suggest—a valuable critical or clarificatory development that carries significant implications.

Lorimer saw a potential weakness in Dewey's account of the mind as the peculiar mode of organic-environmental interaction elicited by the advent of language—he seriously considered the possibility that Dewey's interpretation could be read as involving the thesis that

Thinking is a type of behaviour which is fundamentally linguistic in its organization, and the whole structure of mental life can be discovered in the social organization of the processes of words, gestures, or other symbols; to have ideas is to form words, aloud or silently. (Lorimer 1929, 4)

Dewey's view could be considered to be a reactive response to the extra-naturalist idea of the mind as a kind of unique substance or function—Aristotle's *nous*, Descartes' *res cogitans*, or even Kant's transcendental unity of apperception (Margolis 2004)—which implies that words and language are simple vehicles of transmission. By denying this dogmatic or metaphysical perspective, in the literal sense of the term, Dewey seems to “overstate the extent to which the structure of human thinking is derived from discourse and fails to give adequate recognition to the *organization* of intellectual processes prior to verbal activity” (Lorimer 1929, 85).⁵ Briefly, Lorimer saw the danger of a possible conflation of thought and language in the account provided by *Experience and Nature* and worked out a clear strategy in two steps to offer a more coherent interpretation of the growth of human cognition in a natural-continuistic vein. On the one hand (1), he recognized and defined forms of organic intelligence prior to—and existing apart from—human life; on the other hand (2), he assumed that verbal behavior and symbolic activity crucially contributed to the arising of mental behavior by causing a profound reorganization of previous kinds of organic intelligence. In a nutshell, Frank Lorimer's claim is that linguistic behavior is not the only source out of which the human mind emerged, but a powerfully transformative agent, producing irreversible changes in previous forms of less socially conditioned and hypo-symbolic intelligence.

More specifically concerning the first step (1), according to Lorimer the core of organic intelligence in its simplest forms consists in “the tensional organismic correlation of vital processes and adaptability, the capacity to restore equilibrium in relation to quite a wide range of environmental changes” (Lorimer 1929, 10). First of all, it must be emphasized that Lorimer regards intelligence as a function of life, i.e., he locates it in the dynamic tension characterizing living beings in an environment with which they interact and try to maintain a provisional equilibrium.⁶ Al-

⁵ See Margolis (2017, 42) for a similar issue with reference to Mead's position.

⁶ Of course, this position puts him at odds with conceptions of cognition in representational terms long before Rorty (Rorty 1980), on the one hand, and the Enactivists (Varela, Thompson, Rosch 1991) on the other.

though Lorimer argues that different forms of intelligence are characterized by the development of a nervous system as a “specialized apparatus,” he clearly resists any brain-centered view of cognition in favor of a holistic view of behavior as including both “*minute* and *implicit* processes on the one hand, and *gross* and *overt* processes on the other hand” (Lorimer 1929, 19, emphasis original). Furthermore, he prefers to stress the fact that different forms of intelligent behavior⁷ are characterized by different degrees of flexibility in adapting to environmental changes, as well as by more or less distinct phases of “organismic tension” and “habit formation” (Lorimer 1929, 139). Major degrees of organic flexibility vis-à-vis changes in the environment involve a clearer distinction between “preparatory reactions” and “consummatory reactions” in organic behavior (Lorimer 1929, 18)—clearly reminiscent of Dewey’s distinction between immediate and reflective experience (Dewey 1981).

Against this background, Lorimer reserves the words “free intelligence” for human cognition, mental behavior, or reason—to put it in the traditional terms adopted in the title of the book. He applies this expression to a form of organic intelligence that is not strictly conditioned by immediately perceived situations, i.e., one that is not exclusively absorbed in what things, events, and other people can directly do to the organism (Dewey 1981, 15, 22, and 71). Instead, free intelligence is highly flexible and can be differentiated into the preparatory and the consummatory phases of organic-environmental interactions. According to Lorimer, this kind of intelligence is largely dependent upon linguistic behavior and a symbolic activity that implies meaningful gestures and words and is “fundamentally social in origin” (Lorimer 1929, 8). This means that, according to Lorimer, it is through language—understood as a kind of symbolic behavior—that organic intelligence is transformed or “reconstituted” (Lorimer 1929, 86) into a strongly flexible and highly differentiated mode of interaction, through which human beings try to maintain a rhythmical equilibrium with a deeply socialized natural environment. Of course, it remains to be clarified what Lorimer means by symbol and symbolic behavior, namely, how the latter introduces complex kinds of discrimination through deferment, functional substitution, nominal integration, and abstraction: a point I will develop in the next section.

7 To be honest, the reader sometimes gets the impression that Lorimer does not definitely abandon the idea of different degrees of intelligence—rather than different forms—and the correlated residue of a teleological interpretation of evolutionary dynamics. I cannot delve into this issue, which is not the topic of my chapter, but I will say at least that the emphasis on radical contingentism among the Pragmatists—the Classical Pragmatists and especially so-called neo-pragmatists such as Rorty and Margolis (see Calcaterra 2016 and 2019)—works as an antidote to evolutionary teleologism.

For the moment, I wish to emphasize that Lorimer's conception of "organic intelligence" is philosophically stunning, as it foreshadows the idea of cognition as sense-making, famously worked out by enactivist scholars (cf. Thompson and Stapleton 2009). Both conceptions define cognition as a function of life, rather than considering it to be primarily a kind of representation of the reality that exists "out there." However, Lorimer does not simply focus on the continuity between sense-making in bacteria and human cognition: his aim is to provide a plausible account of the profound reshaping of organic intelligence into symbolic intelligence through the feedback action of language.

This position did not prevent Lorimer from recognizing that an adult human being can solve complex problems silently, through sensory schemata, as argued by James (James 1983). However, against James' position with reference to deaf-mute cases, Lorimer emphasized that strong embodied actions of this kind among humans "involve the assumption that the development of such distinct perceptual schemata, capable of systematic exploitation in relation to definite problems, is itself dependent upon verbal or gestural activity."⁸

At the same time, Lorimer did not exclude that a symbolic culture could have been developed among anthropomorphic apes thanks to their "splendid brains" (Lorimer 1929, 32). While being a careful reader of Koehler's *The Mentality of Apes*, he claimed that there is "no evidence that perceptual processes which are organized wholly independently of symbolic processes and co-operative social activities make possible any genuine reflective thinking, or systematic mental experimentation with possible methods of handling situations which are not actually present" (Lorimer 1929, 26–27).

The point for him was that "free intelligence" is grounded in a linguistic culture insofar as it involves the capacity "to use ideas as units of intellectual experimentations" (Lorimer 1929, 31), namely, to perform complex behavior in the absence of actually perceived objects, to choose between favorable and unfavorable alternatives, to make fine-grained distinctions between the various phases of interaction. In a nutshell, "words introduce a new mode of explicit analysis and synthesis into thinking (the last term being used in its generic sense as the implicit correlation of behavior), provide a new systematic structure of inference, and make possible type of thinking known as discursive thinking, or reason. Words do not create the structure of mind, they reconstitute its organization" (Lorimer 1929, 85–86).

⁸ This passage is underlined in pencil stroke in Dewey's copy of Lorimer's book preserved at the Morris Library. For a detailed discussion of Lorimer's engagement with James on this point, see Dreon (2022, 170 ff.).

3 A Naturalistic Account of Human Language

The claim that the human mind derives from the transformation of organic forms of intelligence by means of their reorganization and/or reconstitution via language accounts for the peculiarity of reason compared to non-human animals' forms of intelligence. However, nothing less than a naturalistic account of human language is needed at this point, if one wants to stick to naturalism's basic assumption of "rejecting any appeal to supernatural entities" in order to explain what there is in nature (Putnam 2016, 22; see also Margolis 2002, 6–7). Frank Lorimer tackled this issue as early as the late 1920s: he tried to combine a range of different scientific resources and approaches so as to develop a naturalistic account of language, by enhancing—as previously noted—Dewey's open-mindedness towards "a plurality of types of human inquiries" (Bernstein 2020, 44, discussing so-called liberal naturalism).

It is not my task here to verify whether his efforts were robust enough and whether they are still relevant in the light of more recent scientific hypotheses—such an analysis would require specific skills in evolutionary linguistics, child psychology, comparative psychology, and natural anthropology that I do not possess. My point here is to show that Lorimer already lucidly focused on these issues, basing his investigation on a variety of scientific resources of his time, and providing a series of challenging hypotheses. In what follows, I will point out three main elements that remain thought-provoking for the current debate. The first is Lorimer's emphasis on the primarily affective-aesthetic functioning of speech—a perspective he shared with James, Dewey, and Mead, but which he developed in an original way and enhanced (cf. Gavin 1992 as well as Dreon 2019 and 2020); the second element is the claim that nominal integration is the product of a differentiation process, i.e., in the denial that language is primarily produced through the association of words; the third and last element has to do with the idea of a natural history of grammar and logic.

3.1 The Affective-Aesthetic Features of Speech

Lorimer's point of departure when it comes to language could be described as bio-social:⁹ voice is understood as a modification of breath, crying, and other spontaneous and organic sonorous reflexes in very young infants, which become speech through their exposure to a social context. In particular, he emphasizes the so-called

⁹ See Baggio (2015), who uses this expression with reference to Mead.

babble or *lallen* phase, when the infant seems to take pleasure in free experimentation and vocal play, following the first instinctive emissions of sounds connected to organic needs and disturbances. On the one hand, Lorimer underlies the fully embodied and habitual-behavioral characterization of this phase, where a “fundamental kinesthetic- and auditory-vocal organization [. . .] is established in the child’s habits system” (Lorimer 1929, 33–34). On the other hand, he stresses pleasure, almost a first kind of aesthetic enjoyment, as the feature characterizing this phase and anticipating more properly artistic practices and experiences: “Eventually *lallen* becomes a joyous activity, an end in itself, an infantile art—a joy which is the common joy of the most primitive and the most sophisticated peoples, and which is basic in more elaborate arts, song, symphony and poetry” (Lorimer 1929, 40–41). In this vein, he makes reference to the claims of Jespersen and Donovan, supporting the hypothesis that, from an anthropological point of view, the origin of languages could have been less related to the communication of needs than to “the repertoire of drama, songs and dance, as vocal accompaniments of activity” (Lorimer 1929, 40).¹⁰

In parallel to this emphasis on the proto-artistic and/or proto-aesthetic attitude towards vocal activity, Lorimer focuses on the linguistic context into which the child’s auditory-vocal activities are integrated, permitting “the incorporation of new unitary phonetic patterns (words, or distinct vocables)” and the acquisition of “the basic mechanism of the habitual patterns of idiom, conventional syntax (as distinguished from functional syntax), balance, cadence and rhythm of speech” (Lorimer 1929, 44). More specifically, he says that the acquisition of cadence and rhythm is genetically prior to grammar and vocabulary because the acquisition of language is grounded in forms of entrainment with the rhythm of conversations, as well as in *metalalia*, which is to say the development of the capacity to complete an interlocutor’s utterances through the right sounds, rather than through an alleged “instinctive imitation” (Lorimer 1929, 44). Lorimer concludes that early infant speech is “highly affective” and largely controlled through “emotive organization” (Lorimer 1929, 63–64). To sum up:

One of the immediate conclusions to be drawn from this study of the growth of verbal activity in the life of the child is the artificiality of making any rigid distinction between the affective and the referential relationships of words. Symbolic structure is a gradually differentiated structure within the total physiological and social context of linguistic activity. This is, of course, no disparagement of the normative value of insisting upon the differentiation of strict symbolic reference from vague fancy and emotive connotation. It is

¹⁰ For current and at least partially convergent hypotheses, see Dissanayake (2011) and Brown (2017).

simply a protest against the assumption of such a division as pointing to factors originally isolated in the rise of symbolic activity or as involving an absolute metaphysical distinction. (Lorimer 1929, 63)

This view of language as an affectively regulated social activity was not new among the Classical Pragmatists: we can find similarities and a special closeness between Lorimer's view and Mead's idea of the genesis of verbal conversations out of exchanges of mainly affectively regulated silent gestures (see Dreon 2019). Lorimer's claim was not intended to deny the possibility or even opportuneness of drawing analytical distinctions between the various aspects of linguistic behavior. By opposing the assumption that only the semantic and syntactic features of language are essential to it, he made an important contribution to acknowledge of the relevant role played by the so-called merely supra-segmental aspects of speech (for example, rhythm, cadence, timbre, and gestures) as well as by affective, highly situation-specific connotations.¹¹ Secondly, Lorimer's emphasis on the aesthetic-affective character of speech is intended to claim that analytic distinctions between words as well as between signs and their meanings occur against the background of a primarily holistic conversational flow, on which I am going to focus in the following section.

3.2 The Birth of Nomination out of the Continuum of Speech

In his treatise, Frank Lorimer refers to "nominal integration" as a further, crucial phase in language acquisition, articulating the primarily continuous flow of speech into distinct parts—a continuous flow ultimately deriving from the transformation of organic vocalizations because of their embeddedness in a social medium. The process of nomination establishes correlations between vocal and perceptive units (Lorimer 1929, 34) and marks "the rise of the capacity to use and understand words" (Lorimer 1929, 50) within behavioral contexts. This means that "[s]peech cannot be considered as made of separate elements placed side by side as letters" (Lorimer 1929, 36) and that the birth of nomination is not the primary phase of speech development. Language should not be understood primarily as an association of names and verbs, and the picture of language as grounded in a series of non-linguistic baptismal acts is misleading. Dewey had already supported a similar thesis in an article dating back to 1894 that is explicitly men-

¹¹ For more recent criticisms of the merely ancillary role played by gestures and other so-called supra-segmental features of speech, see Kendon (2009) as well as Cowley on "linguaging" (Steffensen and Cowley 2021).

tioned in Lorimer's book: there, he argued that words progressively acquire their rigidity while being gradually differentiated within the "original protoplasmic-verbal-nominal-interjectional form" (Dewey 1971, 69).

Moreover, some further insights deserve mention in relation to Lorimer's account of nominal integration. Firstly, the process of gradual differentiation of words occurs via vocal, kinaesthetic factors, primarily through cadence, and conversational rhythm, namely, through strongly embodied activities involving perception and movement, rather than through syntactic or semantic features.¹² Secondly, Lorimer conceives of differentiation and fixation processes through which the meaning of a word is established in behavioral terms: for him, as for Dewey and Mead, fixed "symbolic relations" or meanings do not primarily concern the connection between a sign and a corresponding object, but rather the relation "between unitary phonetic patterns and patterns of situation and behavior [. . .], so that words may function as *foci* of or *substitutes* for organic patterns in the processes of intellectual experimentation" (Lorimer 1929, 71). Thirdly, Lorimer considers the rise of nomination to be strictly connected to the social contexts it is embedded in. He explicitly recognizes that social organization is prior to linguistic activity—as can be appreciated by examining non-human animals (Lorimer 1929, 74)—and that vocal acts already function as "the keys to social attention" (Lorimer 1929, 77). However, "[t]he gradual differentiation and extension of the social functions of vocal activity, among a race of animals characterized by increasingly complex nervous systems, is the fundamental principle of the historic trend of vocal activity toward verbal activity, and the emergence of language" (Lorimer 1929, 77). The process of nominal integration emerges in human speech in relation to "*traditional types of social behaviour, and, in turn, more specific and intricate types of social behaviour are built up in relation to words*" (Lorimer 1929, 79). Words are fixed through social practices and in turn become crucial in scaffolding more complex social activities and forms of organization. It seems that the human world is characterized by a mutual-feeding relationship between the gradual differentiation and extension of social functions and the development of vocal activity into a highly complex organization of symbolic relations.

¹² A similar claim has recently been emphasized by Diane Falk in her ontogenetic theory of language development among humans (see Falk 2009).

3.3 Prolegomena to a Bio-Social History of Grammar and Logic

As already stated, Lorimer's ultimate aim is to provide an account of the growth of human reason via the re-organization of previous forms of organic intelligence elicited by verbal activity. Against this background, it becomes urgent to develop a continuistic view of the formation of grammar and logic, i.e., of the establishment of fixed symbolic relations between different sequences within verbal processes as well as between increasingly complex intellectual processes (Lorimer 1929, 71). Although Lorimer explicitly admits that grammar and logic can be brought into focus as relatively independent domains, isolated and/or abstracted from the bio-social history within which they emerged, his declared commitment to the principle of continuity¹³ obliges him to avoid any autonomization of the space of reason from the empirical space of vocal activities, human utterances, and linguistic practices it stems from and which it contributes to scaffolding. In other words, I would argue that Lorimer's view, maybe even more radically than Dewey's (see Dewey 2004), provides a useful theoretical framework to avoid the alleged "unbridgeable gap between conceptual normativity and nature" that still afflicts the type of Kantianism characterizing Sellar's and McDowell's Neopragmatism (Bernstein 2020, 45). Lorimer's strategy is not to reduce syntax and logic to psychological processes and to assume that logical relations are ultimately equal to psychic events or neurological programs. His proposal—although sketched, correctable, and open to integrations—consists in an account of the emergence of highly complex forms of organization of symbols and symbolic relations out of the processes of human life, a process which is taken to occur between human organisms (their neuro-physiological constitution included) and a peculiarly social and linguistically transformed environment.

Let us consider—if only very succinctly—some of the main insights and definitions suggested by Lorimer in this vein.

One first step is represented by his conception of meanings, concepts, and symbols (1).

Lorimer provides a behavioral definition of concepts that is in line with Dewey's account (Dewey 1981) and closer to the linguistic anthropologists of his time (Jespersen, Malinowski, Sapir) than to the philosophy of language drawn from Frege: a concept is "an implicit behaviour pattern focused in a word or other socially established symbol" (Lorimer 1929, 81–82). It is this capacity to develop a specific focus that is due to language: as stated above (§1), Lorimer claims that verbal activity provides an organization of experience capable of isolating analytic and synthetic

13 In the version formulated by Hollingworth (Lorimer 1929, 166–167).

processes (Lorimer 1929, 82). In other words, language introduces into organic experience “the capacity to analyze consciously one element of experience as distinct and simultaneously to recognize it as related to other elements” (Lorimer 1929, 86). Through language, one word becomes the output or the final term of a previous process and the point of departure of a following process within a shared social context. In this way, concepts become “instruments of skilled thinking” (Lorimer 1929, 83). At the same time, Lorimer suggests a conception of symbols as strictly connected to action and behavior, either at the individual or the social level: “A *symbol*,” he says, “is *an item established in social conduct or in reflective thinking as a functional substitute for certain other items in social or individual behaviour*” (Lorimer 1929, 87). The meaning of a symbol can also be “the conditioned reaction to a specific kind of situation,” as happens, for example, when a child exclaims “Kitty!” because something has entered into the room. Or it may consist in a “conditioned stimulus to a specific type of social or personal adjustment,” as is the case when one responds “Bye bye” to an interlocutor’s hint.

When moving on to consider syntax, Lorimer’s reference to the organic roots of intelligence as well as to the primarily affective-emotional value of speech again comes to the fore (2). Although Lorimer thinks that mature symbolic intelligence is conscious, and explicitly scaffolded through conceptual relations, he emphasizes that “the dominant currents of this movement are themselves at first implicit, organismic and emotional” insofar as they are grounded in “habit patterns previously involved in the tensional correlation behaviour on the pre-verbal level” (Lorimer 1929, 93). Coherently with his view of intelligence as a function of life, rather than as a faculty for mirroring reality, Lorimer correlates the structure of sentences to the dynamics of life,¹⁴ insofar as sentences reproduce the transition from tension to fulfilment characterizing organic-environmental interactions:

The organization of a conceptual nexus in which the first symbolic act (or group of acts) expresses a relatively immediate and apparent phase of the situation and in which a subsequent symbolic act (or group of acts) expresses the relatively consummatory solution of the situation as regards its conceptual organization is the archetype recognized in grammar as the *sentence* and in logic as the *proposition*. Because life is a process of fluctuating tensions, in which new problematic situations, as they are solved, constantly give rise to new problems and new judgement processes, the structure of the sentence appears as the characteristic type of developed conceptual thought. (Lorimer 1929, 93)

14 This point is marked in Dewey’s copy of the book.

The formation of a sentence or proposition, in other words, appears as the temporary resolution of a phase of tension and the re-establishment of a new equilibrium, namely, as a peculiar mode of interaction between human life and the environmental conditions in which a higher symbolic species enfolds. More specifically, in Lorimer's view a sentence's internal differentiation derives from the "tensional nexus of intellectual activity between one term which represents an event isolated for further treatment and another term which expresses the response actually selected in the process of judgment" (Lorimer 1929, 102): nouns differ from other parts of the sentence because they are relatively complete in themselves, whereas other words are perceived as incomplete and transitive.

Finally, Lorimer attempts to sketch a view of logical operations as corresponding to "types of bio-social activity among human beings in their natural environment." Again, this occurs in accordance with a continuistic picture of the development of animal intelligence from "hyposymbolical" to "symbolical activities" (Lorimer 1929, 151), i.e., Lorimer does not assume that non-human animals' forms of intelligence simply ignore all symbolism. Along this line of thought, he traces logical implications back to the transmission of arousal in organic behavior, whereas logical negation is correlated with the inhibition of an act by a certain organism. A logical contradiction would stem from the prospect of behavioral alternatives on the physiological level, in the form of organic aversion to and attraction towards the environment (Lorimer 1929, 152–153). Lastly, he claims that "[i]nductive inference is inference which 'leads into' new symbolic structures, capable of new application in the control of new problems," while "[d]eductive inference 'leads from' previously formulated symbolic structures in the treatment of new problems" (Lorimer 1929, 157). Stemming originally from organic-environmental tensions and temporary phases of equilibrium, logical operations would be fixed through habits, which is to say through the relatively stable channeling of both organic and environmental resources (Dreon 2022, 94), including complex social interconnections and highly refined webs of symbolic relationships.

Although I have oversimplified some of Lorimer's main claims, it is clear that his hypotheses are bold ones that require further, rigorous elaboration. However, Lorimer's proposal is worthy of philosophical consideration, in my view, for his attempt to sketch a sort of natural history of logic not through physicalist reductionism, but by trying to trace logical operations back to the dynamics of organic life in an environment that undergoes continuous change and may include the output of previous interactions.

4 Conclusion

One could sum up Frank Lorimer's enterprise as a brilliant attempt to provide a naturalistic conception of the emergence of human reason out of already existing resources, namely, previous forms of organic intelligence that underwent profound reorganization through the advent of language and its extraordinary analytic and synthetic powers. At the same time, Lorimer does not limit language to the reflective phases of analysis and synthesis: instead, he stressed the organic, affective, and aesthetic roots of human speech, which is genetically pre-existing with respect to the capacity to draw subtle distinctions between names and other parts of speech. Ultimately, in his view, grammar and logic are continuous with the organic environmental rhythm of life, insofar as new forms of symbolism and intelligent and linguistic interchanges transform and complicate the rhythm itself in novel, unexpected ways.

Moreover, Lorimer's contribution to a form of naturalistic, yet not reductive, "continuism with difference" with regard to the arising of human reason out of language and organic intelligence could be seen as complementary to Mead's theory of human speech, according to which conversations of verbal gestures developed and changed already existing conversations of gestures among non-human animals (Dreon 2022, 179 ff.).

Although limited in terms of publications, I would argue that Lorimer's contribution to philosophy proves valuable for areas beyond the specialist scholarship on Pragmatism and American Naturalism for a number of reasons. It shows that the Classic Pragmatists were already very interested in language and closely evaluated its role in the development of the peculiar form of experience characterizing humans and their world rather than being dogmatically bound to a naive view of experience itself. This contribution is not intended to rekindle the experience vs. language debate; on the contrary, it should be interpreted as an opportunity "to take a step forward" beyond the rigidities of this debate, as suggested by Chris Voparil—a step forward that could further be reached through a more embodied, affect-laden picture of language and a "behaviorist conception of meaning" (Voparil 2022, 35).

Furthermore, the recovery of Frank Lorimer's thought represents an important contribution to the project of developing a continuistic naturalism which definitely abandons the difference of principle between the natural and the normative. Considering some more recent trends in current naturalism, Richard Bernstein noted that "[t]here is also a movement away from the type of Kantianism that insists that there is an unbridgeable gap between conceptual normativity and nature. We are moving closer to Dewey's naturalism where there is continuity with difference" (Bernstein 2020, 45). Indeed, the name of Frank Lorimer might fit this claim even

better than Dewey's, for the reasons detailed in the first and the second sections of this chapter.

Finally, Lorimer's study of "the role of verbal activity in the growth of the structure of the human mind"—as stated in the subtitle of his book—could inspire post-cognitivist scholarship, and specifically Enactivists, who are (only) now discovering the relevance of language in shaping the specifically human mode of sense-making (Di Paolo, Cuffari, and De Jaegher 2018).

References

- Baggio, Guido. 2015. *La mente bio-sociale: filosofia e psicologia in G. H. Mead*. Pisa: ETS.
- Bernstein, Richard J. 2020. *Pragmatic Naturalism. John Dewey's Living Legacy*. Seattle: AmazonBooks. [Originally printed as Bernstein, Richard J. 2019. "Pragmatic Naturalism. John Dewey's Living Legacy." *Graduate Faculty Philosophy Journal* 40 (2): 527–594.]
- Brown, Steven. 2017. "A joint prosodic origin of language and music." *Frontiers in Psychology* 8: 1894.
- Calcaterra, Rosa M. 2016. "Constructing on contingency: William James from biology to ethics and politics." *Cognitio* 13 (1): 219–231.
- Calcaterra, Rosa M. 2019. *Contingency and normativity. The challenges of Richard Rorty*. Leiden and Boston: Brill Rodopi.
- De Caro, Mario and David Macarthur. 2004. "The Nature of Naturalism." In De Caro, Mario and David Macarthur (Eds.). *Naturalism in Question*. Cambridge: Cambridge University Press.
- Dewey, John. 1971. "The psychology of infant language." In Dewey, John. *The Early Works*. Volume IV, 152–188. Carbondale and Edwardsville: Southern Illinois University Press.
- Dewey, John. 1981. *Experience and Nature. The Later Works*. Volume I. Carbondale and Edwardsville: Southern Illinois University Press.
- Dewey, John. 2004. *Essays in Experimental Logic*. Mineola and New York: Dover Publication.
- Di Paolo, Ezequiel, Elena C. Cuffari, and Hanne De Jaegher. 2018. *Linguistic Bodies. The Continuity between Life and Language*. Cambridge and London: MIT Press.
- Dissanayake, Ellen. 2011. "Prelinguistic and preliterate substrates of poetic narrative." *Poetics Today* 32 (1): 55–79.
- Dreon, Roberta. 2019a. "Framing cognition. Dewey's potential contributions to some enactivist issues." *Synthese, Radical Views on Cognition*: 1–22.
- Dreon, Roberta. 2019b. "Gesti emotivi e gesti verbali. L'eredità di George Herbert Mead sulla genesi del linguaggio umano." *Sistemi intelligenti* 1: 115–133.
- Dreon, Roberta. 2020. "James on the stream of language: with some remarks on his influence on Wittgenstein." *Cognitio* 21 (1): 68–82.
- Dreon, Roberta. 2022. *Human Landscapes. Contributions to a Pragmatist Anthropology*. New York: State University of New York Press.
- Falk, Dean. 2009. *Finding our tongues: Mothers, infants, and the origins of language*. New York: Basic Books.
- Gavin, William J. 1992. *William James and the Reinstatement of the Vague*. Philadelphia: Temple University Press.
- James, William. 1983. "Thought before language: A deaf-mute's recollection." In James, William. *Essays in Psychology*, 278–291. Cambridge: Harvard University Press.

- Kendon, Adam. 2009. "Language Matrix." *Gesture* 9 (3): 352–372.
- Lorimer, Frank. 1929. *The Growth of Reason. A Study of the Role of Verbal Activity in the Growth of the Structure of the Human Mind*. London and New York: Routledge.
- Lorimer, Frank (Ed.). 1958. *Culture and Human Fertility*. Paris: Unesco.
- Margolis, Joseph. 2002. *Reinventing Pragmatism. American Philosophy at the End of the Twentieth Century*. Ithaca and London: Cornell University Press.
- Margolis, Joseph. 2004. "Placing Artworks—Placing Ourselves." *Journal of Chinese Philosophy* 1 (31): 1–16.
- Margolis, Joseph. 2017. *Three Paradoxes of Personhood. The Venetian Lectures*. Milan: Mimesis International.
- Putnam, Hilary. 2016. *Naturalism, Realism, and Normativity*. Cambridge: Harvard University Press.
- Rorty, Richard. 1980. *Philosophy and the Mirror of Nature*. Oxford: Basil Blackwell.
- Steffensen, Sune V. and Stephen J. Cowley. 2021. "Thinking on behalf of the world: Radical embodied ecolinguistics." In Xu, Wen and John R. Taylor (Eds.). *The Routledge Handbook of Cognitive Linguistics*, 723–736. New York and London: Routledge.
- Steiner, Pierre. 2017. "Pragmatism in cognitive science: From the pragmatic turn to Deweyan adverbialism." *Pragmatism Today* 8 (1): 9–27.
- Thompson, Evan and Mog Stapleton. 2009. "Making Sense of Sense-Making: Reflections on Enactive and Extended Mind Theories." *Topoi* 28: 23–30.
- Varela, Francisco J., Evan Thompson, and Eleanor Rosch. 1991. *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge and London: MIT Press.
- Voparil, Chris. 2022. *Richard Rorty and the Classical Pragmatists*. New York: Oxford University Press.
- Walle, Etienne van de. 1985. "Frank Lorimer, 1894–1985." *Population Index* 51 (4): 635–642.

