COGNITION, ACTIVITY, AND CONTENT: A.N. LEONTIEV AND THE ENACTIVE ORIGIN OF "IDEAL REFLECTIVE CONTENT"

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According to Leontiev's "activity approach," the external world is not something available to be "worked over" according to a subject's inner or "ideal" representations; at stake instead is the emergence of an "idealized" objective world that relates to a subject's activity both internally and externally construed. In keeping with a Marxian account of anthropogenesis, Leontiev links the emergence of "ideality" with social activity itself, incorporating it within the general movement between the poles of 'inner' cognition and 'external' action. In this manner, Leontiev both parallels and goes beyond Hutto and Myin's recent "enactivist" account of "content-involving" cognition, where representational thought depends on socio-cultural scaffolding and, as such, is uniquely human. What traditionally comes to be called representational content is for Leontiev the result of the transition from a primitive cognitive apparatus of "imageconsciousness" to a one which is mediated by social activity. For the being endowed with "activity-consciousness," mental content is something apprehended by assimilating "the objective world in its ideal form" [Leontiev, 1977, p. 189]. And the precondition for such assimilation is the apprehension of meanings from their origin in the social-material system of activity. The genesis of content-involving cognition is thus coeval with the development of socializing activity systems, replete with the external representations of values and norms as described in enactivist literature as publicly scaffolded symbol systems. Leontiev thus offers an anti-internalist account of cognition commensurate with Hutto and Myin but with the added dimension of a developmental scale of analysis with which to explain the origin of human-specific cognition.

Keywords: A.N. Leontiev, Marx, activity theory, cognition, enactivism, mental content

Познание, деятельность и содержание: а.н. леонтьев и энактивистские истоки «идеального рефлексивного содержания»

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Согласно «деятельностному подходу»Леонтьева, внешний мир не является чем-то, над чем можно «поработать» в соответствии с внутренними, или «идеальными», представлениями субъекта. Речь идет, напротив, о появлении «идеализированного» объективного мира, относящего к деятельности субъекта, которая конструируется как во внутреннем, так и во внешнем мире. В соответствии с марксовым подходом к антропогенезу, Леонтьев связывает появление «идеальности» с социальной деятельностью, фиксируя ее между полюсами «внутреннего» познания и «внешних» действий. Таким образом, позиция Леонтьева и согласуется, и выходит за рамки

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современного «энактивистского» подхода Хютто и Мина о «содержательном» познании, где репрезентативное мышление зависит от социокультурного основания и, как таковое. оказывается исключительно человеческим. То, что традиционно называют репрезентативным содержанием, для Леонтьева является результатом перехода от примитивной когнитивной пары «образ-сознание» к понятийному аппарату, соотносящемуся с общественной деятельностью. Для существа, наделенного «деятельностным сознанием», ментальное содержание - это то, что воспринимается путем ассимиляции «объективного мира в его идеальной форме». И предпосылкой такой ассимиляции является понимание укорененности смыслов в социально-материальной системе деятельности. Таким образом, генезис «содержательного» познания соотнесен с развитием систем социализирующей деятельности, выражающих ценности и нормы внешним образом. В энактивистской литературе они описаны как «публичнные системы символов». Таким образом, Леонтьев предлагает анти-интерналистский подход к познанию, который созвучен с подходом Хютто и Мина. Однако подход Леонтьев также дает возможность анализировать познание в развитии, объясняя таким образом происхождение специфически человеческого познания.

Ключевые слова: Леонтьев, Маркс, теория деятельности, познание, энактивизм, ментальное содержание

1. Leontiev and enactivism

A.N. Leontiev (1903–1979), formalizer of the 'activity approach' in Vygotskian psychology, aimed to explain the origin of human consciousness in terms of the practical-material activity of the socialized individual. As such, Leontiev comes to an understanding of the "ideal" as a specifically human form of meaningful mental reflection that, above all, is already immanent in social-practical activity. For Leontiev, Vygotsky's insight that the origin of higher mental functions is the result of interiorizing processes where the "equipped ('instrumented') structure of human activity and its incorporation into the system of interrelationships with other people" implies that such mental functions "assume a structure that has as its obligatory link socially-historically formed means and methods" [Leontiev, 2009b, p. 95]. Attached to this claim is the further proposition that in such interiorization "simultaneously there takes place a change in the very form of the psychological reflection of reality: Consciousness appears as a reflection by the subject of reality, his own activity, and himself" [ibid.]. By Leontiev's account, such conscious reflection is a specifically human phenomenon that is initiated in activity and which remains in activity as its immanent ideal product¹. The origin of human reflective content

Leontiev utilizes a notion of "ideality" not unlike E.V. Ilyenkov (and vice versa) in his analysis of human consciousness [Ilyenkov, 2014]. Both take from Marx the idea that consciousness is not simply a representational process that conditions reality "ob-



is found in activity, where it never transcends its material basis insofar as its continued ontological maintenance remains grounded in the social-practical engagement of the subject in her world. Thus, when taken in its specifically (human) psychological sense, activity refers not simply to "brain-processes", but to social activity as refracted through the individual, both internally and externally. Thus understood, the *ideal* is taken to be the orienting property of the social-objective world as interpreted and acted upon in the individual's thoughts and actions.

Such a conception of the origin and status of "ideal reflective content" has much in common with Hutto and Myin's recent work in the enactivist program of philosophical psychology [2017]. Drawing from phenomenology, dynamic systems theory, ecological psychology, and other approaches challenging the internalist and representational models of classic cognitive science, enactivism holds that cognition is a dynamic enterprise, directed towards action and responding to environmental and social affordances [Gallagher, 2017; see also Noë, 2004; Thompson, 2007; Hutto & Myin, 2013 & 2017]. Hutto and Myin specifically find suspect the idea that cognition is somehow always representational, e.g., that it involves "content" with subsequent "correctness conditions" (whether consisting in the "truth value" of a given proposition content or more basic, perceptually construed, conditions of satisfaction) [Hutto & Mvin, 2017, p. 10]. For instance, they argue that cognition "is always interactive and dynamic in character" and that "[c]ontent-involving cognition need not... be grounded in cognitive processes that involve the manipulation of contentful tokens" [2017, p. 135]. While they admit that human cognition can be content-involving, they argue that such is of a special kind not found elsewhere in nature. Furthermore, they claim that "contentless minds might become content-involving through processes of sociocultural scaffolding" [2017, p. 128]. As for the details of how such contentful processes originate, the authors gesture towards a scenario of cognitive bootstrapping, where sociocultural norms entrench themselves such that there come to be forms of "claim making practices" where cognitive agents can "get things wrong" (or right) "in a truly representational sense" [2017, p. 145]. However, besides alluding to language itself as the original cognitive scaffolding responsible for such a genesis, Hutto and Myin are particularly silent regarding its developmental details [2017, p. 146]. I claim that Leontiev not only parallels, avant la letter, such an account insofar as reflective content is for him a socially evolved mode of action irreducible to "inner" subjective states. In addition, I show that enactivists such as Hutto and Myin stand

jectively" for the subject-perceiver but is rather a product of the social and material-technical world, i.e., a world of already idealized or "transformed forms" [verwandelte Formen] [see Levant & Ottinen, 2014, p. 88; for a contrary reading see Ottinen & Maidansky, 2015, p. 5].



to learn from Leontiev insofar as he offers a "genetic" [генетический] understanding of how such scaffolding originates and how such cultural forms are reflected within cognitive development to begin with.

2. World, mind, activity

Leontiev sides with Marx and Engels in their critique of Feuerbach's claim that "it is not only 'external' things that are objects of the senses" but that "[m]an, too, is given to himself through the senses; only as a sensuous object is he an object for himself" [Feuerbach, 2012, p. 231]. Marx and Engels' well-known response insists that Feuerbach's picture misses the fact that the human is a historical creature and hence the product of the activity of generations of individuals [Marx & Engels, 1978, p. 170– 171]. Leontiev agrees, adding that "Feuerbach's mistake was in regarding even man as a passive thing, as a 'sense object,' and not as 'sentient activity,' not subjectively" [Leontiev, 2009a, p. 27]. For Leontiev, then, both the subjective and objective are rendered meaningful and given their content through activity as the general and generative interchange between the mind and world. Here we can adopt two perspectives. From the world-to-mind perspective, it is a mistake to construe the "interior image" as one which simply mirrors external "reality". What for the Cartesian is a static representation, or for the reflexologist is a subjective response to an external stimulus, is for Leontiev never a matter of passive correspondence. Perception is always an active process, a subcomponent of environmental activity dealing with the given object of sensible interaction. From the *mind-to-world* perspective on the other hand, Leontiev counters the traditional hylomorphist who conceives production as the process where an inner mental image is externalized [entäußerten] into a product (the *in-formed* artifact), arguing that "the product records, perpetuates not the image but the activity, the objective content which it objectively carries within itself" [2009a, p. 404]. The objectively realized product is one which preserves not simply the preconceived, subjective image, but rather realizes ideality itself. That is, it indexes the field of relations which generate the possibility of socially meaningful activity and engagement with the world in the first place.

According to Leontiev, what to traditional philosophers reveals itself as an immutable split between the individual's inner, subjective, mental life and his outer, objective, material life is based on a historical contingency. Such a split, he argues, initially appears during the transition to a labor-based society and as such is a historical feature of the development of consciousness: "Historically the need for such a 'presentation' of the mental image to the subject arises only during the transition from the adap-



tive activity of animals to the productive, labour activity that is peculiar to man" [Leontiev, 2009a, p. 402]. The inner activity of the subject, the inner processes of reflection which appear so distinct as to form their own ideal sphere, is for Leontiev the result of historical development in itself, insofar as labor is the phylogenetic catalyst that generates the historical contentful world as such. When looked at developmentally, i.e., in its "historical manifestation," what come to appear as subjective (ideal) images are the result of the transition from a more primitive apparatus of reflection in which the subject is immediately tied to its external activity in the world, to one which is mediated socially. Thus, Leontiev takes the particularly human form of reflective processes as dealing with the objective world as a social world, one that is itself the product of historical and cultural development. Moreover, he maintains that the "reflected images" of perception (traditionally tokened as representations) are dialectical phenomena, maintaining an existence "inseparable from the subject's activity" [Leontiev, 2009b, p. 76]. Such phenomena are not simply "copies" of the objective world but are rather potential sources of orientation in the world, where the subjective image is objectively realized "as it becomes apparent to the person in one system or another of objective connections" [Leontiev 2009b, p. 76].

3. Content, reflection, and "objectivation"

In Leontiev's account of the origin of human mental experience, there are some notable ambiguities regarding the status and sense of reflected images as representations. While he often discusses both human and nonhuman animal mentality, his vocabulary of "reflection" (and "reflected image", "sensuous image", etc.) does not necessarily imply a difference in kind between the two. It is unclear, then, whether he always means "content-involving" representations or something else. To put the question more clearly, it is ambiguous as to whether the reflected mental image 'represents' in the sense that it 'stands in for' something (as either referring or substituting) or whether it instead simply relates the subject to the world in a meaningful way. Both senses of represent as referring or substituting have been utilized in the post-Brentano tradition of philosophical psychology, the first indicating either a symbolic/informational type of referring element, the latter some sort of intentional content that appears as an intermediary between as an intermediary between subject and objectcontent as "mental model," so to speak [Roy, 2015]. Leontiev's allegiance to the Leninist vocabulary of reflection obscures the fact that he may instead have in mind a more basic intentional relation than entailed in either of these two senses of "represent", yet one that nonetheless constitutes a meaningful relationship to the world. In other words, Leontiev might



understand reflection to be a process of what Jean-Michel Roy terms "objectivation", holding that "the distinctive character of mental states is that they make a world of objects, as opposed to a world of things, emerge and, consequently, make the subject/object opposition possible" [Roy, 2015, p. 96]. If this is so, then despite his *prima facie* representationalist terminology, Leontiev provides an account that, like recent enactivist attempts, conceives cognition to be a materially externalized and socially distributed phenomenon in which "content" is only obtained due to process of socio-cultural intervention. But further explanation is required.

As Roy explains, there are two common interpretations regarding the nature of representations as "standing in for" in the post-Brentano literature. The first deals with the immanent realization of a referring mental property within the neuronal system itself, where it

Explicitly assimilates a mental representation to a mental symbol M occurring in the cognitive system and standing in two causal relations one with the rest of the system and corresponding at a certain level with the relation of apprehension, and one of aboutness with an element in the environment and corresponding to the substitution and reference relation. In a natural cognitive system, this mental symbol M is realized or implemented by some neuronal firing pattern, or even some specific neuronal configuration... [Roy, 2015, p. 104].

While Roy identifies Jerry Fodor as typifying such a view, we can take Leontiev's contemporary, D. I. Dubrovsky, as saying much the same thing that the ideal image supervenes on an informational pattern realized in a specific neuronal configuration, existing in a causal relation between that configuration and the external object of reflection [Dubrovsky, 1983]. For both Fodor and Dubrovsky, the represented element is literally re-presented, informationally re-constituted for the subject in experience and functioning "as an *information provider* about *something other than itself* that constitutes both its referent and its satisfier" [Roy, 2015, p. 99]. However, Roy identifies another typical construal of representation in which the represented element is some intermediary element between the subject and the object, where representation is a sort of "duplication... that we elaborate when imagining... and not the material structure" [ibid., p. 104] of the represented item. This second sense of representation Roy traces to the classical position of Alexius Meinong, where it assumes a content that stands in between the subject and the object, "with content playing the role of what substitutes and refers to an object" [ibid., p. 105]. According to Roy, contemporary critical accounts of cognitivism (e.g., Brooks, 1991; Noë, 2004) have this "stand-in" model in mind when they speak of internal subjective models as reproductions of the objective world [ibid.].

Leontiev's "reflected image" does not seem to fit either of the two senses of "representation" discussed above. While the official "Diamat" position regarding the status of "representation" is under-developed enough



so that both the versions of the "stand-in" model might be applicable to it in theory, it is clear that Leontiev diverges from such possible usage [Stalin, 1941, p. 12, though see Bakhurst, 1991, p. 120]². With respect to the *first* sense, it is Dubrovsky, not Leontiev, who fits the bill. Their divergence is more marked when we consider that Dubrovsky takes the activity approach to err in considering ideality as anything other than an informationally "referring" representational states [Dubrovsky, 1988, p. 49]. Leontiey, on the other hand, clearly regarded "informational" approaches with suspicion. Despite their novel terminology, they still do not escape the internalism characteristic of so many traditional accounts of mind [Leontiev, 2009b, p. 83]. The second sense of representation, in which intermediary content "models" the objective world, is also incoherent for Leontiev. The main problem with conceptualizing reflection in terms of modeled content, Leontiev argues, "is not whether one can approach the psychological image as a model, but whether this approach encompasses its essential specific features, its nature" [2009b, p. 64]. As such,

"a connection of the image with what is reflected is not a connection of two objects (systems, multitudes) in mutual similar relations one to another – their relationship reproduces a polarization of any living process at one pole of which stands the active ('partial') subject, and at the other, the object 'indifferent' to the subject. It is this feature of relation of the subjective image to reflected reality that is not included in the relationship 'model-modeled.' The latter relationship has the property of symmetry, and accordingly the terms model and modeled have relative senses.... The psychic image is the product of living, practical ties and relations of the subject with the object world; these are incomparably richer than any model relationship" [2009b, p. 65; emphasis added].

For Leontiev, the intermediary content model fails to take into account the role of practical activity in the generation of the objective world and its consequently reflected content. Thus, it *does* seem that the reflected image can be considered to be part of the process of "objectivation" insofar as it specifies or determines something as an object of some significance.

Object-specification, according to Leontiev, is something achieved in greater and greater completion over the evolutionary development of animal cognition. In the most primitive phylogenetic stage of the development of the "sensory psyche," the reflection of reality consists of affective indices of objective properties. However, such reflection is "secondary and derivative" insofar as the animal's active relationship with its environment is one of a sensuous immediacy (in which case the *sense* of the object is undifferentiated from its sensible qualities of affection) [2009a, p. 141].

[&]quot;Diamat" refers to the official Soviet doctrine of Dialectical Materialism, sourced in Marx, Engels, Plekhanov, and Lenin, and formalized by Stalin in his 1938 *Dialectical* and Historical Materialism. See also Rockmore, this volume.

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Here, the object or 'thing' as such is still not apprehended: "animals' activity is governed in fact by an influence already coming from separate *things* (food, a barrier), while the reflection of reality remains a reflection in them of the aggregate of its different *properties*" [2009a, p. 148]. At a higher stage of development, a transition occurs in which the object itself comes to be specified in reflection; in such cases a more intricate relationship emerges in the *content* of the organism's activity. The greater contextual and environmental conditions in which the object presents itself are now an issue for the organism, where "the content is no longer associated with what excites the activity as a whole but responds to the special influences that invoke it" [2009a, p. 155]. In other words, the influences of the activity at large and the specific objects that form part of more complex activity systems are no longer merged—activity becomes differentiated and operationalized.

Leontiev illustrates this with an example of fish reaching food around a barrier. The content of the fish's activity in this case (roundabout movements) is still retained after the barrier was removed. Mammals, when faced with the same task, retain no such content. He explains that

This means that the influence to which the animals' activity is directed no longer merges with influences from the barrier in them, but both operate separately from one another for them. The direction and end result of the activity depends on the former, while the way it is done... depends on the latter [2009a, p. 155].

Such a differentiation in activity Leontiev terms an "operation." Following the example above, the activity would be the attainment of food (which depends on the object) and the operation would be the roundabout movements (which depend on the barrier). For Leontiev, the emergence of subspecific operations in activity accounts for the transition from mere sensation to perception, insofar as the affecting properties of the external 'thing' now become classified as pertaining to either the object of activity itself or the mode of activity as it is operationalized. Here, then, "the surrounding reality is now reflected by the animal in the form of more or less separated images of separate things" [2009a, p. 155]. As Leontiev explains, the operationalization of activity coincides with the development of a perceptual apparatus which has "the capacity to reflect external, objective reality already in the form of a reflection of things rather than in the form of separate elementary sensations" [2009a, p. 154]. As such, we can understand Leontiev as articulating the phylogenetic preconditions for the emergence of intentional relations. Insofar as (a) the description of the movement from sensation to perception is one which describes the origination of the subject/object opposition in general, and (b) intentionality is a feature by which a subject becomes acquainted with the objective world, then Leontiev's account of the origin of perception is simultaneously an account of the origin of intentionality at large.



We can thus take Leontiev's account of the development of the perceptive apparatus as the development of an "objectivating" process in Roy's sense of the term, albeit with some amendments. To make sense of this as Roy articulates, we need to deflate the transition from "things to objects" to something that resembles Leontiev's transition from affective properties to things. For the enactivists who follow Roy. objectivation is a cognitive feature common to many animals who interact nonrepresentationally with features of their environment [Hutto & Myin, 2017, p. 115]. Reflected things, as opposed to objects, in this respect are not viewed as phylogenetic precursors to objects but are rather cast microgenetically as elements of the environment which do not for whatever reason afford a particular engagement. The generation of the object (as differentiated from the mere thing) depends on an attentional action-affordance – in short, an "adaptive responding" where the object discloses some aspect of significance for the organism in its environment and thus the thing is "made sense of" as an object [Hutto & Myin, 2017, p. 77]. However, Hutto and Myin are clear that objectivation is a mark of basic, non-representational, cognition. Content-involving cognition, in contrast, is only available to the human subject "The establishment and maintenance of sociocultural practices... are what accounts for both the initial and continued emergence of content-involving minds" [2017, p. 134]. Human minds, thus understood, are not fundamentally different from animal minds but rather function primarily and for the most part at the level of objectivation. There can be a further differentiation of the human mind as content-involving, but even that does not transform the fundamental animal nature of human mentality.

Leontiev does not provide a thing/object distinction – he uses the terms synonymously. Does this preclude the possibility that for Leontiev humans engage microgenetically in objectivating processes common to so many other forms of life? At issue is whether the emergence of human specific cognition marks the emergence of a qualitatively new kind of mentality. If human-specific objectivation is qualitatively unique, then the content of the microgenetic processes differentiating an object of activity from the merely occurrent thing would be radically different for human and non-human animals. Leontiev, however, follows Vygotsky's Marxian hypothesis that the progression from object-consciousness to ideal-consciousness does reflect a fundamental transformation of the mind [Vygotsky, 1997; Marx, 1992]. Much of animal life can engage objectively with the world – the animal perceptual apparatus is sophisticated enough to grant it "objectivating" intentionality, but only as it pertains to environmentally constrained activity. The difference between human and animal objectivating relations, then, lies in the respective content of the activity in question i. e., whether the content is manifest in social-cultural or only environmental activity. Consequently,



and contra the enactivists, Leontiev would need to differentiate the microgenetic processes constituting human and non-human animal intentional relations.

By Leontiev's account, the object of cognition for both the human and the non-human animal is that which affords practical engagement in activity. The specifics of this engagement determine the level of cognition at hand – object-consciousness for environmentally determined activity, idealconsciousness for socially determined activity. Still, what do we make of Leontiev when he repeatedly utilizes the representational vocabulary of "content" [содержание], particularly with reference to perceptual processes in the animal (human or otherwise)? As Hutto and Myin point out, the term "content" is used liberally by philosophers, sometimes meaning the (intentional) object of thought, or the phenomenal content of perception, or the content of some experience in general, with none of these uses referring to "content" as semantic content, i. e. as proffering conditions of satisfaction and/or truth conditions for a particular cognitive state [2017, p. 11]. Leontiev, too, seems to waver between such uses. The question remains whether he ever employs the latter semantic sense when speaking about non-human animal cognition. If so, then his account would be grossly inconsistent with the enactivist program which holds content-involving cognition to be a special case of cognition available to human minds only.

Initially, Leontiev's analysis of the "sensory fabric of consciousness," complicates our reading. There he uses "content" not to describe semantic representations but instead what we could refer to as non-conceptual phenomenal content. Yet curiously, he differentiates the experience of the human from that of the animal at the phenomenal sensory level. While the reflected images of object-consciousness may indeed be said to contain a sensory content, Leontiev claims that such content under normal conditions is never that which is apprehended in objective experience. Apprehended is the not the *image* but the *world* itself [Leontiev, 2009b, p. 122]. In pathological cases of perception or in experimental cases induced in an artificial setting, there can be a disjunct between the sensory content and the objective referent of a sensuous image – the phenomenal qualities of the representation itself are attended to primarily in such cases with a resultant "loss of the feeling of reality" [Leontiev, 2009b, p. 123]. For instance, in experiments where retinal images are inverted through the application of special eyeglass lenses, the content of reflection does not refer to any objective (external) content but rather remains at the level of immediate phenomenal awareness. Leontiev argues that in human subjects only, a process of perceptive adaptation obtains that consists not in "decoding" sensory information but rather in "a complex process of structuring the perceived objective content" over the course of active exploratory engagements [ibid., p. 125]. In experiments with apes, no such exploratory behavior was observed; rather, the subjects remained inactive. Leontiev



argues that these results show that the essence of human sensory images lies in objective activity – "they have their origin in processes of activity connecting the subject in a practical way with the external objective world" [Leontiev, 2009b, p. 125]. In other words, the content of a reflected image in terms of its phenomenal constitution is only secondary to its content relative to objective activity, and in nonpathological cases the sensory quality of the mental image is never apprehended as such.

Nonetheless, Leontiev does not mean to suggest that non-human animals lack an objective relation to the world and merely apprehend the phenomenal content of sensation to inferentially "decode it"

We must specially stress here that psychic reflection is by no means solely a 'purely subjective,' secondary phenomenon of no real significance in animals' life and in their struggle for existence; on the contrary... the psyche arises and evolves in animals precisely because they could not orient themselves otherwise in their environment [Leontiev, 2009a, p. 172].

In pathological and experimental cases the human is unique insofar as it alone can differentiate the purely phenomenal field of consciousness from given objective images. Presumably, this is due to the fact that the human subject remains immersed in the ideality of the socialized world under such conditions, redirecting its actions and operations according to the normative dictates of its social context. It still finds *meaning* in its activity despite the perceptual disjunct. The animal, whose activity is environmentally determined, lacks access to such a normative sphere and, as such, remains inactive under similar conditions.

4. Anthropogenesis, meaning, and idealization

It is clear that for Leontiev much if not all of animal life is able to relate to the world objectively insofar as "[s]ensory images represent a universal form of psychic reflection having its origin in the objective activity of the subject" [Leontiev, 2009b, p. 125]. Where human and non-human animals diverge is in the specifically social-semiotic nature of reflective content: "In man... sensory images assume a new quality, specifically, their signification. Meanings are the most important 'formers' of human consciousness" [ibid.]. While the animal may be said to have a *type* of semiotic engagement with the world, the meanings revealed by such reflection are still grounded on biological impulse and environmental determinations. As the enactivist would put it, the animal engages in rudimentary (though vital) "sensemaking" [Thompson, 2007]. Such activity is itself *meaningful* yet not cognized representationally, being "neither a feature of the environment nor something internal to the agent" [Hutto & Myin, 2017, p. 78]. Thus,



the semiotic content of the animal's experience should not be mistaken as semantic, content-involving cognition. Insofar as he holds that only the human can entertain socially reflected i. e., *idealized*, meanings of the type that have semantic content, Leontiev would agree.

Following Marx, Leontiev argues that the life-activity of the human as a sensing creature is always socially mediated – the social whole itself is the foundation of productive activity and that from which human consciousness is derived. As Marx writes, "the object of labor is therefore the objectification of the species-life of the human" [1992, p. 329]. Accepting and refining the dialectical-materialist account of the role of labor in the phylogenetic development of homo sapiens (see Engels, 1946 and Nesturkh, 1959), Leontiev explains that the physical preconditions for labor are accounted for evolutionarily by bipedalism and the development of manual dexterity. He goes on to highlight the necessary precondition of an evolved grouplife and a minimal capacity for joint-activity, which can obtain in certain primate groups³. However, he argues that even the most advanced apes who display an intricate social hierarchy with "correspondingly complex systems of intercourse" are nonetheless "limited to biological relations and are never governed by the objective material content of the animals' activity" [Leontiev, 2009a, p. 184]. Thus, group living and social hierarchies must be in place before labor as a collectively intentional enterprise can develop, but such social forms of life are not sufficient in themselves for such labor activities and their resultant forms of reflection to emerge.

In addition to the anatomical and joint-activity prerequisites, Leontiev adds a third which must be met before the for the appearance of labor, i.e., the existence of "developed forms of psychic reflection" [Leontiev, 2009a, p. 184]. However, here we encounter a paradox. The ability to engage ideally with the world is for Leontiev a hallmark of human consciousness. Such a capacity, moreover, seems to be the *result* of labor activity. But Leontiev now stipulates 'higher forms of reflection" as a precondition for labor. To have an already highly developed capacity for psychic reflection seems to be tantamount to already being human, but being human depends on labor-activity. The problem is dealt with, however, when we understand that for Leontiev the transition in forms of reflection always succeed a change in activity:

Such a conception of joint-activity need not amount to Tomasello's "joint-attentive" activity, a form of intentional awareness that prefigures a collaborative task and in which "two individuals engage with the intentional states of one another both jointly and recursively" [2014, p. 47]. Tomasello maintains that such "we intentionality" phylogenetically emerges most likely with *Homo heidelbergnsis* some 400,000 years ago, replacing the "parallel group activities (e.g., you and I are each chasing the monkey in parallel)" of the great apes [2014, p. 48]. Leontiev is not advocating that a collective intentional dynamic already obtains in the pre-hominid ape; rather, what he means by "joint-attention" (and sometimes "joint life") is simply the form of social engagement characteristic to animals that live in groups [Leontiev, 2009a, p. 184].



In responding to a change in the conditions of existence, animals' activity alters its structure, its 'anatomy' so to speak. That also creates a need for such a change in the organs and their functions which leads to the emergence of a higher form of psychic reflection. We can express this in brief as follows whatever the objective structure of an animal's activity, such will also be the form of its reflection of reality [Leontiev, 2009a, p. 172–173].

Thus, a certain base-line capacity for engaging in "objectivating" relations with the world must be achieved prior to the transformation to human-specific representation, which in its most developed form consists in the capacity for a subject to reflect the object as well as its relation to the object. Specifically human (ideal) reflection obtains after a shift in activity brought about by (1) the material necessity of objective life (the conditions that generate the need for labor as such in the lived environment) as well as (2) the appearance of the first two preconditions of socialized labor activity (bi-pedal anatomy and group habitation) as enumerated above, and also (3) the earlier forms of psychic reflection, namely, those of affective and objective reflection. The amalgam of all three of these moments constitute the foundation from which a human society based on labor may first appear.

Ideal, objective, reflection is thus always predicated on the social relations that precede it. With the appearance of labor activity, a specifically human form of consciousness emerges as a historically and culturally determined phenomenon:

[A]ctivity also becomes an object of consciousness; man becomes aware of the actions of other men and, through them, of his own actions... This is the precondition for the generation of internal actions and operations that take place in the mind, on the 'plane of consciousness'... Image-consciousness becomes also activity-consciousness [Leontiev, 1977, p. 190].

What was once merely the object-image in the content of reflection becomes the ideal-image of socialized activity, with the *significance* [значение] of the latter differing essentially from that of the former. For Leontiev, then, the mental image for the being endowed with 'activity-consciousness' is "from the very beginning 'related' to a reality that is external to the subject's brain... it is not projected into the external world but rather extracted, *scooped out* of it" [Leontiev, 1977, p. 189]. Such an extraction consists in the "assimilation of the objective world in its ideal form," originally taking place within the system of objective relations "in which the transition of the objective content of activity into its product takes place" [ibid.]. Importantly, however, such assimilation does not rely simply on the qualitative change of a material basis and its subsequent sensuous apprehension (i.e., *Vergegenständlichung* in the traditional

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Marxian sense); rather, a "transformation must take place that allows [the product] to emerge as something of which the subject is aware... in an ideal form" [ibid.]. The key effector of such a transformation, Leontiev argues, is language as "the product and means of communication of people taking part in production" [ibid.].

However, Leontiev is also sure to highlight that before achieving the refined, content-involving cognition that could only be possible in language, there is a more basic period in which meanings are engaged as *values*:

Sensuous images are a universal form of mental reflection generated by the objective activity of the subject. But in man sensuous images acquire a new quality, namely, their meaning or value. Values are thus the most important 'formative elements' of human consciousness [Leontiev, 1977, p. 192–193].

The semiotic character of non-human animal reflection, recall, related to objective activity as determined by the dialectic between biological impulse and environmental affordance. Not so for humans. Now, the reflected image is meaningfully determined in and by practical activity as something 'socially of value.' And values, as the original vehicles of meaning, do not originate in nor necessitate verbal deployment. Rather, they find their origin in the social system of activity:

[M]eanings refract the world in man's consciousness. The vehicle of meaning is language, but language is not the demiurge of meaning. Concealed behind linguistic meanings (values) are socially evolved modes of action (operations), in the process of which people change and cognize objective reality [Leontiev, 1977, p. 193].

For Leontiev then, linguistically embedded meanings are only a secondary manifestation of values as they are expressed and maintained in the social sphere of activity. From a phylogenetic perspective, prior to the development of the word, value-laden thinking arises from socialized practices in which object-oriented actions and operations transmit a reality already undergoing a process of idealization.

Recall that Hutto and Myin argue that content-involving cognition arises when there obtains a stabilization of claim-making practices which can be subject to social censure and to which the predicates "right" and "wrong" can be felicitously ascribed [2017, p. 145]. However, they defer to Andy Clark when describing the *mechanism* by which such qualitatively distinct cognition may be said to occur. According to Clark, "language itself as a cognition-enhancing animal-built structure... [is a] a kind of self-constructed cognitive niche" [2006, p. 370]. No doubt Leontiev would agree. However, he would hesitate to utilize such a model *full stop* to underwrite an account of the emergence of content-involving cognition. In centralizing the role of activity, Leontiev's point is not to deny the



importance of language for human consciousness but rather to emphasize the systems of social-material interaction responsible for the generation of meaning in the first place⁴.

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