IMAGE, VALUE AND BELIEF: ASSESSING MONEY THROUGH SIMONDON

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ABSTRACT

Regarding money, the theme of belief is usually formulated in terms of belief in money. The same is true of trust, as well the value of money. One should also raise the question of trust, belief and value through money, or given its presence. This suggestion is inspired by the philosophy of Gilbert Simondon, whose theory of psychic and collective individuation aims at overcoming the dichotomy between methodological individualism and a sociology of vast categories. Simondon's theory has three aspects that could inform the research on money. Firstly, the philosopher raises the question of how groups are constituted: they subsist by the same process that gives birth to individual personalities. A group is defined by the categories it mobilizes, and most importantly, that it produces while constituting itself. Secondly, Simondon underscores the inventive aspect of this emergence of groups, an invention analogous to technical invention, one that redraws the potentials at work in the collective: it can be those of the territory, of the bodies, or of the minds. This inventive character prolongs these potentials as structures, and this is what the collective is all about. Finally, Simondon develops a theory of the "image cycle" that can help us understand the continuity between this indefinite and infinite field of potentials, the typical categorization of groups, and the formation of images and objects (technical, sacred, aesthetic), which crystalize desires, beliefs and hopes of individuals as members of groups. These aspects clarify our wish to alter the way the questions regarding money are enounced, as well as that of the affects it mobilizes and informs. Since money manifests itself in its operation, as image or object, it can be considered to stem from the simondonian image cycle, giving sense to groups and mobilizing potentials, desires and beliefs. We explore and explicit the differences implied by this approach, underscoring Simondon's contributions to social thought. Money is a privileged object for the application of Simondon's thought, because of its plasticity, the vastness of the domains in which it operates, and the magnitude of forces it mobilizes.

KEYWORDS

Money, image, group, belief, value.

1. ON MONEY AND AFFECT

In all major theoretical traditions, the analysis of money is supported by claims that concern an affective investment or polarity. This underlying connexion to affect often remains implicit, but many authors have stressed the role of desire and faith in the foundation of money. Indeed, in referring to the value of money, evoking confidence or belief seems inescapable, ever since the first properly economic writings of Locke, Hume, Turgot, Quesnay, and Smith (Blanc and Desmedt, 2014), and probably beyond. This is true even of those traditions usually taken to be purely formal (i.e. mathematical): when they come to the point of theorizing money, ultimately they model affective behaviours, such as the aforementioned confidence and belief.

In the mainstream tradition, the value of money is linked to the confidence the public has in it, which is the confidence that the currency in question does indeed have value. In other words, it is the faith that this money will serve to obtain use value. Literally, for Adam Smith, coinage is a matter of "public confidence", and trust between merchants is indispensable for the upsurge of markets (Smith, 1978). This stems from the fact that in the model where money emerges from barter, multilateral exchange cannot be performed directly; one of the main reasons for this impossibility is that there is no way to establish a stable and lasting trust among tradespeople. One cannot believe a seller one does not know, unless with the mediation of a mechanism of trust.

Moreover, in this perspective, money has value not for what it can buy, but for what one is certain to be able to buy eventually. Therefore, belief in money is the belief in the extension of a certain state of affairs, so that the value of money is also a matter of social becoming, even for the most orthodox theories. This trait is even more salient in the theories of money as IOU (I owe you): here, money is the expression of a promise, by which the value one has at a given point corresponds to the value one will hold at the time of settlement.

The aforementioned approaches belong to what Orléan (2016) names "instrumental conception" of money. This hegemonic understanding of the concept is linked not only to neoclassical economics, but also to the Austrian school (Menger, 2009). Authors such as Menger and Von Mises have dedicated books and articles to the task of founding a reliable theory of commodity-money. It is a notion that sustains propositions such as the return to the gold standard – for which many self-declared libertarians advocate – and Hayek's (1990) model of a complete privatization of emissions. In both cases, the core argument resorts to the confidence in money, without which the private emitter would be expelled from the market.

In short, on the one hand, the property of being a scarce commodity is thought to make gold more trustworthy than the so-called "fiat" monies. The latter is dependent on trust (fides) not in the currency itself, but in the government that coins it. In other words, the faith in gold is the negative copy of the faith in the sovereignty of the emitter. On the other hand, the idea of "private money" rests on the argument that competition selects the agents (banks) that are capable of assuring the duration of their money's value, i.e. the agents that are trustworthy.

The thought for which the confidence in money stems from its capacity to perpetuate a certain purchase power, i.e. the value incarnated in commodities, is directly associated to an assessment of social phenomena focussed on individual behaviour, i.e. methodological individualism. The reason for this is that it is founded on a conception of social phenomena as bilateral interactions, where money functions as a cost-reducing instrument. In Hume's words, it is "the oil which renders the motion of the wheels more smooth and easy" (Hume, 1983).

Microeconomic models that derive money from trade, using conceptual tools like the "overlapping generations", reproduce the mechanism with which methodological individualism first faced this task. The younger generation accepts money instead of commodities from the older generation because it believes the next generation will do the same. This sort of belief corresponds to what Aglietta and Orléan (2002) name "methodic trust", i.e. a "mimetic behaviour according to which an individual accepts a currency because others do so" (p. 281). Nevertheless, it is also a belief directed to becoming, which recognizes in money a stabilizing power, beyond the general equivalent. Moreover, in Samuelson's (1958) terms, money is "social contrivance", a technical device for a specific goal.

Orléan (2016) opposes to this instrumental analysis an institutional analysis, envisaging in money the capacity to attach a social sense to value. Money "enunciates publicly what value is and makes it be desired" (p. 39). Thus it expresses "the objectivity of value": this power corresponds to what Aglietta and Orléan (1982, 2002) name "the sovereignty of money". Thus money stabilizes what were singular beliefs in certain values, by fitting them in a social

form of objectified value. Confidence plays a capital role in this approach, as Théret (2016) stresses. Besides methodical confidence, the French authors derive two other forms of confidence: hierarchical and ethical. Hierarchical confidence is linked "to the fact that money is warranted by a collective power that itself inspires confidence" (2002, p. 282). Ethical confidence designates an affection that is more widespread, so that a currency "has ethical confidence when its forms of emission, distribution and circulation seem to assure a society's reproduction respecting its values and norms" (idem).

The institutional approach to money reverses the problem as it was presented by the orthodoxy. Money no longer mediates affects that are directed to commodities, and which ultimately constitute their value. Instead, money determines the form of these affects. It manifests desire. It is the only concrete manifestation of a value that acquires the quality of being "market-like" (marchand). Yet money is still considered through the lens of market relations, so that these relations have logical precedence over it. The individuals under analysis are designated as "market individuals" (individus marchands), so money appears within a certain social configuration, where one finds a certain form of relation. Money is thus the institutional form that manifests the affects linked to this relation.

This point opens a path through which the investigation can be deepened. Can money be envisaged as more that the instrument that gives form to value, as it is manifested in market relations? Can it inform the market relation itself? And also, what is it that gives money the power to inform affect? By means of the institutional approach, it is possible to investigate the foundation of money not only in the social domain, but also in a wider investigation of the power to create forms. In other words, a problem of individuation. It is a philosophical question, spilling over from the usual domains of economic and social organization to reach the problem of how the status of "real" is constituted in these domains.

These questions also apply to the problem of community currencies, since the realization that money carries a sociogenic potential in general suggests the possibility that this potential can have a variety of manifestations. In this case, given the presence of a finance-dominated economy, the question is whether the process whereby money participates in the constitution and perpetuation of this economic configuration can be reproduced so as to participate in the generation of alternative configurations. If so, it is a matter of modulating affects towards a feeling or "sense of community" (McMillan and Chavis, 1986), by means of institutional monetary frameworks.

The theoretical framework underlying this article is that of Gilbert Simondon's philosophy. Simondon was a XXth Century French author who focused on invention, relations and operations. Through this perspective, the task is to think money and the social by means of an ontogenetic paradigm, rather than an ontological one. Instead of questioning the nature of money and market relations, one questions the operations that take place through money.

The following sections analyse Simondon's social thought, in particular regarding the role of groups as operators of belief and values. Simondon also developed important reflections on the concept of community, which are useful for the problem of community currencies. Subsequently, Simondon's theory of the "genetic cycle of the image" will be examined, so as to derive from it the operation of money. The conclusion deals with the question of monetary innovation, particularly regarding complementary currencies.

2. ON THE PSYCHOSOCIAL IN SIMONDON

Gilbert Simondon develops an ontogenetic philosophy of the social in order to avoid two symmetric pitfalls. He names the first "psychologism", which consists in beginning the reasoning with the individual, as an entity complete by itself. This is the case of theories founded on methodological individualism (among which one could name utilitarianism and rational choice). The second pitfall is "sociologism", which consists in a tendency to think in terms of great aggregates, such as classes or institutions, in the attempt to explain individual behaviour (Simondon, 2005, p. 296). Simondon seeks to think information before form, operation before structure; but it is crucial in his method to integrate form and structure afterwards.

In Simondon's philosophy of individuation, a living being is made up of a multiplicity of interactions with its own milieu, so that it subsists not as a solid entity, but as the set of operations perpetuating these interactions. To live is thus to entertain a continual relation between physical energies as such and these same energies as they operate the continuation of life. Psychic and social existence are a particular form of life, consisting in general terms in the

perpetuation of relations among the aforementioned energies (as physical and as living), but also the forms of interaction and flow of energy associated to mental activity and social life.

This epistemologic orientation is crucial for the shift from ontology to ontogenesis: it goes beyond the emphasis on processes, focussing instead on the particular kind of process that makes forms emerge, thus binding the problem of process and the problem of form by means of a genetic methodⁱ. For problems of social, psychic, political, economic etc. import, in Bardin's (2015, p. 221) words, Simondon tries to "grasp the process of collective individuation that is hidden by its own structural effects": that is, addressing the ontology of the (psycho)social in order to discover the underlying ontogenesis.

The psychic and the social do not constitute two separate kinds of operations, but two perspectives over affects, emotions, meanings, symbols. The psychic cannot be seized in isolation. It is formed through capacities like perception, action, affect and emotion. The distinctive trait of the psyche is that the living being must take into account its own situation in the milieu. This milieu, which carries meanings originated in the living being, takes the form of a world for the individual. Through this relation with a world and with the collective, the living being engenders its own set of meanings as subject. The problem of the social in Simondon can be summarized as the question of how the living being's worlds are configured – worlds of subjects. It is also the question of how the subject is determined, inasmuch as it is a living being with a psyche. It is above all the determination of a relation, a system by which psychic and social, collective and individual, give sense and form to each other.

In his social thought, which he names "transindividual", Simondon wishes to "explain the systematic unity of interior (psychic) and exterior (collective) individuation" (Simondon, 2005, p. 29). It is not a question of simply describing the behaviour of agents in a social configuration (in an economy, for instance). It is also not a question of defining aggregates, institutions, which determine these individuals, as forms and essences, or their action. The social is foremost a field: its polarities change proportionally to the changes in its poles and forces. Simondon completes his claims against "sociologism" and "psychologism" thus (ibidem, p. 294):

Society does not really stem from the mutual presence of several individuals, but it is also not a substantial reality that should be superposed to individual beings and conceived independently from them: it is the operation and the condition of operation by which a mode of presence is created that is more complex than the presence of the individual being alone.

Simondon wishes to explain the processes by which a given configuration takes place, is transformed, defines the modes of actualization for institutions and behaviours. This is why Simondon's thought is compelling for the interrogation of money and, in particular, monetary invention. How can money operate in the determination of affective roles, in the constitution of a system with sellers and buyers (i.e. bodies engaged in these activities), creditors and debtors, banks, companies, salaries (i.e. institutional structures that perform these operations)? How can a change in techniques of creation and usage of monies change the relation between individuals and collective?

Let us examine three elements in Simondon's social thought: groups, belief and value. Simondon distinguishes two kinds of groups: in-groups and out-groups. They help to understand that the link between a group and society is not a relation of parts to a whole, but a way to circumscribe the moments through which social individuation takes place and develops. Unlike the sociologists who coined the terms (Bardin, 2015, p. 94), Simondon states that groups are not a matter of feelings of belonging, rivalry or aspiration. The "in-group" designates a mode of categorical determination for the link between subjects and a social exterior with no precise borders. The group supplies the individual with a category that informs the collective, simultaneously defining a normativity for this subject's behaviour. In sum, "the social consists in the mediation between the individual subject and the out-group by means of the in-group" (Simondon, 2005, p. 294), so that "the social operation lies in the limit between in-group and out-group, rather than that of individual and group" (idem).

It is thus a question of categories engendered through the structuring processes of the collective, i.e. categories as poles around which the acting forces within the collective develop. These forces are psychic, physic, collective, and this is how they acquire meaning for the collective and for the subjects. The individual is determined mostly by the categories that orient her behaviour, so that the in-groups where an individual can be spotted act as a kind of "social body" for her. Therefore, "the individual's own body is stretched to the limits of the in-group; as there is a bodily

scheme, there is also a social scheme, stretching the limits of the ego all the way to the border between in-group and out-group" (idem). Social reality operates through the production and affirmation of categories, but neither the categories, nor the social itself are substances. Categories are apparatuses for individuation and the social expresses the display of these apparatuses.

Therefore, according to Simondon, "for the individual, engagement in society directs her towards the fact of being this or that". In other words, (ibidem, p. 293):

The individual is given goals, roles to choose from; she must tend to these roles, types, images; she is guided by structures she strives to live up to, by adapting to them and achieving them; society presents to the individual being a network of states and roles through which individual conduct must pass.

This means that, when speaking of a social agent, or of an economic agent, what is being evoked are social schemes, social bodies, as in-group bodies. In the section about the image, we shall see that this creation of categories, including markets, depends on the operation of the image, particularly that of money.

What appears as a world existing substantially is merely a "series of mental and behavioural schemes already incorporated in a culture" (ibidem, p. 279). These schemes incite the individual to "order her particular problems according to a normativity already elaborated by other individuals" (idem). As a regulation of behaviours, this normativity is interesting for this investigation. How does it take place? Simondon distinguishes between norms and values. Norms are "internal lines of cohesion for each equilibrium", and values are "lines according to which the structures of a system are translated into structures of the following system". Thus, "values are that by which the norms of a system can become norms for another system". (ibidem, p. 331).

Norms are thus understood as the functional set of regulations that inform behaviour, but only in regard to a certain configuration of the collective. Values are "norms turned into information", i.e. the capacity to reformulate the structures between two systems of norms. Values express the fact that each state is transitory, in opposition to the substantial view of a given normativity as stable value. Nevertheless, the notion of value indicates that "something must last", that becoming is constitutive of being as much as stable structure. Norms orient action immediately, but action always evokes that which overcomes it, which lasts: values. Norms and values are therefore the two extreme terms of the ethical relation, in which the centre is the subjective gesture within a collective containing a normativity of behaviour.

The question of duration, the relation to a past and a future, is capital in the problem of money, as we have seen in the introduction. A value is a group category that lasts. The image of such a category is the image of a period of being, a lasting state: a reality one can believe in. It is the projection of a present promise, the testimony of a past promise, the trace of a credit or a debt. Simondon formulates thus this aspect of his thought (ibidem, p. 287):

The integration of the individual to the social takes place through the creation of a functional analogy between the operation that defines the individual presence and the operation that defines the social presence; the individual must find a social individuation that recovers her personal individuation; her link to the in-group and her link to the outgroup are both as the past and the future; the in-group is a source of virtuals, tensions, like the individual future; it is a reserve of presence because it precedes the individual in her encounter with the outside (...).

The categories that define a group determine the modes of behaviour and action for the concerned individuals. This is also the case for market behaviours. Once a category of "market" exists, there is a group of "sellers", a group of "buyers", and categories such as rich, poor, indebted, and so on. Once there are payments, there is the one who pays and the one who gets paid, or the one who must pay and the one who expects to be paid. There are laws to organize these payments, the means of payment, and the records. All these categories modulate the way the bodies define themselves as social individuals, i.e. as subjects. Also, potency reappears in this scheme as purchase power, investment power, budget constraints etc.

When naming the affective link that keeps alive the flow of potency between the group and the individuals, Simondon resorts to the notion of belief. "Belief, as a mode of belonging to a group, defines the expansion of personality towards the limits of the in-group; such a group can be characterized by the community of implicit and explicit beliefs within all members of the group" (ibidem, p. 286). Belief is thus an affective relation that guides the bodies'

potency, both individually and collectively, according to a categorical determination, the operative logic of a group. Belief does not refer to the categories themselves, but to the actions that can take place according to what these categories can determine. For Simondon (idem):

In the form of belief, belonging to an in-group is defined as a non-structured tendency, comparable to the future for the individual: it blends with the individual future, but also incorporates the individual's past, as the individual gives itself an origin in this in-group, real or mythical: it is from this group and for this group (...).

A given group's categories structure the relation to time for subjects and collectives. A group postulates a beginning and it can postulate its own eternity. A body, as subject, is multiplied in categories: "I am" such and such professional, "I am" of this nationality, "I belong" to this or that class or corporation. Such categorical claims cut a topological space in quarters and punctuate the collective's time. Yet they are always beliefs, ordering the agency and bodies within social schemes, directing the dynamics of potency, affect and action.

The question concerning categories also raises the problem of communities, which carries particular importance for the theme of social currencies. Simondon addresses the theme of community in his "Complementary Note" to the thesis on individuation (2005, pp. 503 et seq.). One should have in mind that Simondon writes in the wake of a strong distinction between the notions of community and society, stemming from Tönnies (2001). The distinction operates with "ideal-types", where "community" (Gemeinschaft) refers to the solidity and fixity of groups tied together by blood, tradition, hierarchy etc., and "society" (Gesellschaft) designates the loose bond between atomized individuals, dependent on the sheer force of contracts. Echoes of these ideal types appear in Durkheim's distinction between organic and mechanical solidarity (Durkheim, 2013) and Bergson's Les Deux Sources de la Morale et de la Religion, under the form of a "closed" morality, which stresses internal social cohesion through rigid obligation, and "open" morality, where the link between all humans is mediated by reason or the reference to a universal God. This is the territory where Simondon's analysis of communities dwells, and that he seeks to overcome.

In Simondon, this distinction of essence (types) is transformed into a distinction of drives or tendencies. Every configuration of collective life creates bonds under the form of in-groups, categories that ascribe a sense to action. The tendency to generate such groups expresses Simondon's notion of community: the indeterminateness and multiplicity of potential human activities is reduced, closed, into particular categories, channels for actions, i.e. communities of behaviour, belief, value. But at the same time, these categories can never completely exhaust these potentials, as they reflect the capacity to act of living beings in a collective context, where each individual's activity overlaps with that of the others and relates to dynamisms of the surrounding nature, technology, institutions etc. Every social configuration contains open potentials that can be grasped by invention and evolution, turned into new categories of social life, and engender new forms of communal activityⁱⁱ.

The central point is that the same invention that sets in motion the "societal" tendency also generates forms that deploy the communal tendency. In the development and history of any society, communities, in the sense of somewhat closed groups, emerge and dissolve according to the problems they were meant to solve and the potentials to which they gave meaning. As we shall see, the link between invention and community is crucial when one wishes to interrogate the role of social currencies in fostering ways of life set apart from the determinations of the hegemonic economy.

Thus the terms "belief" and "value" designate this process by which modes of behaviour are determined. Yet it is a mediated process. For Simondon, "There is belief only when a certain force or obstacle leads the individual to define and structure her belonging to the groups, under a form that can be expressed in intelligible terms" (ibidem, p. 291). But what is this form that can be expressed? It is language, is it institutional?

When it comes to Simondon, the reply must be searched in the process, instead of substances. Language, institutions (including money) etc. must be envisaged according to the operations they mobilize. Simondon usually thinks in terms of technique, i.e. a potency and a set of gestures that transform the relation between subject and world. The development of the ability to generate such gestures is studied in the "genetic cycle of the image".

3. OPERATIN THE CYCLE OF THE IMAGE

As a philosopher that stresses operations and pursues a genetic epistemology, it is unsurprising that Simondon refers to the image as "an activity", rejecting the tradition that envisages it as a content of consciousness, or as a representation in the sense of the result of the activity of representing. The image, as it emerges in consciousness, is for Simondon only an "extreme case" linked to a "continual thread" (Simondon, 2008, p. 4). What is this thread? For the subject, the activity of the image consists in "generating signs that serve to anticipate, then receive, and finally keep and 'recycle' in action the incident signals received from the milieu", which is "an endogenous gesture, both in the presence of the object (perception) and before experience, as anticipation, or after, as symbol-recollection" (idem).

An image is thus, as a general definition, the first stable form, but also a resonating form, that assures the link between the living being's individuation and its milieu, as well as the subject to its world. Strictly speaking, Simondon uses the term "image" for the establishment of the link itself, which perpetuates through the image as usually understood, "extreme case" of the "continual thread". Thus the different objects falling into the category of image, as symbols, perceptions, figures of thought and discourse, are thus the product of the activity of the image, or imagination.

The "genetic cycle of the image" describes this activity of imagination, traversing the living body biologically understood, as well as the psychosocial being, and reaching the fields of technics, aesthetics and religions. For Simondon, the image plays a capital role in the constitution of objects, inasmuch as they possess meaning for the collective. This claim opens the possibility of applying this philosophy to fields and objects that the philosopher himself never explored, such as laws... or money.

According to Alloa (2015, p. 357), the course on imagination provides "an answer to a theoretical problem that traverses Simondon's entire ontology of individuation (...): how is the link between the individual and its surroundings articulated?" For Alloa, Simondon's social theses cannot be understood without recourse to the mediation of the image cycle, as the image designates the establishment of a central knot, an axis of signification, for the polarized sets in which the living being is implicated. For Simondon, the image is a "relatively independent subset within the living being as subject" (Simondon, 2008, p. 3), which begins with a "bundle of motor tendencies" that anticipate the encounter with the objects of the external world, and as the living being interacts with the milieu, becomes a "reception system for incident signals" that allows the perceptual-motor activities to "take place in a progressive mode" (idem).

In the final stages, "as the subject is once again separated from the object, the image, enriched by cognitive inputs and integrating the affective-emotive resonance of experience, becomes symbol" (idem). The relative independence of the image is itself a genetic process. The body discovers that certain ways of interaction are capable of resonance with the milieu (beginning with the motor tendencies), and these gradually achieve a capacity to inform future activities. Thus the symbol, detached from particular subjects, is "enriched by cognitive inputs": a part of each subject's activities and life spread throughout the social configuration, communicating with the categories of collective life.

The symbol-images ultimately become capable of modifying other images, i.e., images fit in with each other, resonate together, establish relations, in an authentic system of images. They become a universe of their own, as an exteriority that seems absolute in the eyes of the individual subjects. They see the images as abstract, but capable of informing behaviour, giving them meaning, both from the point of view of individual psyche and that of groups. Images, in the stage of symbols, can produce networks of signification, to the point of recovering the relation between collectives and territories, unfolding their world.

The image cycle describes a process that lies at the heart of Simondon's psychosocial reasoning. Images constitute personalities inasmuch as they are categories that define in-groups. The first stages, "motor images" and "perceptive images", describe only the body's capacity to respond to problems originated in the milieu. But the stages of "memory image" (image-souvenir) and "symbol image", as well as the image that becomes an object, relate to a desiring being, a subjective one, who is aware of the problems surrounding her and her situation. It is a subject,

with a world that is a "universe of images", of signification, and open to the possibility of invention. The psychosocial subject, individual or collective, is the being that operates with symbols, images that emerge from invention.

The symbol image also punctuates the living being's territory. Through the image, the living being attributes a potentially sacred sense to rivers, mountains, forests etc., thus establishing a network of meaning that orients its entire lived space. The construction of monuments and gathering squares, in cities, manifests the image of a social space, impregnated with meaning. Bodies and groups are thus marked, either by garment, hairstyle, emblems, distinctions, tattoos, or gender, class, social role markers. For both territories and bodies, it is a matter of determination for affective schemes, as they become concrete under the form of behaviour, gesture, action. It is desire, taking form with a collective meaning. The image articulates and polarizes, it is the central element in a triadic relation with subjects and the world.

Symbols are usually defined as a sign taking the place of another object. For Simondon, this is not precisely the case, as for him symbols are situated in the living being's opening to objects, with its bodily schemes and desire. The symbol image implies a world not only represented or perceived, but polarized, in which the subject relates to the field of objects by means of a tensioned relation: desire, interest, projections. Having become a symbol, the image "condensates a contradictory experience" (Simondon, 2008, p. 124) and presents itself "with the opacity of a true object" (idem).

Lastly, the symbol is such a developed form of imaginative activity that it can become independent of the subject. This is where invention plays a central role: technical objects, institutions, habits, procedures, are all ways by which symbol-images become part of the social reality by acting over the activity of individuals, inasmuch as they are living bodies (performing gestures) as members of communities and groups. Thus the categories that define groups are foremost images, partially independent of the consciousness of individuals, but acting upon them. In a passage of Imagination et Invention dedicated to invention through procedures (or "effective actions") and objects, Simondon writes (2008, p. 178):

Of the immense Roman Empire, a masterpiece of organization in several domains, what has reached us, and still acts, is what was created as an object: aqueducts, roads, bridges, homes. If all roads lead to Rome, it is because Ancient Romans invented the construction of roads as stable objects, concretizing the technique of communications, quick traveling, commerce, transportation, and formalizing all the extent of the image of a power seated in Rome, but that extracted its subsistence from the provinces, through the continual circulation of things and humans. This network of objects has outlasted the empire, because it overcame through invention the particular finality of each act, and incorporated nature.

In this passage, Simondon seems to forget other Roman inventions that outlasted the Empire, particularly in his own country, France: the codification of law, for example. Nevertheless, the passage shows a wide technical network constituted by physical objects relating to both the activity of images (imagination) and invention, giving form and meaning to human activities and values in such a way that both the political system and the economy of the Roman empire rely on it. The roads, stable objects that concretize the image of possible movements, perform an image of power, seated in Rome, as Simondon says.

But these are not all the images that make the Roman road system function, articulating commerce, transportation, subsistence in the provinces etc. Beside the aforementioned legal code, the fear instilled buy the Roman army, the hierarchies between Patricians and plebeians, one most count the denarii, the sestertii and all the means of payment and accounting of debts that constituted the Roman monetary system. Are they images as well?

4. IS MONEY AN IMAGE? WHAT KIND OF INDIVIDUATION WITH MONEY?

There are several reasons why it is worthwhile to approach the question of money from the angle of the image. As we have seen, both in the instrumental and the institutional approaches, money acts by mobilizing belief. Even if it is only a mediator, what it mediates are activities, both physical (as in the exchange of goods) and mental (as in the calculation of budgets). Money also carries the power to render permanent certain modes of affective engagement of bodies as subjects: values.

Ultimately, money can designate both an effectively "coined" object and the symbolic image of values in operation; and when one says "in circulation" it is most certainly an operation. Yet both the informed object and the symbol image result from the activity by which subjects, i.e. psychosocial living beings (bodies) polarize and apply meaning to their affective investment. Inasmuch as it is revealed in its operation, either as image or object, or institution (Hart, 1986), money can be grasped as originating and operating in the Simondonian cycle of the image, applying sense to groups and mobilizing potency, desire, belief. Money confers normativity to gestures, perpetuates values, applies roles, constrains to this or that action, constitutes a network of other images, weaved within reality, particularly in the form of "an economy", whether it is "embedded" or not in a wider social context (Polanyi, 1944).

Money plays a crucial role of "sociation" (Vergesellschaftung), in the vocabulary of Simmel (2009). It operates as a membrane that communicates, and also determines, what is social and what is not social in a given object, body or gesture. It operates in a manner analogous to signs such as emblems of social position or professional role: the body of a priest or military person is at every moment both the body of that role and a body singularly. By claiming that money mediatizes market connections, but also by claiming that it affirms values that constitute markets, what is affirmed is ultimately that money operates an in-group categorization. It affirms that a certain encounter in the collective plan takes place in a certain manner, i.e. according to a certain operative normativity. Indeed it can be a market relation, when money is envisaged as what one usually names a "means of exchange". But this may not be the only possible relation attached to the image of money.

The relation of payment, for instance, is not the same as the exchange relation, even if an exchange contains a payment. To render a service and pay for a service are not barter. It is a connection within the monetary relation, i.e. the activity of money as an image. To pay wages in exchange for labour and to work for a wage are not a simple exchange, as Marx demonstrates. To pay taxes with money, as Chartalists insist, is not the same as to pay them in specie, as the monetary payment contains the obligation to be inserted in a certain market relation, thus performing Smith's description of a society where each person "becomes in such measure a merchant". What is the measure? It is the one presupposed by money, and indeed the quote from Smith is found in the opening paragraph of his analysis of money (1977, Book I, chapter 4).

For the most part, this categorization is not simply a particular case among others. The normativity of money, in the sense of Simondon (how to attribute a price, how to perform a transfer and a payment etc.) mobilizes a sense of value that goes beyond any particular case of valuation of a good, even a commodity. Simmel's Philosophy of Money contains a famous statement according to which money is "a claim upon society" (Simmel, 2004, p. 221), meaning that the kind of confidence needed for using and accepting money surpasses by far the singular exchange where it is used, reaching out to a whole system of values pertaining to a society as it is structured.

Thus money absorbs the very sense of value in a given social configuration, becoming that which realizes "the possibility of all values", Simmel (2004, p. 221) states. Any such absorption is an operation that circulates among the individuals independently of them, but acting upon them, i.e. determining the concrete form and the normativity of their action. Ultimately, money becomes so pervasive and so abstract – i.e. an image that operates and carries value along such a wide variety of possible human activities –, that it becomes, in Blumenberg's interpretation, a metaphor to life itself. "Simmel wrote The Philosophy of Money and discovered everything in his theme that subsequently allowed him to talk about life" (Blumenberg, 2012, p. 251). Simmel, for Blumenberg, wanted to investigate value, and ended up investigating life – at least in the sense of the life one lives in a modern society and city.

The notion of value carried out through money is quite similar to Simondon's definition, that is, as the solidified normativity that can be transposed from a situation or moment to the next. According to Blumenberg (idem, p. 252), for Simmel, "under conditions of exchange, the reciprocity of the will in relation to objects offered up for exchange by the other necessarily implies a relationship of higher subjective value". Consequently, objective equivalences "may be postulated and institutionally fixed in the exchange, but these are no more important than the subjective non-equivalence of the objects exchanged" (idem).

This means that the notion of value is what Simondon would designate a transduction of subjective, personal relations of desire to objects, into a solidified notion that expands beyond the immediacy of each subjective desire into the realm of the social more widely, and that lasts in time. The "subjective desire" corresponds to the problem of

the norm in Simondon as it is the inclination of a psyche and a body, so that value, as generalized, transduced relation, implies the expansion of this inclination, i.e. of a way to act and behave in relation to the objects.

For Simmel, the passage from subjective (over-)valuation to objective value is performed through money, which carries within the "presumption of value" (idem). This description corresponds to the operation of the image in Simondon's sense, as it allows individuals to anticipate the encounter with the object and react to it. And since valuation is a feature of desire and desire can be directed to objects of nearly any other category, the level of abstraction achieved by money makes it a category for a wide-ranging set of activities, potentially all-encompassingⁱⁱ.

Is the notion of treasure the same, when it is composed of works of art, stashes of gold, palaces, and when it consists in a bank account, stocks, bonds etc.? The difference between these two forms of treasure goes beyond the question of liquidity, even if it does exist, as was stated by Marx ("absolutely social form of wealth ever ready for use") and Keynes (liquidity preference). As an accumulation of luxury goods, a treasure is not merely a matter of purchase or investment power. It is also a matter of prestige, of having an effect on the affective investment of others. In contemporary capitalist societies, in which wealth is mostly manifested in terms of money and its related institutions, such as bonds and stocks, this role is displaced towards what Veblen named "conspicuous consumption": the fact that wealth and power need to manifest themselves through emblems, the marking of territories with grandiose construction works, and luxury objects, as signs attached to the body.

Thus we encounter, relative to money, the same operation of inscription of sense in territories, communities and minds, that we had seen in Simondon's philosophy of the image, in relation to technical objects. Money informs relations between the collective and the territory through prices such as rent (a central theme for Ricardo and Marx); it informs the relations between classes through wages; it informs the relation to power through taxation and indebtedness. It does not carry the only possible attribution of sense, but it bends other senses in its own direction, being pervasive as it is.

Polanyi (2012) argues that there was no single object or image that fulfilled the different functions attributed to money, in so-called "primitive" societies (this is the designation Polanyi employs) or in ancient empires. Therefore, each activity currently associated with money belonged to a different field. Luxury objects that constituted treasures were not means of payment, signs of debt employed in foreign trade were not used in local markets, artisans were usually paid with coins, but not necessarily soldiers. If today, under the concept of money, one understands an instrument that acts as means of payment, measure of value and intermediate to commerce, this is the result of a series of transformations. Polanyi describes this evolutionary process as that by which a merchant and financial class consolidates its accession to power. The apex of the process occurs with the artificial transformation of money, land and labour into "fictitious commodities".

What is the transformation of an institution, or a symbol, if not the transformation of its capacity to give sense to activities within the collective, while responding to the unresolved potentials the collective faces? The historicity of money is the historicity of the social formations (Simmel's Vergesellschaftung) to which it pertains, and it is the historicity of the activity of conforming images and symbols (imagination) spread throughout a changing collective domain constituted of groups and communities, with their dynamisms of closure and opening, invention and solid-ification.

Ultimately, in a modern economy, what drives the transformation is the search for profit and rent; this is why Marx insists that the realization of capital can only be monetary. The metamorphoses of capital, for Marx, can only be properly understood as shifts in form around the polarized nucleus of money. In other words, the operation of capital takes place in an economic field whose categories have been redefined by money. Indeed money is not a fixed concept. The network of other images to which it attaches itself, including legislation, agreements between States and corporations globally, institutions such as banks and public treasuries, financial instruments such as derivatives, express an activity of desire and a polarity of the collective field in terms of categories, in-groups, links that take place as the image of money operates.

The activity that brings about such a network is inventive, in the sense that an arrangement that polarizes and directs the affective investment is an invention. Invention is the upper stage of the image cycle, the stage in which the liberated potentials are appropriated by the arrangement and reopen the cycle. Invention is an extension of

imagination, when subjects encounter an open problem, with potentials that defy the schemes already categorized by their images. It is also the opening of a collective towards new configurations, the creation of new group categories and new nodes of activity under the form of communities. In the context of an investigation of social monies, or monetary invention in general, this approach to images and groups provides the opening of several questions. What can be invented in the domain of money? What do we want to invent? What must be changed in the way we conceive of alternative monies in order to attain our chosen goals?

5. CONCLUSION: INVENTING MONIES, MONIES FOR INVENTION

Monetary invention is not a recent theme. It is linked to a desire to adapt money as we know it to an economic reality one wishes to change. On the one hand, as we have seen, surely modern money, which Polanyi named "all-purpose money", is the result of successive inventions that are well known, in particular after the creation of transferable debts in medieval fairs (Aglietta and Orléan, 1984) or the Bank of England (Ingham, 2004). On the other hand, and in another sense, it is the case of money pegged to labour time as imagined by the proudhonians, and which Marx criticized as being illusory: Proudhon never understood that money does not represent labour time, but realizes it in the polarized operation of capital. It is worthwhile to observe that this principle shares its reasoning to some extent with that of contemporary time banks, with the difference that the latter has no aspiration of becoming money. Quite the opposite: a system in which people exchange spare time for certain simple services organizes behaviour schemes that remain explicitly outside the determinations of the monetary system (Degens, 2013).

It is also the case of Gesell's (1958) stamped money, aimed at avoiding that someone hoards money. It is, one could say, an attempt to excise one of the functions gathered in money, according to Polanyi's description (store of value). It is also an attempt to construct an image of money that makes it more akin to commodities properly said, at least those that perish. It is thus an inventive effort to incorporate to the image of money the schemes of becoming to which the traded objects are already subjected. It is a somewhat mimetic idea, having the merit of understanding the distance created by money between the stability of its (postulated) value and the movement of bodies and objects in everyday life. Gesell might have been wrong to believe this distance could or should be suppressed, but he saw clearly that the effects of its existence might not be something devoutly to be wished.

Another case is that of the Wir circle in Switzerland or the C3 (Commercial Credit Circuit), which attempt to fill in the gaps in the commercial operation of money, either by temporarily replacing it with a scriptural form of money, or circulating credits between tradespeople in the intervals of payment corporations allow themselves (Lietaer, 2001). As for local monies, they introduce mechanisms that divert the flows of exchange in such a way that these flows circulate longer within a given region.

The last group of cases that should be evoked is that of digital initiatives like Bitcoin, Ethereum and others. This is a quite vast and ambitious attempt at monetary invention. These technologies seek to create an entirely automatic mechanism of administration of the monies, by which trust and faith are fixedly grounded on a technical device, which ultimately becomes the centre of social operations. Distributed ledger technologies aspire to alter the activity of producing images regarding money, and by extension, our entire conception of how money functions.

All these cases suggest that there are two general trends for monetary invention. Firstly, one that seeks a local, momentary or limited correction in the margins of the functioning of the hegemonic money form. Secondly, one that seeks to transform money entirely: to found a new economy or even a new politics through monetary invention. In the first case, there are time banks, Wir, C3, social monies such as Palma, the Brixton pound and others (Blanc, 2011). The second group contains Bitcoin, Proudhon's project, Gesell's stamped money, a return to the gold standard, and also Hayek's (1990) project of private currencies.

In the first group, it is a matter of steering the potentials that the general monetary system leaves open, in most cases only in order to complement this system. For the most part, these initiatives reclaim the notion of community much more intensely, usually according to Hiller's (1941) definition, i.e., a group with a territorial import. Many of these initiatives manifest the concern with local relations, as opposed to a feeling of subjection to an overwhelming global, corporate economy. This is the case with any circuit that defines itself as a LETS: local exchange trading

system. It is also the case of social banks, of which Brazil offers several examples: Palma, Mumbuca, Solano Trindade etc^{iv} .

One might question how these initiatives appear under the ontogenetic approach of the "communal tendency" in Simondon. On the one hand, they do come about thanks to an invention: that of a complementary currency and usually a bank to manage it. It also generates a form of identity and coordinated action typical of communities (and groups in general, especially given that contemporary communications technologies weaken the necessity of territorial ties). On the other hand, the kind of loose potentials they are addressing, under the form of a will to change something institutionally in the domain of a given society, are only transformative in a limited way. The Simondonian "community tendency" can be said to have the goal of inventing mechanisms for the perfection of the social configuration as stands, either by including those who are excluded or by countervailing forces of crisis.

The second group's ambition provides a relevant question regarding money as an image that effectively operates the creation of categories for defining in-groups. Can a voluntary, conscious invention of monies, in itself, operate a reconfiguration of the economic system? Can social currencies, stemming from the margins of the economic and political system, be the source of a wide transformation in the way these systems work? Can they polarize the categories that define in-groups and their behaviour differently? Should this indeed be an ambition for social currency projects?

These questions must be addressed as groundwork for a programme of research and action. Polanyi referred to the industrial age as the "age of the machine", and to laissez-faire as humankind's response to the machine. The arrival of the industrial age is a sudden moment in History where the capacity to concentrate and deploy energy grows rapidly. Laissez-faire and the market economy are the systems that arise in order to adapt to these new energies, i.e. these new potentials, norms and behaviours, these new somatic, social and technical schemes. This is the context of the triumph of money as a commodity, which is also all-purpose money, and that today we envisage as being money as such. If complementary currencies are complementary, what they complement is the money of the age of wildly deployed energies; this is also the money that other forms of monetary innovation hope to overcome.

Yet it seems that monetary invention is reaching the point where it will be up to the task of proposing other foundations, and even greater ambitions for alternative monies. We are no longer living in the time of industrial expansion; on the contrary, our time may be witnessing its ultimate limits. The market economy as such, with commodity and all-purpose money, can no longer give answers to the challenges of a time of climate change, inequality, financial capital, overproduction, not only of commodities, but above all of residues.

The ambition to redraw money entirely stemming from social currencies is a matter of invention of categories, in such a way that its "community tendency", rather than balancing the categories of the dominant social configuration, becomes instead an offshoot for designing new social configurations, corresponding to the challenges of the times. In this sense, the idea of "green" or "sustainable" currencies (Seyfang & Longhurst, 2013) and similar are a field to be developed. With a different design, the same concept of "money" that upheld the drive for degradation can become an underlying force of a drive for conservation.

The necessary capabilities are in place for the development of a self-managed economy, with local deliberation, and a corresponding monetary form. Values need to be redrawn, which means that the images must be thought differently, including that of money. The redefinition of values must be such that human gestures, as work and invention, are no longer subject to a monetary mechanism of gain, but can reconfigure the way promises of social categorization are deployed in the future. It is therefore a question of inserting monetary invention in the invention of life itself, within the image cycle, in order to account for what Polanyi named "the livelihood of man".

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ENDNOTES

i - Which he also names "allagmatic", the "correlative study of structures and operations" (Simondon, 2005, pp. 559 et seq).

ii - It should be noted that this use of the notions of community and group differs from the classical definition of Hiller (1941). The American sociologist defines groups according to the four categories of membership, admission, distinct norms, and the ascription of roles; and communities as a group with a fifth trait: territorial determination,

i.e. a habitat (that today can be a "virtual" territory). Nevertheless, Simondon preserves the importance of generating sense and the organizing activity as central to the concepts of group and community.

iii - At this point, one might suggest that what renders theories such as Gary Becker's applied microeconomics possible is this potential for generally pervasive categorization that money has.

iv - By initiative of the Palma bank, Brazilian social currency communities created a national community bank network: https://www.institutobancopalmas.org/rede-brasileira-de-bancos-comunitarios/.