

SVEUČILIŠTE U RIJECI
FILOZOFSKI FAKULTET U RIJECI

**A Populationist Approach to Qualitative Social Research:
Towards the Theory of Semiotic Stakeholding**

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DIPLOMSKI RAD

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"Back to the rough ground!"

Ludwig Wittgenstein

1. Introduction

1. 1. The Externalization of the Black Box

"One defining feature of traditional behaviorism is that it tried to free psychology from having to theorize about how animals and persons represent their environment. This was important, historically, because it seemed that behavior/environment connections are a lot clearer and more manageable experimentally than internal representations.

Unfortunately, for behaviorism, it's hard to imagine a more restrictive rule for psychology than one which prohibits hypotheses about representational storage and processing. Stephen Stich, for example, complains against Skinner that 'we now have an enormous collection of experimental data which, it would seem, simply cannot be made sense of unless we postulate something like' information processing mechanisms in the heads of organisms (1998, p. 649)."¹

The great methodological (and epistemological) simplicity of classical behaviorism has its limits, and they present themselves in circumventing the need to eventually pose the question: *What is in the black box?* This is primarily so because we seem to know something *is* in the black box, for black box appears to be generative of its output. Black box problem is present because we have no access to representation or any other mental activity but via behaviour (including accounts) and neurochemical events. And it appears that events within the black box have a strange connection to our social world – it appears our social world is a result of, among other things, the events in the black box. So the question for a social scientist is: what kind of a black box could have enabled the emergence of the social?

The social scientist might reply: "Well, my kind!" And she would to a

¹ Graham, "Behaviorism", Stanford Encyclopedia of Philosophy, accessed 15.1.2015.
<http://plato.stanford.edu/entries/behaviorism/>

certain point be correct in saying this – she really does own a black box of her own. However, this is a somewhat troubling answer, because not only does she lack access to significant parts of her black box, the little insight that she has is only into one black box. She can see other scientist having insights into many, for instance, balls falling off a table, and making science about it; and she must at this point realize that introspection is in a rather problematic way connected to empiricism, for it appears it is the multiplicity of events that create empiricism, and not sensual data on one event (in this case, the event that is her mind). However, luckily for her, being an agent entails having an interaction with the environment – and in particular, having an interaction with signs and their power to change the environment. Thus our social scientist has an experience of multiple agents manipulating signs, and an experience of herself manipulating signs, and she can try to devise the theory of the semiotic protocols that give rise to the social – and these will, in turn, inform her of the black box. (She also has experience of a sufficient body of literature to try to make sense of these events without, hopefully, falling into certain theoretical traps.) In order to do that, the researcher has to count herself as a thing among things of a kind that has *such* minds (where a *kind* stands for roughly: Wittgenstein's family resemblance, populations or any *such* prototype-based extension [as opposed to a margin-based extension]), namely semiotically-capable minds. The researcher therefore must be involved in the model, which in effect means the model has to be a social situation which is in some way representative of the research situation (which is its prototype). The model must, in effect, show how does the agent (a black box) *inquire*, and crucially *inquire*, but also how does it receive information, manipulate information, change information, and articulate information to the other agent as if the other is to receive it, for at least these subprocesses underlie the activity (behaviour) of inquiry (and as we will see, successful inquiry [fundamental epistemic practice] significantly improves the agent's possibility of

membership, renders the agent reflective and capable of manipulating its reasons and desires as well as the environment). The black box will therefore be devised as something that allows for the exchange between itself and other black boxes – its structure will, as much as possible, be *externalized into a protocol*.

It is, however, quite a nice coincidence that the problem of how should the researcher properly inquire has a long tradition within the branch of qualitative social research, which in effect lead to the establishment of large methodological fields as ethnomethodology (which took it for no bad reason to the area of sense-making procedures, where the researcher is to negotiate the findings with the researched), action research (which took it for no bad reason to the area of *actionable* accounts, where the researcher is the interventer, and therefore sticks around to see the consequences of her interpretation)² and has eventually somewhat vulgarized into notions of the researcher's "charm". Contemporary social science (where science stands for: dreaming of a capability of prediction and intervention-with-predicted-results into the matter it studies) for both of these reasons (that the model needs to incorporate practices of inquiry, and that practices of inquiry themselves are a longstanding problem of social science) needs assistance of social epistemology, which should claim to have privileged knowledge on the nature of human inquiry given its name. In order to do this, it should primarily focus on a descriptive theory of *real* epistemic practices – it should not ask 'how do we find *The Truth*?' but 'how do we institute truths?'

1. 2. Pragmatist Epistemology

However, we would not be decent nor serious (and especially neither

² And arguably even *discourse analysis*, if one is to observe it as for no bad reason trying to shortcut the question of researcher's involvement by referral to semiotic traffic as crucial evidence of the social, which could be seen as stretching the genealogical point of view a bit, but the body of work being established by discourse analysis seems of immense importance for certain ideas presented in this model.

decent nor serious epistemologists) if we were to claim an "innocent eye" of any thing *descriptive*. While "descriptive" should be a name for the set of procedures, they surely stem from a certain normativity. To explicate it, we could say that our view of the social science of epistemic practices is to view epistemology as a research into how does *relevant* (and eventually, *true*) content get conceptualized and transmitted among humans.

Social epistemology is an enterprise that should be taken, we believe, as a sister-discipline to sociology of knowledge, cognitive anthropology and picoeconomics³. As such, its normative epistemology is a pragmatist one, which would be to claim it begins with the institutionalization of *the experience of error*⁴ that shows two certainties upon which a scientific enterprise is built: first, that our beliefs are either true or false; and second, that we can never know in advance which of our beliefs will turn out to be false. *To be able to experience error is the prerequisite for the exercises of rationality*⁵: for rationality, we could tentatively posit, should be defined taking one step backward from the phronetic hierarchy of appropriate behaviours towards a desired world, in order to present it as the very capacity to form such a phronetic system – in other words, *to be rational is to be capable of changing your mind* (according to new evidence). This is the pragmatist general normative epistemology – it deflates truth (into non-trivial instrumentality), and delegates the epistemic responsibility to the capacity and capability of the agent itself. Each belief entails a set of normative commitments, and therefore a responsibility for *material consequences* of a

3 The term 'social epistemology' will thus be used to refer to a wider program than was initially proposed by Goldman in Goldman, *Knowledge in the Social World* (Oxford: Clarendon Press 1999). Namely social epistemology as understood in this thesis would fall into the family of social sciences interested in the way humans become social through epistemic practices. Roughly put, we would use 'social epistemology' as a name of the discipline that regards sociality as the end-result of epistemic practices, as opposed to the strain of classical epistemology that regards truth as the end-result of epistemic practices.

4 Brandom, "Knowing and Representing: The 2011 Munich Hegel Lectures", accessed 1.2.2015, <http://www.pitt.edu/~brandom/currentwork.html> It must be noted that the experience of error in judgement when we realize that the stick that appears bent when under water is actually straight has to do with the judgement that we can *do* with it what we can *do* with a straight stick, and we cannot do with it what we can do with the bent stick. This is *the normative commitment* that allows for the experience of error to institute knowledge.

5 In effect, to account for our normative commitments.

certain belief.⁶

Now, what does it mean to be an epistemological realist? It means that one claims that our epistemic practices embody the possibility of accessing reality. Reality is made of changes in the environment, and minds of our kind are capable of *tracking* those changes (material consequences of a certain belief) to their benefits. (Now, "benefit" appears to be a problematic notion for many because it leads them to imagine some ultimate goal of the inquiry we are talking about. However, there need not be such an ultimate goal, and for all purposes there is none, when talking about a benefit for the population. The act of inquiry is, first of all, beneficial apriori, because it is a design of tools for the population for environmental manipulation, and any such tool is better than none. Secondly, it is beneficial because it is structured empirically, which means it is a self-correcting enterprise, and thus is insistent upon upgrading tools once they prove to be incapable of handling the particular intrusions of the world.) While these changes in the environment may not have *the identity* the population has assigned to them, they are *real* changes in the *real* environment – the population uses them, via conceptualization, to its benefit, thus instituting Truth. This institution requires: a) a set of normative commitments one is capable of making when assigning identity – if x is A then x is B; and b) the general commitment to change our mind when the thesis on identity proves wrong, when the mind experiences an error in judgement.

So, there are *reasons to believe* we are capable of tracking the changes in the environment (without resorting to anti-naturalist and idealist notions of mind-mirroring-nature) – it is only that we have to create certain webs of conceptualizations to do so. These conceptualizations remain valid (*institutionalized*) as long as the *resistance* of the world to them is low. Once the world resists, they must be revised. This leads to the enterprise that posits that the claim A, the one we presently bet on, might be wrong, but we

⁶ Brandom, "Knowing and Representing: The 2011 Munich Hegel Lectures", accessed 1.2.2015, <http://www.pitt.edu/~brandom/currentwork.html>.

know that claim B, the one we used to bet on, *is* wrong. As Sellars puts it,

"One seems forced to choose between the picture of an elephant which rests on a tortoise (What supports the tortoise?) and the picture of the great Hegelian serpent of knowledge with its tail in its mouth (Where does it begin?). Neither will do. For empirical knowledge, like its sophisticated extension, science, is rational, not because it has a *foundation*, but because it is a self-correcting enterprise which can put *any* claim in jeopardy, though not *all* at once."⁷

But, most importantly, *pragmatism is naturalism*. The most succinct definition of the naturalistic programme in the social epistemology has been given by David Bloor, writing about the naturalistic programme of the sociology of knowledge, which again posits epistemic progress as organized by determinate negation⁸:

"Knowledge is a form of adaptation to the world and science is a form of collective adaptation. Scientific progress is real, but it can, and must, be understood as no more than adaptation, i.e. as a causal sequence of localized modifications prompted by shared goals and interests but with no 'ultimate' goal. Kuhn long ago pointed out the analogy with biological evolution. Biological evolution does not have a *telos*. The idea of progress that is relevant to science is of the same kind. It is always "progress - from" rather than "progress - to" – a move away from a problematic state of mal-adaptation, not a move toward an end-state of perfect adaptation. The analogy shows that progress can be real

7 Sellars, "Empiricism and the Philosophy of Mind", in *Science, Perception and Reality* (Atascadero: Ridgeview Publishing Company, 1963), 170.

8 As put quite concisely by Brandom (Brandom, "Knowing and Representing: The 2011 Munich Hegel Lectures", accessed 1.2.2015, <http://www.pitt.edu/~brandom/currentwork.html>): "The determinateness of a thought or state of affairs (predicate or property) is a matter of its modally robust *exclusion* of other thoughts or states of affairs, those it is materially incompatible with."

without being absolute."⁹

1.3. The Social, and the Theory of Semiotic Stakeholding

So, social epistemology aims at a descriptive theory of agentive epistemic practices and agentive epistemic capacities that allow for the social to emerge. But what precisely is "the social"? It is the occurrence of organization between organisms that could be classified as humans that gives rise to material artefacts (cultures) which significantly improve the survival perspectives for these organisms as well as their offspring. What cultures, in turn, show is that humans use signs to communicate: from language to traffic lights, from math to Grimes T-shirts. All these signs and sign systems enable the social to emerge – they enable the building of the houses, management of roads, organization of feeding, articulation of empathy, and so forth. So, for the theory of social to be derived, we need the theory of how does the agent become a sign user, and how does the sign-using lead to the social. And this theory cannot hinge on the phenomenological privilege, because it is unrenderable (we have no access into the black box, let alone black boxes), nor on conceptual (and semantic) determinism, because it is anti-naturalist (it posits reality as propositional). It must therefore be a theory of *public* manipulation of signs as the basis for the social. This is a methodological requirement, and this is primarily a methodological theory. It does not claim to be, in the strict sense, the truth of the social; it claims to be the best bet on how the social works, and the best bet must be informed in critical ways by ontological commitments we are ready to make. It is a gathering of many different theoretical influences into a model of what would be the best way to imagine the agent and its semiotic traffic if one is to do *qualitative social research* – and when doing social

⁹ Bloor, "Relativism and the Sociology of Scientific Knowledge", in *A Companion to Relativism*, ed. Hales, Steven D. (Chichester: Wiley-Blackwell, 2011), 449.

research, one is inevitably doing a qualitative one at some point, if nothing because agents have an account of reasons for doing what they are doing. It would be a deeply unscientific move to render the agents' accounts of reason void by the mere fantasy of higher motivational structure. A social scientist, surely, must insist in finding a bridge between what agents think they are doing and what are they not aware they are doing – however, a referral of the second part of this account to some biological determinism, absolute social pressure, or any other fundamentally *idealist* force will not suffice neither in its explanatory nor in its predictive capacity. This is in so many words a sketch of the task of exquisite difficulty that is the guiding of social science from what could be called its structural phase into its generative phase (another name on offer could be populationist phase, but maybe naming a whole phase after our model would be somewhat distasteful) – in other words, from the perspective of the 'society' as a system of habits and institutions to the perspective of the social as a creative act of agents restricted by the creative acts of other agents. The particular danger in this change of perspective is the erasure of the habits and institutions (and their historical and social constraints) from the image of the social. Both habits and institutions could be argued to be most relevant (even in the technical sense) social phenomena to the agents – this is why they work so hard to *generate* and *maintain* them – and the processes and reasons for this must be given by any viable social science. For while we might agree that "there is no such thing as a society" (as a given), there are certainly communities (as generated and maintained) and there is, more to the point, certainly *the social* (as the fundamental co-habitation practice of humans and, as its consequences, one of the founding aspects of the human). The atomistic programme, which would have posited the agent as non-historical, therefore would have posited it outside of its inherent epistemological "ground", which is, to put it bluntly, *other agents*, and as we shall see, particularly, *other agents of its kind*. Contemporary social science should not be merely agent-

based, but *real-agent-based* – and this is the enterprise we would like to contribute to.

The following thesis should be regarded as a kind of a methodological *primer* on *populationist* qualitative social research programme. *The function of the model is to posit a set of assumptions explicitly shared by the scientific community.* The model will be principally built by supplementing the (certain key aspects of) theory of Wilfrid Sellars by (certain key aspects of) relevance theory of Dan Sperber and Deirdre Wilson, and eventually by the contribution of the author in form of the theoretical figure of semiotic stakeholding, added in order to account for both the emergence of the community and the restrictions on the space of reasons by the social. This will all be drawn out through the ontology of populations. The model presented is largely unoriginal, and combines a variety of well-known theoretical figures into an image of the agent. The theoretical figure that could be said to be a novel tool in the present thesis is the figure of *semiotic stakeholding*, towards which the whole model builds. It is a methodological tool which, we believe will enable both a simpler and a more legitimate discussion and research into the social situations, and allow for the possibility of trans-situational judgements.

We will first present populations as an ontological form of both agents and signs in order to have a clear understanding of what is the absolute ontological commitment of our model. Then we will present the theory of agents and signs, starting from the general anatomy of agent (its most robust structure), and then telling the story of its development into an agent, and the rise of the social it allows for, that will account for communication, cognition, self and semiotic stakeholding. The last part will examine implications for social research.

2. Populations: The Ontological Commitment

The theory of evolution is one of the greatest achievements in human understanding of the natural world. If the theory of evolution can be very roughly stated as an account of non-teleological production of both ontical (individuals) and ontological (kinds) varieties, it marks the official inauguration of the idea that has been haunting the humanity for ages, but has never until then been the sole explanatory mechanism for such a large-scale field: that there is no blueprint in some other world for what takes ontologically and, even more to the point, ontically place in this one. Now, this idea might appear quite commonsensical to many, but it is such merely as a statement. It is much more difficult to understand it as a programme, because it is a very usual inclination among humans (and as we will try to show, something of a necessity for all agent behaviour) to actually deal with particular objects as instances of general terms. This is so for, at least, two reasons: firstly due to the nature of our language which uses general terms for particular objects and influences our conceptualizations (which is something that will be explained later on), and secondly because we must make approximations about the environment in order to manipulate it. The very establishment of these two constraints is marked by a strong approximation and generalization: it is a statement on human agents as if they share properties which make them susceptible to these constraints. This is very awkward, and this very awkwardness is something that will be dealt with through the notion of populations. So on one side we have agentic properties because of which the hard anti-essentialist programme is unsustainable – the very notion of agentic properties makes it unsustainable; and on the other side, any empirical glance will make the hard anti-essentialism of the world quite clear. Both of these things are facts, and neither of them are to be taken lightly if one is doing social science: *humans not only make but gather around representations of the world, and each human has a different representation*

of the world. The first step towards the resolution of this tension lies with the adoption of what Ernst Mayr named *the populationist thinking*:

“All organisms and organic phenomena are composed of unique features and can be described collectively only in statistical terms. Individuals, or any kind of organic entities, form populations of which we can determine only the arithmetic mean and the statistics of variation. Averages are merely statistical abstractions; *only the individuals of which populations are composed have reality.*”¹⁰

To understand it better, let us differentiate it from the typological thinking, its precise opposite:

"The ultimate conclusions of the population thinker and of the typologist are precisely the opposite. For the typologist, the type (*eidos*) is real and the variation an illusion, while for the populationist the type (average) is an abstraction and only the variation is real.”¹¹

Populations are a theoretical figure developed to handle the complexity of empirical reality, in which the natural world cannot be described as a copy of some more real yet super-natural order of things, but has to be understood in terms of particulars changing in the environment of particulars as well as changing the environment of particulars.

However, the scientific enterprise is constructed to meet the call to explain and predict, and in the case of social sciences, to explain and predict the certain behaviours of the certain agents. The hard anti-essentialist programme is equally non-scientific as is the essentialist, because it cannot go any further in trying to say something about the world than merely positing that everything is a particular. And yet, it does have a point – everything

¹⁰ Mayr, *Evolution and the Diversity of Life* (Cambridge: Harvard University Press 1997), 28, my italics

¹¹ Mayr, *Evolution and the Diversity of Life* (Cambridge: Harvard University Press 1997), 28

really is a particular.

The way out seems to rest in the practice of modelling. The researcher, so to speak, has to engineer the illusion which will enable her to speak of the world; and in doing this, she must at all times keep in mind that this is an illusion, and that there are aspects of the particulars that have been occluded by the choice of the specific illusion. Models can be many things in many different contexts, and are mostly tailored according to the needs of the specific scientific community which judges their worth by the ability to meet those needs. We will not list the needs that we see as having to be met in the community of the social science – they will become apparent with our choice of modelling points – but we will say that what any model for the qualitative research in social sciences has to account for are the agents and the strange ability of human beings to transform neurochemical events inside their heads into public events of particular diversity, usefulness and detail, as well as, eventually, "why are some representations more successful than others"¹².

The model we will present in this thesis is the model of the social as a result of negotiation between agents. In order to construct this model we will have to develop a series of sub-models, namely of the agent and the mechanisms that are involved in its development and the generation of its behaviour, as well as of the situation as the locus of the research. We will thus 'engineer' an abstraction that we see as *the best bet* given the data and the needs of the research. This abstraction will have at least two aspects that give it credibility in the face of populationist reality. First, it is an agent-based account of the social – meaning it already tries to deal with the *populations* of agents. Second, it is an attempt to develop a model of the social along the lines of something we might roughly call naturalist semiotics, which at least means that something that folk semiotics call 'meaning' changes with each transmission of sign-designs that 'signify' it – and thus it deals with *populations* of signs. The image of the social we present is the image of the

12 Sperber, *Explaining Culture: A Naturalistic Approach* (Oxford: Blackwell 1996).

populations of human agents (human organisms) manipulating populations of signs (material events, be it neurochemical or environmental) among populations of non-human agents that affect both the population of human agents and the populations of signs, as well as the populations of manipulations. It is a complicated image that has to be reduced to an abstraction in order to be manipulable – for a researcher is, after all, nothing but another agent and as such needs to have its images of the world manipulable. Our model will be developed in order to be useable for qualitative social research. It does not claim useability in any other domain.

2.1. Populations of Agents

With respect to agents, the populationist approach means that each agent is a singular event in the environment, despite being able to be regarded as a member of a certain population. More distinctively, it means agent can be regarded as member of a number of populations: the social situation one is researching (from now on to be called: a situation) being possibly one as well.

With respect to social, the populationist approach effectively means there is no social but what is emergent from agentive behaviour. This means all the transcendentalist and idealist accounts of the social have to be revisited with special attention to usage of explanatory tools which refer to some other kind of a thing that is not a human agent (an individual human organism) in attributing qualities of relevant decision-making within the social. We believe, however, that the majority of them can be easily revised by using the model we are presenting, because mechanisms ("the ghosts") they are referring to can be translated into semiotic stakeholdings, enabling clearer view of agents' reasons and behaviours¹³.

¹³ For instance, every notion of the vague conceptual entity that is "capitalism" in recent cultural studies literature could surely be broken down into specific actions of specific agents for specific reasons, or it designates nothing.

Some vocabularies *are* better than others in accounting for certain phenomena. In dealing with the social, it is our belief that vocabularies with, so to speak, more ghosts are the less better among the vocabularies, for it seems an obvious mistake to account for social events without referral to reasons, decision-making and behaviour of particular human beings in a particular situation, or with referral to those activities as if these people were behaving under a spell of some larger, looming architecture of biological or social "rationality". Human society is not populated by either memes or Geist, it is populated by people, who are organisms that behave in *probable* ways. Which among these ways are more probable has shown itself to be a difficult question, primarily because it is difficult to have an insight into *the mutual cognitive environment* (MCE) of a large amount of people. This has, in turn, proven difficult primarily because large amounts of people share a very impoverished MCE, and at that one information from which they largely regard as less relevant than those from the MCE shared with closer communities. Probabilities of behaviour can be accounted for in various ways, and it is not our intention to claim ours is the only one nor that it should be used solely. However, it appears to us that the MCEs shared with closer communities (and at that, populations) require a reading that can only be delivered by somebody capable of sharing that MCE, given the proposed non-demonstrative complexity of MCE (effectively, the fact that people are capable of following rules and holding assumptions they cannot necessarily explicate). *Non-demonstrative complexity of MCE means that the only access to it is by negotiation on the determination of the sign.* This access is not absolute, but it seems to us it is the only that can be considered legitimate. This means probability, in many relevant cases of organizational decision-making (from policy-making to conflict-resolution), cannot be sufficiently well predicted without the interpretation of the social situation one is inevitably intervening with. Even if one is to proceed in a largely quantitative fashion, the argument from MCE would have it, one needs to

establish the categories with regard to the population one researches.

Populationist approach, also, is significantly a middle-level approach: it accounts for social situations primarily, and speculates on certain trans-situational variables subsequently. It is middle-level also in the sense that it takes information from both cognitive sciences and large-scale quantitative social research, and incorporates them critically into the reading of the social situation which for reasons of its own definition cannot be explained by reduction either to neurochemical events or to statistical probabilities – because neither of those provide reasons for behaviour, and it is unscientific to neglect reasons of particular agents when accounting for the social situation.

Trans-situational and trans-population judgement is in effect prediction. The problem with prediction in human populations is something we might call "ceteris paribus problem", namely the problem with the fact that *more changes count than can be tracked*. Qualitative research assists in raising the probability of "successful" trans-situational judgement simply by being capable of sharing the MCE, and therefore being capable of *assuming values to changes* (namely, which changes will be considered relevant by the population).

2.2. Populations of Signs

Sign in our use of the word refers to both the material sign-design (something we will later call *ostentation-design*) and to the conceptualization of a certain phenomenon that it is designed to, so to speak, *point to*. To be more precise, it refers to the event in a cognitive environment (a set of assumptions about the environment the agent *is capable* of making) that is a synthetic intervention into that environment that consists of the ostentation-design and the set of inferences expected by the user of the sign to be made

by the ones the sign is being transmitted to.

With respect to signs, populationist approach means that each agent Y's use of sign A is distinct not only from the other agents' usage of them but also from its own (Y's) other uses of the sign (A). Signs are populations of their uses, and accordingly, in each of agent's brains form a unevenly distributed network of proper uses in accordance with the prototype negotiated in the situation or a group of situations.

The distribution of signs, whatever their macro-effect, is in naturalist's eyes always the result of the transimissions of signs between individual human agents, and as such it is in constant transmission¹⁴. There is no stable distribution of signs – this would in effect mean the signs are not being used, and are therefore no longer signs at all.

One of the most important points to this conceptualization of sign-distribution is that in every transimission, the sign being transmitted changes – at least because it 'enters' a new conceptual scheme. What one must keep in mind is that every time the sign is called back in a single agent's 'brain', it enters a new conceptual scheme as well. *Each new use of the sign is a translation*. The problem in this respect is obvious: how does one know what a sign 'means' to the agent in question in the situation in question? This is the question that has to be resolved on site, with tools of discrimination offered by this model. It will also be revisited after we present the model.

14 Sperber, *Explaining Culture: A Naturalistic Approach* (Oxford: Blackwell, 1996).

3. Agents, Signs and the Social: A Model

3.1. The General Anatomy of the Human Agent

The definition of an agent is: it which does. And what is "does" is that it changes what the other agents do. In doing this, agent's particular behaviour cannot be treated as either determinate or indeterminate – it can only be treated as *probable* given the threefold anatomy of the environmental event that is the agent: its biological and sociological given, its performative reasoning and the desired world, and the vague points of its receptive, inferential and expressive powers.

But first, a disclaimer.

This changing knows no kinds-speech: any possible agent changes the doing of any other possible agent – namely, human agents exert influence over non-human agents, and vice versa.

However, the focus of our approach is going to be a human agent. This is so not only because the qualitative research of social situations is, we claim, to the largest extent research into particular agents in that situations, but because all social situations are different than other kinds of situations due to the presence of *human* agents. One could argue, and many do¹⁵, that there are other agents beside human individuals in the social day-to-day. This appears to be completely true. Communities are agents, interest groups are agents, ecological factors are agents, even things are agents. All this must be taken deeply into account; and the understanding of the social will become much more successful with better understanding of non-human agents' import to the social situation. However, while the non-human agents are important when it comes to understanding the agent's cognitive

15 In particular, Bruno Latour has been quite successful at pointing it out, even though we wouldn't necessarily, to continue our gambling metaphors, "put our money" on the theoretical body of work under his label of "actor-network theory". See Latour, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford: Oxford University Press, 2005).

environment and physical environment, in which the non-human agents are strongly agentic, one must never lose sight of the fact that the focus of the social researcher's research is the human agent. Social is certainly emergent of many other factors beside the human agent – ecological the least – but *it is emergent of these factors via their negotiation with the human agent*. Without the human agent in the picture, these would be non-human, and therefore non-social, events on planet Earth. It is the human agent that is their *differentia specifica*.

Equally, when it comes to the case of interest groups and alike communities, one must see that these are no more than populations of human agents distributed according to their *semiotic stakeholdings*, which is something we will try to make sense of later on. The reasons and goals of interest groups are events in the agentic world, but a researcher cannot properly understand them without referral to the reasons and goals of the human agents that make up those groups, or communities. However, if an agent Y is being researched, in whose cognitive environment the interest group Z plays a certain agentic role, then it may be of no consequence to the researcher to form an understanding proper of Z, for it is only important in the context of the Y's world, and has to be excavated as *a sign* in Y's world, for aside from particular agents that form Z, its only causal role is in its existence as a sign.

But before explicating what is a sign and what does it mean to hold semiotic stakes, our model needs an account of the necessary form for the environmental event that is the human agent, which we will call its "general anatomy". Also, wherever the distinction is not relevant to the point, we will refer to the human agent as an agent.

The general anatomy of the human agent is threefold.

Firstly, the agent is a singular amalgam of its biological and social contingencies. (The difference between biological and social is the informal

difference in time frames. All social is surely biological – however, for the sake of distinguishing between what organism receives as an input during its life and what organism comes with into life in form of actual properties or dispositions, we could call the former social and the latter biological. A certain percent of the biological can be said to be a sediment of social through generations of the population which preceded the organism in question.) It is a certain organism, with certain physical traits and cognitive resources, and it is thrown into a certain social world, where certain social institutions, habits and practices are already in place. All these contingencies, to a point, shape and inform its agentive proceedings; and in assessing these contingencies, the researcher should be informed by all the sciences and disciplines at her disposal, but keep in mind that each agent is *a singular* amalgam of all of its conditions.

Secondly, the agent can account for its performative reasoning and an informed design of the desired world. The agent has limited and flawed knowledge of what it *can* do to change the behaviour of other agents – but it *must* do something, and it makes the decision (the choice) of doing something using whatever limited and flawed knowledge it has at its disposal¹⁶. Agent can account for what it see as available and appropriate tools for manipulating the signs and thus the other agents, which is something we will call its performative reasoning, and can account for a synthetic and particular purpose (overall and situational goals) of this manipulation, which is something we will call its desired world. To put it bluntly, *agent can account for what it does and why it does it*. This account will always be flawed and limited as well, and it is precisely this, so to speak, epistemic scarcity that drives the agent towards behaviour, and without it there would be no agents. This scarcity, it must be stressed here already, goes both inside and outside – the agent makes hypotheses about its

¹⁶ (I can see there is something solid coming my way at a speed probably damaging to my body, but I don't know what it is. Does the lack of knowledge on the identity of what is rushing towards me make me question, to a relevant degree, whether to move out of its way?)

environment, but also about itself. Its mental processes are something that has to be conceptualized with the same tools it uses to conceptualize the outside world, and are something that suffer the same fate as the outside world in the process of conceptualization.

Thirdly, the agent is a host of ambiguities with regard to both its receptive, inferential and expressive powers. Receptively, the agent misrepresents both itself and the environment. This is not so because there is some real environment that the agent fails to represent, but because both the environment and itself *are unfinished through the present situation*. We must note here that the agent's image of both environment and itself are total, in the sense that they are manipulable. At the certain threshold of manipulability, the agent does not care about information which will not significantly improve this manipulability. (Ofcourse, the degrees of manipulability vary according to the needs – the scientist needs a much higher degree of manipulability of signs for phenomena which she studies than the agent that does not study them.) This leaves room for an abundance of mistakes, errors, blind spots and environmental intrusions to, so to speak, glitch the agent's reasoning and its behavioural choices, as well as its conceptualization and its design of the desired world. One among many interesting takes on this aspect of the agent, and from a social scientific viewpoint particularly tantalizing, is derived from the area of piceconomics, which studies, roughly put, the discrepancies between competing neuroeconomic "events" in the agents, as well as the discrepancies between the competing neuroeconomic "events" and eventual agent's decisions. Their findings are very interesting with respect to the vague points:

"(...) if we model individual neurons or groups of neurons as economic agents, they appear to compute optima under budget constraints; but the optima in question are relative to *their* utility functions rather than the utility function of the person they 'serve'. A given equilibrium in

interactions among neurons may thus fail to correspond to equilibrium in the game being played by the person."¹⁷

Expressively, the agent uses highly ambiguous tools to manipulate other agents – the most obvious example of this can be found in the use of language as a play with signs as *general items*, which means they leave room for the listener to complete their prototype¹⁸-based extension, which is something we will also come back to later on when we elaborate on the notion of semiotic stakeholding. For now, let us state it obviously: *the semiotic mutations, which are a constant in all semiotic traffic, necessitate evernew negotiations in the social situations, and are therefore, among other changes in the environment, one of the prime generator of social situations.* However, it must be noted that while the agent, obviously, is ignorant of the identity of, we could call them, ambiguity points, it is not necessarily, or even usually, ignorant of their existence¹⁹. Along with specificities of the agent's account of the environment and itself, and with the proceedings in the negotiational space, the agent's economy of its vague points (how does it handle what it knows it doesn't know) is the third most interesting focus of all qualitative agent-based social research.

The third aspect of the agent, what we have called vague points, can, however, become apparent only with respect to the first two. Therefore, it is crucial for a researcher to create a clear image of the biological and social contingencies of the agents in the social situation, as well as elicit the expression of their theories of self, others, signs (as behaviour-changing tools) at their disposal, and their desired world. The agent conveys flawed

17 Ross, "The economics of the sub-personal: two research programs", in *Economics and the Mind*, ed. Montero and White (London: Routledge, 2007), 45, author's italics

18 Prototype theory, as a principle of organizing categories around structured attributes of clear cases for reasons of cognitive economy, is originally presented as such by Eleanor Rosch, even though similar theoretical contributions are many, most notably by Wittgenstein's theory of family resemblance. See D'Andrade, *The Development of Cognitive Anthropology*, (Cambridge: Cambridge University Press, 1995), 118.

19 (My ignorance of the identity of the thing that is coming towards me in high speed will only strengthen my belief that I have to get out of its way.)

and limited knowledge by flawed and limited means, and is unaware of all the consequences or roots of either the formation or transmission of these signs, and yet it uses them to not only manipulate, but in many cases, successfully manipulate other agents. Therefore, the agent is not to be patronized by the focus on the vague points – yet something crucial about the social situation one is researching is to be learned from them.

What we have seen so far is something of an *a posteriori* necessary form of the human agent. It is necessary with respect to the empirical facts: humans are organisms born into a certain social world, equipped with certain powers to handle this social to a varying degree, have a sensation of choosing between the proper and improper behaviour of other agents and of choosing between various means of changing or maintaining these behaviours, and make mistakes in both representing and conveying their representations of the world. No more, it appears to us, but also no less, can be said of the general anatomy of what we call a human agent. All human agents share these formal characteristics despite the fact that they are different from each other in all possible ways. One could, however, argue that there are non-human agents that share this anatomy. This, as we have noted, is not our concern, and therefore cannot be used as an argument against this view. The general anatomy of the human agent is not claimed to be its *differentia specifica*.

We will now proceed to model the development of the agent, and the founding of the social.

3.2. The Development of the Agent and the Founding of the Social

3.2.1. Communication

Our account of the development of the agent and the social will begin at the crossroad between two distinct theories of communication. The first one, code-based theory of communication, is something of folk semiotics, and it presents the communication as a transmission of the message via signs from one cognitive apparatus to the other. The second one, inference-based theory of communication, presents the communication as a process in which one participant gives evidence from which the other participant *infers* the message²⁰. We will opt for the second one, for two reasons. Firstly, because there appear to be numerous cases of communication without pre-established code. Secondly, because the relationship between the code and the message does not appear to be as clear cut in the 'mind' of one participant, let alone two or many. This must not be taken to mean that there are no signs in communication, it must be taken to mean that signs are an upgrading of the communication, and, at that, we will claim, an upgrading towards the social. The "bottom line" of the communication, however, will be taken to be what Dan Sperber and Deirdre Wilson in their seminal work *Relevance: Communication and Cognition* have described as something we could call "ostentation-and-relevance-management" theory of communication.

Human agents try to manipulate the attention of other agents, and expect them to discern according to the relevance principle the message this manipulation 'conveys'. This manipulation is ostentation, the "behaviour which makes manifest an intention to make something manifest"²¹. At making x manifest, and making it manifest that it intends to make x manifest, ostentation, according to Sperber and Wilson, also creates expectations of

20 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 1-15.

21 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 49.

optimal relevance, partly due to the effort by the agent doing the ostentation, and partly due to the other agent's natural inclination towards searching for relevance in the ostentive behaviour of other agents. Despite this promise, the ostentation is still being judged, and whether it will be fruitful depends on how relevant it turns out to be to the other participant. And how relevant it is basically means that it results in the greatest cognitive effect with least cognitive effort.

"In relevance-theoretic terms, an input is relevant to an individual when its processing in a context of available assumptions yields a POSITIVE COGNITIVE EFFECT. A positive cognitive effect is a worthwhile difference to the individual's representation of the world (...)"²²

This specific account of communication, much simplified for our present purposes, hinges on a concept of *cognitive environment*.

"A cognitive environment is merely a set of assumptions which the individual is capable of mentally representing and accepting as true. The question then is: which of these assumptions will the individual actually make? This question is of interest not only to the psychologist, but also to every ordinary communicator. We will argue that when you communicate, your intention is to alter the cognitive environment of your addressees; but of course you expect their actual thought processes to be affected as a result."²³

Ostentation as the bearer of communication is a viable theoretical figure only if communication is not the conveyance of precise "meanings", but a change of the cognitive environment. And this change can come about in

22 Sperber and Wilson, "Relevance Theory", in *The Handbook of Pragmatics*, ed. Horn and Ward (Oxford: Blackwell, 2004), 608.

23 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 46.

approximate accordance with the intention of the agent doing the ostentation with a much larger degree of probability if there is an overlap between the cognitive environments of those involved in the communication, if they can be said to share a *mutual cognitive environment* (MCE).

"When a cognitive environment we share with other people is mutual, we have evidence about what is mutually manifest to all of us. Note that this evidence can never be conclusive: the boundaries of cognitive environments cannot be precisely determined, if only because the threshold between very weakly manifest assumptions and inaccessible ones is unmarked."²⁴

MCE is a theoretical figure that posits agents as treating utterances as environmental events (and at that events that call for special attention), and is therefore (if we posit *the agent as the change in the environment*) capable of telling the story of agent's sign-usage as its way of using those signs as environmental variables in the ontologically same way it is using a hammer for hitting a nail. This also implies the remainder of Heidegger's account of using a hammer until it breaks²⁵, and breaking of the hammer as a way into its modality (which could be called "understanding" the hammer, and effectively presents *know-that* as a subset of *know-how*) – namely, it implies that we learn to use signs through the negotiation with the environmental bearers of the value of those signs, which are other agents, due to the signs usually "breaking" (the constancy of semiotic mutation). The other aspect of this story is that reflection (and therefore, demonstratively intentional behaviour, as opposed to non-demonstratively intentional behaviour which occurs "before" the handling of the signs) is a byproduct of sign-use, which is something that will be discussed later on.

²⁴ Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 45.

²⁵ Heidegger, *Being and Time*, (New York: State University of New York Press, 1996), 68.

In order to at this point elaborate on leaving questions traditionally known as semantic aside, for they are none of our concern in understanding the social goings-on, we must make clear that this is not to say they are of no concern to understanding any social goings-on. To be as precise as possible concerning semantic problems that we will mostly disregard in this first attempt at the model, we claim that any semantic story that is possible to be accounted for under the specific pragmatic story we are engaged in modelling is a more possible semantic story than the one that cannot be accounted for under it; however, we do not claim that the semantic story's possibility to be accounted for under the specific pragmatic story is the criteria for choosing the best semantic story among those that can be accounted for under the specific pragmatic story – their quality is to be judged on other basis, which we will not be concerning ourselves with.

In effect, our account of discursive practice claims that holophrastic "food" 'means' "I am hungry and you have been feeding me, therefore I expect you to feed me again" – it does not denote the object that is 'food', but demands attention to convey an appeal to a certain practice using an ostentation-design (in this case the 'name' of a thing, which is a semantic issue of the system of interdependant ostentation-designs, since pointing at food and saying "food" convey the same 'message', or, in this case 'appeal'). This view of discursive practice is modelled to be of use primarily to the qualitative social scientist, because it enables her to view discursive practices as manipulations of environment (in the discursive cases, primarily social environment, but non-social as well), but is a legitimate philosophical view of doing something by saying as a precedent for saying something, that could be translated in our parlance by claiming that *the utterances (a sign) is an endorsment of pattern of inferences, and therefore effectively the acknowledging (and nomination) of a certain MCE (a certain set of assumptions) in order to change it.*

The evidence of what is mutually manifest to all of us, as well as the

subsequent account of assumptions, are non-demonstratively complex²⁶. This is partially because they either cannot be clearly conceptualized or (as we will see, basically the same thing) articulated (we cannot, so to speak, "put our finger on it"), or because they can be conceptualized, which means they are articulated into signs. An ostentation-design that repeats itself in a community in a certain population of situations leads towards an establishment of something we will call *a sign*. The idiomatic structure of sign is²⁷:

If (change in the MCE) A then (change in the MCE) B;

where A stands for the ostentive behaviours (ostentation-design), and B stands for the change in behaviour on part of the affected agent *given A* (idiomatic manipulation). The further speculation would posit that all signs are stored under B, thus available from the standpoint of their behaviour-changing potentials. We call this structure of sign idiomatic because it exhibits traits similar to what is known as an idiom in linguistics: a phrase that cannot be understood by understanding the meanings of its elements. In the same vein, the agent has at its disposal only situations at which the ostentation occurred and was successful, and has to infer the sign as the relation between ostentation, situation and success in such a way as to make it available in other situations. Sign-management (and language as one of its most prominent variants) is, according to our model of the agent, learned and used idiomatically. It must be noted here that this view of semiotic education does not present the agent as a blank slate, merely as an empiricist with a

26 This is why only another agent can recognize them, and a machine in a classical sense, cannot. (At this point, AI and cyborg possibilities cannot be accounted for, but there is no apriori impossibility of success.)

27 To repeat and somewhat add to a point we already noted, we must insist on making clear the following: this is the structure of the sign from the standpoint of qualitative social research, not from the standpoint of linguistics, nor any other detailed account of semiotics with regards to cognitive processes. Namely, a sign (*unit of which is to be discriminated on research site*) certainly has many more properties but ones we are explicating presently. For instance, words surely do create some kind of representations – however, they are our concern only within limits explicated by this thesis. Outside those limits, at least at this point of the development of the model, the story of the sign can go any way as long as the provisions noted in this text are taken into account.

special advantage, which is something we will return to later when we focus on the issue of conceptualization. For now it might be enough to postulate that using signs is immensely cognitively and socially beneficial for the agents, which is a motivational push that should not be taken lightly.

Given the intrinsically public nature of its ostentation-design, sign is something that is not only mutually manifest to all of us, but has a strong influence on the level of the expectations of relevance due to its possibility to tie the agent that is using the sign to the community of users of that particular sign. To understand this, let us once again make clear:

"We want to suggest that the communicator's informative intention is better described as an intention to modify directly not the thoughts but the cognitive environment of the audience. The actual cognitive effects of a modification of the cognitive environment are only partly predictable. Communicators -like human agents in general- form intentions over whose fulfilment they have some control: they can have some controllable effect on their audience's cognitive environment, much less on their audience's actual thoughts, and *they form their intentions accordingly*."²⁸

It is the change in the MCE that comes with a promise of relevance, which is signalled by the agent doing the ostentation in the manner it infers to be appropriate, given its knowledge of the MCE. And if one of the assumptions available to it is that the other agents will recognize the signs it is using, the assumption that the use of these signs has significant ostentation-boosting potential is more or less immediately following. On the other side, ostentation-boosting potentials of signs are available dominantly due to the fact that their idiomatic structures play exactly the role of lowering cognitive effort for a certain cognitive effect. But this is not the only reason

28 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 66.

signs have the ostentation-boosting potentials – the one we are interested in is that the use of signs signals membership to a certain social world.

3.2.2. Conceptualization

To conceptualize an x is to make it manipulable at will – to make it a sign. We are capable of conceptualizing a sentence "Bachelor is an unmarried human male". We can imagine all the relevant elements of this sentence, and connect these images into a whole that stands in some kind of truth relation to the utterance. We however cannot clearly define "unmarried", "human" or "male". Some of us, you could argue, can. The consensus about these definitions is somewhat difficult to expect. But even if there were a consensus, and a group of people could define the elements in the same fashion, two things would still hold as true: first, the elements of their definition would need new defining and this would basically go on forever; and second, and more to the point, this would not make this group more able to *use* the sentences in question. They could use it in certain situations in which somebody who had no access to these clear definitions could not; but this would not make the sentence in question unusable to the uninitiated group, merely usable in fewer contexts. We use those concepts (any concepts) without much trouble without having a clear definition or content present as long as they *work*, meaning specifically *as long as we do not dispute someone's use of them or somebody disputes ours*. What we have instead of a definition is an idiomatic strategy – this set of signs hangs well here and can be used as a stimuli for this other set of signs, unless there is evidence to the contrary. This evidence to the contrary is of crucial value to the user in the process of learning how to use signs, and thus how to conceptualize. However, if somebody uses the word wrongly, we don't say this person doesn't have a concept of this word – we say this person used

the word wrongly, that she tied the wrong manipulation (a set of public behaviours) to the particular ostentation-design (public word).

But let us go pause here and admit that we have snuck in way too many implicit premises in our account of conceptualization. We have to now make them explicit, and in doing this we will mostly be using Sellars' theory of something we might call functionalist semiotics, which we believe goes hand in hand with Sperber and Wilson's ostentation-and-relevance management theory of communication in ways that we hope will become clear in our presentation.

Sellars begins his exposition by famously attacking something he refers to as the Myth of the Given. 'Given' in Sellars' parlance, and in certain philosophical circles, stands for non-conceptual knowledge. Namely, it stands for the idea that I am capable of seeing *x* as *x* without having a concept of *x*. This leads to a strange proposition that we are capable of *sensing facts*, most clearly made explicit in the following "inconsisten triad":

"A. X senses red sense content S entails X knows noninferentially that s is red.

B. The ability to sense sense contents is unacquired.

C. The ability to know facts of the form *x* is 0 is acquired.

A and B together entail not-C; B and C together entail not-A; A and C together entail not-B. "²⁹

Sellars chooses to discard A. The reason for this maybe most clearly put by Ray Brassier:

"To say that we sense facts is to say that sensation mirrors a reality

²⁹ Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 103.

already endowed with propositional form. But propositional form is tantamount to intelligible order. How then are we to explain the congruence between sensible order and intelligible order? If the ability to sense facts is unacquired, it cannot be explained naturalistically in terms of evolution by natural selection. Thus the congruence between sensible order and intelligible order must either be left unexplained or explained by invoking supernatural factors."³⁰

In other words, the choice is grounded in naturalist tendencies, which must do away with human epistemic privilege in the natural world. We do not have immediate access to reality no more than any other agent – and the reality cannot be structured as to fit uniquely with our cognitive infrastructure. However, we are capable of making use of reality, as are other agents. This is something that must be explained, and we will articulate the explanation somewhat differently than Sellars, but in the same vein, and we will in the end arrive at the image quite neighbourly to a Sellarsian.

However, we will start explaining it with recourse to a theory that is starkly opposed to the Sellars' image of things, namely with theory proposed by Jerry Fodor in his work "The revenge of the given". In the paper, Fodor insists on distinguishing iconic from discursive representations due to the latter having canonical decomposition, or namely not being possible applicants to what he calls the Picture Principle:

Picture Principle: if P is a picture of X, then parts of P are pictures of parts of X³¹

What is claimed is basically the same as what we have claimed: that a sign cannot be composed into parts that retain the same 'meaning'. Fodor's

30 Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 103-104.

31 Fodor, "The revenge of the given", in *Contemporary Debates in Philosophy of Mind*, ed. McLaughlin and Cohen (Oxford: Blackwell, 2007), 108.

and our approach to what is a sign is hugely different, but what matters at this point is the idiomaticity, or as Fodor puts it, canonicity, of the sign, or as Fodor puts it, of the discursive representation. Conceptuality is therefore not an act of defining an element but of *handling an idiom of sensations*. Non-conceptuality, in Fodor's view, is something different. When the non-conceptual representation is decomposed, it decomposes into units of itself. As opposed to conceptual representation that decomposes into units that have altogether different functions and 'meanings' unless they are composed back into the conceptual representation in question. But this sounds very strange. For, if one cuts a picture of a person into pieces, these pieces could be used to make a series of other pictures. Would they still be pieces of a picture of a person then? Fodor's argumentations seems to hinge on the idea that somehow the other pictures made by these pieces would be a wrong use of these pieces. For, otherwise, the difference between a picture of an ear cut from the picture of a human head and the word "ear" from a sentence "This human head has an ear" is non-existent with regards to how the parts play into the whole. Surely, there is nothing tying a sequence of sounds "ear" to the actual human ear; but this is not the point. The question is not whether the ostentation-design resembles a thing in the world – it surely does not. The question is whether a part of the sign (conceptual representation) differs from the part of a non-conceptual representation with regards to the difference in their decomposition. We believe this difference is at least dubious – for if a picture x is made out of parts of the picture y, why would they be more parts of a picture y than they are of a picture x? "This is not what I mean", Fodor (or a Fodorian) could say, "What I mean is that parts of a picture x cannot stand on their own without being parts of a certain picture, in this case x." As opposed to discursive elements? It appears not. Discursive elements can be *described* with reference to how they usually function in the discourse, their uses can be analyzed into higher probabilities and usual positions within a certain paradigm; but they will have no 'meaning' on their

own. For a word to die, as Wittgenstein told us long ago, is for a paradigm within which it made sense to die³². Isn't this exactly what Fodor is calling a property of non-conceptual representation? For a part of a picture to die means for a picture within which this part made sense to die? Therefore, Fodor is left with two choices: first, to claim that discursive representations are non-conceptual, and second, to claim that there is no more to conceptual representations than what he calls non-conceptual representations.

The second option, the one clearly more reasonable, leaves us with a certain need for further explanation, though. According to our story, every simple is a complex, and at least some (if not a majority of) complex can be used as a simple. This does leave us with a question as to how did conceptualization even come about – or to put it more precisely, how does an agent learn the signs without some previous knowledge of what to look for? Or, as Wittgenstein puts it:

"32. Someone coming into a foreign country will sometimes learn the language of the inhabitants from ostensive explanations that they give him; and he will often have to *guess* how to interpret these explanations; and sometimes he will guess right, sometimes wrong. And now, I think, we can say: Augustine describes the learning of human language as if the child came into a foreign country and did not understand the language of the country; that is, as if he already had a language, only not this one. Or again, as if the child could already *think*, only not yet speak. And 'think' would here mean something like 'talk to himself'."³³

This question emerges only if we posit "something to look for" as conceptual, and this is not necessary. In Sellars' theory, the relation between the pre-conceptual apparatus and the world is imagined as an object-object relation,

32 Wittgenstein, *Philosophical Investigations* (Chichester: Wiley-Blackwell, 2009), 32.

33 Wittgenstein, *Philosophical Investigations* (Chichester: Wiley-Blackwell, 2009), 19.

a theoretical figure he names 'picturing'³⁴, which is a pre-conceptual, fundamentally causal and physical, attunement to the environment which allows us to track changes.

"But crucially picturing itself is not a semantic relation or function. Sellars describes it as a 'second-order isomorphism' between objects in the natural order: thus a CD pictures a piece of music via a complex transcoding of information from one physical medium into another."³⁵

However, it appears Sellars at this point comes dangerously close to falling into the Myth of the Given. For, if the following holds:

"Ultimately, categories are to be explained in terms of *metalinguistic role*. Metalinguistic role is to be explained in terms of correct *representing*. Correct representing is to be explained in terms of *picturing*"³⁶;

then it would appear categories are to be explained in terms of picturing. Which in effect means that categories *are* somehow sensed, and then worked into a semiotic-conceptual network. However, this is not completely so.

First, the fundamental difference is that picturing is not a mental event, but a causal relation between objects; and second, picturing is an isomorphism, a relation between forms and not contents (allowing for the tracking of real changes without positing their identity as real, thus escaping the mind-mirroring-reality problem), and as such requires significantly less

34 Sellars, "Empiricism and the Philosophy of Mind", in *Science, Perception and Reality* (Atascadero: Ridgeview Publishing Company, 1963).

35 Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 109.

36 Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 111.

then a propositionally-structured reality³⁷. Thus, picturing is the bottom line epistemological procedure – it proposes a causal interaction between objects in nature which in turn allows for the isomorphic *events* (in a weaker, and it appears to us, more plausible articulation of this relation) between the *behaviours* (for, even in the most passive version of picturing, picturing has to be a behaviour) of two objects. Picturing might as well stand, and we would argue it does. However, it has two specific problems – if it is posited as a passive ontological structure, without agents crucially *performing* it, it 1) comes dangerously close to the given, and 2) cannot form an account of the establishment of the space of reasons. Firstly, if picturing is not accounted for as an effort by the agent, which also means agents can and do fail at it repeatedly, it gives rise to a strange image of the world as calibrated for isomorphisms between objects – a metaphysical embarrassment we cannot allow ourselves. Secondly, again, if picturing is not accounted for as an effort by the agent, *which also means agents can and do fail at it repeatedly*, it cannot account for how (via experience of error, discriminatory intentionality and bootstrapped induction) and why (because they cannot be social otherwise) do the agents eventually build conceptualizations.

Taken as a passive state, picturing is explanatorily insufficient. There is no problem with the idea that our effort-to-conceptualize are eventually efforts towards arriving at the correct picture of the world – even if we take, as we do, our effort-to-conceptualize to be of variety of manipulating other agents (itself a proposition derived from what we eventually are to consider the correct picturing of the specific problem), this requires effort-to-conceptualize how to manipulate other agents. To put it simply, while know-that is a subset of know-how, know-how is significantly improved by know-that. To put it yet more simply, while I conceptualize a pen in order to write, I cannot (or am

³⁷ Sellars departs from "pure" coherentism by positing 'picturing', namely the causal foundation of conceptual structures. And yet, he remains firmly anti-foundationalist, in that the foundation is causal and not propositional. This could be regarded as the pragmatist move par excellence, for while the nature is not propositional, we can test our propositions about nature because there is a causal connection between them and nature. This allows for the science to emerge as an *effort*.

less likely to) write without conceptualizing a pen. And while our everyday practices might stop short of clear conceptualization of agents and/or causal objects and their relations, for we might not need it in order to reach our desired worlds, the scientific practice, given its desired world is *the* world explained, is not to stop short of correct picturing (which is not to say it will necessarily succeed at it). Thus, we would surely claim that

"(t)here are *natural* relations between language and world – in particular, causal relations between linguistic tokens, which are objects in nature, and other objects in nature. Natural-linguistic objects can exhibit systematic relations with each other; these relations can be isomorphic to the relations among the objects in nature; and proper epistemological methods will tune the causal relations between these two relational structures so that an adequate *mapping* will be achieved."³⁸

And yet, if we posit these relations, and particularly the "proper epistemological methods", as an ontological given, we seem to come dangerously close to the mind-mirroring-reality image of how things stand. What is needed, it appears, is for these relations to be *performed* by the (human) agents – for only so can we arrive at the experience of error that we find so fundamental in the formation of the human agent. Thus we need to talk about the human agent's *abilities*, specifically those abilities that precede conceptualization, that conceptualization *cannot be reduced to* (for if it could, we would fall into the myth of the given³⁹), and yet that significantly enable conceptualization.

The pre-conceptual apparatus, while retaining both the causal

38 deVries, "Naturalism, the Autonomy of Reason, and Pictures", *International Journal of Philosophical Studies*, 18:3 (2010), 395-413.

39 But also, we should tentatively add, could not account for *junk transmission* [for instance, *semiotic spandrels*, byproducts of some other semiotic development] that could be said to make up a significant amount of our social and individual lives.

connection of the world and the agent as well as the isomorphic character of this relation (inevitably presented as *the tracking of changes in the environment*), presents the pre-conceptual state of the agent as *an activity* which the agent is *able* to perform and which allows the manipulation of the environment. This activity can eventually give rise to conceptual activity as a fundamentally *socially-acquired compulsion*, because it, before any concept has been a part of the game, teaches the agent that it needs to put *effort* into this manipulation – and effort-to-conceptualize is the basis of social goings-on. However, conceptualization, due to its social nature, is fundamentally not only mapping of the environment, but also the mapping of the mapping of the environment, due to conceptualization, according to our account, being built "from deixis up". This is another aspect of the argument from MCE, and it again posits functions as idiomatic strategies that may be trans-situationally and trans-populationally distributed as *modal combinations*, but cannot be posited as universal keys to communal, social or semiotic structuring. We must remain populationist about functions even when all communities exhibit certain functions, and even (or especially committed to populationism) when there are strong biological reasons for these functions.

This is substantially allowed by solving "the enigma" of the pre-conceptual by situating it within agent's abilities, thus giving us a clear line of progress from isomorphic events via effort towards the space of reasons. The question of justification then rests on the connection between the map of reasons and the resistance of the world towards actions that are derived from those reasons, or, to put it more precisely, that *are* those reasons (*being a reason is being an action that connects the assumption with the function*). However, this resistance must also be conceptualized (we must be capable of *recognizing evidence-as-evidence*) – and while science is the enterprise whose essential stake is precisely this recognition of evidence-as-evidence (and is thus a project of rationality, fallible but driven), our everyday lives and numerous communities and agents do not perform outside their idiosyncratic

phronetic hierarchies.

We would like to propose here two fundamental features of this pre-conceptual apparatus if conceptualization is to emerge from it: first is the non-universal, non-conceptual, "adaptive" *discriminatory* intentionality, and the second is the minimal set of rules of inference based on the relevance principle and bootstrapped induction. The two features, as we will see shortly, are not ontologically distinct, but synthetic; they will be presented as distinct for purposes of clarity.

First is non-universal because its configuration varies across a population; it is non-conceptual because it is not as of yet capable of manipulating signs, assigning identity and instituting knowledge; it is "adaptive" because it may be said to have survival value even though it may at times and partly be purely a result of random mutation; and it is, crucially, *discriminatory*, which means it does not count x-as-x (which would be an identity, and therefore conceptual, procedure), but counts x-as-not-y. This in effect means that in cognitive development difference precedes identity. This is in accord with Brandom's claim of "*differential responsiveness* as the genus of which *conceptual classification* is a species"⁴⁰.

"A favorite idea of the classical British empiricists was to require that the classifying response be entering a *sentient* state. The intrinsic characters of these sentient states are supposed to sort them immediately into repeatable kinds. These are called on to function as the *particular* terms in the base level of the neo-Aristotelian logical hierarchy. *General* terms or concepts are then thought of as sentient state-kinds derived from the particular sentient state-kinds by a process of *abstraction*: grouping the base-level sentient state-repeatables into higher-level sentient state-repeatables by some sort of perceived *similarity*. This abstractive grouping by similarity is itself a kind of

40 Brandom, "How Analytic Philosophy has Failed Cognitive Science", accessed 15. 2. 2015, <http://www.pitt.edu/~brandom/currentwork.html>.

classification. The result is a path from one sort of consciousness, sentience, to a conception of another sort of consciousness, sapience, or conceptual consciousness."⁴¹

The most widely distributed discriminatory non-conceptual intentional capacity, we would speculate, is the one of "human vs. non-human", for as we have seen, it appears our epistemic practices privilege humans in order to develop capabilities of conceptualization (and at that, we believe the largest amount of population could be said to enact this discrimination on the basis of differentiating between human voice and other sounds).

The second is a minimal set of rules of inference based on relevance principle⁴² and bootstrap induction⁴³. Now, while we are already somewhat acquainted with the relevance principle, we must at this point have a small discussion on the theoretical figure of bootstrapped induction. Bootstrapped induction was first presented as such by Barnes in his text "Social Life as Bootstrapped Induction", but is essentially an old idea that needs constant refinement. It posits induction with self-referentially social veridicality as the basis for calculating behavioural decisions, and is built on an old anti-realist intuition that may be clearly accounted for only with a realist spin to it, namely the idea that in our epistemic practices we privilege other organisms of our kind as the source of direction and information. The other minds of our kind, it appears, *realistically, are more real* – in the sense that we not only favour the information provided by other people over the information provided by other environmental changes, but significantly conceptualize the environmental changes according to the behaviour of other people. To put it, again, somewhat more robustly: *while x does not have to be in metaphysical terms realistically x in order to be recognized as x* (the changes we track in

41 Brandom, "How Analytic Philosophy has Failed Cognitive Science", accessed 15. 2. 2015, <http://www.pitt.edu/~brandom/currentwork.html>.

42 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986),

43 Barnes, "Social Life as Bootstrapped Induction", *Sociology* Vol.17 No.4 (1983), 524-545.

the environment can be conceptualized in a myriad of ways), *we rely on the other mind of our kind to be able to recognize it as x* (for otherwise we could not successfully communicate, and therefore organize, and therefore attempt at a more successful conceptualization). In the same time, this recognition allows for the concept to have both its normative properties, but also its veridical (or, for that matter, modal) properties: therefore, not only does self-referential social processes allow an agent to see the connection between 'a chair' and 'sitting', but also allow it to see the object a as a chair and object b as not-a-chair. As Bloor notes,

"Self-referential processes constitute the rules for the use of the concept, which is how this all connects with Wittgenstein's account of rule-following as an institution. Without rules and normative standards defining their right and wrong application, concepts could not properly be said to have a content, and without a content they can have no genuine reference at all. In this way self-reference becomes integral to external reference."⁴⁴

To be engaged in bootstrapped induction means to engage in the act of collective performativity of instituting the object of judgement. This is in effect, at the point of pre-conceptual apparatus, an aspect of the discriminatory intentionality favouring humans in "seeking" guidance towards the construction of conceptuality – the infant learns what is a spoon by witnessing "others referring to it as a spoon" and "others using it as a spoon", and once the threshold of sufficient exposure to these events has been surpassed, "the spoon" becomes an *active* (inferentially rich) component of future inductions. It also becomes an assumption in the MCE. This does not lead to a strong anti-realism, which Edinburgh school is frequently associated with, nor does it lead to the intersubjectivism of the idealist kind – for it does

44 Bloor, "Reply to Bruno Latour", *Stud. Hist. Phil. Sci.*, Vol. 30, No. 1 (1999), 136.

not mean that there is no chair, it means we learn what a chair is through a process of socialization that sets the standards of what a chair is. This socialization is a change in the environment that is *real*, as is *the change in the environment that is a chair*. However, the identity of the chair is a social construct by which we make use of the world – it is *a contingent sign* (and more to the point, *a contingent function*). Another such construct is socialization itself, and particularly, and this is where bootstrapped induction is of specific interest, social institutions that serve as heuristic devices for the organization of social life. These will be in more detail, and we believe with more nuance, presented as cases of semiotic stakeholding in the section of this thesis that deal with that topic specifically. However, one thing must be noted here, and should be applied rigorously to the following concept of semiotic stakeholding. We will quote Barnes here at length, for no other articulation of this point is needed:

"Consider the simple case of 'bank is unsound'. A sophisticated individual, annoyed by the bootstrap, may disdain either to accept or reject this statement. Why be concerned with it, he might suggest, when one can operate much to the same effect with 'other people regard the bank as unsound', and thereby destroy the self-reference loop?

A cunning individual can certainly make good headway with strategies of this kind. He can set himself cognitively on the outside of the use of 'S'-type terms [my note: 'social kind', wherein the concept application is *performative*], make that use into an object of his own observation, and operate profitably upon the basis of what he observes. City slickers do just this. But no community, however cunning, can do the same. For, as a community destroys the self-reference loop in this way, so it destroys the referents of the associated term. As the institutionalized item 'the bank is unsound' is replaced with

'other people regard the bank as unsound', the validity of the latter utterance is progressively destroyed."⁴⁵

The complex agent/community relation that is emergent from the necessity of continual negotiation of function and ostentation-design, and the associated necessity for stability of signs as to derive behavioural predictions will be dealt with in the section on semiotic stakeholding. And the problem will not be finally resolved, but we do find semiotic stakeholding to be the best theoretical figure to be used in the further discussion of the problem. For now, let us return to the discussion on the pre-conceptual apparatus appropriate for the rise of conceptualization. The image we have come to is roughly the following: the discriminatory intentionality pushes the relevant information into the process of induction within which the truth/falsity (usefulness/uselessness) is determined according to the communal human behaviour towards the intrusions of the world made apparent by the discriminatory intentionality⁴⁶. It must be stressed that while our conceptual capacities are clearly a sophistication and building on our non-conceptual capacities, they cannot be retroactively reduced to them. There is nothing specific in our conceptual frameworks that can be said to *necessarily* follow from our non-conceptual intentionality. There are certain robust structural necessities that follow, such as favouring of humans within the intentional realm and the two dominant inferential procedures applied to those realms – but it must at all times kept in mind that these themselves are *probable* in the population. It is moreover impossible to predict which "crutches" will the population (or an organism) choose in order to pass from difference to identity, and it is especially impossible to predict the further conceptual and semiotic developments. This is the result of a myriad of dynamic environmental contingencies, and particularly of social contingencies.

45 Barnes, "Social Life as Bootstrapped Induction", *Sociology* Vol.17 No.4 (1983), 537.

46 ("When the non-B is in the room I get food, therefore when I am hungry I want non-B to be here to give me food. If this assumption proves right, I will continue to act this way.")

However, it can be said that in our model "[c]onceptual transformations track material patterns without mirroring them"⁴⁷, which is something we have noted in the Introduction it should be capable of accounting for. What must be remembered, moreover, is that *the intrusion of the outside world does not hinge on our being able to conceptualize it – quite the opposite, we conceptualize it in order to control it*. The social, and, by the foundational feedback, *the agent itself*, is built on the game of giving and asking for reasons, thus on conceptualization. As Reza Negarestani puts it:

"The rational demarcation lies in the difference between being capable of acknowledging a law and being solely bound by a law, between understanding and mere reliable responsiveness to stimuli. It lies in the difference between stabilized communication through concepts (as made possible by the communal space of language and symbolic forms) and chaotically unstable or transient types of response or communication (such as complex reactions triggered purely by biological states and organic requirements or group calls and alerts among social animals). Without such stabilization of communication through concepts and modes of inference involved in conception, the cultural evolution as well as the conceptual accumulation and refinement required for the evolution of knowledge as a shared enterprise would be impossible."⁴⁸

Now, one part of the question of conceptualization has been answered: the question of what it formally is, namely an idiom of sensations. We have so far been using the terms "idiomatic structure" and "idiomatic strategy" in different contexts, but it must be noted that they are merely two aspects

47 Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 112.

48 Negarestani, "The Labor of the Inhuman, Part I: Human", accessed 1. 3. 2015, <http://www.e-flux.com/journal/the-labor-of-the-inhuman-part-i-human/>

(structure when we are talking about it as a thing, and strategy when we are talking about it as an action) of the same thing, namely of a sign. To remind ourselves, let's repeat that a sign is the idiomatic structure/strategy:

If (change in the MCE) A then (change in the MCE) B;

where A stands for the ostentive behaviours (ostentation-design), and B stands for the change in behaviour on part of the affected agent *given A* (idiomatic manipulation). The further speculation would posit that all signs are stored under B, thus available from the standpoint of their behaviour-changing potentials.

We said that A is an ostentation-design (for instance, a word), and B is an idiomatic manipulation (for instance, a behaviour brought about by the use of the word). We have noted that what is called a concept is B, and that it is a set of public behaviours. To put it more accurately, the concept is the consequence of the use of the ostentation-design. So in order to learn a concept, the agent sees an ostentation-design used in public and sees the changes to the behaviour of the other agents (human and non-human) it brought about, and infers the set for this concept *according to the what it chooses to be its prototype, namely the family of its most relevant and usual uses, with a varying respect to setting the prototype up as to allow a larger amount of possibilities of uses different to the prototypical (as to allow a larger plasticity of the sign*⁴⁹). In this way, signs are reduced to functions they play in the community of sign-users, and not to things they supposedly represent.

"(...) concepts are to be understood by the theorist in terms of the *rules* that make them explicit, rules that specify how the concepts are *properly or correctly* applied and otherwise employed."⁵⁰

49 This is something we will make clearer in the part on semiotic stakeholding.

50 Brandom, *Making it Explicit: Reasoning, Representing, and Discursive Commitment*, (Cambridge: Harvard

To use an ostentation-design x means to bring about the function x , but it also means to be responsible for the function x because of the use of ostentation-design x , and it means to spread the use of ostentation-design x for function x among other agents, and be responsible for this spreading. This is how signs are nothing but signals for bundles of normative commitments.

"We might train a parrot reliably to respond differentially to the visible presence of red things by squawking 'That's red.' It would not yet be *describing* things as red, would not be applying the concept red to them, because the noise it makes has no significance for it. It does not know that it follows from something's being red that it is colored, that it cannot be wholly green, and so on. Ignorant as it is of those inferential consequences, the parrot does not grasp the concept (...) The lesson is that even observational concepts, whose principal circumstances of appropriate application are non-inferential (a matter of reliable dispositions to respond differentially to non-linguistic stimuli) must have inferential consequences in order to make possible description, as opposed to the sort of classification effected by non-conceptual labels."⁵¹

To commit to hold certain inferential consequences when using a certain concept – or in our parlance, to commit to a certain function when using a certain ostentation-design – is what will come to be known by the end of this thesis as *semiotic stakeholding*.

Also, it should be noted here that it is tempting to corroborate this account with the theoretical underpinnings of connectionist models in cognitive science:

University Press, 1994), 10.

⁵¹ Brandom, "How Analytic Philosophy has Failed Cognitive Science", accessed 15. 2. 2015, <http://www.pitt.edu/~brandom/currentwork.html>.

*"In connectionist model 'words' do not 'encode' experience. Rather, words signify schemas, which means that the units activated by a particular speech sound also activate a larger pattern of connections which are the active schema for a particular experience. The sounds of words are like 'pointers' to patterns of experience – indices to internal mental structures, not 'veils' between reality and experience."*⁵²

But, we will leave the details of this "marriage" for some other paper.

We have, however, been using the term 'representation' a lot. This is partly because we adopted the parlance of the theories we have been debating with, but partly because it is not necessarily a wrong term. For, the idiomatic strategy itself is not public, only the ostentation-designs are, and they stand in the public relation to one another in a way that could be called representational. Both the beach and the word "beach" may or may not be ostentation-designs, depending on the particular situation. If somebody points to the beach, this pointing and the object that is the beach are an ostentation-design – one cannot say that mere pointing is the ostentation-design because it is crucial to pointing to point *to* something. "To point" and "to point at a beach" seem to be two different ostentation-designs. Equally, when the word "beach" is written on some poster I am not looking at, it has no ostentive weight, it is merely an environment. Now, one could say – but it is obvious that the word "beach" should have ostentive weight, it is made in order to have it. Beach itself is certainly not. This is obviously so, but it is not the point. The point is that both of those things have a potential to be a part of the ostentation-design, despite the fact that they are not both made to be. Even more to the point, the term "beach" is made to, to put it very roughly, evoke an image of the beach in your head – and its purpose is therefore representational. This is not an account of what the sign "beach" is, it is an

52 D'Andrade, *The Development of Cognitive Anthropology* (Cambridge: Cambridge University Press, 1995), 149.

account of what its ostentation-design is in relation to another ostentation-design. While pointing at the beach and saying "beach" bring about completely different behaviours in different situations, their ostentation-designs stand in a relation which can in certain cases be called representational – for instance, if somebody were to point at the beach and tell you "Beach!", intending for you to use the utterance "beach" to mean "pointing at the beach as an object of interest for our semiotic exchange". The relation is not between a thing called beach and a word for it, but between two languages. "*Beach*" represents "*pointing to a beach*" the same way, to sneak in Sellars' example, "*rot*" in German represents "*red*" in English⁵³. They fill the same functional role in both languages, meaning they are, in our parlance, the same idiomatic manipulation.

Now, once a sign is somewhat established in the community, and thus somewhat established for the agent, it, so to speak, feeds back into the agent's perceptual device, sophisticating it in accordance with the useful mappings. This allows the agent to *track* the environment (both, so to say, natural and social), and thus act upon it with higher probability of success⁵⁴. This tracking is a tracking of functions, not meanings in the usual sense, and we must make the idea of functions a bit clearer here.

Firstly, let us repeat that what we have so far called an idiomatic manipulation, namely the change in behaviour on part of the affected agent given a particular ostentation-design, can also be called *a function*. Now, we must not fall prey to either the trap of bad biology, and see functions as evolutionary advantages (for a number of human semiotic practices have no real evolutionary stake, and another number is even rather detrimental to humans), or to the culturist trap, and see functions as a closed set of stable practices within a community (for communities are in constant re-negotiation, if for no other reason than for the reason of semiotic mutation that is, as we

53 Sellars, "Empiricism and the Philosophy of Mind", in *Science, Perception and Reality* (Atascadero: Ridgeview Publishing Company, 1963).

54 This does not mean that the tracking will necessarily turn out to be successful.

have noted, a constant in all possible semiotic traffic). We must insist on noting that *there are, at least for a serious social scientist, no set functions* in any sense, either vaguely biological or vaguely cultural. With respect to the debate on environmental normativity, functions are representative of the world only insofar as they are representative of the mutual cognitive environment in which the agent recognizes them. Namely, the tracking of the world among the human population has given rise to certain idiomatic strategies that are more probable, but by no means necessary, across the different semiotic systems. This is all that functions are – a theoretical figure to help us talk about how do the ostentation-design x and the ostentation-design y relate to the similar change in the behaviour of agents affected by either of them, while keeping in mind that the similarity is obviously in the eyes of the beholder and needs to be explicated by the beholder. Functions have a methodological quality of enabling comparative discourse on conceptualization across human population⁵⁵.

For instance, the majority of known human languages share a marker of the speaker, a role that is in English filled by either "I" or "me". Agents are therefore capable of conceptualizing themselves as well as the environment. We are now going to try to give an account of how this is possible.

3.2.3. Self

So far, our model can be said to be built on the following beliefs: that conceptuality is an external event (it is derived from an observation we are cognitively capable of making and certain social enforcement towards making it repeatedly), that conceptuality is idiomaticity (it relates to a set of normative

⁵⁵ It must also be noted that functions, because they are *idiomatic* manipulations engaged in a *phronetic* competition within a situation, are to be understood in contagion (social transmission) terms not as behaviours, but as *dispositions* – this distinction is crucial in contemporary generative social theory. (We will continue to use the term behaviour, because it is a clearer representation for our purposes.) See Epstein, *Agent_Zero: Toward Neurocognitive Foundations for Generative Social Science* (Princeton: Princeton University Press, 2013).

commitments of the ostentation-design, not to a thing the ostentation-design denotes), and that we cannot manipulate anything that we do not render conceptual. Now, while we said that agent's basic feature is manipulation of other agents, this definition disregards something crucial: *that agent manipulates itself as well*. In order to do that, agent must have some image of its, so to speak, inner life, and to do that, it must conceptualize it. To explain how does the agent come to conceptualize itself and its inner life, we turn again to Sellars, and its account of deriving statements about one's own "state of mind" from statements about the outside world, and particularly about the outside social world. As we have previously noted via Sellars' myth of the given, to recognize something as X, one needs to acquire conceptual capacities: to assume that the world is made of propositions is an anti-naturalist position. And agent is itself a part of the world, and events, so to speak, within the agent have to be distinguished with the same scalpel as are the events without the agent. To turn to Ray Brassier explicating Sellars:

"The ability to introspect and perceive *that* one is thinking X or feeling Y presupposes conceptual capacities rooted in linguistic practice."⁵⁶

Brassier rightly notices that a serious note must be added here: this does not mean there are no pre-verbal or non-verbal thoughts, it merely means we have no epistemic access to them before semiotic protocols. Thoughts are ontologically previous to signs and are, by all means, more than signs; however, they are epistemologically after signs, they become available to us only once we assign semiotic forms to them. For our purposes this means: we cannot manipulate them without assigning signs to them.

"Sellars is as much of a realist about inner-thought episodes as Descartes. His amendment to Cartesianism insists only that access to

⁵⁶ Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 105.

'inner' reality is just as mediated as access to 'outer' reality. Sellars does not say that thoughts are necessarily public or even essentially publicizable; his claim is that our ability to understand what a thought is is tributary to communally generated and publicly shared conceptual resources."⁵⁷

This is of particular relevance to our model because the hypothesis of self appears to have a strong causal connection to behavioural decisions, particularly in their phronetic phase – agents significantly judge their behavioural options according to the social place they see themselves assuming and the behavioural capacities they assign themselves. Also, as picoeconomics teaches us,

"(s)aying that people are not equivalent to their underlying biological phenomes is just a matter of semantic preference, of course, but *it is a preference that seems to have good reasons behind it*. When we are applying economic theory the reason is especially clear: *the selfless – more aptly, 'non-enculturated' – organism has a different utility function from the person*."⁵⁸

The only way for an agent to access itself is via transposing the assumed conceptualization derived from publicly observable behaviours onto the intrusions of its mental life (which are not different in kind to the intrusions of the outer world) in order to control and maintain and change it, but also in order to make it known to other agents. This does not mean that what is happening within the agent is the same as these assignments, in the same way what is happening outside the agent is not reducible to these assignments. Nor is there some kind of a mysterious similarity between what

57 Brassier, "Nominalism, Naturalism, and Materialism: Sellars's Critical Ontology", in *Contemporary Philosophical Naturalism and Its Implications*, ed. Bashour and Muller (New York: Routledge, 2014), 105.

58 Ross, "The economics of the sub-personal: two research programs", in *Economics and the Mind*, ed. Montero and White (London: Routledge, 2007), 48, my italics.

is taking place outside the agent and what is taking place inside it. It merely means that the tools the agent uses to conceptualize and communicate what is taking place inside it are the tools it learned to use to conceptualize and communicate what is taking place outside it. Agent gathers tools from its surroundings, but in gathering them, it changes them in a myriad of ways, some, as we have noted in the general anatomy, known and some unknown to it. Also, tools are, to repeat, idiomatic, and as such are highly sensitive to change of context: and the context always changes, so the tools are always adapting, with success as you were to measure it.

And the measuring of success really is a tricky thing – it might easily lead us into certain determinisms of bad biology or culturalism if we were to establish a notion of successfulness from a certain objective viewpoint. In our parlance, successfulness is something that should be derived from the agent's account of its desired world. *It must however be noted that the agent's account is always made only of ostentation-design, and the researcher has no immediate access into the function but through more ostentation-design ("I do x because I want y", where both x and y are ontologically ostentation-designs).* This is why the agent's desired world is not only to be speculated upon as a certain synthesis of other agents' behaviours (a speculation the researcher is eventually expected to undertake), but is to be judged from the ostentation-designs the agent exhibits a particular interest in being used properly, which is something we will call semiotic stakeholding. To have a self is to engage in the specific subset of the practices of semiotic stakeholding.

We are now going to take a closer look at the notion of semiotic stakeholding.

3.2.4. Semiotic Stakeholding

"What a better understanding of myth, literature, ritual, etc., has shown is that these cultural phenomena do not, in general, serve to convey precise and predictable messages. They focus the attention of the audience in certain directions; they help to impose some structure on experience."⁵⁹

As all communication does, the particular cultural items (meaning, all material 'objects' of the particular population) that the anthropologists have been alarmingly focused on also serve to bring about the change in the mutual cognitive environment. They do not 'mean' a certain finite proposition, they try to influence the way one conceptualizes which in effect should lead into the changing of the one's behaviour. As we have seen, our model claims all communication as built upon this need. And as we have seen, communication is upgraded into communication with signs once a population of users of the particular signs starts to care about their *proper use* (and work towards transmitting it accordingly). This means they have semiotic stakeholdings – they are invested in the bundles of normative commitments the signs 'signal'. What they get in return for their care for the proper use of x is the ostentation-boosting potential of x. It establishes them as stakeholders in x, which in effect means that it establishes them as stakeholders in the behaviour x is 'meant' to generate. However, given that each individual agent that is a member of the population of stakeholders in x has a particular notion of the proper use of x, the social situation is the one of negotiation of x.

What does it precisely mean for a sign to be in a process of negotiation? In order to answer this, we have to turn to the prime pragmatist, Pierce, for his account of the relation between the sign's generality and the sign's vagueness.

"Logicians have too much neglected the study of vagueness, not

59 Sperber and Wilson, *Relevance: Communication and Cognition* (Cambridge: Blackwell, 1986), 16.

suspecting the important part it plays in mathematical thought. It is the antithetical analogue of generality. A sign is objectively general, in so far as, *leaving its effective interpretation indeterminate, it surrenders to the interpreter the right of completing the determination for himself.* 'Man is mortal.' 'What man?' 'Any man you like.' A sign is objectively vague, in so far as, *leaving its interpretation more or less indeterminate, it reserves for some other possible sign or experience the function of completing the determination.* 'This month,' says the almanac-oracle, 'a great event is to happen.' 'What event?' 'Oh, we shall see. The almanac doesn't tell that.'"⁶⁰

Human agents speak in general terms, even when they speak of a thing with a specific name. If they speak of Alice, for example, they speak of a set of behaviours performed by Alice to their first-hand or second-hand evidential apparatus (the first being, so to speak, direct perception, with all the epistemic constraints that implies; and the second-hand being, ofcourse, through social account) in a situationally-mediated meeting with the bulk of their general knowledge of the world. This name does not 'mean' Alice to them. It 'means' a population of Alices that "light up in their heads", as well as, hopefully, that "light up in all other people's heads" who they are trying to convey a message about Alice to, and whose behaviour they are trying to manipulate through the utterance involving Alice. The populations of Alices in two heads are different populations. This much is clear.

Given this, all there is to negotiation is a conversation, meaning a *disagreement*. Complete agreement is a monologue – the speech on which ostentation-designs are tied to which functions, rendered using only ostentation-designs (for instance, the cultural items we mentioned in the beginning are an example of this). Conversation is a negotiation on this question, it is a disagreement on the choice of ostentation-design tied to a

⁶⁰ Peirce via Zalamea, "Peirce's Continuum: A Methodological and Mathematical Approach", accessed 15. 1. 2015, <http://acervo.peirceano.org/wp-content/uploads/2011/09/Zalamea-Peirces-Continuum.pdf>

particular function, rendered using only ostentation designs, but also a negotiation of the particular function.

One possible, and at that crucially possible behaviour on the part of the other agents, is that they will succeed in changing the 'meaning' of "Alice", that they will show the agent conveyer that its use of the sign "Alice" is improper. *To be a stakeholder in "Alice" means to have a stake in this call.*

This call can be answered for three distinct reasons: first, because the behaviour that "Alice" is supposed to convey is already here; second, because there is some behaviour that overrides the one conveyed by "Alice" (this is the reason that can be tied to cases of oppression); and third, because the agent conveyer is merely learning to use "Alice" and is effectively asking the other agents to improve its use (in which case, the semiotic stakeholding is the sort of the constructivist toy with which one learns to use the tool).

The first reason is important for a social researcher because it shows explicitly that the greatest value of a sign is its possibility to no longer be needed. In giving up its proper use, we are giving up our allegiance to the sign, for we see we don't need it anymore – the behaviour it was supposed to bring is already here. Each sign that we hold a stake in is the sign that we wish would no longer be needed in our life – the more we wish for a behaviour, the more we desire the sign to be made void.

The second reason can be called *phronetic*. Phronesis is the cost-benefit analysis within the network of semiotic stakes which are made plausible via the available and *recognized* evidence provided by the situation. The list of desired behaviours is organized by *choosing and adjusting* the general principle given (in a non-ontological, in the sense of *as-recognized-by-the-agent*) the situational requirements. Agents judge the situation they are in, and, as we have said, choose what they conceptualize as *appropriate and available* tools towards the establishment of their desired world, and in doing so, spawn a list of desired worlds *appropriate and available* for the

given situation: for certain worlds that are likely and not-as-good can become more desired within a situation than those that are unlikely and better. This is important for a social researcher because it gives her information on how does the agent judge a situation, which information are relevant and how do these information influence the formation of the desire as well as choice of appropriate and available tools.

The third reason is particularly important for a social researcher, because this is in effect what she is trying to understand (namely, how does a population use signs?) and thus this is the crucial practice in the course of the research.

Second and third reason also require us to note a specific kind of behaviour among agents, which could be called *membership*. Community is found on limited choice, for all an agent has at its disposal are approximations of function via ostentation-design and a changing environment. To elevate its chances of manipulating the world into a desired one, since an agent will not be met with absolute possibility of this manipulation, its only intelligent prioritizing is to desire membership, primarily to the community it is thrown into, and at a certain point, if this is possible, to communities of choice among the communities available and *affordable*⁶¹ in the preset state of things. In other words, all there is to membership is the economy of our cognitive processes: members get something for free. What they get for free is a set of assumptions (normative commitments), and, crucially, "a promise" that all other members hold the same set of assumptions. *Assumptions limit the space of functions* (this could be called "the principle of cognitive economy"), and thus assumptions that we can assume we share limit the space of functions within the population of

⁶¹ We have downplayed the concept of "affordability" in this text for simple reason that we cannot presently do it justice. However, it seems "affordability", as well as the whole are of ecological psychology will be of immense importance to the model we are presenting. For now, we can define that the affordances are the "properties of the context which may be creatively exploited for communicative purposes", as they are defined in Levison, "Deixis", in *Handbook of Pragmatics*, ed. Horn and Ward (Oxford: Blackwell, 2004), 106. Also, see Heft, *Ecological Psychology in Context* (New Jersey: Lawrence Erlbaum Associates, Inc. 2001). It should be noted, regarding Heft's work, that we should not take affordances in the radical empiricism sense of sense-data, but in our Sellars-Sperber sense of being eligible to become a part of MCE.

members, allowing for the communication with less cognitive effort for more cognitive effect.

Obviously, membership is important from the standpoint of social becoming a *community*, and a body of anthropological research into ethnogenesis suggests that the development of such stable social organizations is due to behaviours that could be accounted for by semiotic stakeholding:

"The ethnogenesis literature is a fairly new one, but it is becoming increasingly clear that most of human history was characterized by continual social change. Rather than timeless groups living for thousands of years in their ancestral territories, new groups were being created, and old ones dissolving, all the time. Many of what we have come to think of as tribes, or nations, or ethnic groups were originally collective *projects* of some sort."⁶²

For the researcher, these three reasons mean that the focus in the social situation is to be on the agents that, so to speak, give up the signs, for their reasons for doing so are the basic introduction into what is taking place in the social situation. All agential behaviour vis-a-vis semiotic stakeholding is, effectively, vetting the other agents towards a goal of rendering the signs void, which is, *nota bene*, never completely achieved, for the complete desired world is never here.

⁶² Graeber, *Fragments of an Anarchist Anthropology* (Chicago: Prickly Paradigm Press, 2004), 56, my italics

4. A Few Other Implications for Research

In order to perform something we might call "social diagnostics", we should begin by slicing the semiotic stakeholdings into three layers. First would be those assumptions that everybody thinks everybody holds, second would be those assumptions that everybody chooses for themselves in order to change the situation and those they think others have chosen or will choose in order to change the situation, and third is those assumptions that all are ignorant of holding (to be unearthed firstly by those within the situation that hold a different position within that situation). In effect, this can be translated into key questions all involved agents are to be asked, whenever this is possible. This does not necessarily mean that our model is capable of accounting for only very small communities – for community is not necessarily the situation. Community and situation are in many cases different populations – for instance, when we are researching the plausibility of a certain policy, we are dealing with population(s) of performers and users of this policy, and even at that, we need to make a decision as to who are the key players in the social game, which in case of policy-making is the effective chain of performers of policy-delivery and those that policy will affect either directly (as a part of the policy) or indirectly (which can be recognized only by looking at the populations interlocked in certain dynamics that policy intervenes into). The questions (which are to be developed into other questions within a *conversation*) these are all (by which, in larger populations, we can mean *clear cases of those agents*) to be asked are:

first,

What is the situation?

second,

What would you like the situation to be?

What can you say/do to change the situation?

What would each other agent like the situation to be?

What can each other agent say/do to change the situation?

third,

What doesn't each other agent know about the situation and other agents?

From these answers, the researcher posits the functions competing towards the resolution of the situation, as well as the structure of the social revealed by the phronetics of particular agents, for their prioritization of functions gives insight into manoeuvring spaces they recognize and therefore positions they hold within the social game. The answers, if the conversation is successful, also provide the insight into habits and institutions that have significant *assumption-seeding* power.

All of this requires a strong speculation on part of the researcher, surely; and at that particularly the speculation on *the unit of the sign* – the flood of discourse does not give signs, but they must be inferred. This is, for all accounts and purposes, the basic "impediment" of qualitative research. The unit will surely be chosen partly according to the certain comparative trans-situational reservoir of signs (and, particularly, functions), and we can hope these will become more sophisticated with each research if each research is capable of conceptualizing the deviations from the posited prototypes, and thus enriching the normative commitments contained in the particular trans-situational function. Even so, researchers are to be encouraged to begin with as particularly situational functions as possible, and only to build towards trans-situational ones with extreme care. That said, it is neither of consequence nor is it a wise epistemological commitment to ask for an epistemological puritanism at this particular quest – for this would require the researcher to be on the ontologically different level than the object

of her research. And this is simply not true in this particular case – the researcher has to be counted as an agent, for she not only inevitably but blatantly is. This is *the stake* of the research.

Not all social research had social consequences, but the social research of human history has shown quite conclusively that many did. Our present knowledge of the social is by no means adequate to posit predictions with certainty, nor will it, arguably, ever be. Thus it cannot posit which social research will have consequence. Numerous will at least on a local level, they will shape percentages of generations, or generations, or compartments, or future entrepreneurs, politicians, economists, lawyers, scientists, activists, or at the very least, citizens. *All research is intervention*. This seems to be true of the physical sciences, but can with utmost certainty be said of social research – not only in the fundamentally Kantian sense, but also in the very vulgar sense of consequences for the object of study. This means that the stakes are high enough to be plenty considerate in choosing the function and the populations one wants to observe and explain. Effectively, the scientific community should be pressuring the appropriate stakes.

The determination of the unit cannot be done without the conceptualization of the system within which it operates (effectively, the system of stakes). The way to escape this problem is to posit that the researcher to a point *mimics* the learner, who in effect solves it even without a comparative system to fall back on⁶³: *researcher tries to complete the determination, which leads to the negotiation of the sign*.

This is *the conversation*, as opposed to an interview. Certain possible routes the researcher could take are: asking for allegiances, inquiring on reasoning, exposing paradoxes in reasoning and allegiances directly and indirectly, asking for the account of the other agents in the situation, asking for the account of the other agents' reasoning and allegiances, etc. The researcher records these and analyzes qualitatively along with the general

⁶³ For, as we have seen in the chapter on conceptualization, the pre-conceptual apparatus could be speculated to merely structure the discriminatory intentionality and minimal inferential procedures.

framework of populationist approach, a bulk of biological, sociological, psychological, cognitivist, philosophical and historical knowledge, as well as any other science the situation requires, then judges the stakes of the research itself (therefore, to an extent, performs the reflection on her own externalized judgment), and gives the best-bet map of the functions that make up the situation to the scientific community. (Intervener gives the best bet in the execution of a policy or a tactic.) In both cases, the stakes are of the research itself, which means the researcher is capable of judging *what is at stake* with the research in question – namely, what kind of behaviour will it generate? (If the particular research allows, the approximations on the stakes should be made explicit.) In effect, if we observe the observer, the researcher is making a phronetic judgement (a calculation of commitments).

At this point our striving to count researcher as an agent among agents should become quite apparent. But in order to put a final note to it, let us insist that populationist research should be, whenever possible, done *by a population*, namely a group of researchers that have to negotiate the interpretation of the situation among themselves – therefore, have to engage in the negotiation of their own semiotic stakeholdings in order to find the signs that they as a population can institute.

5. Conclusion

This thesis tried to devise a model of an agent that could give the rise to the social. The reason for this thesis is to be found in our belief that in order to do qualitative research we need the model of the agent and the model of the social that all interpretation can be gathered around to derive legitimacy and keep track of significant interpretative commitments. We believe this could lead to the limited, in Kuhnian terms, normalization of the social science, which it appears to need. This is not to say that social science needs to give up on its epistemic opportunism, but that it could derive more strength from its epistemic opportunism if it were given a pivotal point which would drive its commendable epistemic wanderings back into a materialist, externalist and pragmatist framework. The most rudimentary propositions of the populationist approach could be stated as following: first, *the social is made of populations of agents manipulating populations of signs*; second, *the agents are biological and historical contingencies that manifest reasoning and form desires, and make mistakes in representing, computing and communicating the environmental changes*; third, *the signs are publicly observable changes in the environment (ostentation-designs; evidence) that are made to change the behaviour of other agents (function; inference)*; and fourth, *the signs, because they are general, necessitate constant re-negotiation, which allows for the tracking of agents' functional commitments, which in turn allows for the mapping of the social situation*.

This thesis tried, building from specific theories of communication, conceptualization and self, to establish a way to inquire into the social situation as a specific exchange of signs, most importantly their function – the behaviour they intend to generate. It also tried to account for a community, as a specific type of a human population, and particularly, it tried to devise a way to track of its three main aspects, namely learning,

oppression and membership. It has done this by completely inserting the researcher into the situation, and accounting for her practices of inquiry by the same means that the practices of inquiry of other agents in the situation are accounted for – namely via semiotic stakeholding. It needs refinement and development, but we believe it has ungrounded certain relevant ideas and brought them into a model that could be a serious candidate for the normalization of social science.

It has done this by making use of the pragmatist epistemology, one that puts the negotiation of the sign in the forefront of all organizational activity, and which posits that in cases of low social oppression combined with low resistance of the world, the institution of truth can be said to be successfully tracking the changes in the environment, meaning the chosen sign can be said to be appropriate.

This model has been developed because of a belief that social epistemology has to contribute significant tools to the future social science, and that it is in a unique position to contribute tools to its most sensitive, and yet most needed, aspect – the qualitative research. While all serious future social scientific research must be an interface of various strands of research programmes, understanding the social situation is impossible without understanding the specific configurations of reasons and ways of articulating those reasons among the agents. This understanding must be in accord with a particular model of the agent if it is to claim any disciplined, and accountable, reading. This is why we have tried to contribute a model of the agent we find to be the best bet as to the largest amount of problems with devising such a minimalist, and yet usable, theoretical construction. We hope it will be a useful tool for the better understanding of the social in the future.

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Abstract

The following thesis is an attempt at devising the theory of the social that would enable a method for qualitative social research. Qualitative social research is, for reasons that will be presented, a necessary component of serious social science, but also of its instrumentalizations, such as the practice of policy-making. The thesis that follows tries to construct a formal framework within which a negotiation on interpretations of social situations can take place. It posits the social as made of populations of agents manipulating populations of signs in order to manipulate other agents. It arrives at the methodological proposition that the signs, because they are general, necessitate constant re-negotiation, which allows for the tracking of agents' functional commitments, which in turn allows for the mapping of the social situation. The model will be principally built by supplementing the (certain key aspects of) theory of Wilfrid Sellars by (certain key aspects of) relevance theory of Dan Sperber and Deidre Wilson, and eventually by the contribution of the author in form of the theoretical figure of semiotic stakeholding, added in order to account for both the emergence of the community and the restrictions on the space of reasons by the social.

Key words:

social epistemology; social science; qualitative research; Sellars; Sperber; pragmatism; functionalism; agent; functions; semiotic stakeholding