

Towards an ecology of action

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Abstract – The purpose of this article is to propose an upstream thought, from a series of scientifically validated facts, about our stimulation needs, to induce from them a series of general laws and principles intended to establish the bases of a general explanatory model of the addictions. We ask the relevance of the addiction concept faced with its extension to growing number of behaviours and faced with the overabundance of the models which attempt to explain it. Where is the limit between scientific definition of addiction and metaphor? How to match the neurobiological models, with the conditioning, learning or psycho-analytical ones? There should be a real disproportion between the wide unifying goal of the addiction concept and the too much narrow models which use it. So, a paradigmatic changing seems to be imperative. A series of facts about stimulus deprivation allows to establish four general laws concerning our daily life actions seen in their « pragmalogical » function of research and consummation of stimulations. From these laws, we propose an « action system » model which the both functional goals are : to maintain an optimal level of stimulation and to maintain a lower level of « dysphoric real life experience ». This novel model of a « psychological stimulation need », allows a new definition of the addiction concept in a more general manner as a continuum from the « everyday addictions » to the pathological addictions, in the framework of an « ecology of action ». If this system of actions model is validated in the future, it could help to improve the relapse prevention programs.

Key words. Ecology of action, Action system, Drug addiction, Addiction.

Vers une écologie de l'action

Résumé – Le but de cet article est de proposer une réflexion en amont, à partir d'une série de faits scientifiquement validés, à propos de nos besoins de stimulation, d'en induire une série de lois générales et de principes destinés à établir les bases d'un modèle explicatif général des addictions. Nous posons la question de la pertinence du concept d'addiction face à son extension sur un nombre croissant de conduites et face à la pléthore des modèles qui tente de l'expliquer. Où est la frontière entre définition scientifique de l'addiction et métaphore? Comment concilier les modèles neurobiologiques, avec ceux des conditionnements, des apprentissages ou psychanalytiques? Il y aurait bien une disproportion entre la visée unificatrice large du concept d'addiction et les modèles trop étroit qui l'utilisent. Aussi, un changement de paradigme semble s'imposer. Une série de faits touchant aux carences de stimulations nous permettent de poser quatre lois générales concernant nos actions de la vie quotidienne considérées dans leur fonction « pragmalogique » de recherche et consommation de stimulations. A partir de ces lois, nous proposons le modèle d'un « système d'actions » dont les deux buts fonctionnels sont : le maintien d'un niveau optimal de stimulation et le maintien au plus bas d'un niveau de « vécu dysphorique ».

Ce nouveau modèle fédérateur, qui part d'une « faim psychique » de stimulations, nous permet de redéfinir plus généralement le concept d'addiction qui se présente désormais sur un continuum allant, d'un côté, des « addictions de la vie quotidienne », aux addictions pathologiques, dans la perspective d'une « écologie de l'action ». Si ce modèle d'un système d'actions était validé à l'avenir, il pourrait aider à l'amélioration des programmes de prévention de la rechute.

Mots clés. Ecologie de l'action, Système d'actions, Toxicomanie, Addiction.

« Man finds nothing so intolerable as to be in a state of complete rest, without passions, without occupation, without diversion, without effort. Then he faces his nullity, lone-liness, inadequacy, dependence, helplessness, emptiness. And at once there wells up from the depths of his soul boredom, gloom, depression, chagrin, resentment, despair. »

Blaise Pascal, *Pensées* (1670)¹

First of all, it is important to place this article in the correct context. Our intention is not to present a piece of research in the correct scientific format, but to explain a set of facts and thoughts that lead us to establish some general laws and to organise these laws into a new model, that of a system of actions. Our text should not therefore attract attention due to its 'results' but rather due to the opportunity that it gives the reader to consider for himself the appropriateness of a new, general model of addictions. We are therefore at that stage of scientific research in which 'unmethodical thinking' prepares the new framework that will later be used for 'meticulous thinking' (Bateson, 1980).

1 – The question of the relevance of the concept of addiction

Will the concept of addiction be a victim of its own success? Will it continue to be relevant, despite the fact that it is constantly being extended further, models are accumulating and there is no organising synthesis? There are currently no less than 12 types of addiction: drug addiction (including prescribed drugs) and alcoholism are the main two, but there is also smoking, anorexia and bulimia, addiction to excessive work, pathological gambling, suicide attempts, compulsive buying, kleptomania, risk-taking, excessive sport and compulsive sexual behaviour. To this list, some wish to add joining sects (Abgrall, 1996; Pedinielli, 1997), obsessive compulsive disorders, impulse control disorders for DSM IV impulses (explosive aggressiveness, kleptomania, pyromania, trichotillomania), social or romantic addictions, addictions to some excessive and compulsive forms of entertainment (telephone, Minitel, Internet, role-play, computer games, television, etc.). Finally if we look at the metaphors used in modern discourse, we often say 'it's my drug' when referring to many ordinary everyday activities such as our interests (collections, hobbies, DIY, leisure, work, creativity, study, reading, etc.). In the use of the word by the general public, reference is frequently made to compulsion ('it's stronger than me') and to withdrawal symptoms ('I couldn't do without it'). We are therefore dealing with a continuum which goes from established psychopathological disorders to popular expressions and from strict scientific definitions to the most disordered metaphors (Pedinielli, Rouan, Bertagne, 1997).

¹ Cita de Rogers, B. Pascal, p. 50, traducción de la versión Penguin de *Pensées*, de Krailsheimer, p. 622 (Harmondsworth, 1966).

The same applies to models: plethora and synthesis do not go well together. As well as the neurobiological models (Wise, Bozarth, 1987; Siegel, 1988; Solomon, 1991; Rothman, 1992; Neiss, 1993; Robinson, Berridge, 1993), there are the conditioning and learning models (Wickler, 1973; Post et al., 1981; Smith, Dworkin, 1990; O'Brien et al., 1992), the psychological cognitive-behaviour and sensation-seeking models (Zuckerman, 1994), Peele's eclectic model (Peele, Brodsky, 1975; Peele, 1985) and finally the psychoanalytic models (McDougall, 1978, 1982, 1996; Gutton, 1984; Charles-Nicholas, 1985; Jeammet, 1995).

The concept of addiction therefore seems like a nebula of meanings, attached to several model cores. In this nebula we are not too sure how to make the difference between what could be useful in the concept of addiction and what may arise from metaphor or even from analogy, with the risk of constructing 'theory-reflections' (analogy by resemblance between behaviour and concept) (Pedinielli, Rouan, Bertagne, 1997). We should therefore add to the uncertainty of the concept its inadequacy of its descriptive relevance, which consists of bringing behaviours together without being able to justify a coherent and unique explanatory model (*ibidem*). Finally, we think that the concept of addiction lacks scientific relevance, as the models attached to it are not powerful enough given the ambition involved in defining the concept itself. It evidently has a unifying aim with regard to observations, but if we do not wish to reduce it to Molière's famous 'lung' (supposed to explain all illnesses), we need to attach this concept to a model which corresponds to its unifying aims.

From an epistemological point of view, are we not on the verge one of Kuhn's (1990) famous 'scientific revolutions'? With the concept of addiction we are dealing with analogies that give the idea that there is some sort of 'intuition' in the mind, that people are sensitive to the fact that behind various types of behaviour there are some major unifying principles. We think that the increase in models is similar to the *ad hoc* accumulation of hypotheses typical of the passage from an old paradigm to a new paradigm. What we propose to do in the rest of this article is to set out a series of scientifically established facts along with an imaginary observation (but one that anyone can experience and monitor daily), in order to be able to draw from all of that, by convergent induction, some general laws that could be the point of departure for a unifying model of addictions.

2 – Collecting the facts

First of all let us distance ourselves from recognised addictive behaviour and try to embrace more experiences, using for that purpose a quite consensual definition of the concept of addiction. We have already pointed out that in general, the obscure, but spontaneous and established feeling of a 'drug effect' (when we say 'it's my drug') is based on a recognition of compulsion ('it's stronger than me') and of withdrawal symptoms ('I couldn't do without it'). To that we could add that sometimes the individual recognises some sort of 'need to increase the dosage' (many passions or interests have a tendency to invade the subject's life, more than he wishes). However, finally, we encounter compulsion, that need to do the thing that we are 'hooked on'. These anthropological elements of definition are in line with those proposed by Goodman (1990) who proposes that addiction should be defined as: "*A process whereby a behavior, that can function both to produce pleasure and to provide escape from internal discomfort, is employed in a pattern characterized by (1) recurrent failure to*

control the behavior (powerlessness) and (2) continuation of the behavior despite significant negative consequences (unmanageability)."

We believe that a general model of addictions should be able to respond to a series of criteria which will enable it to incorporate various existing models. As a basis it should include some very general explanatory neurobiological principals and should also be able to incorporate conditioning and learning as well as social models. It should enable us to take into account cognitive data, but also deeper intrapsychic data such as affects, complexes and fantasies. It should also be capable of bringing together the everyday 'minor addictions' and the 'major addictions' arising from psychopathology, under a general set of principles. This is the ambitious task that we decided to tackle, and we are submitting our first draft for criticism by readers.

It is very common to joke about the concept of addiction. This occurs when someone thinks they are being sarcastic by applying the concept to a primary need, for example, eating. They might say: "Yes, you're right, I am 'addicted' to food. I have to take it at least three times a day, every day, and if I don't take it, I suffer from withdrawal symptoms... I'm hungry!" However, there is actually an addiction to food (bulimia) which has nothing to do with the normal consumption of food. What is the difference? In this case there is the interior illness (depression, anxiety, loss of self esteem, psychic suffering, etc.). The bulimic is not 'hungry' in the natural sense of the word. His/her 'hunger' is a psychic hunger, projected onto the body. And the nature of this psychic hunger is that it has practically no limits. Psychic repletion is very brief, and also very ambiguous, due to distress, guilt and feelings of devaluation. It is far from the euphoria that follows a good meal aimed at 'feeding' a healthy physiological hunger.

The point of departure for a general model for addictions must therefore be this psychic hunger, as that is what will enable us to distinguish between the natural need and the addictive need. While using as a basis the idea of a psychic hunger, we will have to justify and explain this hunger at all levels: at cerebral, behavioural and also psychic level. If we continue reasoning in this way, we have to ask the following very simple question: what can satisfy a 'psychic hunger'? Some pieces of research dealing more specifically with 'psychic hunger' are going to help us to answer this question.

Let us consider the work done on deafferentation in the 1950's (Bexton, Héron and Scott, 1954: 70-76; Scott, Bexton, Héron and Doan, 1959: 200-209). Voluntary subjects placed in a situation of sensory, social and immobile isolation experience a progressive deterioration of their psyche in the space of a few hours (boredom, anxiety, distress, hallucinations, depression, even depersonalisation), with these destructured states being reversible after a normal level of stimulation has been restored. In more 'natural' contexts, which are nevertheless entirely involuntary from the point of view of the victims, we should recall the observations made by Soulé (1958) and Spitz (1968) on hospitalisation: infants that are hospitalised (otherwise well provided for with regards to their physiological needs), but are deprived of affective and social stimulation, fall into anaclitic depression and psychomotor retardation. We see exactly the same phenomenon in the elderly (Léger et al., 1989), and in the profoundly mentally retarded (Chiland, 1976) who are institutionalised and deprived of this type of psychic stimulation.

Now, in order to better understand the nature of these deprivations of psychic stimulation, let us turn to our day to day observations, or rather to what we rarely observe, because we make a great effort to avoid such experiences. But let us consider

an imaginary experiment (Loonis, 1997): for instance a subject who for a number of years, has been in the habit of watching the television every evening between 6pm and 7pm. For a week his television set is broken and he has no means of replacing it with another set or gaining access to a television outside his own home (a neighbour, family, a friend, a café). This question is this: if you were the subject, during that week, what would happen to you every evening between 6pm and 7pm?

Note that we do not ask you ‘what would you do’, which could lead you to choose an action. In general the answers are something like: ‘I would read’, ‘I would listen to music’, ‘I would do some sport’, ‘I would stay longer at work’, ‘I would eat earlier and go to bed,’ etc. These answers lead to four observations: 1) they all involve an action; 2) that action is in order to replace the action of ‘watching the television’; or 3) another action – such as ‘work’ or ‘sleep’ – has been extended in order to make up for the fact that it is not possible to ‘watch television’; finally 4) no one gave the solution which arises from a simple and linear logic of cause and effect: if it is impossible to ‘watch television’, for a week, every evening between 6pm and 7pm, the subject will sit down and... ‘do nothing’!

In practice, this last solution, which is the most obvious and the most natural in theory, seems so strange to the average person, that it seems completely mad to even mention it. So, the fact that it is impossible to ‘watch television’ did not give the subject the opportunity to ‘do nothing’ but the opportunity to ‘do something else,’ by substitution or by adjusting the amount of time spent on another action. This persistence, this perseveration of action, this impossibility of ‘doing nothing,’ leads us to ask several questions:

- Are our daily actions as independent from one another as we think they are?
- Beyond and in addition to their pragmatic function of adaptation to the world, do our daily actions not fulfil another function, which has so far been less obvious, affecting the depths of our internal functions?
- How is it that for us a dialectic of action and inaction is linked to a dialectic of comfort and discomfort?
- If our actions are interlinked, for example by substitution or by the distribution of time invested in them, does that point to an organisation, as system in which they have a place?

Ultimately, it is as if our well-filled diaries, with no gaps in activity, had, as well as their pragmatic function, a parallel function of ‘feeding’ a ‘need for action’. Let us consider therefore this ‘doing nothing’ and, as it does not come spontaneously, let us force its hand somewhat, to see. Let us continue with our imaginary experiment by confronting the reader with the following situation: the subject, with the broken television, also has ‘nothing to do’. He sits down in his usual chair, facing the blank television. Here is a new test question: if you were the subject, in this situation, what would happen to you? Again, the answers are surprising: ‘I would pick up a book’, ‘I would do crosswords’, ‘I would listen to the radio’. We remind them of the instruction that the subject has ‘nothing to do’, he ‘does nothing’, and then the answers become more subtle: ‘I would think about something’, ‘I would sing’, ‘I would get depressed’, ‘I would get distressed’, ‘I would get bored’, ‘I hate having nothing to do!’, ‘I could not last for an hour like that’. These answers can be grouped into two categories: 1) the perseveration

of a more or less residual action; 2) the appearance of a ‘dysphoric experience’. The perseveration of action still comes back to the ‘need for action’ that we had discovered earlier. However, the dysphoric experience is a new and interesting element that leads us to ask further questions:

- Why does a lack of action seem to plunge us into a negative affectivity, or even suffering?
- Is this suffering the result of a lack of action, or the emergence of an underlying suffering which remains hidden and disguised when there is action?

This imaginary experiment reveals a new relationship between the human being and his actions. We believed ourselves to be free to act or not to act, we thought that we could stop without any problem, we considered ourselves to be in control of our actions, and that control seemed obvious to us. But the experiment has shown that stopping all action is a practically impossible option to take, that action is a constraint on us, and a necessity. At the same time, any attempt to stop activity brings with it *ipso facto* distress, difficulty, discomfort, even somewhat painful feelings or sensations. So, why this constraint? Why this suffering?

3 - The need for psychic stimulation as a unifying model

From the observations presented above we can draw, by induction, three first general laws:

1. *The law of constraint of action (one cannot do nothing);*
2. *The law of the implications of the lack of action (any lack of action induces a dysphoric experience);*
3. *The law of perseveration of action (any lacking action induces the emergence of a substituting action).*

These laws, which will be the basis for our model (with an ulterior hypothetico-deductive aim), demand that we specify first of all what exactly we understand by ‘action’, and also that we give a new definition of the concept of addiction in view of these general laws.

We started from a psychic hunger, and we described the possible (or impossible) responses to this psychic hunger in terms of action. In order not to be left ‘with nothing to do’ the subject who no longer has his television finds himself ‘something else to do’. The mother gives the bored child ‘something to do’. The rehabilitation centre gives ‘activities’ to the deprived drug addict to try to help him overcome his discomfort. Are there specific actions that satisfy a psychic hunger? It seems not. Anything goes, all our daily actions can be used to satisfy a psychic hunger for stimulation. Of course, eating like a bulimic, taking drugs and compulsive masturbation are somewhat ‘specific’ actions, but they are only extreme derivatives of ordinary and normal actions (eating to sustain oneself, taking a small cerebral stimulant, making love). How can we understand this subtle passage from what we might call functional action to action as a stimulation?

In the 1940s, Merleau-Ponty (1942) had launched the idea of a general structure of behaviour, established on a set of the organism’s orientations towards its environment, which Varela (1989, 1993) would later call ‘enaction’ and ‘embodied action’. We must now replace the classic and linear model of a passive organism that receives stimuli

with a circular model by which the organism actively orientates itself towards the stimuli in the environment that are useful and necessary to it. The concept of 'enaction' suggests to us the first neurobiological bases of a new model: the survival system of every superior organism, including man, implies the voluntary implementation of retroactive loops between the activities of receiving stimuli and the resulting actions, in such a way that provides the necessary justification for the 'hunger for stimulation'. In this circular model, each action has two functions, one which responds to the attentive orientation towards the environment, and one which responds to the need to act on the environment. From this we can formulate a fourth law for our model:

4. *The law of the double function of actions (every action has both a pragmatic function of adaptation to the world and a pragmatological function of research and consumption of stimuli).*

Pragmatological means that in the context of this research and this consumption of stimuli, all our day to day actions form between them a 'system of actions': actions are considered according to the logic of their configurations in relation to each other (pragma-logic). In this system, there would be laws (for example of variety, time spent, substitution, balance of actions), but also principles and function goals, notably in the dialectic between the need for stimulation and the dysphoric experience that results from that need not being satisfied. Thus, talking on the telephone to a friend for an hour in the evening fulfils both of these functions: the pragmatic function of social adaptation and the pragmatological function of providing stimulation (because if your telephone is broken, then what else are you going to do? This question and its answer are still asked in terms of action).

From these general laws and from the functional dialectic of our model of a system of actions, we can redefine addiction as:

The set of actions organised into a system of actions and aimed at maintaining an optimum level of stimulation and a minimum level of dysphoric experience in the subject.

Our model of a system of actions does have a clear neurobiological substratum (for example, from the recent neurobiological literature we have drawn a 'triangular' synthesis, linking the neuronal systems of arousal, desire and pleasure/displeasure, which is capable of accounting for the cerebral bases of a system of actions at behavioural level (Loonis, 1997). It can be influenced by conditioning, learning and modelling. It can also depend on psychic structures such as cognitions, affects, complexes or fantasies. The system of actions has its origins and is underpinned in the infant by adults' systems of actions, and its fate will depend on the Winnicottian balance between too much and too little underpinning. Also, although we do not have room to develop these ideas here, the system of actions is directly linked to the subject's narcissistic foundations and his super-ego.

4 – Towards a continuum of addictions

Our model of a system of actions will allow us to better defeat the joke about addiction 'to food'. The point is that along with its pragmatic function of physiological sustenance, eating food also has a pragmatological function of another sort of 'feeding': feeding our brain with a complete dynamic, perceptive and sensorial spread (taste sensations, smells, vision, coenaesthesia of swallowing and repletion), that is psychic

stimuli. Everyone is stimulated by eating meals, but when the need for psychic stimulation deviates from the norm, eating meals also deviates from the norm, and that is bulimia. The bulimic does not feed herself on food but on sensations and on opportunistic stimulation from eating. She could use anything else: sexual sensations, kleptomaniac sensations, smoking sensations, heroin addiction... The common denominator is to reach a sufficient level of stimulation, prolonged by repetition, maintained by constantly elevating it, in order to compensate for this obscure void in herself, to bolster the self that is weakened by this void.

What we are starting to discern, and which is moving towards a general model of addictions, is a continuum which at one extreme would have what we propose to call 'everyday addictions' (Loonis, 1997), and at the other extreme, pathological addictions. Between the two, there would be a slow and gradual shift, determining the subject's 'ecology of action', the dynamic structure of his 'system of actions'.

Let us lay the problem back on the table. Consider two everyday observations, two complaints: 1) 'I'm bored... I don't know what to do... What shall I do?'; 2) 'I don't know what to do with my life... I get bored wherever I go... If this continues, I think I'm going to crack up!'. The first complaint could come from a ten year old child, the second from a twenty year old drug addict in rehab. They are strangely similar, and the answers that those around them are going to give to these complaints are also strangely similar: the mother will give her child 'something to do', and the rehab centre will also propose a whole series of activities to the drug addict. Now, from the point of view of an 'ecology of action', what do we observe? We see two subjects whose systems of action are clearly badly constructed and inconsistent, in that these systems are not able to satisfy the subjects' need for stimulation. With the first system, that of the child, we are dealing with a normal immaturity: as the child grows up it will learn to structure its system of actions in order to regulate his needs for stimulation himself and not get bored. However, the second system, that of the drug addict, reveals an abnormal immaturity: at twenty years old the subject is still not capable of managing his ecology of action without outside help.

So what does this help mean? We are once again dealing with the concept of underpinning. Whether it is the mother or the rehab centre, in these two cases we see a weak system of actions being underpinned, supported, by an external system of actions, through a series of incitements to act. The purpose of this 'pragmological' underpinning (as the idea is not so much to incite an adaptation action, but an action to stimulate and to escape from the boredom and suffering) brings us back to the origin of the system of actions, which is also, we are going to see, the origin of the individual and of his narcissism.

From the point of view of psychoanalytic clinical practice, it is currently well established that early narcissistic defects lead to depressive experiences and imply a later battle against these experiences, with body and behaviour (Bergeret, 1990). In view of the infant's need for stimulation and of its confrontation with the distress arising from the inconsistency of its sources of stimulation, we can now understand how the narcissistic underpinning that constructs the person is at the same time responsible for organising the child's system of actions. When stimuli are at an optimum (neither too much, nor too little), the child is first of all 'controlled' from the outside by the system of actions of those close to him (his parents, his mother). At the same time as the child

is becoming the object of some actions of his parents' system of actions, he is thus initiated to incitements to act himself (communication, games, exchanges, food, care) in the form of time invested in induced actions, and to quite a wide variety in its sources of stimulation. This initiation then becomes the learning of a system of actions which the child will grasp little by little in an increasingly autonomous fashion as he grows up. For a long time, or at least until adolescence, the child will quite often be heard complaining of boredom and of not knowing what to do, while at other times he will be seen to be completely absorbed by his games. Here we have examples of a system of actions that is still immature, which sometimes needs underpinning from adults in order to make up for his organisational deficiencies.

On the other hand, due to the dysfunctional nature of the infant's relations with its parents, its mother, it is forced to deal with an early lack of stimuli, which corresponds to a type of 'learning' of a lack of variety in his system of actions, 'learning' of the addictive use of some actions that are accessible to the infant himself. In order to alleviate his distress and his depression, we therefore see the child doing simple activities, without incitement to mentalisation and finally without any mentalisation at all. From Freud's famous 'reel game', in which the accompanying words ('fort', 'da') highlight the underlying fantasy (Freud, 1920), the child moves towards motor release of objects, rhythmic actions devoid of any psychic planning, where the only things that matter are the sensations of the body and action for action's sake, as a source of these sensations.

It is indeed through action and through establishing his system of actions that the child constructs his person and underpins his narcissism. From the external underpinning from his parents, the richness and constancy of the stimuli that he receives and the incitements that he is provided with, he formulates his own system of actions which little by little becomes the autonomous underpinning for his person. It is thanks to this system that he will be able to deal with his depression and his dysphoric experiences by himself, and manage his sources of stimulation, seek them, invent them and discover them in his own psyche. All of these pragmatological skills (as much as pragmatic skills), in a highly organised system of actions, which are the basis for his narcissism, of the self-underpinning psychic framework which guarantees his individuality.

A deficiency in these early stimuli, or other problems associated with an attack on the subject's narcissism, lead to a weakness in the organisation of the system of actions. It remains a fragile construction with the typical characteristics of addiction and of a lack of variety (a massive and abnormal amount of time spent on a too small number of actions). Such a system can only function on a high level of stimulation, which results in an equally high level of withdrawal symptoms. The picture of the distressed, hyperactive child, centred around misbehaviour and stereotypes, is a good example of such a disorganised system. This early etiology is undoubtedly not the only type imaginable. Later deficiencies, whether more or less traumatic, can most certainly disorganise a system of actions that is still immature. A family conflict, parents divorcing or a sexual attack, can for example be the disorganising event in a pre-adolescent. The disorganisation of the system of actions then appears as a loss of variety in the time spent on activities ('he is no longer interested in anything'), and then as an almost exclusive focus on a few particular actions which foreshadow the addictive behaviour (excessive studying and reading, compulsive masturbation, collections), or abnormal behaviour (excessive sport, consuming and morbid interests, etc.). All these

extremes of activity are marked by an addictive exclusivity, with the phenomena of withdrawal and habit and the famous ‘need to increase the dosage’.

An important point should be highlighted here: if there is ‘sufficiently good’ underpinning (to paraphrase Winnicott), the pragmatic and pragmalogical functions of each action in the system are and remain connected. These means that each action more or less equally fulfils each of those functions. However, a lack of underpinning of the immature system of actions leads to an ever greater divergence between the pragmatic and pragmalogical functions of each action. Little by little, the subject acquires a set of action programmes that are cut off from reality, out of concern to adapt and almost exclusively devoted seeking stimulation.

The picture of the pathological addict, the drug addict, can now be seen in a different light. Here we see a divergence between the two basic functions of all actions: the addictive behaviour is reduced to its purely pragmalogical function as a source of stimulation, and has practically no remaining link with the function of adaptation to the real world, and at worst the idea is to adapt to a reduced model of the world: the ‘drug market’.

Here it is useful to point out the profitability that we can predict of the concepts of ‘ecology of action’ and ‘system of actions’, by considering how applying them to psychopathology could have heuristic qualities. What a new and stimulating view we are going to have by looking at not only pathological addictions, but also phobias, obsessive compulsive disorders, deliriums, anorexia and bulimia and perversions, etc., as particular modes of a system of actions. In each case we would have to consider the ‘doing’ and the ‘what is the purpose for doing this’ and to link this to managing the psychic suffering from which the subject is trying to escape.

5 – Conclusion

The construction of a model (from a converging induction approach) should normally be followed by a test of that model according to a diverging hypothetico-deductive approach. We therefore need to take the four laws that have been established and the two principles of functioning that have been discovered, in order to translate them into operational hypotheses. This work remains to be done, and the ultimate aim of this article is indeed to stimulate research in this respect, if there have been any hints that our model might be relevant. However, we have attempted a small preliminary and exploratory study of a very small sample (N=14, 7 smoking drug addicts and 7 smoking control –not drug addicted), the narrowness of which really only allows us to make a purely descriptive analysis. Nevertheless, these modest results indicate the links between the development of the drug addicts in rehab over three months and their affectivity (depression, anxiety, pessimism) and also their ‘system of actions’, of which we tried to measure the parameters of ‘variety’ and ‘subjective investment in’ actions. For this we used an experimental tool, an inventory of about sixty everyday actions. The subject had to evaluate, on an analogical scale, the importance that the action had had for him over the past week. The subjective investment directly produced by the sum of the values given, as well as the variety given by the calculation of the standard deviation between the 60 items (the lower the standard deviation and the greater the number of actions done, means a higher level of variety, and vice-versa). The result is that over three months, by underpinning the drug addicts’ system of action, the programme of

activities offered by the rehabilitation centre increased the variety of this system of actions, which reduced the subjective investment in actions and improved mood.

These preliminary results can only give us an indication and should be the subject of more major research. There are currently several questions. First of all, from a methodological point of view, our experimental inventory, from which the items were arbitrarily chosen, should be constructed according to the rules. We could also consider using certain items from Lewinsohn's Pleasant Event Schedule along with a few interesting items from Zuckerman's Sensation Seeking Scale. There is also the more difficult question of the development of a system of actions during the course taken by the addicted subject. Here again, a tool capable of retrospectively evaluating, in a relatively reliable manner, the trajectory of a system of actions, could be helpful in establishing predictions of the course of addictions. Finally, if we do see the underpinning function, in terms of the system of actions, of rehabilitation centres, of other measures aimed at giving deprived drug addicts 'something to do', the question of the autonomy of the systems of actions beyond this underpinning, still remains. A final question is concerning the bilateral nature of the hypothesis of a system of actions: are there people who can defy the principle of maintaining an optimal level of stimulation and who can, as a result, get past the 'dysphoric experience'? Despite the great deal of American scientific work done in the 1970's and 1980's on meditation (and the European work done on relaxation), this issue still remains in too much doubt for it to be incorporated into acceptable research. Is this unfortunate? If the model of a system of actions is more widely validated in the future, we could then envisage implementing learning and coping strategies applied to the system of actions (learning to recognise it, structure it and control it), which could probably contribute to improving the Relapse Prevention Programmes.

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