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Deprivation, dysperception or dyssynchrony? A discussion of Singletary's integrative model of autism spectrum disorder. Commentary on “An integrative model of autism spectrum disorder: ASD as a neurobiological disorder of experienced environmental deprivation, early life stress, and allostatic overload” by William M. Singletary, M.D

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In the previous issue of this journal, Singletary proposed an integrative model of infantile autism (Singletary, 2015), based on a considerable amount of data from different fields of knowledge such as clinical psychiatry, psychoanalysis, biological psychiatry, experimental psychology, cognitive neuroscience, and literary memoirs. We thank the author for the clarity of his important work, which we will briefly discuss here.

We appreciate the integrative nature of Singletary's model, as it represents the kind of open-minded approach which is particularly needed in our country, where we suffer a never-ending “autism war” reflecting (in the guise of a scientific controversy) political struggles for power in the field of child disability (Vallade, 2015). Our local history of autism care is thus mainly made of back and forth movements between exclusive positions, of which patients and their families are of course the main victims¹.

As highlighted by Singletary in the introduction of his paper, a psychoanalytical viewpoint is « not often discussed on the current work on autism », a rather euphemistic statement since psychoanalysis is generally described as an outdated barbaric approach resting upon blaming parents, especially mothers. Though we acknowledge that this caricature unfortunately captures some truth regarding certain past visions of autism in the psychiatric community, we believe that no decent child psychiatrist now supports such an ill-

¹ In France, The Autism Alliance has published a « black list » of trainings in the autism field, suspected to propose « a content exclusively or almost exclusively not congruent with the Health High Authority Recommendations »¹. This list contains all training programs where psychoanalysts are involved.

informed attitude, and that the way for a neuropsychanalytical approach to autism is now open on the basis of good neuroscientific research and sensitive psychoanalytic contributions. We thus share Singletary's interest in a model of autism, which would be integrative, multidisciplinary, well-informed, and sensitive to clinical facts.

However, though we agree with most of his proposals, we consider that his central hypothesis that « predisposing neurobiological factors lead to the experience of environmental deprivation » in ASD (p. 84) is unconvincing, and we will suggest an alternative formulation of this issue.

To begin, it is problematic that no real definition of “environmental deprivation” was given by the author. He basically refers to Margaret Mahler's concept of “early autistic psychosis” (Mahler, 1968), which states (in rough contemporary terms) that babies vulnerable for autism are unable to bond with their caregivers, leading to an absence of attachment behaviors and their related emotions and cognitions. This viewpoint could account only for early autism cases, those beginning during the first months of life. However, it is now thought that a significant proportion of children with autism had no clear problems in social interaction during their first months of life (Maestro, 1999). Research on home videos has shown that the autistic symptoms do not elicit a diminishing interaction in parents, but rather an insistence and repetition of instructions, physical play, with a certain efficacy (Baranek, 1999; Trevarthen & Daniel, 2005). Saint Georges (2010) has shown that the parents of autistic children compared to controls and to parents of delayed children, show the same rate of responses to the babies' signals during the 18 first months; moreover, these parents also show a more intensive degree of initiating stimulation to obtain a positive interaction. This stimulation increases in the second semester of life, and decreases more slowly than in controls or in parents of delayed children.

More theoretically, it also seems to us that Singletary's fundamentally Mahlerian approach to autism leans on a too linear conception of development. Despite the fact that he proposes two main models of autism - one as a deficit in social motivation, the other one as a defence against excessive threat - referring to Tustin's (1990) « protective shell » - he always comes back to the “environmental deprivation”. Experienced clinicians know that almost all children with autism, even those with a severe form, can have at least moments of social contact with others, providing a stable and tempered relational context. In our opinion, this suggests that a part of the autistic phenomenology may not be basically related to a situation

of social deprivation, but rather to chaotic perception of internal and external worlds (Houzel, 2007).

We thus support Singletary's view that, in addition to basic social deficits, which may be primary, autism entails a defensive organization secondary to a neurodevelopmentally-induced distortion of the primitive Ego's stimulus barrier. However, we would refine his statement that « Extreme stress and **deprivation** of timely appropriate social stimulation may be the cause of the social problems seen in ASD » . In our view it is more a « timely inappropriate social stimulation », as cited by Singletary, a negative cascade which impacts the child-environment synchrony. Consequently, we believe that “dysperception” and “dyssynchrony” would be more adequate terms than “deprivation” to reflect the relationship of autistic children to the social environment, and the environmental response. This would also be more in line with several theorizations cited by Singletary, for example Markram and Markram's “intense world theory” (Markram & Markram, 2010), and more in line with data regarding perceptive processing in autism (Mottron, 2006; Gepner & Féron, 2009). Moreover, a short request on PubMed with the key words « environmental deprivation and autism » shows 41 responses, but none is referring to the Singletary's proposal: “environmental deprivation” is used in the autism field only to describe the consequences of early severe deprivation, like in orphanages. Finally, the term « environmental deprivation » risks reinforcing this old and controversial theory of an environmental lack in autism, where the mothers deprive their children of « good enough », attuned stimulation. The second risk is to offer only an « enriched environment » treatment, leading to an over-stimulation that increases defence mechanisms.

More generally, we consider that Singletary's argumentative mode in this paper is a wholly inductive one, leading to speculative conclusions. For example, the author postulates that early autism entails a state of environmental deprivation, and then interprets most of its clinical features through an analogy with those of early social deprivation *per se*. Here, the accumulation of corroborating elements does not justify the initial postulate, nor does it prove the validity of the analogy; it only suggests that the model is plausible, and at best could propose a sort of « consilience » (Wilson 1998). No hypothetical-deductive argumentation can be found in Singletary's paper, nor does he provide suggested pathways for empirical testing of his model. Moreover, the numerous references cited by the author in favor of his hypotheses seem to us of uneven quality, and some were formulated in a slightly tendentious

manner, which raises the possibility that facts disadvantageous for the model could have been insufficiently examined.

The beautiful clinical presentation exposed in the final section of the paper really allows us to get inside the inner experience of “Larry”, a boy with Asperger syndrome. The subtle clinical observations and the skilled attention to inner processes provide a delicate and expressive picture of core autistic mechanisms. The specificities of the psychoanalytic process were not so much described, nor the influence of neuroscientific knowledge on the author’s therapeutic technique. Paradoxically, the processes he refers to, seem not to be specific to psychoanalysis: for example, « active coping, practice, effort in treatment »; « realistic hope, motivation to make a real effort »; « engaging the child in relationships, exercising the functions of the social brain ». All these aims and means, which can be used in the psychic treatment, are also used in different methods, like ESDM² he often refers to. But psychoanalysis is more than « enriched environment and the development of social connections »! But these issues were probably not under the scope of this rather theoretical paper. We regret however that psychoanalytic material was mainly illustrative, and that the author did not utilize a diversity of clinical situations to generate or support his hypotheses. For the same reason, a review of recent psychoanalytic contributions about autism – and we take the occasion to mention a couple of them emanating from distinguished compatriots of ours (Haag, 2005, 2010; Houzel, 2007) – could have been useful. A French research project (Thurin et al, 2014) has been conducted on 50 autistic children about the process and results of psychodynamic psychotherapy during one year with a tool describing the specific processes of the therapy (Child Psychotherapy Process Q set, Schneider 2004). The results hypothesize four main causes that may explain the evolution of the children: the therapeutic setting, the adjustment of therapist to the child, his/her tolerance opening the possibility of affects’ expression, and the parallel work of verbalization/symbolization, which allows structuration of the self.

From a psychodynamic point of view, the vast ASD category hardly reflects the clinical diversity of pervasive developmental disorders and their underlying psychopathological organizations. It has been shown that more clinically-refined diagnostic systems allow differentiating various clinical prototypes, ranging from prototypic autism to

² Early Start Denver Model

forms of pervasive developmental disorders exhibiting distinct diachronic profiles and additional clinical dimensions (Chiappedi, 2010). “Symbiotic psychosis” (Mahler, 1968), “psychotic evolutive disharmony” (Misès, 2012) or “multiplex developmental disorder” (Klin, 1995) are examples of these additional clinical prototypes, and we wonder to what extent an integrative model of ASD would apply to them. Singletary also states that the autistic phenotype itself may proceed through final common pathways from multiple original brain dysfunctions; here again, it could be asked whether or not such a diversity should be taken into account in modeling the pathogenesis and treatment of ASD. Probably a shift in paradigms – exploring more processes than symptoms, and finding their neurobiological connections - could enrich integrative or “complementarist” models (Ouss-Ryngaert 2010). We would like to direct readers interested by a neuropsychanalytical approach of autism towards the work of the French speaking *Coordination Internationale entre Psychothérapeutes Psychanalystes s’occupant de personnes avec Autisme* (CIPPA³; (International Coordination of Psychotherapists and Psychoanalysts involved with persons with Autism), which organizes regular congresses and workshops, and promotes a dialogue between psychodynamic and neuroscientific approaches of autism. For example, their last meeting tried, as does Singletary, to study junctions between neuroscience and psychoanalysis, that could be useful for clinical practice, in a translational way. This could shed light on the “dismantling” processes (Meltzer, 1975; Barrer, 2015) with the concept of neural oscillations (which play a crucial role in excitatory/inhibitory balance) and their disturbances, which in turn lead to a functional disconnection and a disorganization of global brain states (Uhlhass 2012).

We again thank W.M. Singletary for his contribution to such an integrative framework, and we hope that future neuropsychanalytical works on autism will provide us valuable trails for research and clinical practice.

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³ <http://www.psynem.org/Hebergement/Cippa>

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