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*Mónica Elivier Sánchez González & J. Gerardo E. García Dobarganes*

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Niklas Luhmann's theory of memory is taken as the basis to explore how feelings, emotions, thoughts, and communications can be outlined to distinguish the children's memory.

The research applies the theory of memory from the construction of frames of reference to intervene in the narratives of a specialist in the treatment of children who have experienced such events. Thus, it proposes assembling and disassembling the memories of the children that emerge and become formalised. The reflections are a proposal that considers the theoretical support anchored to the question and the introduction of differences that unfold the stated problem. Finally, this paper examines the relevance between the problem and the theoretical selection taken to look into the children's memories.

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# Transformations in Children Gather from Fire Exposure Trauma Memories

Mónica Elivier Sánchez González<sup>α</sup> & J. Gerardo E. García Dobarganes<sup>σ</sup>

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**Keywords:** social memory, children, trauma, theory of memory, memories.

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## I. INTRODUCTION

This paper examines which are the conditions involved in the construction of children's social memory. To answer this issue, certain reflections are guiding to outline elements, mechanisms, and relations that affect the definition of children's memories. The objective is to show how differences are established regarding the conditions of their environment, taken from traumatic events that leave physical marks on the bodies. The research presents a theoretical diagnosis that disassembles and places the elements, mechanisms, relations, and conditions of possibility present in the definition of memory, based on the notes of the social memory presented by Niklas Luhmann.<sup>1</sup> How it proceeds constructs a limit from memory's presuppositions to observe how these are outlined in the process of defining children's social memory. Subsequently, differences regarding the social memory of children who are going through a trauma that leaves marks are presented.

The operationalisation of the inquiry stems from the introduction of distinctions that lead to the construction of planes that memory goes through. The general procedure

does not work with fixed definitions which are tested every time an argument is drawn. On the contrary, based on the general considerations about memory, the specific relation of matters raised in the present study are particularised. The reflections situate themselves on the boundaries that separate and problematise the memories of the body, the memory of individuality, the personal memories and the subjective memories from the reconstruction of an observer who returns to each one of them. Thus, everyday events are reconstructed to problematise, from sociological theory, all that specialised medical practice normalises.

The article is an interdisciplinary proposal of Niklas Luhmann's theory of memory in conjunction with contemporary sociological theory. It suggests a way to approach memories emerging in children when they face an incident that modifies them structurally. The means of approximation, of resignification, emanates from medical practice as access to produce sociological distinctions. Thus, from specialisation, memories that intervene in the definitions of pain memories, memories during the stabilisation of the individual and memories about the reconfiguration of the social person—in this particular case, the children—are treated.

The research questions, the theoretical resources, the definition of the field where the events that take place in memory occur as well as their treatment, constitute a first moment that inaugurates a specific route of approach. The intention is to propose limits to formulate the recursion of these reflections and, thus, establish criteria of validity of knowledge. The function of recursion is to provide self-reference so that the questions

raised within the limits of this research can be problematised with the resources provided in it. From this procedure, the investigation provides its specificity and consistency.<sup>2</sup>

The general presuppositions to approximate memory's problematics trace their access from social memory, that is, from how communication remembers. From the way social memory works, paths leading to the boundaries that distinguish memory from subjectivity, personality, and individuality are outlined. Memories are attainable because they are meaning memories, co-evolutive gains of social and psychic systems respectively.<sup>3</sup> From them, bridges are established to work on the memories of organic systems, in particular, the form of their activation and how they can be observed in the light of the premises of meaning memories. Finally, the reading of the body's memories happens in that boundary, where the body is the material support of communication and means for its reproduction. Therefore, the observations oscillate between the materiality and the possibility of producing communication from an event that, materially, falls on it.<sup>3</sup>

The path of this research presents an approach where the limits for the definition of a child are intertwined with the definitions of the memories analysed. The conceptual plasticity with which one proceeds has the function of exposing how the observed are mutually affected. Therefore, it takes distance from the postures that strictly define

<sup>2</sup> The epistemological basis of this way of presenting a research problem and the operationalisation of it comes from the proposals regarding the science of society, according to the theory of Niklas Luhmann (*Ibidem*). *Ibidem*.

<sup>3</sup> Luhmann, Niklas, *Social System*, Stanford University, Stanford University Press, 1996.

its observation points— how one of the elements is analysed conditions the other and vice versa. Thus, the self-reference of the research lies in its construction principles.

The approach that will be used on the problematic is proposed—that is, which are the conditions of possibility that are involved in the construction of children's social memory—because the theoretical selection itself is the proposal to re-signify the research question. For that reason, although it seems that the theoretical presentation is subject to an exercise of approach, its function is to validate, theoretically and epistemologically, how a social problem is coupled in light of analytical work premises.

To evaluate this undertaking, it should be considered that this is the result of early approximations to the problem being analysed. Thus, what it proposes are questions, provocations, to analyse how a problem is delimited and how analysis planes can be constructed. It is presented as initial progress of a line of research affiliated to the Division of Social Sciences and Humanities at the University of Guanajuato campus León. In this sense, it is also an examination which tests the theoretical selection, the formulation of the problem and the operability of the paradox it implies—since the case study is a resonance chamber of the theoretical premises from which the general research problem is signified. Therefore, this is not a conclusive article but rather starting propositions.

The characteristics of this research proposal are justified in the sources that support it, since medical and sociological texts are used, in particular, those of Niklas Luhmann, as well as a specialist's interview. These elements are intertwined in the body of the

text. For this reason, a dissection is not possible understanding that the argumentative consistency depends on the relation these elements support. This method may indicate an anomaly for the canonical work procedures of the social sciences, as it does not respond to conventional work parameters. Rather, it is heterarchically procedural and self-referential to produce argumentative consistency, according to the science of society proposed by Niklas Luhmann himself.

## II NEUROLOGICAL MEMORY AND PSYCHIC MEMORY

How to approach the problems of defining memory when it goes through a traumatic event that permanently interferes with the different systems that constitute a human being, his individuality, person form, and subjectivities? The question is made possible by the structural coupling between the biological, psychic and social systems that go through the definition and constitution of the individual and the person. In particular, this happens in the case of children when they are in trial and error processes to incorporate and strengthen their individuality, personality—as well as elements of distinction to subsequently construct subjectivities.

The formulations that emerge from this point acquire specific positions. This means that from the first formulation— reference/operation and identity/semantics— they are in the process of definition. Hence, it is provocative to double condition how entities of meaning can be resorted to—on which the problematization of the trauma's context is reflected and accessed. This is because the limits of the forms that are observed are in process and, at this moment, an event that

breaks its dynamic of delimitation and generalization is being experienced.

The memory of psychic systems presupposes and relies on the memory of neurological systems. Both are differentiated memories—for that reason, they need to be coupled. The coupling between a non-meaning system and a meaning one means a possible evolutionary gain, due to the operational closure of each one. In this case, it guarantees that both the memory of the neurological system and that of consciousness can, specifically, focus their attention on exclusive distinctions for each other. Due to such difference, consciousness leaves the neurological system and its memory the rest of the operations that do not belong to it—for example, those incumbent to the coupling between the organic system and the neurological system.

Neurological memory forgets and remembers in a differentiated way through the reactivation and deactivation of impulses, based on the operational ability of the nervous system cells to turn off and on.<sup>4</sup> Thus, the intensity revolves around a stimulus, an impulse that constructs sequences that give rise to processes that get attention. The construction of emotional states is linked to the reproduction of the stimulus that keeps the cells sustainedly activated. The sustained maintenance of the stimuli constructs these processes.<sup>5</sup>

The difference between the time of the nervous system and the time of the psychic system makes it possible to distinguish that something has happened, it is the incision

that catalyses the temporal difference. Time, an element inherent in defining the function of systems memory, is particular to each one of them. One of the observable differences between neurological and psychic memory is the distinction between emotions and feelings. Emotions are recognized from the sustained intensity of impulses, whereas feelings are, ‘internal adaptations to internal problem situations in the psychic system.’<sup>6</sup>

By observing the function of feelings in the psychic system, the system’s memory recognises and reproduces them to fulfil their function. Feelings guide, in a general spectrum, the psyche’s response to the disturbances it faces. They work in the general orientation of the system’s function, therefore, the theory defines them as the psyche’s immune system. When the double function of forget/remember memory and the position it has in the systems recursion is recovered, the occurrence of feelings is affirmed—they are corrected based on what the system must remember to maintain its closure. To satisfy its permanence, it starts to forget what endangers its continuity, its closure. Feelings are to the psyche simplified resources from which decisions can be made that are not related to consequences schemes.

The stabilization margins in individuals are the result of psychic systems that, in response to the permanence of their closure, normalize, increase or decrease them. This process is also verified by the psyche’s memory, specifically, because immunity is the guarantee of the system’s autopoiesis. Memory alerts if the level of disturbance to which the system is subjected undermines its self-reproduction. The system’s response is not presented in

<sup>4</sup> Luhmann, Niklas, “Zeit und Gedächtnis”, *op. cit.*, p. 6.

<sup>5</sup> Sánchez, Mónica, How is social memory possible? A reconstruction from the operational basis of Niklas Luhmann’s theory of social systems, PhD thesis, Mexico, Universidad Iberoamericana, 2013.

<sup>6</sup> Luhmann, Niklas (1996) *Social System*, Stanford University, 255.

terms of the disposition of a specific feeling but the availability of feelings as immune resources.<sup>7</sup> Hence, when objectifying a feeling in communication, it is no longer within the complete situation of the feeling.

Another element present in the response in the form of feelings for the psychic system is seasoned by the interdependence between the bodily event and the experience of feelings. To this, it can be added the importance of the coupling between the neurological system and the organic systems. The codified passage of systemic stimuli selectively affects the psychic system, as a result of the structural coupling of the nervous system with the organic systems and with the psychic system.

The place that feelings have as a shelter from the self-production of the psychic system leads the theory to challenge the event that ends its existence, that is, death. Precisely, because that implies that no element can be produced in the future.<sup>8</sup> Faced with the irreversibility of death, consciousness separates the end of life from the end of consciousness. It imagines it as the end of life, but not as the end of consciousness, and blurs it in the gradual cessation of it.

Memory, both of life and communication, can assume its immediate finitude, unlike consciousness. This means that forgetting

<sup>7</sup> Here it can be emphasized the difference between the immune systems of communication and of consciousness, according to the configuration of its response. The immune system of communication is the system of law, which from the guarantee of normative expectations of society produces in society's system the necessary resources for it to respond to the risk of its own reproduction. In this sense, it expects the system to generate enough resources so as not to be threatened itself. The answers respond to a hypothetical scenario. Feelings structure immediate responses that conform with available resources and do not predict nor glimpse results or consequences beyond the guarantee of the reproduction of consciousness. Cfr. *Idem*, pp. 255-323.

<sup>8</sup>, pp. 255-323

breaks the operative balance that it has with remembering, not in terms of the processing of its elements, but the finitude of the reapplication of psychic memory's operations on its reproduction. Forgetting 'forgets' the psyche's memory and gives way to the system's indifference to itself. Such formulation is held following the operating principles of the psychic system, particularly those that assume that feelings, in their quality of psyche's immunology, move the body when the psyche is in danger.

The irreducible forcefulness of death circularly moves the body, the psyche, and their coupling with social communication. The neurological system's couplings with organic systems and consciousness register it as 'passing through the psychic system'<sup>9</sup> As death is imminent, it loses the record of 'passing' and the coupling that presupposes memories between different systems becomes blurred, disarticulated.

The empire of memory's forgetfulness is reapplied to itself in the different emerging planes. The deactivation of the operational identity is faced, the memory of the systemic couplings is deactivated. The provision of systems to internal differentiation and coupling with other systems is closed, they contract within their limits. This represents the cessation of the reproduction of internal distinctions. In this sense, memory ceases having a function, the loss of identity ceases to reproduce autopoietically.

### III. PSYCHIC MEMORY AND SOCIAL MEMORY

The place of language, as the structural coupling between communication and

<sup>9</sup> Luhmann, Niklas (1996) *Social System*, Stanford University, 260

consciousness, results from the operational closure of both systems and transforms social complexity into psychic complexity<sup>10</sup>. This is the result of the evolution of the coupling between society and consciousness. The *linguisticized* in consciousness is the result of the way it is remembered when formulating thoughts. This is not activated in the psyche—it falls into forgetting, which is simultaneous to remembering.

Remembering, while it happens, presupposes that forgetting has lax marks which determine the medium, partially undifferentiated, that falls from that side of the distinction. This resource allows the supposition that remembering can cease to remember what currently guides the system—by possibilities that it does not update—to make the crossing from one side to another. The partial linguistization of consciousness focuses on the formalization of the coupling between consciousness and communication. Therefore, the difference is raised in terms of one's consciousness, when it is stated that it is more than linguistic. Posing a difference in this direction allows the distinction between preformed 'zones' by the communicative coupling concerning those that are not.

One of the most important gains of this double formulation of forgetting regarding the psyche is the difference that remains in the system, between coupling and being conscious. The specific function of linguistic representations is, on the other hand, to cooperate with the autopoiesis of the psychic system. Its cooperation consists in contributing to the formation of episodes. The formation of episodes involves memory's activation, not only by appealing to the reproduction of the system itself but by

emphasizing the selective way in which memory contributes. Such is the case of the episodes' cuts, as well as the remembering of what should be remembered to delimit them, specifically because 'it can differentiate and discontinue operations; it can jump from one context of linguistic thought to the next, without completing its own self-reproduction, without preventing the possibility of further thoughts becoming conscious.'<sup>11</sup>

Memory, through forgetting and remembering, couples the psychic system to the reproduction of different episodes. Here it is observed how these moments couple the individual to the standardization of communication. Even such episodes presuppose the self-image of the individual by the self-communication of consciousness (with the immediate resources of communication that addresses itself).

The memory of consciousness, like the memory of communication, works from the memory/forgetting form and, when coupled, consciousness' time seems simultaneous. This is the time of society's communication. The memory of consciousness and communication can be observed in the event of the coupling, between organic, neurological and psychic memory.

Considering that the operative basis of memory is forgetting/remembering, it is possible to affirm that—in the case of constitutive cells of organic systems—each one can sustainably maintain its reproduction and specificity since they remember the organic basis around which their function is defined. Thus, arranged in the bodies as delimited areas, the existence of a multiplicity of organic systems does not

<sup>10</sup> *Ibidem*, 275.

<sup>11</sup> *Loc. Cit.*



imply confusion of functions. On the contrary, the principle of a multiplicity of functions is what allows the development of highly selective structural couplings.

Cellular memory is one that, when each system's function is activated, emphasizes the identity and difference of each operation. This memory function is coupled to the memory of the neurological system, according to what each organic function activates. Thus, it is possible to affirm that the decrease in the effectiveness of the couplings between the organic systems and the neurological system—the organic one as well—accounts for the passage of time in terms of permanent intensity, the result of the permanent couplings between them.

The overexposure that sustains the maintenance of life would function as the principle of organic operational deterioration that is paradoxically erected as a result of the reproduction of life. In this direction, the coupling between organic processes, their registration by the neurological system and consciousness is recorded in the construction of the experience,<sup>12</sup> at least, as a more immediate catalyst. In such a way, without the organic processes—which are surroundings of the consciousness—able to transfer their specificity and impose it on the psyche in the permanent reproduction of the consciousness, it registers them as

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<sup>12</sup> This approach to how processes are coupled and how memories work in the conservation of their identity is presented as another entry to reinforce the difference between the experience and the action that Luhmann develops, to distinguish between consciousness and communication. Thus, the lived experience that refers to the experience of consciousness can include how the coupling of the neurological system with the organic one is recorded in the coupling of the latter with consciousness. For the exposition of the difference between experience and action cfr. Luhmann, Niklas, *Social Systems*, pp.103-136.

distinctions that occur. Precisely, as a result of the coupling that it has with the organic system, mediated by the neurological system. Memory, in its coupling with different planes that involve communication, is oriented by the interpenetration of organic, neurological, and psychic systems, and them with the social order. Interpenetration indicates the particular contributions of the systems in the communication environment. In terms of memory, this implies that systemic couplings, as of their closure, consider the outside even within this device, not only to protect themselves from it but to make themselves available without breaking their closure. This points to the coupling with orders of greater complexity. In other words, it is the disposition of complexity that is made available to the other. Thus, penetration occurs due to the complexity of other orders.

Here, forgetting and remembering consolidate the systemic limits inward and outward. This from the indispensable requirement that between systems one is always the environment of another. From remembering, different planes of social complexity are considered as well as the re-impregnation of permanent conditions for the social combination. It is not only available in terms of social combination, but in redesign and connectivity for the selectivity of different pasts and futures. Memory, in global terms, recalls the specificity of individuality. Determined to a large extent by the particularity of systemic couplings and by how it is coupled to communication, the individual, without questioning the enormous amount of processes that his constitution goes through, takes them for granted.

Interpenetration also accentuates the difference between systems. According to this, the memory of each of them recalls its difference and, therefore, ‘the boundaries of one system can be included in the operational domain of the other.’<sup>13</sup> Under this operating condition, memory, in discriminating what the system is not—in addition to emphasizing the specificity of the system—requires to accommodate this adoption of boundaries in its operational domain without confusing, overlapping or breaking the specificity of the system itself.

The memory of the self realizes the difference of communication with consciousness. This principle operates in the reproduction of consciousness, where this ‘self’ reinforces memory—in this process communication is also carried out. If the selection of structures is addressed, then memory's function is always present and bifurcates in two directions: the one that corresponds to the operational unit of the system and the one that affects the systemic interpenetration process. To argue this, it is sufficient to resort to its operational ‘position’ on the structure itself. Thus, not only the structure is selected, but the mechanism that verifies the functionality of the operation as well—that is, the memory. In this same direction, Luhmann affirms that the difference and the chaining between autopoiesis and structure is a condition of the interpenetration between organic-psychic and social systems.

Interpenetration points to the principle of systemic inclusion by availing itself of receiving complexity from one system to another. Such a process cannot avoid the immediate presence of its other side, that is, of exclusion. The principle is catalyzed since

interpenetration forces systems to have to distinguish each other to enable it. In this sense, memory, from the place of the system's function, affirms the difference in this respect from others, while it can identify the complexity that occurs from them. At this point in the reconstruction of systems around memory, the direct implication of structures in interpenetration shapes why the structure forces, like time, to articulate a section dedicated to its role in this process.

The interpenetration of meaning systems is the means to define socialization processes. By recovering the scheme that is memory, the availability between both systems—from the interpenetration of the systems as a whole—can be observed. At the same time, in the field of socialization, the memory scheme's function works concerning society but also considers the requirements of the partial functions of systems.

From these lines, the general way to define socialization is considered as a process that forms the psychic system and the controlled behavior of the body of a human being. In said process, interpenetration serves as a means to do so. Socialization, therefore, is the product of the self-socialization of individuals. Basal self-reference points to the interpenetration of systems that define human beings and divergent reproduction refers to the differences in interpenetration. From the systemic perspective, the weight of the difference is placed in the meaning systems and how they interpenetrate.

The operational principles of psychic systems consider that, as long as consciousness exists, individuality ‘is inflexible and necessary.’<sup>14</sup> This is the result of the difference and

<sup>13</sup> Luhmann, Niklas (1996) *Social System*, Stanford University, 215.

<sup>14</sup> *Ibidem*, 255-276

limitation of requirements around which the closure of the psychic system is structured. The function they fulfil is to discriminate between representations of connectivity against the contents of consciousness, where representations retain their availability and accessibility within repertoires limited by the system. Upon returning to these operating principles of psychic systems, the forcefulness of individual closure is observed.

The identity and autonomy of the psyche and individuality are built around this configuration of the system's limits. In this way, it is possible to observe memory function at three different moments. The first refers to the distinction that makes consciousness operative from the first moment in which it separates between representations of connectivity of consciousness contents. There, the system operatively distinguishes the production of connections between representations and contents. Once more, this is a result of the implementation of memory's forgetting/remembering. The second moment refers to the availability and accessibility for the system's production of representations. The memory around this double device guarantees its reproduction conditions. Finally, the path to the construction of identity and autonomy closes different internal phases of the system's reproduction.

The starting point is presented around the reference unit that structures its own reproduction. Memory then appeals to said reference unit that constructs differentiated identities in the simultaneity of the psyche's reproduction. More so, consciousness principle of observability and self-description occurs if the system itself can organize difference and limitation. Memory's function

also implies the system can be observed from the differences between different orders that structure it. This happens specifically when the system integrates difference and limitation, by imagining itself.

The individual is the communicative construct of modernity, the bridge that makes possible the coupling between consciousness and communication. The person is the element that allows systems theory to take distance from the definitions as a subject, individual, human being and even from the conceptual uses of the person prior to the one conceived. One of the most important arguments to propose a concept that responds to the conceptual and theoretical demands is the need to resolve the difference between consciousness and communication.

The person is the element where it is possible to observe the difference and the coupling between the organic, neurological and psychic systems, in the coupling established with communication. The terms in which it is presented allow differentiation without canceling the different orders to which each belongs to. One of the gains for the theory is the possibility of not dissolving communication in consciousness when defining how communication is reproduced, in face-to-face interaction. The other is to show that precisely because the systems are closed and coupled with each other, individuals are an indispensable environment of it.

The communicative memory is not a unit that imposes itself from communication to all orders around which the individuals-persons are defined, but neither does it lead to presuppose that it works as an entity that, from consciousness, spills to different orders.

If this were to happen, the different memories would blur and it would end up fading. This last assessment is sustainable from the theoretical construction because, due to the systems' need to maintain their specificity, they require auxiliary mechanisms that emphasise their specificity. Thus, memory is one of them, especially at the plane of interaction, due to individuals' need to rely on this plane as people who cannot renounce their individuality. Moreover, when observing that *alter* and *ego* are communicative positions and not immovable entities of communication, the auxiliary mechanism that is memory makes it possible for them to change their position interchangeably, without altering the occurrence of communication. The central premise is the understanding of communication between two communication environments, individuals that—as the communication itself happens—are built as people and, simultaneously, are environments of one another. This is emphasized by the impossibility of breaking the operational closure while the communication continues.

Memory is considered an evolutionary mechanism because in social systems its function is to prepare the operating conditions for the system to identify its operations and continue its reproduction. Memory's preparation consists in verifying the identity of the system around which its operation occurs remains in the same terms. For theory, this is the representation of the system's past as its assumed present, from which the future is integrated into the present. In this direction, the systems previous preparation for the execution of its operations is formulated.

More specifically, memory is in charge of the mass processing of very small processes that articulate the system. For this, the theory states that memory runs through the systemic structure. The general reference is focused on the system's identity, while the particular references are placed in the micro-processes on which it runs. If it is added that the system cannot stop in time because that would mean its extinction, then it must be understood that it always happens in the present.

Thus, from this general referent, the theory holds that between time and memory there is a circular relation. If it is taken into account that society's time is a product of society, once more, the contemporaneity between memory and time appears. This relation is the central axis that structures elements that define memory and the function it holds in the system.

The prior preparation of the system leads to consider the temporary difference between past and present, between present and future, according to the system's operations. If society is being discussed, communication, its different planes, and mechanisms orchestrate temporal references. The first consideration is that communication is an event that, in that quality, happens in the present and the memory of itself does not remain in it. Its fixation falls on the system and on all the mechanisms it has designed, so that, if remembering and forgetting of itself is considered, then it resorts to memory, it is fixed, but only as a systemic resonance.

Memory has to do with the system's previous preparation for the maintenance of its autopoiesis. To the future the function of orientation and solver of the uncertainty produced by the system is deposited, one it

requires to guarantee its reproduction but that needs to control so as not to break its limits. Memory recalls this double systemic structuring function without temporarily blocking itself. This is because it remembers how indispensable uncertainty and complexity are. Simultaneously, it remembers some limits contain their excesses so as not to overflow them.

In this way, remembering is structured in terms of the difference between the two, because, basally, it is the function of the system that determines this. The bifurcated memory<sup>15</sup> affirms it from this difference. The closure in the affirmation produces the impression that time is compacted. But, with greater ownership, time is the present and in its permanent operation, it annuls the difference between them since it prevails. However, the possibility of this operation is that it does not overload itself of elements, resources, couplings, mechanisms. Their disintegration is what guarantees its operation. In this direction, memory is the consistency closure of different planes where the system's function is produced and distributed.

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<sup>15</sup> The 'bifurcated' notion is used in the same sense of time's irreversibility in the communicative event. Thus, memory is temporarily irreversible because it does not provide access to the contents of such memory but only the marking from which it is remembered. It proceeds from the function of the system itself—otherwise, memory would not only remember but would remember what it has to remember, assuming a double function. By the scope of the second, it would lead to a permanent block, it would be like demanding to remember and remember what to remember. Memory refers to general memory but does not include all the mechanisms or how each one has to remember.

#### IV. MEMORIES OF TRAUMA, IN TRANSITION AND STABILIZATION

The second section of the research deals with moments of memory during the succession of trauma, the transition of the event towards physical, psychic and social recovery. Finally, it reflects on assumptions for the recomposition of memory's social frameworks. This last section allows exploring how society is defined where the individual is coupled.

The frames from where to understand memory during the event of a physical trauma by exposure to fire allow to unfold and densify the time of the event itself. Not so much within ecstasy—that prolongs or builds its sequentiality—but recovering how the systems face it. From that point, the memory of the event appeals to the deepest memories of organic systems, alerts the system and, while alert, produces a paradox in it. On the one hand, it suspends the usual condition that allows its reproduction; on the other, the system's contraction is the guideline to catalyze the basal resources so that they are maintained. In the eye of an observer, it appears helpless, the body has been violated, but, in such a disability, defense mechanisms are triggered. The body's memory, of the body's substrates that articulate the organic systems, constitutes the memory of the event.

The patient, in this case, the child, is vulnerable, labile, and in an active state of survival—both physiologically and psychologically active to respond to how to survive the event. The consolidated memory of organic systems on how to preserve themselves triggers the metabolism. It retracts or sequesters the necessary substrates to make them available to each

system, at the given time—super energy to preserve the cells, fat, muscle, among others—of each of the stages or metabolic steps that are necessary to keep alive the person who suffered the injury. In this way, life is preserved.

With the above, memories appear and place on a horizon those who reproduce the normal situation of the body and its systems. Memory's time of the event is the simultaneity associated with the capacity of availability of memories placed in the latent resources of the organic systems for their preservation. Here, it is not a condition of meaning, but conditions which affect life.

One of the consequences of the event is the installation of new memories that, from it, reproduce in the affected and in those who were witnesses. In that sense, there is a domino effect in those who were present at the event and awakens a memory anchored to the fear of what happened, what was lived, open to the uncertainty of that to come. Memory's selections oscillate between the symbol of thought and communication, with the same relevance as meaningless memories that return, primarily, from the biological conditions to maintain life. The couplings among memories: biological, psychic, social (personal and subjective) are altered, contracted, retracted.

In this fluctuation, non-symbolic memories interfere, where the primacy lies in maintaining society's environment, that is, life. In this context, a generalized state of alert is triggered, characterized by modifications such as anxiety. This means that, clinically, the person cannot control or integrate what has not yet happened and cognitive processes are anchored to fears. This generates restlessness, uncertainty,

disbelief, and defeatism. Thus, the person is neither very combative nor resilient, and atypical behavioural patterns are presented. The event refers to emergent memories whose function is to restore the coupling between organic systems and psychic systems. The placement of both psychic and organic memory lies within immunity systems, where emotions and feelings work to deal with destabilisation.<sup>16</sup>

The biopsychosocial conception is considered as a sum of intersystemic, organic and meaning couplings. In this case, it allows a medical observation on the child who is going through the trauma. With the understanding that exposure to fire is an event that affects the child jointly, as social, psychic and organic conditions are modified.

Based on these modifications, memory mapping is proposed, where the minimum requirements are used to ensure that the child's functions remain. These are the elements connections, the construction and affirmation of relations, the distinction of time before/after, as well as the function of operating and observing in the systems' limits. For this, life, meaning and, between both types of systems, structural couplings are taken into consideration.

Preservation instincts—modifications of biological patterns—are resources that feed immediate memory, establishing a mapping of the event's memory. This is distinguished since it makes physiological responses available to organic systems. Thus, responses are evident by the measurable changes in the patterns they characterize. For example, the metabolic response to trauma consists of hyperglycaemia, increased heart rate, increased respiratory rate, priority in target

<sup>16</sup> *Ibidem*, 210-250

organs (they allow the body's operation): brain, heart, and kidneys. In this way, distinctions on which memory focuses are those that are on the frontier of life.

In the context of mapping the event's memory, the other side refers to the conditions faced by meaning systems. The event's operational depth makes it possible to affirm that the focus of attention on meaning systems lies in emotions and feelings. That is, on the immune systems of the neurological system (emotions) and the psychic system (feelings). The priority is operative, in particular, when modifying the coupling between both systems their memories are coupled in the basal moment, which allows them to respond to the threat of life—in this case, not only as an event but as a basic condition.

Meanwhile, figuration is defined by using space and time as means. It is there where what is beyond what is immediately given can be seen, beyond the constitution of spatial and temporal horizons. At the same time, it deletes information about its space/time location. This way of observing consciousness is a resource for thinking about mapping consciousness during the traumatic event. This is because, in the experience of the event, consciousness goes beyond the immediate, beyond the constitution of spatial and temporal horizons, bounded at the moment and time of the event.

The psychic system's memory in the figuration folds the distinctions of meaning to its immune system. Without breaking closure, it establishes resonance points to amplify/diminish emotions and their intervention in the preservation of life. At the same time, these can overflow or exacerbate,

but it is also possible that attention is focused on nuclear points to respond or contract against the event. Perceptions can be directed towards targeting actions that allow it to preserve life, react more narrowly or simply paralyse. The condition in which memory works is immediacy, that is, the operational priority of the system—it does not produce dilated observational processes about the event, its attention and perception are directed towards confrontation.

The human being, his individuality, and personality are there, with the imminent and obvious consequences of the event. In front of them, medical strategies emerge, those generalized in the specificity of medicine's system where intervention protocols trace immediate strategies to ensure life—avoid, contain, reverse the deterioration of life and the organic and psychic systems.

Memories that are put into play go through different planes: societal (medicine's system), organizational (attention protocols depending on what needs to be preserved), interactional (those built around the event). In the environment, immediate interactions question the relatives in charge of the child: what caused the event, why was the child alone, what kind of jobs they have. The questions make it clear that the risk factors: why certain risk factor is more important than other, risk behavior (social), instinctive basis (doubt, challenge, overconfidence, risk behavior).

A second proposed moment is denominated as transitional memory, so-called by the installation of scripts,<sup>17</sup> planned for the entire reconstruction process, after the traumatic event. Transitional memory goes through

<sup>17</sup> Luhmann, Niklas. "Zeit und Gedächtnis"..., *op. cit.*, pp. 1-26.

systems that structure the individual, the person, and their subjectivities. One of the spaces where scripts are determined is the hospital, based on the depersonalization of the self.<sup>18</sup>

During treatment, the patient is vulnerable to changes—forced or not—in his behavior patterns. In parallel, these generate changes within cognitive structures, from which personality and empathy arise and point towards a resilience process. Physical appearance, as an element towards transitional memory; gaze, as reflecting the transition of the patient's memory. Reconstruction and remodeling are the initial focus. What happens? It occurs over a period of three days:

- Acceptance of the event, measurable, correctable without false hope: suffered an accident and were injured.
- Acceptance of consequences: functional, aesthetic, social (exclusion, stigmatization) conditioning, face challenges with what is left.
- Reprogramming, shielding. Equivalent to the event, game, exchange of experiences.<sup>19</sup>

The body readjusts from physical effects, compensation processes, deficiencies. In physiological terms, it remains in adaptation. In the nutritional phase, regenerative substitutes are presented to correct the body in a better way. A hypertrophic scar (genetically programmed) is generated and conditioning appears, such as generalization of new elements, connections, and couplings.

<sup>18</sup> Goffman, Erving (1974). *Frame Analysis. An Essay of The Organization Experience*, Harvard University Press,

<sup>19</sup> García Dobarganes, E. and Gerardo, J., *Interview about the procedures in the care and restoration of patients who have gone through a trauma from exposure to fire, Guanajuato, 2017.*

Following transitional memory, the emergence of an incipient social memory is observed in three stages. First, it grows in complexity, that is, the density of relations that particularize the perception of the event. Second, it returns to the event as a reenactment and as a memory that resonates. Third, the densified network of relations modifies the individual's position towards the event, that is, versions are generated, which leads to a permanent recreation that faces acceptance/rejection, even in those who did not participate.

In the last of these moments—when the event becomes a fact—individual and social memories perceive the event differently and generate behaviors, other patterns, information and misinformation that will lead people to redirect to the environment to produce shielding.<sup>20</sup>

For its part, the exclusion principle due to strangeness is a construction of support stereotypes for belonging, in this case, to the segment societies. These, in turn, generate inclusion and exclusion stereotypes of the segment. In the reintegration into the segment—where the figure of rejection materializes as contempt, stigmatization, rejection, separation, displacement, cancellation of belonging—paradoxically, pity, sympathy and overprotection are reproduced.

Re-victimization is a form that rejects/inserts, where the individual takes advantage and positions itself in a unique place within the segment, which leads to a victimization and re-victimization process. When this form unfolds, it constructs a process of momentary dramatization and

<sup>20</sup> *Ibidem.*



exaggeration, as a displacement *shifter*, characterized by the permanent validity of the event.

When the individual's behavior expires due to the appearance of another response, he becomes accustomed and loses validity, actuality, and legitimacy. Then, the segment doubts the individual and reactivates rejection. Subsequently, the initial moments of reintegration return, but according to the moment in which they occur. The process becomes recursive until the individual is reinserted in his social segment from his conditions, those made possible by the reprogramming process.

Within the context, the event's social memory in the segment is reconfigured as it repositions itself. The event is represented as a social fact, in front of it, there is only observation. It does not modify its structures which are preserved in the same conditions ahead of the event. Thus, the individual's body is marked by the personal and subjective reproduction of his environments but does not intervene in them, there are no precedents for prevention.

#### IV. CONCLUSIONS

Addressing trauma from exposure to fire from memory theory allows reconstructing how individuals, in this case, children, go through the event to the re-stabilisation of themselves (individuals) and their social environments: personality, social roles, and subjectivities. This, in particular, if the focus is on how memory fulfils its function and uses the most basal functions of systems for its preservation. In this regard, it is observed how systems involved in this long process can be distinguished analytically.

Exposure to fire results in a traumatic event,<sup>21</sup> disrupting the internal orders of organic systems with the psyche and the logic that these sustain with society. Such an event is a split for the relation of memory with identity. It traverses a double frequency of affectation when working with a group of between 5 to 15 years of age since they are in a process of initial construction of the self. The event is a stop that marks a before and after the process and challenges the construction of the self.

Technically, the coupling's disposition that is in charge of the neurological system, the one decoding organic operations for the psyche which is the meaning system, is broken.<sup>22</sup> Pain emerges<sup>23</sup> and manifests itself through the mechanisms of its production in the physical and emotional planes. The transverse pattern, which is the coupling of organic systems with psychic systems, results from sustained exposure to pain. This fulfils the function of altering the systems in search of an answer, can be of defense and emerges as a preservation resource.

The first alteration (organic couplings with the psyche) challenges the relation between memory and the most immediate identity, the one that is recorded in the decoding of organic systems/meaning systems. The shock of the pain overflows the psyche and affects the organic systems, even more than the aggression itself does.

<sup>21</sup> Term used in the clinical sense.

<sup>22</sup> The neurological system is responsible for coupling organic systems with the psychic system, which is a meaning system. Due to its relevance for the present research, the problematic of emotions and feelings is introduced. The dimensionality of this coupling considers pain as a present asset.

<sup>23</sup> Ferrandiz Mach, Marta. *Fisiopatología del Dolor*, Barcelona, Hospital de la Santa Creu i Sant Pau, 2006.

The survival substrate of humanity is set and pushed to the limit. If it is intervened, reconstruction processes emerge. For the individual/person, the expected and normalized cease to be, that is, the habitual becomes alien. The person's identity, the limits for the reproduction of the psyche interpellated the 'normality' where it had been reproduced. As a result, social normality questions the new stranger.

The echoes of the event affect the memory/identity relation because it is not only used at the level of society.<sup>24</sup> Memory, as an auxiliary mechanism of systems,<sup>25</sup> guarantees its consistency. Memory traverses the disposition that defines the identity of individuals, with high probabilities that the difference between individuals is in charge of the specific way that each one has to select and actualise their selves. The permanent reproduction of this closure is confirmed by memory, hence its close relation.

Given the article does not presuppose the correlation of elements, but rather the unfolding of paradoxes, these conclusions intend to produce a displacement from the initial question. The research sets in motion the Kantian transcendental procedure that is revisited by Niklas Luhmann's theoretical-epistemological proposal for science, after the epistemological turns of the sixties and seventies, for the production of scientific knowledge and validation of science.

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