# HISTORY OF LIFE AND EMOTIONAL EDUCATION IN ADULTS

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## THE EMOTIONAL DIMENSION OF THE SELF

Despite its longevous scientific study, the intentions and aims to devise a concluding theory of emotions become elusive and far from resolution. The psychological study of emotions started with James (1884); since then, a wide stream of study around the concept of emotion has been generated. We find James-Lange's theory, Cannon-Bard's (1929) or Schacter and Singer's (1962), amongst others. Our aim is to deal with the meaning and typology of emotions from these theories and the different study lines created from them, embracing both their success and failures. Different authors offer different definitions (Mora 2002); however, we personally refuse to give a definition and prefer to present the organisers of an intelligibility nucleus of the emotional system (García Carrasco y García del Dujo 2001). With these organisers presented by the aforementioned author we will depict the sense and meaning of emotions in a more appropriate way.

Sensitivity: emotions are felt and they sometimes run towards conscience. As we mentioned in the section about emotional neuroanatomy, emotions are formed in a biochemical, physiological and neuronal way, being interwoven in neuronal structures. The entire neuronal reticle has the aim to reach a homeostatic state suitable for life through the regulation of behaviour. These tendencies towards the balance of the organism have a genetic origin and philogenetically represent an advantage for life. Nevertheless, they find themselves under the influence of culture.

- 1) Invasion and withdrawal: it entails avoiding seizure between personal dimensions, that is, leaving behind the different bipolar arguments and assuming the close relationship between the different sides and dimensions of the subject. In other words, a balance between those dimensions which shape the personal identity is necessary. Without that homeostasis, an autobiographical quality and, consequently, a coherent personal identity can barely be achieved.
- 2) Appreciation: it is the assessment or evaluation of the individual's external or internal events. The emotional evaluation will direct our actions to a certain direction and will facilitate the categorisation of

- our emotions. This will be studied in more detail in the taxonomy of emotions that we will shortly put into practise.
- 3) Activation: the subject's emotions implicitly carry an arousal or physiological ignition, that is, there are changes inside the body's physiological state. The intensity of those changes lay within a continuum between a high and a low intensity. This intensity will depend upon the positive or negative evaluation of the internal or external event, as well as the coherence with other data already held by the subject in his memory.
- 4) Communication: to communicate is to transmit something to others. Communicating our emotions has an immense value from the emotional perspective, since, if it is true that emotions contain a genetic component, it is also a fact that communicating emotions helps to get to know your own emotional states, as well as others. There is no doubt that emotional communication amongst people favours the shaping of a coherent and mature emotional identity. It even might be possible that the lack of emotional interaction could damage the individual's emotional identity.
- 5) Representation: the emotional events in the declarative memory run parallel to the representation-meaning of these. Both the representation of the emotional event in the declarative memory and its subsequent remakes and mediations with the emotional experiences have a mental representation. To a larger or lesser extent, these representations will be relevant to the individual and, without a doubt, the relevance or importance attached to the emotional representations will constitute a decisive element in the shaping of the personal identity.

As well as these organisers, it is convenient to take into account the typology of emotions. There is no doubt about the need for a typology of emotions; polarity, depth, intensity, specificity and temporality have been dimensions used to form the various taxonomies of emotions, although we are still far from finding definitive results which enable a complete typology of emotions, and even further, if the building of the typology runs according to the activated neurological substrata.

Damasio (2004), by revising the neural basis of emotion, starts an emotional typology and talks about primary and secondary emotions, becoming aware of the neurological substrata taking part in them. By following Ortony's, Clore's and Collin's guidance (1996) referring to the concept of basic or primary emotions, we understand that certain emotions are more basic than others,

in the sense that their triggering requires a less complex neurological activity. The prime neurological structures in primary emotions are the amygdala and the anterior cingulate, causing internal, muscular, visceral responses and responses to neurotransmitting nuclei and the hypothalamus. To a certain extent, in this first category, emotions are more independent from the culture and social context and, therefore, their organisation is, rather, innate and has philogenetic continuity between stimuli and responses to those stimuli. Within this line of investigation Panksepp (1998) describes the brain's basic emotional systems.

The neuroanatomical structure holding the primary emotions is exhausted in the case of secondary emotions. The neural reticle is enlarged and both the prefrontal and somatosensory cortices take part. Secondary or social emotions are those acquired through learning and the personal experience in the heart of a culture, with a philogenetic continuity which is less than in the case of primary emotions. There is an evaluation in both types of emotions, although in the category of primary emotions this assessment is more basic than in the secondary ones. Therefore, we conceive emotions as reactions with an evaluation where the assessment of the emotion produces positive or negative emotional reactions. The emotional sequence of secondary emotions starts with a list of deliberated considerations expressed as mental organised images, of which a cognitive assessment is made. The neural base underlying the images is a group of representations organised in different primary cortices which are distributed in the association areas. These representations constitute memory and are not an exact presentation of the event or situation, but the means of building them (Fernández de Molina, 1997; Damasio, 2004).

The signals created in the processing of these images are projected towards the prefrontal cortex, which responds unconsciously. The response given by the prefrontal cortex has its genesis in representations which, at some point, joined the knowledge about how certain objects, situations and people were linked to precise emotional responses. This knowledge, stored in the representation networks, is acquired, although it previously required innate representations in order to be shaped. The projections of the representation networks on the prefrontal cortex head for the amygdala and other nearby areas where those representations with an innate nature are activated, projecting, at the same time, neural responses which activate the hypothalamus and the encephalic trunk.

## CONCEPTUALISATION AND COMPOSITION OF THE AUTOBIOGRAPHICAL MEMORY

The view of memory as a monolithic phenomenon has become old-fashioned. Memory is understood as a highly-complex system which can be

divided into different systems. There is a clear consensus to distinguish two important mnemonic systems: the long-term memory and the short-term memory. In our case, we are inclined towards a varied composition of the long-term memory, and differentiate between non-declarative or procedural memory and declarative memory. At the same time, we are interested in the latest due to its relevance in the autobiographical memory (referred to as AM from now on). It gets divided into episodic memory and semantic memory (Tulving, 1972).

Without avoiding the contributions made by the semantic memory, our interest is focused on the episodic memory. Nowadays, the notion of episodic memory is understood as "a neurocognitive system (mind/brain) which is different from other systems and allows the human being to recall past experiences" (Tulving, 2002, p.1). "It is the only form of memory which is oriented towards the past and linked to the autonoetic consciousness. It goes beyond the knowledge of the world and its relations with the semantic memory are specific processes. It gets more deteriorated than the semantic memory at an old age and its association with the brain's cortical activity is well-known" (Tulving and Markowitsch, 1998, p.202). More specifically, and in accordance with our aim to delimit the lines of the AM, we understand the episodic memory as "the type of memory that enables conscious memories of situations and events from the personal past and the mental projection of events brought forward towards oneself's subjective future" (Wheeler, Stuss and Tulving, 1997, p.302).

In an explicit way, the conscious memories of our lived experiences are the ones which are part of the episodic memory. This way, the close relationship between the episodic memory and consciousness becomes apparent. This link memory-consciousness gains a special relevance, since we would not be able to retrieve the episodic memories which shape the AM without the conscious activity. This type of consciousness has been called autonoetic consciousness, and it is understood as "the skill that allows adult human beings to mentally represent something and become aware of their prolonged existence through subjective time. That is to say, when a person is autonoetically conscious is able to focus his attention on his own subjective experience (...) the autonoetic consciousness allows people the possibility to always capture their subjective experiences and perceive the present moment as a continuation of their past and a prelude of their future" (Wheeler, Stuss and Tulving, 1997, p.302).

Generally speaking, the episodic memory refers to the personal memories which can be told through time. Therefore, the autobiographical events are the central axis of the episodic memory. It cannot be any other way; we identify the autobiographical memory with the episodic memory. The various

investigations generated on this matter, both from the perspective of behaviour (Rubin, 2003) and neuropsychology (Vargha-Kardem, Gadian and Mishkin, 2001), clearly point to this position. With it all, it is hardly surprising if we understood the AM as "a certain complex and multiple skill made up of neurological, social, cognitive and linguistic components" (Reese, 2002, p.124).

In a different respect, one of the issues that has arisen most interest in the study of the AM has been its composition. To this matter, we follow Rubin's contributions (1998) when he refers to language and the narrative structure as essential components of the AM. Autobiographical memories are normally recalled in a narrative way, that is, we express the time we have lived in a narrative manner, giving information about the world and the sort of people we are (Bruner, 1987). This way, each one of us builds and rebuilds our self narrative (Neisser, 1988). These narratives shaping the self are created in the intersubjectivity offered by social interaction (Fivush, Haden and Reese, 1995). Therefore, it is correctly thought that autobiographical memories are socially built (Nelson, 1993). In that sense, the autobiographical memory, the autobiography, the personal identity, is not the mere combination of personal memories, but rather a narrated construction based on events from our own live (Bruner, 1987). This way, the personal identity, the self, is a story about the vicissitudes of the human intention which is organised through time (McAdams, 2003).

Images are built as another main element of the autobiographical memory. Damasio (2004) makes a distinction between two types of images: perceptual and recalled images. With the first, he refers to those images formed on the basis of the informational inputs coming from the different senses. With the second, he means the images that appear when we recall past events. Moreover, the AM make possible the orientation towards the future on the basis of past and present experiences. In that sense, it is worth stating that there are also projective images which launch us towards the shaping of our own future. In the three cases, the images can be made up of smells, colours, movements, words, shapes, sounds, textures, etc. Anyhow, images are a decisive support for the AM; amongst other functions, images are important for the AM because "they increase the specificity of the AM's relived and personally experienced aspects" (Rubin, 1998, p.55), that is, they arrange the details of the stories so that they seem more real, accurate and credible (Pillemer, Desrochers and Ebanks, 1998). Nevertheless, as Damasio says (2004), instead of accurately recalling events from the past, we seem to make reconstructions from the original. On the other hand, the storage of images in the brain still presents a problem that needs to be concisely elucidated, although a point for

consensus in the storage of mental images is the fact that these are not stored just like they are, but as neural guidelines which are spreaded all over the brain and activated at the moment of the recall.

The emotional component is the last element to shape the AM. Affectivity, emotionality in its different degrees of omnipresence in the human condition, gains a special relevance, whether for shaping the memories of past events of for recalling purely emotional events. Independently from one or the other, emotions are important and almost inevitable in the AM. In fact, the AM closely correlates with those events having an emotional content, that is, we can recall those events which have a positive or negative emotional load better than other which are neutral or lack any emotional involvement. Moreover, it is noticeable how emotional assessment is a key element in the autobiographical recall. Basically, the emotional evaluation makes a distinction between different aspects of emotions (types, intensity, duration ...); it has a crucial influence on the coding, storage and retrieval of the autobiographical information and it assesses events by increasing or minimising the importance of the personal event.

## THEORETICAL APPROXIMATION FOR A MODEL OF ADULT'S EMOTIONAL EDUCATION

The personal identity does not appear as something fixed or immobile. It is not built in just one go and at one time, but it is rather dynamic and changeable; it is built and rebuilt when faced with the numerous situations which come up in life. Two prime elements underlie this identity revolution: on the one hand, the coding of the information coming from everyday experiences of the present, hence, the identity dynamism; and on the other hand, the urgent need to give some coherence to the autobiographical memories, which are formed from past experiences. Therefore, to understand oneself is just a search for sense, and that search can be achieved through the interweaving between language and the events that take place throughout life. The temporal structuring of personal experiences and autobiographical memories, the reorganisation of the very living experience, is carried out through language. This way, the subject gradually finds meaning to the passing by of his own experience, that is, he interweaves autobiographical memories in a temporal sequence which makes his own existence comprehensible.

Creating a coherent and argued story is nor something easy to do, and even less when the story is that of life itself, where the person is, at the same time, the protagonist, editor and publisher of that story. This lead to a high complexity in the construction of a plot of vital experiences: one the one hand,

the emergence of the autobiographical memories in the mind; on the other hand, the narrative construction of those autobiographical events, giving a sense of unity and personal continuity. On this last matter, symbolic participation is inevitable and, with it, the understanding of the identity as the narrative unit of the recalled personal experiences. We then assign self narration the task of uniting the group of discontinuous events in a life narrative unit (McIntyre, 1987). In other words, the reorganisation of thoughts, emotions and actions in a narration enables the creation of the character whom the lived experience belongs to. Without doubt, each subject claims the lived experience in his story and, consequently, makes his own a wide variety of circumstances which have a personal value to the person in that narration. In a different way, the narrative shaping of the identity makes it possible to incorporate heterogeneity into permanence and, therefore, the shaping process structures the wide range of events in a temporal outlining, and the components of experience with the linking to the story. As Ricoeur states (1996, p.147), "the character shares the dynamic identity regime characteristic of the narrated story. The story builds the character's identity, which could be called his narrative identity, when building that of the narrated story".

From the emotional world's point of view, the narrative shaping of the identity would be the result from the integration of disharmonies and concordances. The first represents the variety of actions, experiences, events which originate significant emotional states and alter the subject's emotional consciousness of temporal continuity. The second reflects the need to narrate the emotions which pass off through time shaping patterns, outlines or stable emotional narrative units that provide the subject with the feeling of emotional continuance in time. The narrative identity, in other words, the building of the subject's emotional life story through language, is originated in the dialects between the stable emotional patterns and the punctual and significant emotional states. We should now address the emotional self-knowledge, that is, those self-reference processes carried out by the individual towards his emotional world which covers the ability to understand emotions together with a greater knowledge about the connections between thoughts and feelings, their determinants and their consequences. Moreover, it covers the ability to name or label emotions and recognise the connections between word and emotional state, as well as understanding the links between different emotions and the situations they are due to. Likewise, it includes the ability to interpret the meaning of complex emotions, as well as the skill to recognise the transitions from one emotional state to another.

On the whole, the building of the personal identity emotional dimension involves the emotional self-knowledge, in other words, self-reference processes in the significant experiences of the subject's autobiography. In a large amount, these experiences have a high emotional content. However, the notion of a subject's emotional identity can be built and rebuilt taking those autobiographical events as a starting point. Therefore, we are highly interested in those life episodes which are significantly open to an emotional interpretation due to its high emotional content. More specifically, we are talking about the self-defining memory (Blagov and Singer, 2004, p.483) as "a highly significant personal memory which could be characterised by the following properties: it evokes emotions at the time of the recall. It is lived in the eye of the mind, fixed with sensory details, as in the case of a video. It is like a touchstone repeated in our conscience which we actively recall in certain situations or spontaneously returns. It is representative of other memories (...). Finally, it goes around the most important worries and conflicts in our lives".

However, the emotional self-knowledge through self-reference processes of the emotional contents found in the self-defining memory enables, to a large extent, the formation of an "emotional wisdom". Just like Baltes and Staudinger (2000), we understand wisdom as a personal resource used in order to mediate in the fundamental changes and challenges in life, and it is sometimes aimed towards the objective of living a good life or the effort to achieve the common good. Understanding wisdom as a personal resource is addressing it as a competence owned by the subject. Several meanings of the concept of competence have originated but, without doubt, the most important one for us is the conception of competences as intentional actions referring not only to tasks performed, but also to the understanding of the difficult situations individuals must face up to (Bernal, 2003). On this subject, the intellection of those uncertain, unprecedented or ambiguous circumstances subjects have to face up to means: first, activating the memories of personal events and, second, carrying out an autobiographical reasoning about them. By means of these two processes, the meaning of life events is created, which favours the transfer to those problematic situations and their possible resolution. In other words, we are talking about the ability to create a causative coherence of the critical events in the very history of life, contributing to subjective well-being and satisfaction with life (Haight, et al., 2000). All this makes us think about self-fulfilment and positive mental health, in other words, the formation of a mature personal identity (Bernal, 2002).

With these assumptions we believe that an adult's emotional education is mainly based on these two processes which are the emotional autobiographical recall and the reasoning of those memories.

#### REFERENCES

- BALTES, P. B. and U. M. STAUDINGER (2000). "Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence." American Psychologist (55): 122-136.
- Bernal Guerrero, A. (2002). "El concepto de Autorrealización como identidad personal. Una revisión crítica." Cuestiones Pedagógicas 16: 11-23.
- Bernal Guerrero, A. (2003). "El constructo madurez personal como competencia y sus posibilismos pedagógicos." Revista Española de Pedagogía **225**: 243-261.
- BLAGOV, P. S. and J. A. SINGER (2004). "Four dimensions of self-defining memories (Specicity, meaning, content, and affect) and their relationships to self-restraint, distress, and repressive defensiveness." Journal of Personality (72): 481-512.
- Bruner, J. S. (1987). "Life as narrative." Social Research 54: 1-32.
- Cannon, W. B. (1929). Bodily changes in pain, hunger, fear, and rage. Nueva York, Appleton.
- Damasio, A. (2004). El error de Descartes. Barcelona, Crítica.
- Fernández de Molina, A. (1997). Cómo nos emocionamos. ¿Cómo funciona el cerebro? J. Botella Llusiá. Valladolid, Universidad de Valladolid, Secretario de Publicaciones: 11-20.
- FIVUSH, R., C. A. HADEN, et al. (1995). Remembering, recouting and reminiscing: The development of autobiographical memory in social context. Remembering our past. Studies in autobiographical memory. D. C. Rubin. Cambridge, Cambridge University Press: 341-359.
- GARCÍA CARRASCO, J. and A. GARCÍA DEL DUJO (2001). Teoría de la Educación. Procesos primarios de formación del pensamiento y la acción. Salamanca, Ediciones Universidad de Salamanca.
- McAdams, D. P. (2003). Identity and the Life Story. Autobiographical Memory and the Construction of a Narrative Self. Developmental and Cultural Perspectives. R. Fivush and C. A. Haden. London, Lawrence Erlbaum Associates Inc: 187-207.
- McIntyre, A. (1987). Tras la virtud. Barcelona, Crítica.
- MORA, F. (2002). Continuum. ¿Cómo funciona el cerebro? Barcelona, Alianza Ensayo.
- Neisser, U. (1988). "Five Kinds of Self-knowledge." Philosophical Psychology 1: 35-59.
- Nelson, K. (1993). "The psychological and social origins of autobiographical memory." Psychological Science 4: 7-14.
- Ortony, A., G. L. Clore, et al. (1996). La estructura cognitiva de las emociones. Madrid, Siglo XXI.

- Panksepp, J. (1998). Affective neuroscience: The foundations of human and animal emotions. Nueva York, Oxford University Press.
- PILLIMER, D. B., A. B. Desrochers, et al. (1998). Remembering the Past in the Present: Verb Tense. Autobiographical Memory. Theoretical and Applied Perspectives. C. Thompson. London, Lawrence Erlbaum Associates Inc: 145-162.
- Reese, E. (2002). "Social Factors in Development of Autobiographical Memory: The State of the art." Social Development 11(1): 124-142.
- RICOEUR, P. (1996). Sí mismo como otro. Madrid, Siglo XXI.
- Rubin, D. C. (1998). Beginnings of a Theory of Autobiographical Remembering. Autobiographical Memory. Theoretical and Applied Perspectives. C. Thompson. London, Lawrence Erlbaum Associates Inc: 47-67.
- Rubin, D. C. (2003). "Belief and recollection of autobiographical memories." Memory and Cognition(31): 887-901.
- SHACTER, S. and J. E. SINGER (1962). "Cognitive, social and physiological determinants of emotional state." Psychological Review 69: 379-399.
- TULVING, E. (1972). Episodic and semantic memory. Organization of memory. E. Tulving and W. Donalson. New York, Academic Press: 381-403.
- Tulving, E. (2002). "Episodic Memory: From Mind to Brain." Annual Review Psychogist 53: 1-25.
- Tulving, E. and H. J. Markowistch (1998). "Episodic and Declarative Memory: Role of the Hippocampus." Hippocampus 8: 198-204.
- VARGHA-KARDEM, F., D. G. Gadian, et al. (2001). "Dissociations in cognitive memory: The syndrome of developmental amnesia." Philosophical Transactions of the Royal Society of London Series B: Biological Sciences of the United States of America 356: 1435-1440.
- Wheeler, M. A., D. T. Stuss, et al. (1997). "Toward a Theory of Episodic Memory: The Frontal Lobes and Autonoetic Consciusness." Phychological Bulletin 121 (3): 331-354.
- WILLIAM, J. (1884). "What is an emotion?." Mind 9:188-205.