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# The Emotional Meaning of Ritual*

Do human beings need rituals? Have they become an obsolete "evolutionary appendix" in the modern world, or are they an indispensable part of the human condition?

Right at the start, I wish to adopt a clear stance with regard to this repeatedly controversial discussion in ritual studies: From the perspective of cultural anthropology, I assume that human beings need rituals, that they are an anthropological necessity, and that their usefulness relates to specific bio-psychological stress-relieving processes. This basic assumption guides the following arguments.

Because use of the term *ritual* is becoming increasingly inflationary not only in everyday language but also in an academic context, the first thing to do is to specify the subject. I shall follow Axel MICHAELS (2003) who defines rituals as standardized, set *actions* that can be distinguished clearly from everyday ritualizations (daily routines) through the criteria of *intentio solemnis* (the formal resolution), *religio* (the transcendent alignment that goes beyond the dimensions of daily life), and *transformation*. As *actions*, rituals are also always *embodied*, that is, they always include bodily aspects (sensory processes, motor processes, etc.), and this distinguishes them from "purely" mental or cognitive procedures. "One who is only thinking or feeling, is not engaging in a ritual" (MICHAELS 2010 translated by B. R.-R.; cf. BELL 2006).

The following analyses are also based on this understanding of ritual. However, they focus particularly on the element of transformation, and thereby on a very specific type of ritual, namely, the so-called "rite de passage", the transition ritual.

## Transition rituals/*Rites de passage*

This term was introduced by the French social anthropologist Arnold van Gennep (1873-1957) whose comparative analysis attempted to systematize the vast collection of ethnographical descriptions of ritual practices in the greatest variety of cultures available at the beginning of the 20th century. He published the results of his studies in 1909 in his major academic work, *Les Rites de Passage* that has since become one of the classic social anthropological studies of rituals.[1] In this work, van Gennep shows that a large proportion of the ritual practices in all cultures accompany status passages in the life cycle. He considered that the reason why rites of passage are so universal lies in their social control function: Rites of passage mark and communicate a change in place or state and the crossing of a threshold – for example, from boyhood to becoming a warrior – thereby making it easier for both the community and the individual concerned to adopt a new orientation while simultaneously cushioning possible disruptions of the social order. Drawing on a vast amount of ethnographic

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[1] Nonetheless, his work was slammed by contemporary French critics (including Marcel Mauss) and has yet to receive the recognition it deserves in France. The intellectual climate of French social scientists at that time was influenced decisively by Durkheim, who ignored van Gennep. The latter never managed to establish himself in France and did not gain a professorship. However, his work was frequently well received in other countries. In 1911, *Les Rites de Passage* received a very positive review in *Man*, and after being translated into American English in 1960, it rapidly took its place in American social anthropology. However, it was not translated into German until 1986 (by Sylvia Schomburg-Scheff) where it was received well enough to be reprinted in 2009.

material, Van Gennep shows how these rites of passage also reveal the same basic tripartite structure: A phase of separation that releases the individual from the earlier place or state is followed by a threshold or transformation phase, in which the individual is caught between two worlds and/or positions. The passage is consummated by the reincorporation phase in which the individual becomes integrated into the new location or status.

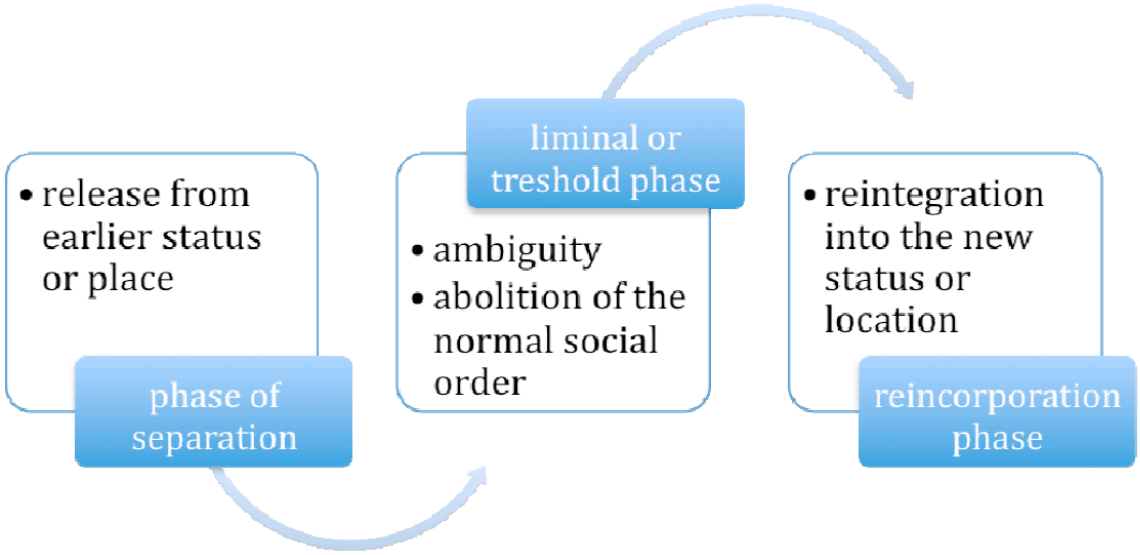


**Figure 1:** Structure of Rites de Passage according to van Gennep 1909

This phase model is still valid today. It stimulated and systematized the analyses of transition rituals by members of the following generation of social anthropologists such as Mary Douglas, Meyer Fortes, Max Gluckman, Edmund Leach, Monica Wilson, and Victor Turner, who belonged primarily to the structural-functionalistic school and correspondingly also focused their analyses on the social function of transition rituals. They interpreted them as a means of expressing social relationships and antagonisms, controlling social conflicts, and stabilizing unity and order. The emphasis lay on the significance of transition rituals for the community. This aspect was also crucial for Victor Turner, whose work on the structure and symbolism of ritual processes drew directly on van Gennep while further developing the latter's concept of threshold or transition in his famous 1964 essay *Betwixt and Between*. According to Turner's theory, the intermediate phase – the liminal phase – is by far the most important part of the ritual process.[2] As a phase lying between two clearly defined places or states, it is characterized by lack of structure and by ambiguity because the previous regulating principles have been suspended. Conditions in the old life phase no longer apply; those of the new, are not yet valid. In this sense, it forms the pivot of the transformation from

[2] "This is the fact that when persons, groups, sets of ideas, etc., move from one level or style of organization [or regulation of the interdependence of their parts or elements] to another level, there has to be an interfacial region or, to change the metaphor, an interval, however brief, of *margin* or *limen*, when the past is momentarily negated, suspended, or abrogated, and the future has not yet begun, an instant of pure potentiality when everything, as it were, trembles in the balance" (TURNER 1982, p. 44).

one status into another, from one phase of life into the next. The significance of liminality, the threshold phase has also been emphasized in recent ideas on ritual theory within social anthropology. For example, Ursula RAO and Klaus-Peter KÖPPING (2000, p. 10) assume that the liminal phase does not just either lead to or mark a change in a individual's status in society, but also changes the person as well as the way that person perceives reality. They go further than Turner here and conceive rituals as *transformative acts* that are, or become, effective not only on the level of the social order but also on the level of individual mental processes. However, up to now, little is known about how these confirmed transformations proceed, and which affective and which bio-physiological processes are involved. Moreover, this also lies outside the usual interests of social anthropology.

In the following, I wish to present a few – still very provisional – ideas that I have developed while considering approaches in emotion theory and neurobiology that may offer a way to fill this gap. To illustrate these ideas, I shall relate them to the following concrete ritual.

## Case study: Makassarese leave-taking

The Makassar on the Indonesian island of Sulawesi, with and on whom I have worked intensively for many years, are a very mobile and migration-loving society. As an old trading and seafaring people, departures to foreign shores for indeterminate lengths of time are a traditional Makassarese experience.

Put briefly, long-lasting separations of close relatives are frequent, and the return of the traveller is in no way always certain. Leave-taking is an important dimension of social experience and ritualized accordingly. These leave-taking rituals correspond to the type of ritual that WHITEHOUSE (1995) has categorized to the *imaginistic mode* in contrast to a *dogmatic mode*. Because such rituals occur periodically and not regularly, they are less repetitive and standardized in form and follow a more flexible and variable course. They take place in local face-to-face contexts, and are based strongly on sensory-emotional stimulation. Their "style of codification" is characterized primarily by an "iconic imagery".[3] Generally, such a leave-taking commences several weeks before the day of departure, and initially seems to take a very informal form. However, closer inspection reveals a stereotyped character: Every day, the others increasingly talk to the traveller about the pending leave-taking, and the remaining nights at home are counted. Every time the traveller walks through the village or the neighbourhood, she or he will hear repeatedly from every house, "only 20 more nights you poor soul, only 20 nights!" And this is followed by "only 19 nights", "only 18 nights", and so on. The pending departure is highlighted in public, and, every day, those departing and those remaining are made aware of how their remaining time together is running out. In this *phase of separation*, those departing already acquire a special status; they are separated mentally from their everyday references and prepared for their departure. The closer they get to their journey, the more dramatic walks through the village become. Neighbours and relatives no longer limit themselves to just calling, but start to come out of their houses in order to embrace the traveller and express their sadness over the departure.

About 10 days before the actual departure, the *liminal phase* commences. The traveller remains increasingly at home, and the house fills up with more and more guests every day.

[3] The *dogmatic mode* in contrast, is characterized by "verbalized doctrine and exegesis", by a strongly repetitive and routinized character. It is not tied to local face-to-face communities, but directed towards large-scale societies, and oriented accordingly towards an "imagined community". Instead of sensory-emotional stimulation, the focus is on "intellectual persuasion", and rituals assigned to the *dogmatic mode* are far more rigid and uniform in their course and structure (see WHITEHOUSE 1995, p. 197; cf. MCCAULEY/LAWSON 2002, p. 105).

First of all, relatives who live elsewhere come to stay for a few nights, and on the last days before the departure, neighbours and friends stay there as well. The houses are now filled with 50 to 100 overnight guests. Whereas the locals return to their own homes during the daytime, relatives from other places have to be fed, housed, and so forth. Hence, normal daily life breaks down completely; the leave-taker and closest relatives are in a state of "betwixt and between". The leave-taking reaches its climax on the last night before the departure. Everybody stays awake all night, they make music, and sing leave-taking songs. There is a large repertoire of traditional *kelong* (four-line songs) that can be modified spontaneously on such occasions to fit the character of the traveller. There is a lot of play, a lot of laughter, but also a lot of tears. The traveller's relatives repeatedly bust into tears when they look at her or him, and the traveller then mostly cries as well. Many sit in silent despair – particularly the traveller's parent, siblings, or marriage partners and children. These, in turn, are hugged repeatedly and consoled tearfully by the others. Naturally, everybody eats together, and the traveller also partakes ritually of a "consecrated" last meal, although this is a more peripheral event. The element of *religio* here lies primarily in the superelevation of the community, in the extreme intensification of being together. The relationships, the social networks in which the individual is embedded, manifest once again directly in these leave-takings. On the day of departure, all the assembled members of the community take their individual leave-taking, and the closest family members accompany the traveller on the first part of the journey, that is to the airport, the ship, or the long-distance bus station. In this short final phase, those involved become integrated into their new situation or their new identities as those who go away and those who stay behind.

These extensive leave-takings reveal a very specific psychological or emotional dynamic. First, the focus on the parting of both parties, the one who stay and the one who leaves, provides sufficient space to prepare oneself mentally for the separation, to communicate the feelings involved, and to share them with others – both the fears of the unknown and the fears of being left behind. Individuals who already have travelling experience give advice to the leave-taker, and the relatives who remain behind also share their fears and concerns with those who have already gone through such an experience while also being supported by others' expressions of sympathy. Put briefly, a climate is created that does not just foster but almost forces the communication and sharing of feelings – and not only on the level of conscious verbal communication but also on the level of direct bodily and primarily subconscious affect sharing. The latter plays a particularly central role during the nights spent together shortly before the departure. This phase of close spatial togetherness promotes a particularly extreme process of so-called emotional contagion. For example, one can repeatedly observe scenarios in which one person present starts to cry when seeing the leave-taker, and this "infects" everybody else who is sitting close by, leading to repeated waves of crying of varying intensity or highly affective separation scenarios. In my opinion, the enormous emotional expressiveness evoked by this form of leave-taking ritual has an extremely significant (side) effect: It is strenuous and exhausting! This exhaustion is increased, on the one hand, by the frequent repetition or the multitude of small leave-taking scenarios during the course of the several-day-long ritual, and, on the other hand, by the commotion caused by the presence of so many people and everybody's chronic lack of sleep. In conversations about the subjective perception of these extensive leave-takings, individuals reported that by the end of these long separation rituals, they were in a state of such complete psychological and physical exhaustion that they longed for nothing other than an end to it, in this case, the departure. Hence, the dramatization of these leave-taking rituals systematically evokes "stress" in the form of physical exhaustion and emotional overstimulation, and this seems to elicit a catharsis. This can also be seen in the fact that the final leave-taking between the closest relatives on the day of departure takes place in a relatively undramatic, calm, and composed climate. The pain of separation has already been acted out excessively beforehand.

**An emotion-theoretical interpretation**

It seems as if different emotional/affective processes are involved in the prototypical Makassarese leave-taking ritual presented here, or – and this is what I consider to be the decisive element – as if these processes are triggered completely deliberately by the structure, by the dramatic composition of the ritual.

The first ritual phase – that is, the phase of separation according to van Gennep's model – characterized by the collective "counting of the nights" described above, can be viewed as a *mentalization of the leave-taking*. The pending separation is brought to the centre of communal attention by being addressed continuously. This makes it impossible for those directly involved to cognitively suppress or ignore it. In this context, emotions are also addressed, in that the leave-taker is continuously asked how she or he feels with questions such as: "Are you anxious?" "Are you sad?" "Are you happy about it?" "Are you nervous?" This creates a social space for reflecting upon and communicating one's own feelings about the pending event. At the same time, the social feeling rules for leave-takings are reproduced or generated within all these small leave-taking conversations. These, in turn, vary greatly depending on the specific social constellations: If, for example, a mother is leaving her husband and children, far more sorrow is not just socially permitted but indeed expected compared to when a young and unattached man goes away to "seek his fortune".

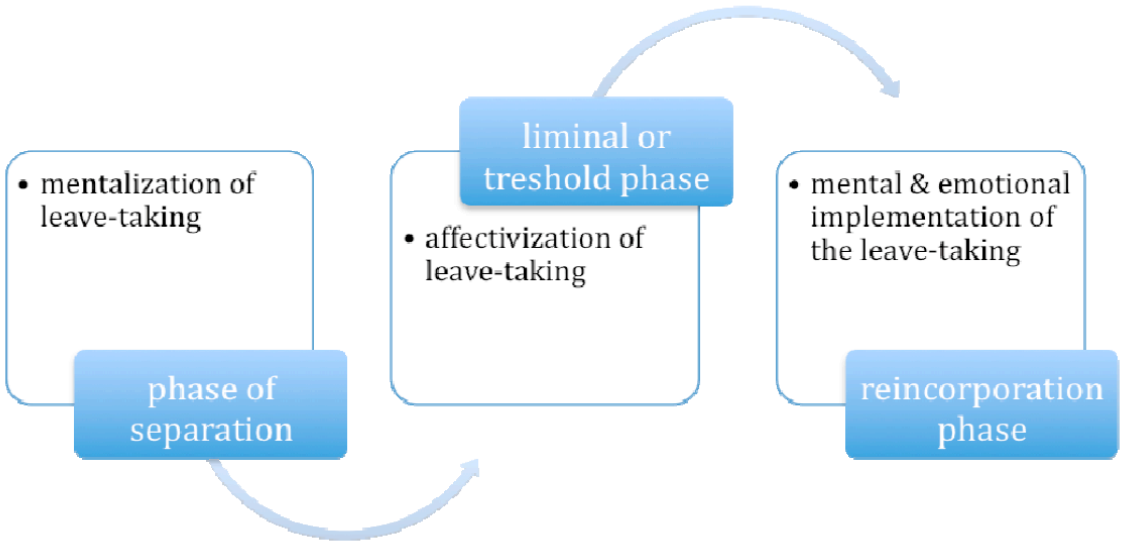


**Figure 2:** Psycho-emotional structure of the Makassarese leave-taking rituals

The second ritual phase, that is, the threshold or liminal phase characterized by the communal nights in the house of the leave-taker, can be seen as an *affectivization of the leave-taking*. As we have seen, the ritual structure demands close spatial proximity and thereby direct bodily interaction between those concerned. This encourages processes of affective resonance or emotional contagion (HATFIELD/CACIOPPO/RAPSON 1998). These terms describe a phenomenon familiar to all of us, namely, that the emotions or, more precisely, the emotional

expressions that we perceive in others also transfer involuntarily to ourselves: When we see people weeping inconsolably, we start to cry ourselves; when we see others smiling, we also begin to smile – even when the reason for the sorrow or pleasure has nothing to do with us and we do not even know what it is. The decisive element in this involuntary process is the subconscious motor mirroring (the mimicry) of the emotional expression of another person in one's own facial expression and posture that then leads (across complex feedback processes) to emotional contagion, that is, to an unequally involuntary adoption of the affective state of the other person. Such phenomena are due to the autonomous perception–action mechanisms anchored in human physiology (see PRESTON/DE WAAL 2002). These involve so-called mirror neurons that have become a focus of research through the pioneering work of the Italian neurophysiologists Giacomo Rizzolati and Vittorio Gallese. Initial electrophysiological studies by Rizzolati and Gallese (1996) with macaque monkeys followed by later experiments with human beings (RIZZOLATI *et al.* 2003) using functional magnetic resonance imaging (fMRI) have shown that observing actions performed by others triggers resonances in the brain of the observer, that is, mental representations of the observed action. Although the action observed in the other is only simulated internally and not executed, it readies the whole organism for action.

This neural mirror system also makes it possible to complete the observed sub-aspects of an action and form the anticipated total sequence (GALLESE *et al.* 2001)—in other words, predict that somebody approaching with an outstretched hand and a smile is going to greet us and not attack us. This is crucially important for human social life that would be inconceivable without the ability to grasp the actions and feelings of one's fellow human beings spontaneously and to predict them from minute signs of expression.

Whereas the original purpose of Rizzolati and Gallese's research was to understand action control, and experiments concentrated accordingly on simple action sequences, there are now numerous neurobiological studies indicating that comparable mirror mechanisms seem to be involved in emotional resonance processes as well. In a recent work, Vittorio GALLESE (2003) has also broadened his perspective considerably, and now views mirror neurons as parts of a complex system composed of numerous "mirror-matching mechanisms" that permits intersubjectivity on a range of levels. He believes that emotional contagion is one of the central functions of this system.

However, emotional resonance processes are not a new discovery by the neurosciences. Psychology and philosophy have been describing them for many years. Back in 1903, the philosopher Theodore Lipps had already formulated a concept of *Einfühlung* (see below) that is an extremely similar mechanistic model to the recent perception-action scheme (PRESTON/DE WAAL 2002). Lipps posited that the emotional expression of an individual triggers the same emotion in the observer, and that it does this directly, that is, without any intermediaries (such as a conscious cognitive perspective taking). Lipps accordingly viewed the fundamental ability of *Einfühlung* as being based an involuntary, instinctive mimicry of the perceived expression sign in the other; in other words, as a human behaviour that could be observed precisely, but could not be explained at that time. What was then a hypothesis would now seem to be supported by modern neuroscientific research findings (cf. CURTIS 2009).[4] In 1909, the psychologist Edward Titchner translated Lipps' concept of *Einfühlung* into English as empathy, and this term has now also entered the German language as a label for various types of emotional process ranging from involuntary affective resonances (emotional empathy) up to conscious mental perspective taking (cognitive empathy) (cf. TITCHNER 1909,

[4] Phenomena of emotional contagion have also been analysed extensively in social scientific research on social (protest) movements (see AMIZADE/MCADAM 2001; GOODWIN *et al.* 2001; PETTENKOFER 2006).

p. 21).[5] Numerous academic debates range around the issue of whether it is meaningful to make a conceptual and thereby terminological distinction between the involuntary process of *affect sharing* and the complex process of conscious mental empathy with the feelings and thoughts of others. For example, Frederique DEVIGNEMONT and Tania SINGER (2006) have called for a clear separation of the phenomena, conceiving empathy as the human ability to engage in involuntary affect sharing, whereas PRESTON and DE WAAL (2002), in contrast, use empathy as a general term to cover "any process where the attended perception of the object's state generates a state in the subject that is more applicable to the object's state or situation than to the subject's prior state or situation" (2002, p. 4).[6] However, it is not necessary to go into this in more detail to support my argument.

My premise is that rituals, at least life-cycle rituals, pick up or instrumentalize the empathy or what can be called "interaffectivity systems" in human physiology sketched above in order to consummate life transitions not only in social space but also on the level of the subjective perceptions of those involved. The above-mentioned transformative power attributed to rituals, which leads not only to a change in the social status of a person but also to a change in the person her or himself and her or his perceptions of reality, seems to relate to this intersubjective phenomenon of understanding and resonance. In my opinion, two interlocking processes are involved in this transformative process: (1) the affective and cognitive communication of the specific threshold experiences, that is, the feelings and "vitality affects" (STERN 2003, pp. 79f.)[7] associated with the life transition, and (2) the "hyperarousal" generated repeatedly through rituals as well as the physical and mental stress that they frequently induce.

## Affective and cognitive communication

In the leave-taking ritual described above (as well as in other *rites of passage* I have observed), the first ritual phase (the *phase of separation*) is characterized primarily by cognitive forms of processing (I called this a *mentalization* of the leave-taking above). That which is coming – in this case, the leave-taking – is anticipated and imagined in advance, so that it can be conceived as a kind of cognitive framing of the liminal phase.

The threshold phase is then determined by the direct bodily resonance processes that bring about a completely different quality of experience. The phenomena that have previously been anticipated cognitively are now felt or experienced with all the senses, so that participants grasp them in their full physicality. The individual bodily perceives that something has happened to her or him, and simultaneously experiences her or himself—because of the complex resonance processes – as part of a community. DURKHEIM already referred to this affective perception of collectivity in his concept of *collective effervescence*, by which he meant the shared arousal or euphoria that emerges in ritual interaction and that cannot be derived simply from the prior structure of meaning. According to Durkheim, the affective perception of collectivity is encouraged particularly by the synchronization of actions, movement sequences, and rhythms that is so typical of rituals – be it through dance,

[5] However, the term empathy has been used very inconsistently. A brief overview of the most frequent uses of the term today can be found in Daniel BATESON (2009).

[6] They emphasize that they understand empathy explicitly as a general term "that includes all sub-classes of phenomena that share the same mechanism. This includes emotional contagion, sympathy, cognitive empathy, helping behaviour and so on" (2002, p. 4).

[7] STERN defines "vitality effects" as affects that are "hard to determine" because they cannot be labelled and categorized with the usual emotional vocabulary of a culture. They can best be described with dynamic, kinetic terms such as surging, bursting, ebbing, transitory, explosive, and so forth (2003, pp. 79f., 83).

prayer, song, or whatever.[8] Victor Turner refers to these phenomena with his concept of *communitas*, which he describes an enhanced sense of community, as a form of "instinctive comprehension" that banishes the borders that separate single individuals from each other and that he considers to be characteristic for the liminal phase.[9] Put briefly, interaffectivity processes have already been described phenomenologically in the classic ritual theories of the humanities and social sciences in which they are viewed as a constitutive element of rituals. In this sense, my premise that rituals use neurobiologically based mirror mechanisms is nothing spectacularly new. I am simply attempting to link together different lines of research in different disciplines.

## Hyperarousal through ritual

The same also applies for the second component of my argument that may be a bit more controversial. I had pointed out that the multitude of little leave-takings in the ritual described above combined with the large gatherings of people in the house of the leave-taker and the people staying overnight lead to stress, to a physical and mental exhaustion or overload. Forms of overstimulation or "hyperarousal" are nothing unusual in the context of rituals. Ethnographic studies confirm that a whole host of rituals from the greatest variety of cultural contexts are designed to generate high emotional arousal and ecstasies during the threshold phase. But what is the purpose of this seemingly universal aspect of ritual behaviour? What does systematic affective overstimulation, which can lead to extreme stress, achieve? Do these ritual practices correspond to specific neurobiological mechanisms that possibly make it easier for human beings to adapt themselves to new life situations?

With these questions in mind, I began to explore the research on stress in the neurosciences, and this led me to several interesting "discoveries". According to the studies I consulted (e.g. FUCHS/UNO/FLÜGGE 1995; HÜTHER *et al.* 1996; MCEWEN *et al.* 1993; ROTHENBERGER/HÜTHER 1998; SAPOLSKY 1990), stress reactions trigger a series of very complex biochemical processes in the body that impact directly on the neural circuitry of the brain. Stress leads to higher cortisol levels (in the adrenal cortex) that influence, in turn, a series of systems (such as the noradrenergic, serotonergic, or dopaminergic systems) that modulate the transmission of signals in the brain. I lack the competence to explain these complicated modes of action in detail. But what is important for my argument is that the neuroendocrine processes triggered by stress seem to be able to bring about changes in the neural circuitry (in the limbic system and the cortex) by destabilizing or closing down prior circuits and thereby making it possible for new neural connections to form. In other words, it seems that stress can destabilize existing patterns of appraisal and coping that are inappropriate for meeting new demands by inducing a degenerative change in the underlying neural circuitry, thereby promoting a new orientation, an "overwriting" of prior engrams. However, such potentially positive consequences of stress occur only when the stress does not last too long and when it remains controllable. Long-lasting, uncontrollable stress reactions, in contrast – as numerous psychiatric studies have shown – have pathogenic effects, that is, they can lead to a variety of disorders and even severe depression (LEDOUX 2003, pp. 366f.).

[8] According to Durkheim, the mere gathering together of people generates a strong emotional arousal. "Once individuals have gathered together, this fact generates a kind of electricity that rapidly turns into a state of extraordinary arousal" (DURKHEIM 1981, p. 297, translated by B. R.-R.). See, also, the ideas on this in PETTENKOFER (2006, pp. 259ff.).

[9] Turner describes his concept of *spontaneous communitas* as the experience of an "essential us", as a form of "intersubjective illumination" that enables the individual to "understand in a sympathic way". "People who interact with each other in spontaneous communitas become totally absorbed in a single synchronized event shaped by 'flow'". (TURNER 1982, p. 48)

In my opinion, it might well be productive to analyse life transition rituals against the background of these findings from research on stress. In this sense, the "neurobiological purpose" of the production of stress inherent to these rituals could be to perform the destabilization of prior orientations that first makes a new orientation in any way possible. The ritual threshold phase, in which the conditions of the old life phase no longer hold and those of the new still have to come into force, creates a sphere of social and mental ambiguity, what TURNER has called an interface between the past and the future in which individuals are no longer subject to the usual social expectations but possess behavioural and perceptual freedoms.

Hence it seems that, on the one hand, transition rituals increase the stress automatically accompanying phases of radical change through a range of different ritual practices that – according to my premise – also accelerate particular destabilization processes on the neural level. On the other hand, they also control and guide these stress reactions in several ways:

1. They make a phase of disorientation available and also make it socially acceptable.
2. They promote intersubjectivity, and they do this not only on the level of direct, body-based *affect sharing* but also on the level of explicit cognitive processes of empathy and communication, that is, by compelling people to engage in cognitive and emotional empathy processes. The sense of community this engenders also gives the individual the secure feeling of being embedded in a social frame.
3. They provide the individual with important social orientation frameworks through the element of *religio*, that is, the transcendental (religious or quasi-religious) attributions of meaning that go beyond the everyday context and link the transition rituals to a society's specific general belief system. These enable the individual to assign a higher meaning to the experiences of upheaval or thresholds, and thereby to classify them and master them.[10]

## Outlook

In summary, my premise is that *rites of passage* accelerate the neural destabilization processes that accompany phases of psychosocial upheaval while simultaneously structuring these phases. The high emotional arousal generated in different ways during the course of the ritual and the stress reactions this induces in the initiates trigger complex neurobiological processes. These are responsible for the frequently described "transformative power" of the ritual: The ritual act changes individuals not only on the level of social symbolism but also in their internal, that is, their mental structures of organization and perception. From this perspective, rituals prove to be highly effective coping and adaptation strategies during life transitions and crises, and thereby an indispensable aspect of the human condition.

Primarily for rhetorical reasons, I have embedded this premise in the example of a concrete leave-taking ritual. However, in the Makassarese context, this dynamic can also be seen in countless other life transition rituals (particularly pregnancy and birth, circumcision and initiation, marriage, death and funerals). They can all be characterized by the three stages described above of *Mentalization -> Affectivization -> Catharsis*/*Reincorporation*, and I assume that this also holds for most life-cycle rituals as well as further rituals and particularly ones that can be assigned to the *imaginistic mode*. However, any elaboration of these – still very provisional and unspecific – premises as well as empirical tests of them can only be carried out meaningfully in interdisciplinary cooperation, preferably within the framework of joint research by neurobiologists and cultural anthropologists.

[10] See the studies of stress by LAZARUS (1966) as well as LAZARUS and FOLKMAN (1984) showing that how people evaluate stress has a major impact on how they react to it and cope with it.

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