A THEORY OF HUMOR

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Abstract: BACKGROUND: When we experience humor, we focus mostly on positive affects, though, apparently in a paradoxical manner, laugh and humor often occur in the presence of pain. Humor can emerge where adversity is substantial, in most traumatic situations that sometimes help in the individual’s growth and in his development.

PURPOSE OF STUDY: The objective of this paper is to explore and analyze the relationship between humor and pain, insisting on the importance of pain for understanding humor. We challenge different approaches related to humor and pain with the aim to advance new directions of study.

SOURCES OF EVIDENCE: Although there are various studies to argue the relationship between humor and pain, attempts to theorizing humor through pain are minimal to our knowledge (Veatch, 1998). The main theories of humor (psychoanalytic, superiority, arousal, incongruity and reversal theories), but also cultural and physiological factors underlying humor experimentation, add valuable explanations but seem to be incomplete.

MAIN ARGUMENT: Of specific theories of humor, neither seems to fully explain the humor, which is why pain needs to be reconsidered to a much greater extent and from here to reformulate the perspective towards humor. The painful humor theory, the theory we propose indicates the fact that the relationship between humor and pain, though being a paradoxical one, can contribute to a more in-depth exploration of different facets of humor.

CONCLUSION: It can easily be noticed that there are correlations between humor and pain since the two have common points in previous studies. A more in-depth exploration of the mechanisms of humor and pain and a larger attention oriented towards the manner of studying both could be critical, from this point of view. Therefore, the results could be relevant and the refinement of theories of humor could start right here.

Keywords: humor, pain, theorizing, exploration, directions of study.
Introduction

When we experience humor, we often focus on the positive affects, although, paradoxically, laughter and humor often occur in the presence of pain. Otherwise, humor is closely linked to the concept of resilience, as a possibility to recover or to successfully cope with situations though adversity is substantial (Rutter, 1985). The sense of humor has been seen as one of the protective factors involved in shaping resilience (Werner & Smith, 1982) and the connection between humor and resilience is captured in a wide range of studies and among all age groups (Anthony, 1974; Bernard, 1991; Werner & Smith, 1992; Richardson, 2002). Some authors consider humor a sign of emotional maturity (Haig, 1986) while laughing helps the individual growth, being an act of gratitude and faith in the face of death and tragic events (Bianchi, 2005).

This article focus on the relationship between humor and pain, highlighting the importance of pain in understanding humor. The link between humor and pain, apparently a paradoxical one, may contribute to further exploration of the different facets of humor. The attempts of theorizing humor in relation to pain are, as to our knowledge, minimal (Veatch, 1998), although there are numerous studies that analyze the relationship between humor and pain. In the current study, we explore different approaches to humor and we suggest for analyze new directions of study.

Physiological mechanisms of humor and pain

Transforming pain into pleasure is a feature of great importance for the psychology of our immune system (Lazarus & Folkman, 1984; Gross, 2008). The physiology of pain is close to that of humor experimentation. When humor is perceived, the cognitive processes are stimulating the emotional system, the response to humor being a pleasant emotional one, involving areas of the pre-frontal cortex and the limbic system (Martin, 2007). It has been shown that laughter leads to reduction of stress hormones such as cortisol or adrenaline (Fry, 1963). When we laugh, our brain releases endorphins, which can diminish pain (Fry, 1963; Berk, 1994) and have an effect similar to opiates such as morphine or heroin (Berk, 1994). On the other hand, other studies have
not shown the effect of humor on beta-endorphins (Berk & al. 1989; Itami & al., 1994). However, these studies have a number of limitations.

Severe chronic pain does not occur only on a biological level, it is a lived experience that integrates sensorial, motivational, emotional, and cognitive behaviors and takes into account the social and cultural environment of the individual (Jackson, 1999; Winterowd et al., 2000). When the painful signal is processed in the brain, inside the somatosensory cortex, this can activate a number of thoughts and memories while a range of emotions could be activated in the limbic system (Winterowd et al., 2000). Pain and suffering are not necessarily one and the same, so that some people experience pain without suffering, so they are more tolerant to pain mechanisms and do not necessarily need professional help in fighting pain (Winterowd et al., 2000). Among the psychological theories of pain, the gate control theory (Melzack & Wall, 1965) focuses on two approaching perspectives: a biological one and a psychological one. Thus, pain is considerate more than a simple sensory event that signals tissue damage. The psychological perspective emphasizes the fact that pain is a dynamic, complex and multidimensional experience with sensory, affective and evaluative components.

From humor to pain

Martin (2007) defines humor as having four main components: 1. the social context 2. a cognitive-perceptual process 3. the emotional response 4. the behavioral-vocal expression of laughter.

1. Humor is a social phenomenon that is mostly conducted in relationship to other people, but even when it occurs individually it has an important social component in relation to the one who designed the humorous material – being a “pseudo-social” phenomenon. Humor is closely linked to the social situation, to the social context, having a character of a social game without pursuing an important goal, mentally. Among the goals of humor, there are also included the following: the need for social approval, the denial of serious intentions, the unmasked hypocrisy, the intra-group control, the anxiety management or expressing antipathy and hostility (Foot & McCreaddie, 2006).

2. The core of humor seems to be represented by the incongruity, the surprise, the unexpected. Both humor and pain can surprise us. The theories of incongruity (Koestler, 1964
Suls, 1977) suggest that the perception of incongruity is crucial in deciding whether or not something is funny - funny things are incongruous, surprising, distinctive, unusual or different from what we expect. This theory has its limits. Not every incongruity can cause humor: for example, being violently attacked by a person while you quietly read your newspaper is incongruent, but it is not funny. On the other hand, we do not negate the possibility that humor, on a situation that causes pain, is activated later, when the event no longer affects us.

3. The response to humor is a pleasant emotional one, which activates the limbic system in the brain. It is a good mood response which does not have a specific name like other emotions, given the close association with laughter, but which can be described by the following terms: fun, joy, laughter. McDougall (1903, 1922) considers humor a sort of "emotional anesthesia", a protective response that protects us from the depressive influence of others. Thus, when we make a joke about our problems or other people’s problems, we separate at least momentarily from the emotional pain involved.

4. Laughter and smile are expressions of humor. Depending on the intensity, the expression takes different forms and can be accompanied by behavioral movements such as bringing the head backward, rocking, etc. Sometimes, laughter and smile can hide the pain. In communicating pain, we can use both verbal and non-verbal channels (e.g.: Self-reporting, facial expressions, tone, etc.).

To our knowledge, an attempt to theorize humor clearly showing the significant role of pain, though discreetly, is that of Veatch (1998). The author considers humor as being an emotional pain that does not hurt us. In other words, humor occurs when we feel bad about something in a first phase, after which we manage to feel that this thing is actually okay. The behavioral models of pain (Fordyce, 1976) challenge the maladaptive pain behaviors that may arise repetitively, as a result of the powerful environmental contingencies and can be extinguished and replaced with adaptive behaviors. Following the same ideas, Ramachandran (1998) distinguishes a smile of 'false alarm' which refers to the presence of a situation where we have certain expectations and which becomes tensed and that, by a sudden change, we are determined to reinterpret the facts which now are non-threatening ones and thus causing laughter. The cognitive behavioral models of pain (Turk et al., 1983; Turner & Clancy, 1988)
suggest that cognitive responses (e.g.: Thoughts, beliefs, expectations, etc.) play an important role in pain perception and in accommodation with pain.

In psychoanalytic theories of Freud (1905, re-edited 2002), unlike repression, which determine the unpleasant affects evade from our attention, humor is the highest manifestation of the defensive mechanisms, being able to involve energy of the unpleasant affect about to trigger and to transform that energy by ease it into pleasure - resembling itself in this manner with the regressive processes or with the reactional ones that play an important role in psychopathology. Some dynamic approaches explain pain with the help of innate drives related to aggression, addiction, and sexuality, experiencing pain being thus a form of gratification or frustration as a result of these drives (Pilowsky, 1986). When linked to aggression drives, pain can be directed either against oneself or against others and thus form a “cruel” super-ego " that is associated with chronic conditions of guilt and low self-esteem (Pilowsky, 1986).

The superiority theories of humor (Gruner, 1997) explain humor through aggressivity and hostility. As some studies already suggest (Wicker et al., 1981; Deckers & Carr, 1986), humor is experienced in higher rates when we perceive the pain in others. Thus, the pain could be a starting point for aggression and hostility. The arousal theories of humor (Berlyne, 1960) refer to humor as a potential for tension release, tension that can arise from many sources and can also be a pain reliever. The reversal theories of humor (Apter, 1982) consider humor as a form of mental play. Hence, the humor involving themes that would normally provoke pain (such as horror parodies, macabre jokes, etc.) can be made enjoyable because of the way that these negative emotions are a pleasant arousal when they are brought into -a playful mental framework.

Although the main theories of humor evoke pain, the role of pain in experiencing humor is not a primary one. Among the theories mentioned above, neither seems to fully explain humor. We believe that what is lacking in humor theorizing, could be, paradoxically, precisely the theory of painful humor, which is why humor theories should take into account at a greater extent the pain topic and reformulate their views starting from here.

Previous studies
In previous studies, Kunz et al. (2009) indicate a high rate of people who show facial expressions of smile during painful stimulations such as stimulation through the use of high temperature, electric current or pressure. Humour can act as a distractor which helps to increase pain tolerance (Weisenberg & al., 1995; Astedt-Kurki & Isola, 2001; Zweyer & al., 2004), although the results are not of the highest. In a study by Stuber et al. (2009) conducted on children, the authors showed that the introduction of videos with humorous content as a distractor in a pain task increased children pain tolerance, although, surprisingly, it was not associated with changes in the assessment of pain intensity. The authors consider that laughter is not so susceptible to asses humor, considering the emotional involvement and participants’ expectations towards humor in the study, a fact supported by other authors who sustain the importance that participants perceive the video content as really humorous (Nevo & al., 1993). Goodenough & Ford (2005) reported that in children who used humor coping when confronting with pain, it was more likely that during medical interventions, they would use an adaptive and focused on problem coping style.

From the testimonies of people involved in all sorts of trauma (Ladegaard, 2013), such as physical and sexual abuse, insufficient income and hunger, harassment and other forms of abuse, in addition to lamentable reactions that were frequent, it proved that expressions of laughter are also frequently used. Humor can help alleviate pain and discomfort (Cogan & al., 1987; Hudak & al., 1991; Zillmann & al., 1993). Although, in some cases (ex. Zillmann & al., 1993), analgesic effects have been proved with both positive and negative arousal, without being able to test humor specificity. Major changes in life, such as the death of a loved one, which occur sometimes, unexpectedly, are also accompanied by laughter and humor (Abel, 2002; Matsumoto, 2009). Those who have gone through a loss situation or suffered after someone’s death, experienced many facets of humor: positive or negative humor, or both forms of humor at the same time – hence, humor has an incredible impact on pain (Bonanno, 2004).

In the case of people under the communist regime, one can observe a wide range of jokes that circulated at the time (Davies, 2007) - jokes constituted as a form of protest against the regime and that were said at the risk of losing one’s freedom. In such a regime in which people are grieving, sense of humor is still present. Also in the case of Holocaust survivors, one used jokes to cope with difficult conditions and torture (Lipman, 1991).
In a longitudinal study (McGraw & al., 2014) which aims to observe the reactions of the participants on Hurricane Sandy and given the psychological distance to the event, shortly after the tragedy, the participants find it difficult to make jokes about it. For this reason, we sometimes admit the impossibility to asses humor, given the short period after the painful event. After a while, humor records high levels, but decreases for longer periods of time because the event becomes benign, non-threatening (McGraw & al., 2014).

The humor can also be seen as a defense mechanism when we are ashamed of a situation (Kaufman, 1989; Nathanson, 1992). If the child manages to overcome the shame, he will become more competent and he will grow at an emotional level (Nathanson, 1992). Also, while being tickled, one can observe facial expressions that indicate shame (Harris & Alvarado, 2015). Some authors have shown that we have very similar grimaces when we are tickled and when we feel pain (Harris & Alvarado, 2005).

For some diseases (multiple sclerosis, Parkinson's disease, manic-depressive disorder, etc.) the altered manifestations of humor lead to unpleasant conditions of the sufferer (Dumbre, 2012). For those who suffer from schizophrenia, they do not understand humor and do not experience any pleasure from humor (Dumbre, 2012; Bell et al., 2010). Also, those who provide health services, and patients as well, they use humor as a coping mechanism in embarrassing situations, anxiety, among friends, in the face of pain and uncertainty (du Pre, 1998; Wanzer & al., 2005). Sometimes, however, and especially in therapy, humor is used as a form of denial and distancing from the emotional pain (Marcus, 1990). On the other hand, the therapists who use humor during therapy sessions, can help reducing patients’ pain (Tse & al., 2010; Garrick, 2006).

**Conclusions and Discussions**

There is evidence in the literature that indicates a link between humor and pain. The link between humor and pain has been proven by many studies, although the results do not always indicate a strong association or do not capture very well the issue of humor and pain. This can be due to low emotional involvement and expectations of study participants towards humor. Starting from the idea that at the core of experiencing humor would stand the pain, one can note in the above studies, the frequency of laughter and humor in critical or traumatic life events and its resilient role. The theories of humor are considering pain in various occasions, which leads us
to believe that pain should instead be more relevant in theorizing humor. Even when humor arises in pleasant contexts of life, we sustain that at his very basis would actually stand a painful situation that has not been healed yet and that it is possible to be repressed. From this point of view, we should probably investigate in a proper manner jokes contents or humorous situations that have a potential for us.

Although there is often a tendency to consider humor an enjoyable and common experience, there are some goals of humor that came into our attention: the need for social approval, the denial of serious intentions, the unmasked hypocrisy, the intragroup control, the anxiety management or expressing antipathy and hostility (Foot & McCreaddie, 2006). Kunz et al. (2009) note an issue that deserves further investigation, namely that the smiling during pain may be considered inappropriate and it could either intensify empathy or diminishing it - the smile is perceived as an invalidation of suffering, which allows social neglect. The self-enhancing humor is the type of humor associated most with empathy (Martin & Dutrizac, 2004; Hampes, 2010).

Another issue to be discussed is that we do not know for sure if making fun of an event facilitates coping or if coping facilitates jokes on account of an event (McGraw & al., 2014). In other words, humor could be either cause or outcome of coping. This relationship should be investigated further. But we cannot refer to humor in the context of pain, as it would only be a coping mechanism. Humor is more than that. Humor sometimes occurs at longer distances of time from the painful event, which indicates that humor is in this case rather a way of growth and maturation of the individual who has already managed to successfully cope with aversion. Compared with quiet moments through which a nation passes, a large number of humorous productions occurred during the communist regimes. Humor can be a form of communication of pain in handy at such times and can be accessible to a whole nation. In major physical disorders or mental illness, humor forms appear altered, which can cause an unpleasant condition of the person concerned. Physically and mental pain alter the forms of humor, pain, and humor merging in an altered form. One can add here the physiological processes of pain and humor that have similar valences.
Concluding, it is necessary to explore further the mechanisms of pain and humor and with considerable attention on both concepts, so that the results are relevant. The study of humor and pain should be investigated in more depth and the humor theories should evolve from here.

BIBLIOGRAPHY:


