
Sense of humor and approaches to learning in university students

Senso de humor e abordagens à aprendizagem em estudantes universitários

Sentido del humor y enfoques de aprendizaje en estudiantes universitarios

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Abstract

This study aimed to analyze the relations between university students' approaches to learning and self-referential sense of humor. It also investigated how both approaches and self-referential humor relate with academic achievement. The sample involved 224 university students, that frequented from the 1st to the 3rd academic year of their graduation. Self-referential sense of humor was evaluated through the Humor scale of an adapted version of the Self-Perception Profile for College Students – SPPCS of Neeman and Harter (1986), according to Barros (2012), and approaches to learning through the 2nd version of the Inventory of Learning Processes for University Students (IPA-u), according to Duarte (2007). Data were subjected to Pearson correlations to study connections between variables. Results revealed negative significant correlations between Self-referential sense of humor and both Surface Learning Strategy (i.e., rote learning) and Surface-Achieving Approach to Learning (i.e., learning motivated by extrinsic pressures, competitions and high grades; rote learning). Besides, a significant positive correlation was found between Self-referential sense of humor and Organizing Strategy 2 – Management (i.e., personal management) and between Deep Approach to Learning (i.e., positive emotions in learning; learning by comprehending, inter-relating information and using critical thinking) and academic achievement.

Keywords: Academic achievement. Approaches to learning. Humor.

Resumo

Este estudo teve como objetivo analisar as relações entre as abordagens à aprendizagem de estudantes universitários e o senso de humor autorreferencial. Investigou-se, também, como as abordagens e o humor se relacionam com o desempenho acadêmico. A amostra envolveu 224 estudantes universitários que frequentavam do 1º ao 3º ano de seus respectivos cursos. O senso de humor autorreferencial foi avaliado através da escala de Humor, versão adaptada do Perfil de Auto-Percepção para Estudantes Universitários - SPPCS of Neeman e Harter (1986), de acordo com Barros (2012), e das abordagens à aprendizagem através da 2ª versão do Inventário de Processos de Aprendizagem para Estudantes Universitários (IPA-u), de acordo com Duarte (2007). Os dados foram sujeitos a correlações de Pearson para estudar as conexões entre variáveis. Os resultados revelaram correlações negativas significativas entre o senso de humor autorreferencial, a Estratégia de superfície (i.e., aprendizado mecânico) e a Abordagem de Superfície à Aprendizagem (i.e., aprendizagem motivada por pressões extrínsecas, competição e classificações elevadas, aprendizado mecânico). Além disso, foi encontrada uma correlação positiva significativa entre o senso de humor autorreferencial e a Estratégia de Organização 2 - Gestão (i.e., gestão pessoal) e entre a Abordagem de Profundidade à Aprendizagem (i.e., emoções positivas na aprendizagem; compreensão, interrelação de informações e pensamento crítico) e o desempenho acadêmico.

Palavras-chave: *Abordagens à aprendizagem. Desempenho acadêmico. Humor.*

Resumo

Este estudio tuvo como objetivo analizar las relaciones entre los enfoques de aprendizaje de estudiantes universitarios y el sentido del humor autorreferencial. También investigó cómo los enfoques y el humor se relacionan con el rendimiento académico. La muestra involucró a 224 estudiantes universitarios, que frecuentaron desde el 1er hasta el 3er año académico de su graduación. El sentido del humor autorreferencial se evaluó a través de la escala de Humor de una versión adaptada del Perfil de Auto-percepción para Estudiantes Universitarios - SPPCS de Neeman y Harter (1986), de acuerdo con Barros (2012) y enfoques de aprendizaje a través de la segunda versión del Inventario de Procesos de Aprendizaje para Estudiantes Universitarios (IPA-u), de acuerdo con Duarte (2007). Los datos fueron sometidos a correlaciones de Pearson para estudiar las conexiones entre las variables. Los resultados revelaron correlaciones significativas negativas entre el sentido del humor autorreferencial y tanto la Estrategia de Superficie (i.e., aprendizaje memorístico) como el Enfoque de Superficie a la Aprendizaje (i.e., aprendizaje motivado por presiones extrínsecas, competición y calificaciones elevadas; aprendizaje memorístico). Además, se encontró una correlación positiva significativa entre el sentido del humor autorreferencial y la Estrategia de Organización 2 - Gestión (i.e., gestión personal) y entre el Enfoque de Profundidad a la Aprendizaje (i.e., emociones positivas en el aprendizaje; comprensión, relacionamiento de información y pensamiento crítico) y el rendimiento académico.

Palabras clave: *Enfoques de aprendizaje. Humor. Rendimiento académico.*

Students' Approaches to Learning (SAL) refer to the integration of motivation to study and learning strategies that students use to cope with learning tasks (ENTWISTLE; TAIT and MCCUNE, 2000) being significantly influential on school achievement (DISETH, 2013) and a relevant component of students' engagement (HORSTMANSHOF; ZIMITAT, 2007). Humor refers to the creation and appreciation of verbal or non verbal behaviors and products perceived as funny, being a significant constituent of personality and having a potential beneficial effect on learning (MARTIN, 2007).

Despite we ignore the existence of studies focused on the relation of SAL and Humor, theoretical models about students' learning suggest that SAL is related with students' personal characteristics, along with the learning context, thus influencing learning products (BIGGS, 1999). Besides, several studies have shown that SAL relate with individual differences, such as personality (DISETH; KOBBELTVEDT, 2010) and some suggest that the use of Humor in learning contexts relates with variables like motivation to learn and like comprehension, retention and recall of information (HACKATHORN et al., 2011; STAMBOR, 2011).

Humor

As mentioned, humor refers to the creation and appreciation of verbal or non verbal behaviors and products perceived as funny (MARTIN, 2007).

As a psychological individual characteristic, sense of humor refers to a tendency that varies between people to enjoy or create humor (MARTIN, 2007). Particularly, enjoyment of humor can be considered an aesthetic experience, parallel to the appreciation of art or the pleasure with play, with which it shares common processes (BERLYNE, 1972). As a matter of fact, humor most often involves a short fictional story, in form of a joke, or a cartoon, that might be considered popular art forms. Enjoyment of humor frequently involves resolving an incongruity introduced by the anecdotal stimulus by information that is external to the joke or simply appreciating that incongruity nonsense (RUCH, 1992).

Within a wide range of dimensions involved in sense of humor, there is one related with the ability to laugh at one's own fragilities and weaknesses (MARTIN, 2007). The Humor subscale of the Self-Perception Profile for College Students (SPPCS; NEEMAN; HARTER, 1986) focus precisely on the self-perceived ability to laugh at oneself and take kidding by friends. Self-referential humor seems to require a higher stage of development, differentiating the humor of adolescence from the child's (SHEPPARD, 1977). Also, since individuals have conflicting personality characteristics, self-deprecatory humor (e.g. laughing at the lazy self when in an ambitious mood) can play a role in balancing varied aspects of one-self – being rigidity and unidimensionality related with lower sense of self-referenced humor (GRUNER, 1997, as cited in MARTIN, 2007). As it was suggested by some personality specialists, especially well-adjusted persons are characterized by a sense of humor that is non-hostile, philosophical and self-deprecating while maintaining self-acceptation based on a sense of self-worth (MARTIN, 2007).

Relation of Humor with Learning

In a general way, it's assumed that students' motivation to learn and correspondent retain of information is higher when they feel happy and amused, oppositely to anxious and threatened (OPPLIGER, 2003).

But research on the relation of humor and learning seems to focus mainly on the impact of instructors' use of humor in students' learning (e.g. content related funny stories or cartoons; humorous comments).

Instructors' use of humor benefits students' involvement by increasing their motivation to learn (BANAS et al., 2011; STAMBOR, 2011) and their attention to what is being learned (BANAS et al., 2011) probably due to the novelty and emotionally exciting attributes of humor (MARTIN, 2007). Also, instructors' use of humor increases students' comprehension and promotes creativity and divergent thinking (BERK; NANDA, 1998, DAVIES; APTER, 1980, ZIEGLER; BOARDMAN; THOMAS, 1985, as cited in MARTIN, 2007; HACKATHORN et al. 2011). In the same sense, there is experimental evidence that humor induced positive affect improves creative problem solving (ISEN; DAUBMAN; NOWICKI, 1987).

Some studies also revealed a positive effect of instructors' use of humor on students' information acquisition and recall (STAMBOR, 2011). This might be due to the bizarre mental associations that humor appreciation involves, which can facilitate cognitive elaboration and the settlement of cues, thus helping long term memory codifications and late recall (MARTIN, 2007). However, other studies didn't observe this effect, leading to a general picture of mixed results regarding it (BANAS et al., 2011). Nevertheless, it has been assumed that instructors' use of humor to illustrate concepts just taught has a positive effect on memory (BANAS et al., 2011).

In sum, the use of positive and content related humor by instructors (i.e. non distractive, exaggerated or aggressive) seems to have the potential of benefiting students learning.

Besides, research on instructors' use of positive humor revealed a variety of other positive effects that might indirectly contribute to better learning. Some studies revealed that instructors' use of humor helps students to cope with stress (BANAS et al., 2011) and to reduce fears to specific contents, like math (BERK; NANDA, 1998; STAMBOR, 2006) or death and suicide (JOHNSON, 1990). Other studies demonstrate that instructors' use of humor contribute to positive student perceptions of their teachers and their learning environment (BANAS et al., 2011; STAMBOR, 2011). Also, several studies show that instructors' use of humor increases class cohesion (BANAS et al., 2011) and it's related with closer students-teacher relationship (WANZER; FRYMIER, 1999).

Moreover, there exists some scarce research on the impact of including humor in textbooks. In his review on the subject, Martin (2007) concludes that although that inclusion increases students' appeal to what is written, it seems it doesn't affect students' learning of reading information or their perceptions of its credibility.

Approaches to Learning

As above mentioned, SAL refer to the composite of motivation and of learning strategies students' use in order to deal with learning tasks (ENTWISTLE; TAIT; MCCUNE, 2000).

Prior studies have consistently identified two main types of approaches to learning: deep and surface approach (ENTWISTLE; TAIT; MCCUNE, 2000). A surface approach refers to instrumental motivation to learning (learning to avoid failure) and to a surface learning strategy (rote memorization). Alternatively, a deep approach refers to intrinsic motivation to learn (learning for pleasure) and to a deep learning strategy (comprehension). Some studies also identified a third approach to learning, named achieving approach, that refers to achieving motivation (learning for good grades) and to an organizing learning strategy (management of time and resources). Nevertheless, this last approach is less consistent and it (or some of its components) might combine with the deep or the surface approach to learning (e.g., FOX; MCMANUS; WINDER, 2001).

Different approaches to learning relate differently with academic achievement: In general, the surface approach relates with lower grades and the deep and achieving approaches with higher grades (CANO, 2005; DISETH, 2007, 2013; WATKINS, 2001).

Moreover, SAL function both as variable responses, on the basis of specific contextual demands, and as relatively stable way of coping with study tasks, dictated by individual characteristics (BIGGS; KEMBER; LEUNG, 2001; ENTWISTLE, 1987). SAL are therefore affected by or related to a variety of individual characteristics, like personality (DISETH, 2013; DISETH; KOBBELTVEDT, 2010) or values (HORSTMANSHOF; ZIMITAT, 2007). We are not aware of studies that connect humor with approaches to learning, but in a study by Geisler-Brenstein, Schmeck and Hetherington (1996) it was detected a relation between “deep learning” (“semantic” and “critic” learning) and “esthetics” (“appreciation of beauty”) along a relationship between “literal memorization” and “neuroticism” (specially “vulnerability”, “anxiety” and “depression”).

The aim of the present study was to investigate the relation between university students approaches to learning and self-referential sense of humor. Besides, it aimed to investigate how this kind of humor and SAL relate with academic achievement.

Method

Participants

The sample was constituted by 224 university students, 127 of Economy (56.7%) and 97 of Management (43.3%) that frequented from the 1st to the 3rd academic year of their graduation. Mean age was of 19.94, with a median of 20. From the global sample, 120 students (53.6%) were females and 104 (46.4%) were males.

Measures

Self-Perception Profile for College Students - Humor subscale

Humor was measured using the adapted version of the Self-Perception Profile for College Students – SPPCS of Neeman and Harter (1986) for a Portuguese population of college students (BARROS, 2012). SPPCS contains 54 items that address self-perceptions domain-specific (intellectual ability, scholastic competence, job competence, creativity, appearance, romantic relationships, social acceptance, close friendships, parent relationships, humor (finding humor in one's life), morality and athletic competence as well as a more global judgment about own self-worth. Items are scored from 1 to 4, where a score of 1 reflects a low perception of competence and 4 a high perception of competence. Humor scale is a subscale of 4 items that focuses the ability to laugh at oneself and take kidding by others (e.g., i.51 “Some students can really laugh at certain things they do BUT Other students have a hard time laughing at themselves”). Considering the objectives of this study, we only refer the results of Humor scale. In the original version (NEEMAN; HARTER, 1986), Cronbach's alpha ranges from .76 – Job competence to .92 – Athletic competence. For the study of the Portuguese version of SPPCS, we used a sample of 683 Portuguese University students. In the Portuguese version, Humor scale presents a Cronbach alpha's coefficient of .77.

Learning Processes Inventory for University Students.

Students' approaches to learning were measured using the 2nd revised version of the Inventory of Learning Processes for University Students (IPA-u; DUARTE, 2007) which has been developed for the Portuguese context. The IPA-u.v2. questionnaire contains 48 items that address motivation to study and learning strategies, answerable through indication of degree of identification with each item in a 5-point scale, ranging from 1= "Never or rarely true to me" to 5="Always or almost always true to me". For the study of the IPA-u.v2, that used a sample of 1100 Portuguese University students, a 1st order exploratory factorial analysis (varimax rotation) produced eight factors with eigenvalues of > 1, accounting for 57.7% of the variance. Factor 1 ("Intrinsic Motivation"; Cronbach's alpha of .91) groups items that associate learning with the experience of positive emotions (e.g., "i37. I take much pleasure from studying."). Factor 2 ("Deep Strategy"; Cronbach's alpha of .88) refers to learning by comprehending, inter-relating information and using critical thinking (e.g., "i.4. I try to relate different contents."). Factor 3 ("Instrumental Motivation"; Cronbach's alpha of .83) refers to learning motivated by extrinsic pressures (e.g., "I feel I study by obligation."). Factor 4 ("Organizing Strategy 1 - Time"; Cronbach's alpha of .83) refers to the use of time management (e.g., "i.10. I try to efficiently organize my study time."). Factor 5 ("Surface Strategy"; Cronbach's alpha of .80) refers to rote learning (e.g., "i.12. I try to learn most contents by memorizing by heart."). Factor 6 ("Achievement Motivation 1 - Competition"; Cronbach's alpha of .79) refers to competition with colleagues (e.g., "i.3. I like to compete with my peers for the best grades."). Factor 7 ("Achievement Motivation 2 -Grades"; Cronbach's alpha of .79) refers to the chase for high grades (e.g., "i.39. My main incentives to study are the high grades."). Factor 8 ("Organizing Strategy 2 - Management"; Cronbach's alpha of .73) refers to personal management (e.g., "i.32. I have difficulties in organizing my work - inverted item."). Following, a 2nd order exploratory factorial analysis (varimax rotation) produced three approaches to learning factors with eigenvalues of > 1, accounting for 64% of the variance. 2nd order Factor I ("Deep Approach";

Cronbach's alpha of .92) groups "Intrinsic Motivation" and "Deep Strategy. 2nd order Factor II ("Surface-Achieving Approach"; Cronbach's alpha of .84) groups "Instrumental Motivation", "Achievement Motivation-Competition", "Achievement Motivation-Grades" and "Surface Strategy". Finally, 2nd order Factor III ("Organizing Strategy"; Cronbach's alpha of .80) groups "Organizing Strategy 1 - Time" and "Organizing Strategy 2 - Difficulties".

Academic Achievement

Students' academic achievement was measured by asking students their mean grade, considering all subjects, at the time of the implementation of both questionnaires.

Procedure

Students were invited to participate in the study, being informed about the conditions of confidentiality of the results. The order of presentation of the instruments was the same for all students and the time spent in each application was about 25 minutes. A project of this study was submitted and approved by the Deontological Commission of the authors' institution.

Analysis

To explore the connections between humor, motivation to study, learning strategies and approaches to learning, Pearson correlations were calculated between the two sets of variables (table 1). Connections of humor and student's approaches to learning with achievement were also addressed by Pearson correlations, but they are presented in table 2 because in the total sample there are some missing values referring to student's mean grade (data of table 2 only includes the results of the participants that answered all items).

Results

Considering the connection between humor and student's approaches to learning, learning strategies and motivations to study (Table 1) calculations revealed significant negative correlations between Humor and both Surface Strategy and Surface-Achieving Approach ($p < .05$). Besides, calculations also revealed significant positive correlations between humor and Organizing Strategy 2 - Difficulties.

TABLE 1
Correlations between humor and students' approaches to learning, learning strategies and motivations to study (N=224)

	Humor
1.Intrinsic Motivation	-.02
2.Deep Strategy	.10
3.Instrumental Motivation	-.12
4.Organizing Strategy1- Time	-.05
5.Surface Strategy	-.19**
6.Achievement Motivation 1 - Competition	.01
7.Achievement Motivation 2 - Grades	-.13
8.Organizing Strategy 2 - Management	.42**
I.Deep approach	.04
II.Surface-Achieving Approach	-.17*
III.Organizing Strategy	-.03

* $p < .05$ ** $p < .01$

Considering the connection between academic achievement and both humor, student's approaches to learning, learning strategies and motivations to study (Table 2) correlations revealed that academic achievement has almost no relation with humor but is significantly positively related with Deep Approach and its two components (Intrinsic Motivation and Deep Strategy), with Achievement Motivation 1 -

Competition, with Organizing Strategy and with Organizing Strategy 1 – Time. Besides, it was also observed a significant negative correlation between academic achievement and Surface Strategy.

TABLE 2
Correlations between academic achievement and humor, students' approaches to learning, learning strategies and motivations to study (N=138)

	Academic Achievement
Humor	.01
1.Intrinsic Motivation	.20*
2.Deep Strategy	.17*
3.Instrumental Motivation	-.28**
4.Organizing Strategy1- Time	.17*
5.Surface Strategy	-.10
6.Achievement Motivation 1 - Competition	.26**
7.Achievement Motivation 2 - Grades	.13
8.Organizing Strategy 2 - Management	.05
I.Deep approach	.21**
II.Surface-Achieving Approach	-.08
III.Organizing Strategy	.20**

* p<.05 **p<.01

Discussion

The significant negative correlation between Humor and both Surface Learning Strategy and Surface-Achieving Approach to learning might be explained at the light of the idea that a lower sense of self-referenced humor might imply a higher personal rigidity and unidimensionality. Effectively, in order to laugh about oneself, a person needs to have and recognize different personality aspects (GRUNER, 1997, as cited in MARTIN, 2007), in sum, to demonstrate more flexibility and possibly higher creativity - psychological characteristics that seem opposite to the ones involved in a surface approach to learning, oriented to a low

engagement on the basis of rote memorization. These results can also be interpreted on the ground that, since self-deprecating humor seems to reside in a fundamental sense of self-worth (Martin, 1997), it might be less possible in students with lower self-esteem, a characteristic associated with the use of a surface approach to learning (ABOUSSERIE, 1995; ROMÁN et al., 2008), based in a fear of failure, or possibly associated with the need to prove that one is able to achieve. Besides, since appreciation of regular kind of humor frequently involves resolving an incongruity introduced by the anecdotal stimulus by information that is external to the joke (RUCH, 1992), it implies a cognitive process avoided in the surface strategy/approach: relating information. Finally, laughing about oneself involves flexibility, self-awareness and self-criticism and flexibility, awareness and critical thinking are opposite related with a surface approach to learning.

The positive significant correlations between humor and Organizing Strategy 2 – Management might be interpreted in the sense that in order to be more able to laugh about himself or herself, besides accepting kidding from others, a student needs to have a higher internal confidence, a characteristic probably correlated with the ability of self-management.

Concerning the relationship between humor, approaches to learning and academic achievement, the most important result, concerning the significant positive correlation between deep approach to learning and academic achievement, replicates a well documented relationship (CANO, 2005; DISETH, 2007, 2013; WATKINS, 2001). The use of a deep approach to learning in the university context probably leads to learning products that are more rewarded by the classification system.

Conclusion

Besides its results, this study has two main limitations, which should be considered: the use of self-reported measures of approaches to learning and the specificity of the sample.

Nevertheless, as a main practical implication, results consolidate a line of thought that suggests the importance of developing college students' deep approach to learning in order to increase their academic achievement. Moreover, results might suggest that encouraging humor can possibly contribute to develop characteristics as flexibility or critical thinking that, at least, are less compatible with the use of a surface approach to learning.

Finally, future studies on this area could invest in gathering observational data of the approaches to learning that larger samples of students effectively use, besides trying to qualitatively understand the meaning of the found relations.

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