Abstract

In this work we are exploring the interface between astronomy teaching and transpersonal psychology in the educational context. Our working hypothesis is that astronomy contents, when correlated with transpersonal psychology practices, can be used as a cultural and academic vehicle to develop a cosmic identity. Our research universe was a group of students attending the Astronomy discipline in an undergraduate Geography course. We use the phenomenological method and applied active observation, interviews and psychotherapeutic practices. The results indicate that the subjective experience involving astronomical phenomena allows students to relate their inner and outer world and to expand their environmental perception.

Key Words: Education; Environment; Ethics.

Text

Introduction

Nowadays, although current space research has advanced with no precedents in the history of science, the majority of the people have no contact with the sky. It reflects the fragmentation crisis of modern life in different levels.

In science education the present crack between scientific knowledge and human experience in the western culture exposes such a crisis. Since humans started to understand reality from a Cartesian perspective, the Universe was perceived as a collection of objects separated from one another. The capitalism has reinforced this view and day-by-day we run away from ourselves.

According to Vajpeyi (1995), “the purpose of any education is somehow to return an individual to himself or herself and to enable him or her to see where she/he is placed in the system of relationships which constitutes life”. At this crucial point, however, is where the current educational system has failed.

1 Graduate Program on Natural Sciences and Mathematics Teaching, Rio Grande do Norte Federal University (UFRN). Rua Presbítero Porfírio Gomes Silva 1753, Capim Macio 59082-420 Natal-RN Brazil. Tel./Fax 55-84-6423081, E-mail: luzianamedeiros@yahoo.com

2 Physics Department, UFRN, P.O. Box: 1641, 59078-970 Natal, RN, Brazil. Tel.: 55-84-215 37 93 branch 214, Fax: 55-84-215 37 91, E-mail: jafelice@dfte.ufrn.br
Cosmoeducation aims to be a practical approach that would awake our ecological and cosmic awareness in order to rescue a holistic relationship between humans and cosmos. This concept is based on transpersonal psychology that studies the human being in its wholeness. This science can be defined as the scientific study of consciousness states especially the cosmic consciousness (Matos, 1991).

As stated in PCN (1999), through astronomy students are incited to understand the Universe and to project themselves to the great dimensions of space and time. Transcending the Earth limits they may achieve an amplified perspective about their existence in the cosmos.

We consider astronomy a privileged entrance way into the human-cosmos dialogue for any culture, in particular the western one. Our working hypothesis is that astronomy contents when correlated with transpersonal psychology practices can be used as a cultural and academic vehicle to develop a cosmic identity in our students.

**Practices**

During a semester, a group of students, enrolled in the Astronomy class of an undergraduate UFRN Geography course, attended to a series of meetings to experience psychotherapeutic techniques that were correlated with astronomical issues and adapted to that situation.

For instance, one practice was the “body expression of lunar eclipse”. First, the students had a warm up to render sensitive their sensory perception. Then, they followed the command of finding a comfortable place to stay and pay attention to their breathing. Following, students were asked to pay attention to emergent images and sensations that would come to them as a consequence of the words the instructor was going to say. They were asked also to express those emerging inner experiences through both sound and body movement. After that the instructor suddenly mentioned the words “lunar eclipse”. Afterwards they should occupy that space expressively and interacting with others to accomplish a collective composition.

According to their speeches during the afterward discussion we could infer that this practice stimulate the spontaneous emergence of archetypical elements from the collective unconciousness in many of them and led the group to a better connection between inner and outer worlds.

Another example was the “representation of the Universe’s origin through a mandala”. It was proposed to the group to meditate about the images that come to their minds when listening the (then unexpected) words “Universe’s Origin”. As a next command the instructor asked them to represent such images by a free drawing called mandala (a centred symmetrical drawing usually found in oriental meditative practices and used in psychoterapy to express psychic contents). From that it was suggested to each one to look at her/his own drawing deeply and to penetrate into the figure as if it was a three-dimensional space.
We noticed that this exercise favoured the experience of an expanded state of mind to the majority and evoked deep reflections about the relationship between microcosmos and macrocosmos.

**Final Comments**

At the end of semester we could observe that the techniques used revealed to be an efficient tool to awake a cosmic consciousness in our students. In addition, the results reinforced the idea of astronomy teaching correlated with those practices as a valuable entrance to a cosmos and human existential relationship. (See Medeiros and Jafelice (2004) for further comments).

In the future we intend to apply this methodology of cosmoeducation in a course for primary school teachers dealing with 6 to 11 year old children. They are supposed to teach reading, writing, mathematics, language, science, and particularly traditional astronomy, all in an integrated way.

Finally, this is a proposal for the future in order to create alternatives for our students to expand their perception about the environment they live. From that we hope they start to build a new ethic body that could guide sustainable communities.

**References**


