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Attitudes towards Academic Learning and Learning Satisfaction in Adult Students

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Abstract

The current paper presents a study regarding adult students' attitudes towards academic learning, seen as an ongoing socially-integrated and personally-consistent process, in linkage to learning satisfaction, in its multifaceted structure and complex understanding. The study aims to investigate how do students, who are above the average age of most of their faculty colleagues, relate to the academic endeavor and also their preferences and perceived abilities when it comes to learning and the consequent challenges. For this reason, a convenience sample of 80 adult students, ages 25 to 57, was involved and asked to give an input regarding different learning-related aspects. From a methodological point of view, a questionnaire consisting of 19 closed-ended items was used, measuring, on one hand, one's perception regarding learning contexts and outcomes, and on the other hand, the self-perceived efficiency of one's learning efforts, on a five-point Likert scale. The findings were put in a relationship with the learning satisfaction measured for the whole academic experience, for each individual. Learning satisfaction was measured through a 26 items inventory referring to the concept from a factorial perspective (six identified factors pertaining to learning satisfaction), on a six-point intensity scale.

Results converge into a perspective where age is an intriguing factor in possibly differentiating between attitudinal patterns concerning learning and satisfaction that pertain to the academic experience.

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1. Introduction

Next to or beyond the performance criteria, defined in quantitative terms, the topics debate upon quality aspects, concerning attitudes, approaches, motivation. All these elements have a special significance when related to the adult-student, as a non-traditional beneficiary (Khiat, 2013) of the educational services provided by the university. This is due to the fact that the difference between adult and pre-adult learning lies in the difference of approach towards the learning process, in the motivational and attitudinal configuration resulting from the adult experience background, which he mobilizes in the learning process. As advocated by Gorges and Kandler (2011) adults learn differently because they relate differently to the learning tasks, depending on their goals, mediated by their beliefs and expectancies towards the learning environment, the institutional requirements and the perceived self-efficiency measurement (Wigfield & Eccles, 2000). Therefore, the effective learning implies the performance reflected by results, which necessarily needs to be associated with positive attitudes towards the learning activities, towards the teaching factors involved and towards oneself. We will further define the elements under discussion.

2. Learning satisfaction

Learning satisfaction has been described as a superior emotional complex that, according to Long (1985), can be defined as the level of joy a person experiences when learning, being placed first of the two goals that adult students are trying to achieve by joining learning activities, the second pertaining to the learning outcomes (Chang and Chang, 2012).

Martin (1988) identifies learning satisfaction with the level of coherence between the individual’s expectations and his actual experience. In a situation where the individual’s real experience is equal or succeeds his expectations, the individual feels satisfied, as opposed to an experience that is under his expectations thus making him feel unsatisfied (Chang & Chang, 2012). Astin (1993) talks about student's satisfaction as related to student involvement, student-student interaction, student-faculty interaction, while Deci, Ryan and Williams (1996) see satisfaction as a “spontaneous experience” associated with intrinsically motivated behaviors, emerging from learning activities designed with consideration for the learner's needs and likings regarding his own development. In this regard, Harvey, Locke, & Morey (2002) describe learning satisfaction as the pleasure resulted from student’s implication in specific curricular activities designed to fulfill the learning needs initially felt by the student (Chang and Chang, 2012); taking into consideration the variance between learning needs among students, different learning activities should be designed and implemented, resulting in high levels of learning satisfaction. Learning satisfaction has been associated with the individual’s feelings and attitudes towards the education process and the perceived level of fulfillment connected to the individual’s desire to learn, caused by the learning motivation (Arbaugh, 2000, apud Chang, & Chang, 2012).

In a study conducted by Chang and Chang (2012), learning satisfaction appears strongly correlated with learning motivation, emphasizing the importance that teachers must place on the educational efforts that are aiming to meet the specific needs of learners. Such educational efforts are likely to lead to a state described by Flammger (1991) as a joy of fulfillment and feeling of sufficiency, in the sense that the students' needs are met (and therefore temporarily deactivated) and the psychological tension resulting from the active needs is diminished.

The recent approaches to student satisfaction relate to research on teamwork, team performance and collaborative learning (Johnson, Top, & Yukselturk, 2011; Fransen, Kirschner, & Erkens, 2011; Ku, Wei Tseng, & Akarasriworn, 2013), or on satisfaction with e-learning courses (Novo-Corti, Varela-Candamio and Ramil-Díaz, 2012) and virtual learning systems (Lin, 2012). One shared conclusion of the mentioned studies is that students' satisfaction with different aspects of the instructional design is of key importance when discussing the effectiveness of the educational process.

Authors that have researched learning satisfaction (Chien, 2007; Chang, & Chang, 2012; Khiat, 2013) agree on the complex nature and multifaceted aspect of it, mentioning a number of factors that pertain to the construct. Although the number of factors involved in the measurement may vary, researchers focus on elements pertaining to the educational environment, services, providers, outcomes, facilities and individual variables. In a study conducted
on the subject (Topală, & Tomozii, 2014), we approached learning satisfaction as a multifaceted construct that can be measured through six relevant and reliable factors established in accordance with the current available research on the matter. The assumed factors were measured through the SLSQ (Students' Learning Satisfaction Questionnaire), an instrument we've designed and tested under validity (EFA study) and reliability (alpha Cronbach coefficient, for each of the six dimensions, and for the whole scale).

3. Attitude and approach to learning

Current debates regarding learning and its optimization are increasingly focused on non-intellectual aspects which have an influence on performance. Namely on the attitude and motivational aspects involved in the learning process, which have a holistic and inter-determined approach, in the sense of a constructive alignment (Biggs, 1996), on the perceptions over significance and relevance (Entwistle, 2000), expectancies (Wigfield, & Eccles, 2000) and teacher and student approaches (Trigwell, Prosser, & Waterhouse, 1999; Ramsden, 2003) on the teaching act, with all that it involves – from design to implementation to assessment and evaluation. We will look at the attitude towards learning in terms of complex evaluative statements (Robbins and Judge, 2007) concerning aspects pertaining to the academic learning. Thus, attitudes towards learning that are considered favorable become objective in statements such as: "I believe that learning is essential to me", "When I’m learning, I feel that I’m doing something important" or "I’m looking for opportunities to learn something new", "When I want to learn something, I get totally involved", perceived both at a general and specific level, regarding the intention of action. Favorable attitudes towards learning and towards oneself lead to an increased level of engagement in the learning process, associated with a deep approach to it (deep approach to learning; Marton and Saljo, 1997). The depth approach is based on the endeavors to understand the learning material, on taking the necessary steps to achieve an understanding that will last; this entails but not "the filling of empty vessels" (Marton, & Saljo, 1997) with information on things, but rather making changes on an attitudinal and behavioral configurations level, in the sense of acquiring/developing efficient adaptation abilities. A predictive behavioral value may be associated with this attitude, which means that a generally favorable attitude towards learning translates into a high probability of manifestation of sustained learning behavior, in the sense of a predominantly intrinsic-motivated way of learning. Learning behaviors associated to a generally favorable teaching attitude are specific to the implementation of some strategies that are able to ensure learning productivity.

4. Data and method

4.1. Setting and procedure

The study conducted in the form of a questionnaire-based survey involved a sample of 80 students, aged 25 to 57 (M=37, SD=8.6), attending the classes of the Faculty of Psychology and Educational Sciences within Transylvania University in Brașov, and aimed to identify the attitudes of the participants towards academic learning, towards the merits of their own learning methods, as well as the perception of the presence of "the other" in the academic learning equation and the relationship between age and learning satisfaction.

The leading assumptions of the investigation were:
- older students` attitude towards learning can be associated with the need for a self-directed learning approach;
- older students’ attitude towards their own learning capacity can be associated with a higher level of trust;
- students’ attitude towards learning relates to their declared satisfaction towards aspects of the educational act;
- learning satisfaction positively correlates with age.

One of the instruments we have developed for this study is a questionnaire concerning students' attitudes towards learning. The students were asked to answer to a number of 19 items evaluated through a five-point Likert scale.
The items concerned a general dimension of attitudes, through statements such as: "I believe that the man lives in order to learn", "Learning is essential to me", "What I learned until now has really helped me", and a specific dimension, concerning the intention of action and aspects regarding expectancies and preferences in the learning behavior, such as "I'm looking for opportunities to learn something new", "I feel enthusiastic when I'm learning", "I trust my ability to learn anything, anytime" or "I prefer to learn by myself, without the help of others".

The reliability study we've conducted for the students' attitudes towards learning questionnaire revealed a global Cronbach alpha coefficient of 0.718, indicating a good level of internal consistency of the instrument.

Also, we asked participants to assess their level of satisfaction regarding aspects pertaining to their learning experience in the university. They were required to fill in the SLSQ, a 26-item questionnaire which we've previously designed and tested (Topală and Tomozii, 2014), evaluates on a six-point intensity scale the learning satisfaction level related to the university learning experience. The items in the questionnaire were distributed into six dimensions of the learning satisfaction, read in terms of factors. Thus, we acknowledge six factors assumed as valid indicators of the learning satisfaction:

- individual characteristics, Cronbach's $\alpha = 0.870$
- material conditions and learning facilities, Cronbach's $\alpha = 0.714$
- the teacher and the instructional activity, Cronbach's $\alpha = 0.942$
- learning outcomes, Cronbach's $\alpha = 0.921$
- learning environment, Cronbach's $\alpha = 0.815$
- peer relationships, Cronbach's $\alpha = 0.906$.

The Alpha Cronbach coefficient was calculated for each of the six dimensions and for the whole scale, showing a reliable scale. The reliability study conducted by Topala and Tomozii (2014) for the SLSQ revealed a global Cronbach alpha coefficient of 0.947, indicating a very good level of internal consistency for the instrument.

4.2. Analysis

The evaluation of the first hypotheses was carried out using Crosstabs, where the distributions of answers to items have been analyzed for each of the three age categories determined by the calculation formula $m \pm 2/3*SD$, adjusted according to the indications of specialized literature regarding the adult age categorization. Thus, we obtained three age categories for the study participants: under 30 years old, between 30 and 45 years old and over 45 years old.

Regarding the first assumption of the paper, learning preferences show propensity towards learning without assistance in terms of an independent, self-directed learning, for students as they become "more adult" (Knowles et al, 2005). The data obtained through Crosstab show that students in the age category 45-57 declared in their majority that they often prefer to study by themselves (60%), without the help of others, as opposed to students under 30, who register the highest percentage of responses in detriment of learning without the help of others (31.3% state that they rarely or never prefer to study by themselves). In the 30-45 age category, almost 45% said they sometimes prefer to study by themselves and 36.7% stated that they often and always incline towards learning without the help of others.

The second hypothesis of the study is that the older students’ attitude towards their own learning ability shows more trust, given the better understanding of their own learning abilities and their own training and development needs. The results of the contingency tables indicated that, for the studied group, the confidence in their own learning ability neither increases with age, nor decreases significantly either. 93% of the students in the 45-57 age category state that they rely on their ability to learn anything and anytime to a high and very high extent, whilst the students under 30 unanimously stated that they rely on their abilities to a high and very high extent. 91.8% of the students aged 30 to 45 say they are reliant and very reliant on their learning ability. Also, an ANOVA study was conducted with the purpose of decelerating the possible between groups differences regarding the declared level of trust in their own learning ability. The analysis revealed a value $F=0.707$, to a $p=0.496$, which is statistically insignificant.
The third hypothesis advances the idea of the existence of certain associations between the adult students’ attitudes towards learning and the satisfaction related to aspects of academic education. In other words, the way students relate to learning is connected to the satisfaction they feel towards the academic approach, towards the relevancy of the content studied, the relational climate, the degree of integration or towards the educational outcomes. The data resulted from Crosstabs showed that, for our sample, there may be interesting and relevant relationships between the following variables:

1) the declared level of interest towards the teaching material and the satisfaction towards:

- **the level of competence gained through learning** – the majority of those who declare themselves satisfied or very satisfied by the level of competence they have gained through learning, also declare themselves widely interested in what is taught; among those who are very interested, 72.2% declared a high and very high level of satisfaction.

- **the freedom of expression of their own personality in the learning process** – 79.3% among those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the degree of freedom of expressing their own personality in the learning process.

- **the attention that the teacher pays to students’ training and development needs** – 62% of those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the attention provided by the teacher to their real training needs, while those who declare themselves moderately interested in what is taught are at the same time unanimously satisfied and very satisfied with the attention they receive.

- **the quality of the feedback provided by the teacher** – 72.4% of those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the feedback provided by the teacher.

- **the support and the respect shown by the teacher** – the majority of those who are satisfied and very satisfied with the support offered by the teacher, also declare themselves widely interested in what is taught; 91.1% of those widely interested stated they are satisfied and very satisfied with the respect shown by the teacher, as well.

- **the degree of integration in the learning group** – 82.7% of those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the degree of integration in the learning group and 70% of those who declare themselves very satisfied with their group integration claim that they are widely interested in what is taught.

- **the opportunity to use one’s own experience in the learning process** – 72.4% of those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the opportunity they are given to use their own experience in the learning process.

- **the usefulness and novelty of the learning material** – 68% of those who declare themselves widely interested in what is taught, also declare themselves satisfied and very satisfied with the relevance of the educational curriculum, in the sense of appreciation the utility and timeliness of the materials proposed for teaching.

2) the declared level of enthusiasm in the learning process and the satisfaction towards:

- **the level of competence gained through learning** - 84.2 % of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the level of competence gained through learning.

- **the freedom of expression of their own personality in the learning process** - 93.8% of those who declare themselves satisfied and very satisfied with the freedom of expression of their own personality in the learning process, also declare that only sometimes they feel enthusiasm when they study.

- **the attention that the teacher pays to students’ training and development needs** - 73.7% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the attention the teacher gives to the training needs.

- **the quality of the feedback provided by the teacher** - 80% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the quality of the feedback received from the teacher.
the support and the respect shown by the teacher - 84.2% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the support and the respect shown by the teacher.

the degree of integration in the learning group - 84.2% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with their degree of integration in the learning group.

the opportunity to use your own experience in the learning process - 75.6% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the opportunity of using their own experience in the learning process.

the usefulness and novelty of the learning material - 73.8% of those who declare they feel enthusiastic every time they study, also declare themselves satisfied and very satisfied with the relevance of the topics debated in class, i.e. the usefulness and novelty of the learning material.

For the evaluation of the last hypothesis, we have conducted a study of correlation. The value of Pearson’s correlation coefficient, calculated for the two variables, was 0.294, p<0.01, which indicated the presence of a positive, statistically significant, connection. Thus, we can conclude that the learning satisfaction positively correlates with the age of the adult students who participated in the study in the sense that the learning satisfaction increases in proportion with age.

5. Results

Concerning the first hypothesis of the study, regarding the declared propensity of adult students towards independent learning, whose intensity is increasing at a declarative level, in proportion to age, the analysis of the results shown in the contingency tables reveal the fact that, for the our sample, the preference towards learning without the help of others is indeed dominant for adults aged over 30. The respondent students in the 30 years old category claim that their majority preference is not headed towards independent learning, but towards "assisted learning", in the sense that they prefer to receive the help of other people when learning. The preference towards “alone” learning, without any help, increases from an age category to the other, so that in students over 45, this preference for autonomous learning becomes a majority. A possible explanation for these results may reside in the fact that adults are defined, in the learning process, as autonomous, independent and self-directed (Knowles et al., 2005; Bjorklund and Bee, 2008; Palos, 2007; Gorges and Kandler, 2011).

The second result of the paper is that older age is associated with a higher declarative level of trust in one’s own learning ability. The analysis of contingency tables and the ANOVA study shows the fact that the declared trust in their own ability to learn anything and anywhere, does not significantly vary between age categories, of those we have studied. This may also be due to the fact that adults show superior metacognitive abilities, derived from psychological development and social integration, abilities which enable independent learning capabilities (Siebert, 2001), learning efficiency (Pintrich, 1999) with possible effects on self-efficacy (Bandura), thus on the confidence in their own capacities. Adults are more self-aware, due to their experience and reflective capacities, and have greater self-management abilities, given their status requirements and multiple social responsibilities, which means that they are more likely to exhibit a high level of confidence when it comes to handling a situation.

The third hypothesis advances the idea regarding associations between learning satisfaction and the interest shown in what is taught, on the one hand, and between the learning satisfaction and the enthusiasm experienced in the learning process on the other. The results of the analysis of the contingency tables show that associations can be made between the variables mentioned. Those who declare themselves interested and enthusiastic about learning at higher levels of intensity also find high satisfaction in the aspects regarding the teaching act: relational climate, educational climate created by the teacher (through the attention he pays to students’ training needs, through the feedback provided, through support and respect), as well as learning results in terms of performance. These associations should be interpreted by means of a direct psycho-pedagogical practical application.
The last hypothesis assumes a directly proportional association relationship between the age of the students who participated in the study and the learning satisfaction, in an overall score. The study of correlation showed the existence of such an association, in the sense of a strongly positive correlation (p<0.01). In other words, the older students, the higher their learning satisfaction. A possible explanation considers the results of all the other above mentioned hypotheses, in the sense that the adult becomes more confident in his own abilities, along with the improvement of self-knowledge and metacognitive abilities and he prefers to learn by himself, which implies self-empowerment (Siebert, 2001) and accountability.

6. Conclusions

The present study aimed to identify the attitudes, preferences and relationships that can be established between the earlier mentioned, concerning academic learning for adult students. Their attitude and preferences towards learning have been quantified against the learning satisfaction measured by SLSQ (Students' Learning Satisfaction Questionnaire), an instrument built and tested to provide a valid and reliable measurement for the multifaceted concept of learning satisfaction (Topală and Tomozii, 2014). The results of the analysis of the contingency tables, the ANOVA study which establishes the possible differences between the established age groups regarding the declared confidence in their own learning abilities and the correlation study between age and learning satisfaction show that the attitude of adult students towards learning is generally favorable, the majority of responses indicating high levels of interest, enthusiasm, confidence. Also, age also plays a differentiating role regarding aspects of satisfaction towards learning, as well as in what concerns the preference for “alone” learning, in the sense of self-directing and autonomy in the learning process. The psycho-pedagogic implications of the study resides in highlighting the connection between interest and satisfaction, between the pleasure of learning (enthusiasm) and the satisfaction regarding aspects of the educational sequence. The teacher must become aware of the importance of enticing and keeping awake the learners’ interest in the subject being taught, as well as in the importance of acknowledging the joy of learning and the designing and implementation of activities which would favor its emergence, as variables associated to the learning satisfaction in adult education. The learning satisfaction can be assumed to be a factor with high predictive value in determining the efficiency of learning, thus being recommended for examination and testing under this assumption, in further research.

The present approach is far from being considered final or limits-free, and the analysis perspective is not set up to be exhaustive. By deepening the working assumptions to the depths of creating more subtle connections between the learning satisfaction, on its dimensions, and variables related to the motivational configuration of the learning adult, through the improvement of the data collection procedures and instruments and the enrichment of the research design, we see feasible ways for creating additional practical application opportunities.

References

Astin (1993). What Matters in College. Liberal Education, 79 (4). Retrieved from http://search.epnet.com/login.aspx?direct=true&db=aph&an=9409260313.
Biggs, J. (1999). Teaching for Quality Learning at University. Philadelphia: Society for Research into Higher Education & Open University.
Buerck, J.P., Malmstrom, T., & Peppers, T. (2003). Learning Environments and Learning Styles: Non-traditional Student Enrollment and Success in an Internet-based versus a Lecture-based Computer Science Course. Learning Environments Research, 6 (2), 137–155. Retrieved from http://link.springer.com/10.1023/A:1024939002433.
Chang, I-Ying & Chang, Wan-Yu. (2012). The Effect of Student Learning Motivation on Learning Satisfaction. International Journal of Organizational Innovation, 4 (3), 281-305. Retrieved from http://search.proquest.com/docview/921995037?accountid=15533.
Chien, Te-King. (2007). Using the Learning Satisfaction Improving Model to Enhance the Teaching Quality. Quality Assurance in Education, 15 (2), 192 – 214. doi:10.1108/09684880710748947.
Deci, E.L., Ryan, R.M. & Williams, G.C. (1996). Need-Satisfaction and the Self-Regulation of Learning. Learning and Individual Differences, 8 (3), 165-183. Retrieved from http://selfdeterminationtheory.org/faculty?id=86.
Entwistle, N. (2001). Styles of learning and approaches to studying in higher education. Kybernetes, 30 (5-6), 593-603.
Fransen, J., Kirschner, P.A. & Erkens, G. (2011). Mediating team effectiveness in the context of collaborative learning: The importance of team and task awareness. Computers in Human Behavior, 27, 1103-1113.
Gorges, J. & Kandler, C. (2012). Adults’ Learning Motivation: Expectancy of Success, Value, and the Role of Affective Memories. *Learning and Individual Differences*, 22, 610-617.

Hoyt, J.E. (1999). Remedial Education and Student Attrition. *Community College Review*, 27(51). doi:10.1177/009155219902700203.

Johnson, T.E., Top, E. & Yukselturk, E. (2011). Team shared mental model as a contributing factor to team performance and students’ course satisfaction in blended courses. *Computers in Human Behavior*, 27, 2330-2338.

Khiat, H. (2013). Conceptualisation of Learning Satisfaction Experienced by Non-traditional Learners in Singapore. *Educational Research e-Journal*, 2(2). doi: 10.5838/erej.2013.22.02.

Knowles, M.S., Holt, E.F. & Swanson, R.A. (2005). *The Adult Learner. The Definitive Classic in Adult Education and Human Resource Development*. (6th ed.). San Diego: Elsevier.

Ku, Heng-Yu, Wei Tseng, H. & Akarasriworn, C. (2013). Collaboration factors, teamwork satisfaction, and student attitudes toward online collaborative learning. *Computers in Human Behavior*, 29, 922-929.

Lin, W-S. (2012). Perceived fit and satisfaction on web learning performance: IS continuance intention and task-technology fit perspectives. *International Journal of Human-Computer Studies*, 70, 498-507.

Marton, F., Säljö, R. (1997). Approaches to Learning. In Marton, F., Hounsell, D., Entwistle, N.(ed.). *The Experience of Learning*. Edinburgh: Scottish Academic Press.

Novo-Corti, I., Varela-Candamio, L. & Ramil-Díaz, M. (2012). E-learning and face to face mixed methodology: Evaluating effectiveness of e-learning and perceived satisfaction for a microeconomic course using the Moodle platform. *Computers in Human Behavior*, 29, 410-415.

Palo, R. (2007). *Teorii ale învățării și implicaiile lor educaionale*. Timișoara: Editura Universității de Vest.

Pintrich, P.R. (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research*, 31, 459-470.

Ramsden, P. (2003). *Learning to Teach in Higher Education. Second Edition*. London and New-York: RoutledgeFalmer Taylor & Francis Group.

Robbins, S.P. & Judge, A.T. (2007). *Organizational Behavior*. New Jersey: Pearson Prentice Hall.

Siebert, H. (2001). *Învățarea autodirijată și consilierea pentru învățare*. Iași: Institutul European.

Topală, I., Tomozii, S. (2014). Learning satisfaction: validity and reliability testing for SLSQ (Students' Learning Satisfaction Questionnaire). *Procedia-Social and Behavioral Sciences*. doi: 10.1016/j.sbspro.2014.03.175

Trigwell, K., Prosser, M., Waterhouse, F. (1997). Relations between teachers’ approaches to learning and students’ approaches to learning. *Higher Education*, 37(1), 57-70.

Wigfield, A., Eccles, J.S. (2000). Expectancy-Value Theory of Achievement Motivation. *Contemporary Educational Psychology*, 25, 68-81. doi: 10.1006/ceps.1999.1015.