

UNIVERSITY PROFESSORS EPISTEMIC AUTHORITY ASSESSMENT IN ACTUAL AND TIME-REMOTE INTERACTION

Solveiga Blumberga

Riga International School of Economics and Business Administration (Latvia)

***Abstract.** The epistemological aspect of knowledge is described as a subject of psychology and pedagogy studies, students' views about learning or acquisition of knowledge and learning skills, role of experience in which knowledge is construed. Epistemic authority is related to the social context, interaction within this context in which transmission and exchange of knowledge take place and which is studied in the concept of social epistemology. Studies into epistemological views of students reveal the specifics of academic areas: students may have views about knowledge in general, this influences their behaviour, but they may differ in academic areas. Epistemic authority was explained as an essential factor in the process of acquisition of knowledge in schools and universities. An empirical study consisting of two stages was conducted to investigate student-perceived epistemic authority of university professors. Research target is to find out the level of assessment of perceived epistemic authority of university professors in the student and graduate samples and in study area groups. Author use epistemic authority research methodology, which include survey - Epistemic Authority Scale. A comparison of the results on the level of the sample shows that the results of study one and two are similar to the results obtained in the original study, and this, in general, suggests similar tendencies in assessment of professors' epistemic authority regardless of cultural environment and the time distance when the measurements were made.*

***Keywords:** epistemic authority, university professors, time distance.*

Introduction

Epistemic authority is related to the social context, interaction within this context in which transmission and exchange of knowledge take place and which is studied in the concept of social epistemology (Egan, Shera, 1952; Fuller, 2002; Goldman, 2001; Zandonade, 2004; Jacobson, 2007). Essential are the concept of epistemological views and studies into epistemological views of students (Schommer-Aikins, 2004; Gottlieb, 2007; Hammer, Elby, 2002; Buehl, Alexander, 2005; Ordonez et al., 2009) in which relationship between epistemological views and the acquired diverse experience is emphasised. Epistemic authority was explained as an essential factor in the process of acquisition of knowledge in schools and universities (Raviv et al., 1990; Bar-Tal et al., 1991; Raviv et al., 1993; De Grada et al., 1999; Raviv et al., 2003). Particular emphasis in the concept of epistemic authority is put on individual's trust in the information provided by the epistemic authority and readiness to receive or accept it (Kruglanski, 1989; Kruglanski et al., 2005). It was acknowledged that epistemic authority of sources in a person's life may change

in various areas and stages of life (Erb et al., 2003; Raviv et al., 1990; Ramazanoglu, Holland, 2002; Lewis, 2007; Barton et al., 2008).

It is acknowledged that a factor which has significant influence on perception of epistemic authority is epistemic dependency which is related to the perceived internal and external epistemic authority; this, in its turn, determines the social decisions regarding trusting the authority, critical assessment of trusting the authority (Kruglanski, 1989; Kitchener et al., 1989; Raviv et al., 1993; Kruglanski, et al., 2005; Bar, 1999; Raviv et al., 2003; Mugny et al., 2006; Ricco et al., 2010). A normally functioning adult may develop a balanced psychological perception of an epistemic authority by developing adequate opinions about whom, when and to what extent to trust.

The article describes the process of development of the structure of assessment of epistemic authority: 1) system of studying the hierarchy of epistemic authority which was developed through studying Israeli students' assessments for epistemic authority of various sources (Bar, 1983, as mentioned Kruglanski, 2005); 2) the structure of perceived epistemic authority and the epistemic authority scale (EAS) developed by Raviv in cooperation with colleagues (Raviv et al., 1990).

Materials and methods

An empirical study consisting of two stages was conducted to investigate student-perceived epistemic authority of university professors. Epistemic authority research methodology was used in the study: Epistemic Authority Scale (Raviv et al., 1993). This survey was used to study the degree of student- and graduate-perceived epistemic authority of one associate professor chosen by them and the degree of four authority components: 1) the level of knowledge the individual attributes to the source; 2) the extent to which the individual trusts the source; 3) the extent to which the individual is ready to change their opinion under the influence of the source; 4) the extent to which the individual is ready to change their behaviour under the influence of the source (Raviv et al., 1990; 1993).

In the original study (Raviv et al., 1993), perceived epistemic authority of professors was studied in a sample of Israeli students. When conducting the study with a sample of Latvian students, a similar context was used (how students perceive the professor's epistemic authority). Analysis of the statements included in the methodology and the process of the original study, it could be concluded that in both cultural environments students have a similar understanding of what a professor as an essential source of information is, what factors may influence student-perceived authority of the professor, that the course of the study can be similar and that students' attitude towards the study can be similar.

The study question - What is the level of assessment of perceived epistemic authority of professors in the students' actual interaction with the professor and the graduates' time-remote interaction with the professor in study area groups?

Results

In retrospective assessment of the students' actual interaction with the professor and the graduates' time-remote interaction with the professor, professors' epistemic authority is generally assessed as a medium-level authority. The assessments provided for the components of the professor's epistemic authority vary in two studies between low and high. Higher ratings have been provided for the cognitive aspect of professors' epistemic authority (components „professor's knowledge”) and the cognitive-emotional aspect which is related to component „trust in professor's knowledge”; medium low for the cognitive-emotional which is related to component „student's readiness to change opinion while perceiving the professor's epistemic authority”; the lowest (ranging between low and medium) ratings have been provided by the students and graduates for the behavioural aspect which is related to component „student's readiness to change behaviour while perceiving the professor's epistemic authority (see table 1).

Table 1. Average (M) Indicators of Epistemic Authority Ratings in Student and Graduate Samples (Blumberga, 2011; Blumberga, Vorobjovs, 2014)

Sample	Level of knowledge	Trust in knowledge	Readiness to change opinion	Readiness to change behaviour	Total average
Students (N=307) 1 st study	4,78	4,17	3,98	2,91	4,02
Students (N=152) 2 nd study	5,27	4,49	4,01	3,22	4,33
Graduates (N=248) 1 st study	4,72	4,13	3,86	2,74	3,93
Graduates (N=210) 2 nd study	5,18	4,55	3,76	3,09	4,25

In the Study 1 (Blumberga, 2011), the readiness to change opinion was slightly higher in the group of arts students (M= 4,20); for comparison, the rating for this component was M=3,80 in the group of students of the social area and M=3,95 in the group of students of the area of sciences). In the group of arts students, readiness to change opinion was comparatively closer to trust in professor's knowledge, and this determines higher (compared with other groups) readiness to change behaviour (M=3,02); for a comparison, the group of students in the social area had M=2,88; the group of students in the area of sciences had M=2,85). In graduate study area groups, the results of assessments

for professor's level of knowledge, readiness to change opinion and behaviour in perception of the professor's epistemic authority were similar. There were comparatively lower results for the assessment viewing trust in professor's knowledge in the group of graduates in the arts area (M=3,96); the group of students in the area of social sciences had M=4,20 for this component and the group of students of the sciences had M=4,12).

Analysis of the results of the study groups in the Study 2 (Blumberga, Vorobjovs 2014) showed lower results in the groups of students and graduates in the area of sciences when viewing readiness to change behaviour in perception of professor's epistemic authority: (M=2,99 (students); M=2,90 (graduates). For a comparison for this component, the group of the social area had M=3,27 (students), M=3,19 (graduates) and the group of the arts area had M=3,37 (students), M=3,18 (graduates).

Higher standard deviations (S), which suggest more explicit variations of the results, were observed in the student sample for the component of readiness to change opinion, and for trust in knowledge and readiness to change opinion in the graduate sample. The most significant components of professor's epistemic authority from the aspect of influence: readiness of students and graduates to change opinion and behaviour have lower ratings than the components directly related to professor's knowledge. A similar tendency was observed also in the study conducted in the sample of Israeli students (Raviv et al., 1993). In general, the results of epistemic authority assessments show a successful implementation of professors' authority dimension "source of knowledge or accepted truth" (Pace, Hemming, 2004), which is an essential sign of epistemic authority (Heritage, Raymond, 2005; Kruglanski et al., 2005; Quiamzade, Mugny, Chatard, 2009).

A comparison of the results obtained in the student and graduate samples with the results obtained in the original study (Raviv et. al., 1993) lead to a conclusion that in general, when viewing the results of Study 1 and Study 2, there has the following tendency: Students and graduates of universities located in Riga rate professors' epistemic authority higher than Israeli students (see Table 2).

A comparison of the results on the level of the sample shows that the results of Study 2 are similar to the results obtained in the original study, and this, in general, suggests similar tendencies in assessment of professors' epistemic authority regardless of cultural environment and the time distance when the measurements were made. The following question is put up for discussion: What factors determine that, in the study conducted in Israel, statistics students have given high ratings for professor's epistemic authority (significantly higher than psychology students), but sciences students and graduates of Riga universities have provided lower rating for professors' epistemic authority than students and graduates of the social area. According to the interpretation given by the Israeli researchers (Raviv et al., 1993), there

might be two explanations for the results of the students of Riga universities: 1) Students of the sciences in universities of Riga are more sceptical and less structured than Israeli statistics students and study respondents in year 1993; 2) the assessed professors in the area of sciences in Riga universities provide less consequent knowledge. However, the results of assessment of professors' (one concrete area) epistemic authority assessed in the Israeli study and the results of the study conducted in the area of sciences at Riga universities (which included several study courses related to the area of sciences) cannot be compared directly.

Table 2. Comparison of Average Indicators (M) for Epistemic Authority of Professors in Student Samples in Israel and Riga

Israel	Riga (2011)	Compared statistic indicators	Compared groups	
			M (1)	M (2)
		N		
Psychology students (Raviv et. al., 1993)		76	3,86	–
Statistics students (Raviv et. al., 1993)		71	4,68	–
	Social area students	101;51	3,97	4,40
	Social area graduates	142;58	3,95	4,36
	Sciences area students	105;51	3,96	4,24
	Sciences area graduates	55;66	3,93	4,00
Average result in student sample (Raviv et. al., 1993)		147	4,25	–
	Average result for student sample	307;152	4,02	4,30
	Average result for graduate sample	248;210	3,93	4,25

M (1) – compared results of Study 1; M (2) – compared results of Study 2

Conclusions

The epistemic aspect of authority is demonstrated by authority's structural element „source of knowledge or accepted truth”. Perception of an epistemic authority takes place in the social context in the knowledge transmission and exchange process, with emergence of social judgements. It has been empirically verified that, perceived epistemic authority of a professor includes multiple dimensions: the cognitive with its factors „professor's expertness” and „professor's knowledge” and the cognitive-emotional – trust in professor's knowledge, which is related to perception of objectivity. The empirical results show that, in retrospective assessment of students' actual interaction with the

professor and graduates' time-remote interaction with the professor, professors' epistemic authority is generally assessed as a medium-level authority. The assessments provided for the components of the professor's epistemic authority vary in two studies between low and high. Professor's knowledge and trust in professor's knowledge are rated higher. However, the results of the assessment vary between low and medium in the first study to medium and medium high in the second study. This shows possible influence of social and demographic factors. A comparison of the results on the level of the sample shows that the results of Study 2 are similar to the results obtained in the original study, and this, in general, suggests similar tendencies in assessment of professors' epistemic authority regardless of cultural environment and the time distance when the measurements were made.

However, further studies are necessary to have more detail for the components and the factors. While studying student-perceived epistemic authority of professors, results have been obtained which can be used for: 1) professional development of professors in management of the study process; 2) further research. Further studies would be useful: 1) to identify factors which determine the comparatively low ratings provided for component „students' readiness to change behaviour"; 2) to study students' epistemic dependence on the professor as an essential source of information, which may reveal the factors of perceived epistemic authority of the professor in more detail; 3) to study how professors perceive their epistemic authority and professional efficiency as a condition for being an authority.

References

- Bar, R. (1983). *Hierarchy of Epistemic Authority Test. Unpublished master's Thesis*. Tel-Aviv: Tel-Aviv University.
- Bar, R. (1999). *The impact of epistemic needs and authorities on judgment and decision making. Unpublished doctoral dissertation*. Tel-Aviv: Tel Aviv University.
- Bar-Tal, D., Raviv, A., Raviv, A., & Brosh, M. (1991). Perception of epistemic authority and attribution for its choice as a function of knowledge area and age. *European Journal of Social Psychology, 21*, 477-492.
- Barton, A., Tan, E., & Rivet, A. (2008). Creating hybrid spaces for engaging school science: How urban girls position themselves with authority by merging their social worlds with the world of school science. *American Educational Research Journal, 45*, 68-103.
- Blumberga, S. (2011). Student-Perceived Epistemic Authority of Associative Professors in Institutions of Higher Education. *Signum Temporis, 4, 1*, 10-16.
- Blumberga, S., Vorobjovs, A. (2014). Problems in Assessing Epistemic Authority of University Professors. *Proceeding of the International Scientific Conference. Rezekne*, 56-64.
- Buehl, M. M., and Alexander, A. P. (2005). Motivation and performance differences among domain-specific epistemological belief clusters. *American Educational Research Journal, 42*, 697-726.
- De Grada, E., Kruglanski, A. W., Mannetti, L., and Pierro, A. (1999). Motivated Cognition and Group Interaction: Need for Closure Affects the Contents and Processes of Collective Negotiations. *Journal of Experimental Social Psychology, 35*, 346-365.

- Egan, M. E., and Shera, J. H. (1952). Foundations of a Theory of Bibliography. *The Library Quarterly*, 22, 2, 125-137.
- Erb, H.P., Kruglanski, A.W., Chun, W.Y., Pierro, A., Mannetti, L., & Spiegel, S. (2003). Searching for commonalities in human judgment: The parametric unimodel and its dual mode alternatives. *European Review of Social Psychology*, 14, 1-47.
- Fuller, S. (2002). *Social Epistemology*. Bloomington, IN: Indiana University Press.
- Goldman, A. I. (2001). Experts: Which Ones Should You Trust? *Philosophy and Phenomenological Research*, 63, 85-110.
- Gottlieb, E. (2007). Learning how to believe: Epistemic development in cultural context. *Journal of the Learning Sciences*, 16(1), 5-36.
- Hammer, D., & Elby, A. (2002). *On the form of a personal epistemology. Personal Epistemology: The psychology of beliefs about knowledge and knowing*. Mahwah, NJ: Lawrence Erlbaum.
- Heritage, J. and Raymond, G. (2005). The Terms of Agreement: Indexing Epistemic Authority and Subordination in Talk-in-Interaction. *Social Psychology Quarterly*, 68, 1, 15-38.
- Jacobson, N. (2007). Social Epistemology: Theory for the "Fourth Wave" of Knowledge Transfer and Exchange Research. *Science Communication*, 29, 116-127.
- Kitchener, K. S., King, P., Wood P. K., & Davison, M. L. (1989). Sequentiality and consistency in the development of reflective judgment: A six-year longitudinal study. *Journal of Applied Developmental Psychology*, 10(1), 73-95.
- Kruglanski, A. W. (1989). *Lay epistemics and human knowledge: Cognitive and motivational bases*. New York, NY: Plenum.
- Kruglanski, A. W., Raviv, A., Bar-Tal, D., Raviv, A., Sharvit, K., Ellis, S., Bar, R., Pierro, A., & Mannetti, L. (2005). Says who?: Epistemic authority effects in social judgment. *Advances in experimental social psychology*, 37, 346-392.
- Lewis, L. (2007). Epistemic Authority and the Gender Lens. *The Sociological Review*, 55(2), 273-292.
- Mugny, G., Chatard, A., Quiamzade, A. (2006). The Social Transmission of Knowledge at the University: Teaching Style and Epistemic Dependence. *European Journal of Psychology of Education*, 21, 4, 413-427.
- Ordóñez, G. X., Ponsoda, V., Abad, J. F., and Romero, J. S. (2009). Measurement of Epistemological Beliefs: Psychometric Properties of the EQEBI Test Scores, *Educational and Psychological Measurement*, 69, 287-302.
- Quiamzade, A., Mugny, G., Chatard, A. (2009). When teaching style matches students' epistemic (in)dependence: The moderating effect of perceived epistemic gap. *European Journal of Psychology of Education*, XXIV, 3, 361-371.
- Pace, J. L., and Hemmings, A. (2004). *Understanding Classroom Authority: Theory, Ideology, and Research on Practice*. American Sociological Association.
- Ramazanoglu, C., and Holland, J. (2002). *Feminist Methodology: Challenges and Choices*. London: Sage Publications.
- Raviv, A., Bar-Tal, D., Raviv, A., Abin, R. (1993). Measuring epistemic authority: studies of politicians and professors. *European Journal of Personality*, 7, 119-138.
- Raviv, A., Bar-Tal, D., Raviv, A., Biran, B., Sela, Z. (2003). Teachers' Epistemic Authorities: Perceptions of Students and Teachers. *Social Psychology of Education*, 6(1), 17-42.
- Raviv, A., Bar-Tal, D., Raviv, A., Peleg, D. (1990). Perception of epistemic authorities by children and adolescents. *Journal of Youth and Adolescence*, 19, 495-510.
- Ricco, R. B., Schuyten, Pierce, S., & Medinilla, C. (2010). Epistemic beliefs and achievement motivation in early adolescence. *Journal of Early Adolescence*, 30(2), 305-340.

- Schommer-Aikins, M. (2004). Explaining the Epistemological Belief System: Introducing the Embedded Systemic Model and Coordinated Research Approach. *Educational Psychologist*, 39(1), 19-29.
- Zandonade, T. (2004). Social Epistemology from Jesse Shera to Steve Fuller. *Library Trends*, 52, 4, 810-832.