

University Students' Personal Worldviews in Action–Perspectives on Contextual Experiences in Two Professional Careers¹

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Abstract. The aim of this paper was to investigate Finnish theology students' and teacher education students' experiences of the learning environment provided by their faculty in relation to their personal worldview. Previous research supports the theoretical idea that religious questions are intertwined in the personal worldviews and values of students and, in turn, affect their motivational constructs. In this study, first and second-year higher education students of theology and teacher education responded to a questionnaire concerning religious or ideological perspectives on their personal worldviews and their experienced position in the learning environment as part of the religious majority or minority. According to the results, theology students experienced that their personal worldviews had affected their goals and that they were more committed to their personal worldview than teacher education students. However, teacher education students reported significantly higher certainty in career choice. Among teacher education students, male students reported more often than female students that they were committed to their personal worldview and that their personal worldview had affected their goals. The effects of personal worldview on goals and commitment to one's personal worldview varied significantly in terms of majority, minority, and non-religious group among both teacher education students and theology students. Members of majority and minority and non-religious groups thought differently about the importance of privacy in personal perspectives on religion and spirituality. Certainty of career choice varied significantly between religious minority and majority groups only among theology students.

Keywords: personal worldview; worldview commitment; theology students; student teachers.

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1. Introduction

1.1 Personal worldviews in making choices

Worldviews are often considered to be sets of beliefs and assumptions that describe reality (e.g. Koltko-Rivera, 2004). However, worldviews have been researched from various perspectives and through various theoretical constructs. Worldviews have been of interest in theology and humanistic studies, but various researchers have called for better understanding of the worldview functions in the field of psychology, too (e.g. Hirsto, 2001a; Koltko-Rivera, 2004; Rauste-von Wright, 1986).

Worldviews may affect people's choices explicitly or implicitly. According to Koltko-Rivera's (2004) comprehensive analysis of various worldview constructs, one element in common among all of the theories considered was the explicit idea that worldview affects behavior so that an individual's behaviors are somehow consistent with that individual's worldview. However, Koltko-Rivera (2004) also argued that none of the sources claimed that behavior or action was only an expression of worldview. This idea is in line with Rauste-von Wright's (1986) conceptualization of worldview and its function in the human behavior and decision-making process. This way of conceiving personal worldview has its roots in the psychological research traditions, in which the key idea is the function that the worldview has in human functioning, as opposed to the various qualitatively different kinds of worldviews that have been considered in the philosophical worldview tradition (cf. Hirsto, 2001b). In analyzing theoretically the meaning-making process, Park (2010) makes a distinction between global meaning-making and situational meaning-making processes. According to Park (2010), global meaning making refers to beliefs about oneself, the world, and oneself in the world, as well as goals and a subjective sense of meaning or purpose. In Park's (2010) theoretical perspective, personal worldview is important in the meaning-making process.

In addition, empirical perspectives, especially in teachers' practices, provide evidence that worldview issues influence teachers' thinking and practices. According to Sikkink (2010), religious and value orientations influence, on one hand, teachers to sacralize the teaching profession through a sense of religious calling to teaching and, on the other hand, the use of classroom space. Sikkink (2010) also argues that these orientations influence pedagogy and curricular emphases to a limited extent. Furthermore, value orientations seemed most clearly to contribute to an ethic of personalism, including an extended teacher role, and a commitment to holistic relationships. The Higher Education Research Institute (HERI) (2006) found similar results among higher education faculty on the relations between spirituality and perspectives on pedagogy. Thus, the role of personal worldviews and perspectives on spirituality seem to be important in making meaning and perceiving learning environments, as well as in terms of teachers developing and experiencing students holistically.

The aim of this paper is to investigate Finnish theology students' and teacher education students' experiences of the teaching and learning environment provided by their faculty in relation to their personal worldview. The educational fields of theology and education provide various career perspectives for higher-education students. Theology students' potential professions in this

study are a pastor, a religious education (RE) teacher, or an expert in theology and religion. Teacher education students' potential professions are an elementary teacher, a teacher of arts and crafts, a teacher of home economics, or an early childhood educator. Both fields aim at an interpersonal profession in which interaction with other people is important, and a profession in which altruistic motives such as helping other people are a key motivational factor (e.g. Hirsto, & Tirri, 2009; Han, & Yin 2016). Both professions are also related to tackling worldview issues, as it has been suggested that teacher education should perhaps include religious and worldview perspectives as, in our globalized world, more understanding of these issues is needed (cf. Schweitzer, 2018). However, the nature of the studies is different, as theology students have Western Christian theology as their main subject, and teacher education students have education science as their main subject.

1.2 Personal worldviews and contextual career motives

Theoretically, it is assumed here, that religious questions are intertwined in the personal worldviews (cf. Hirsto, & Buchert, 2016; Hirsto, 2001, Rauste-von Wright, 1986) and values of students, and in the learning processes affect their motivational constructs. Emmons (1999) and McIntosh (1995) suggest that spirituality and religiousness can provide people with an ultimate sense of purpose. There is also empirical evidence of that relation and its effects on personal motivational constructs (e.g. Emmons, & Paloutzian, 2003; Hirsto, 2012a, 2012b). In a similar way to a calling often being referred to as an important motivation in aiming for a theological profession, a calling is also often considered an important reason for teacher education students to enter their field.

Motivation for being a teacher has been investigated quite a lot from various theoretical perspectives. According to a review by Han and Yin (2016), teacher motivation has been investigated from both pre-service and in-service teachers' viewpoints. Han and Yin (ibid.) argue that intrinsic, altruistic, and extrinsic motivations seem to have been major reasons accounting for the decision to teach in developed countries. They also argue that especially social-cognitive theories of motivation, such as achievement goal theory and expectancy-value theory, have been applied to pre-service teacher motivation studies.

With regard to theology students, Hirsto and Buchert (2016) found that many students were aware of their goals and had a clear vision of their future careers and choices. What they also found was that there was quite a large group of students whose career and curriculum choices and decisions were unclear and uncertain. As these students reflected on their uncertainty, a number of narratives were identified. Hirsto and Buchert (2016) found four qualitatively different ways to explain curriculum choice: (1) students struggling with adversity, (2) searchers, (3) those rejecting and rejected, and (4) students with a general theological degree as a possibility.

In the Hirsto and Buchert (2016) study, part of the student group, who were struggling with adversity, had difficulties aligning their career choice with their worldview perspective. Students included in the group of searchers did not have a strong continuous interest, but their career choice would vary with their

changing interests along their study paths. According to Hirsto and Buchert (2016), the career choice of those rejecting and rejected was affected by the experience of their future potential employer not accepting them as they were (as members of a sexual minority), or they could not commit to the church's doctrine of allowing women to be pastors, which led them to abandon the potential career as a pastor. In the fourth group found by Hirsto and Buchert (2016), a degree in theology was seen as an opportunity that offered interesting career prospects and deepened existing expertise. Students in this group saw themselves primarily as experts in religious or ethical issues, but did not necessarily combine their expertise with religious beliefs. These perspectives on the issues of career choice among theology students highlight the meaning of career decisions intertwined in the students' personal worldviews, and largely to intrinsic perspectives. When it comes to the group of students studied by Hirsto and Buchert (2016), they were mainly students who had experienced some difficulties in their career choices and decisions related to their career. Thus, the results suggest that as these students experienced difficulties with their career choices, or as they were making career decisions that were somewhat different from their peers or general expectations, they had to reflect on their choices in relation to their personal worldviews.

1.3 Calling, career decisions, and goals

One of the intrinsic motivational factors behind choosing a profession could be perceived to be a calling. There are various definitions of calling in the interface of religion, spirituality, and career development, ranging from spiritual to secular (Duffy, 2006). According to Duffy, Douglas, Autin, and Allan (2014), a career calling seemed to be a significant predictor of personal growth and life meaning. Furthermore, life meaning, the search for life meaning, and vocational self-clarity significantly predicted the presence of a calling.

According to Steger, Pickering, Shin, and Dik (2010), a calling has been regarded historically as a religious experience, but later researchers have frequently adopted a more expansive and secular conceptualization of a calling, which emphasizes meaning and personal fulfillment in work. A calling as a religious experience relates well with the context of theological study (cf. Hirsto, & Tirri, 2009). However, theology as a study field for students interested in building theological expertise may have a more varied and perhaps secular calling. The results of Steger et al. (2010) supported the view that a calling is centered on a person's experience of meaning in their work, rather than on more constrained religious views. This secular calling has also been perceived to be behind teacher education students' choice of teaching as a career (e.g. Stiegelbauer, 1992).

Duffy and Sedlacek (2007) found, in their study about university students' career development, that the presence of a calling correlated positively with decidedness, comfort, self-clarity, and choice-work salience, and correlated negatively with indecisiveness and lack of educational information. The search for a calling, on the other hand, correlated negatively with decidedness, comfort, self-clarity, and choice-work salience, and correlated positively with indecisiveness and lack of educational information. According to Davidson and Caddell (1994), males tended to think of their work as a career, while females were more likely than males to view work as a calling.

Duffy and Sedlacek (2007) operationalized a person's calling in their quantitative questionnaire with two questions "I have a calling to a particular kind of work" and "I have a good understanding of my calling as it applies to my career." The concept of a calling was not explicated in that study, but the idea seems to have been that a calling refers generally to intrinsic motives with aspects of altruistic motives. From this viewpoint, a calling can be perceived as similar to the perspectives of personal (spiritual or secular) worldview, which also is considered to affect and direct a person's goals and actions in terms of career development.

According to Duffy and Sedlacek (2007), there is a need for a better understanding of how a career calling develops, and whether it is largely tied to religion or spirituality. Additionally, it should be explored how these constructs differ across demographic variables, such as career choice, gender, age, socioeconomic status, and academic achievement.

In the context of the United States, the Higher Education Research Institute (HERI) (2006) conducted a national survey in which they investigated the ways in which higher education faculty considered the role of spirituality in the context of higher education. According to their results, it seems that females characterize themselves as spiritual more often than males, and more often prioritize spiritual aspects of life. HERI (2006) also seemed to suggest that a majority of the higher education faculty considered that it was important to support students' spiritual growth, and only a minority would disagree with the idea that faculty members' spirituality should have no place in academia. However, there were considerable differences across academic disciplines in these respects. Nevertheless, in the study by HERI (2006), the education and humanistic faculties were quite similar in their perspectives.

In terms of career decisions, according to Duffy and Blustein (2005), individuals who have a strong spiritual relationship with a higher power and who are religious through intrinsic motivation tend to be more confident in their ability to make career decisions. Furthermore, they seem to be more open to exploring a variety of career options. There are also empirical indications that spirituality is one of the determinants of career behavior: it influences career purpose, sense-making, and coherence (Lips-Wiersma, & Mills, 2002). Vocational psychologists have conducted a great deal of research into the effect of contextual variables on career development, but have yet to explore adequately the role of spirituality and religiousness (e.g. Duffy, & Blustein, 2005, 431-432).

Previous research has shown that students of theology deal with these fundamental questions of spiritual and religious issues in their learning processes before and during their studies, despite the nature of their specific professional orientation (e.g. Hirsto, & Tirri, 2009; Hirsto, 2012a, 2012b; Litmanen, Hirsto, & Lonka 2010; Hirsto 2011). According to Hirsto (2012a), certainty of career choice in the theological field seems to be related to having a spiritual calling, a helping orientation, and self-fulfillment. Compared to the perspective of Han and Yin (2016) on teacher motivation, intrinsic and altruistic motives seem to be strong among students pursuing both professions. In addition, the perspective of a calling is frequently behind the reasons for choosing these careers. As Duffy and Sedlacek (2007) stated, research on calling

and career development indicates that the construct may be salient for college students and adults working in various professions.

1.4 Personal worldview and worldview commitment

A calling as a fundamental perspective on career development and career choice can be seen as an integral part of students' personal worldviews. In this study, there was a focus on theology and teacher education students' perspectives on how their personal worldviews have affected their goals. However, the extent to which these students were committed to their personal worldviews was thought to be relevant. Students' career choice certainty was also investigated, as were their experiences of the spiritual or ideological aspects of their learning environment.

Mayhew and Bryant Rockenbach (2013) defined and operationalized worldview commitment in their study. According to them, worldview commitment has a neutral psychological valence, which allows both positive and negative expression. Thus, students who are strongly committed to a particular worldview may have reached that commitment through a self-authored process while critically examining worldview using their own voice, as well as those of trusted others. On the other hand, according to Mayhew and Bryant Rockenbach (2013), students may use worldview commitment as an excuse not to engage with other worldviews. The measure adopted for this study by Mayhew and Bryant Rockenbach (2013) tries to include, in the translation of items, the balance of positive and negative manifestations of commitment by including, similarly, the degree of reflection that students have invested in determining their worldview in addition to their self-reported level of commitment.

According to previous studies, worldview commitment seems to be different among students in different disciplines (Mayhew, & Bryant Rockenbach, 2013). Bryant and Astin (2008) found that there was low commitment and a spiritual struggle especially among psychology students. According to Astin, Astin, and Lindholm (2011, 107), students in the humanities or social sciences may be exposed to ideas and values that differ from their own, which may encourage students to think critically and to question received wisdom. Mayhew and Bryant Rockenbach (2013) suggest that students' commitments to their worldviews are linked to nuanced dimensions of the religious, spiritual, and ideological climate on campus. Evidence further suggests that the relationship between climate and commitment depends upon students' religious worldviews (Mayhew, & Bryant Rockenbach, 2013). As the worldview commitment seems to vary between contexts, this study aimed to understand how students of these two professions, where a calling is quite commonly referred to as a career motive, perceived the effects and role of their personal worldviews.

The learning environment may be manifold in terms of the different worldviews represented in it. In referring to this, Harper and Hurtado (2007), suggest that minorities have usually had more negative experiences of the campus climate than majority students. Thus, it seems that minority students may experience and may be sensitive to tensions between the environment and their own personal worldview. It may also be difficult for majority students to be aware of and to perceive the ways in which their values and perspectives are integrated in

the everyday practices; therefore, they do not experience similar tensions between the learning environment and their own perspectives.

2. Method

This study was conducted among first and second-year higher-education students of theology and teacher education. The students responded to a questionnaire surveying their experiences of the teaching-learning environment in relation to their own personal worldview and its religious or ideological perspectives, and the experienced position in the teaching-learning context as part of a majority or minority.

The research questions were:

- (1) How is a student's background in academic disciplines related to aspects of their worldview and perspectives on spiritual and religious aspects of their learning environment?
- (2) What kinds of gender differences are there in the context of different disciplines, personal worldview, experienced learning environment, or certainty of career choice?
- (3) How are the experiences of being part of a religious majority or minority, or a non-religious group, related to aspects of personal worldview and experiences of the learning environment?

Data was collected during lectures, but it was voluntary to respond to the questionnaire. The questionnaire also included a question on whether a student's responses could be used for research purposes. None of the students refused their permission. The students responded to the questions on a 5-point Likert-scale (1=fully disagree to 5=fully agree).

The sum items used in this study are reported in Table 1. All other reliabilities were good or satisfactory except for the sum item of structural worldview diversity. That sum-item was translated from the Bryant Rockenbach and Mayhew (2013) study (see also Hirsto, 2019), in which the reliabilities were satisfactory. Thus, the conclusions regarding structural worldview diversity should be interpreted with caution.

Table 1. The measures included in this study

Measure	Sample item	α
The effects of personal worldview on goals (scale developed for this study)	"Aspects of my religious, spiritual, or ideological worldview usually direct my choices and goals."	.836
Worldview commitment (Mayhew, & Bryant Rockenbach, 2013)	"My current religious, spiritual, or ideological worldview gives my life meaning."	.799
Private personal perspective on religion and spirituality in higher education (Bryant Rockenbach, & Mayhew, 2013)	"Spirituality and religion should never be discussed in the college classroom."	.752
Structural worldview diversity (Bryant Rockenbach, & Mayhew, 2013)	"This department includes students, faculty, and staff who are diverse in their religious, spiritual, and ideological worldviews."	.464
Certainty of career choice (Hirsto, 2011, 2012a, 2012b; Hirsto, & Tirri, 2009)	"At the moment, I think that my career choice is right."	.850

3. Results

The results, in general, on these university students' experiences of the religious, spiritual, and ideological environment, as well as variations and differences in terms of field of study, identification as part of a minority or majority, and gender, were explored.

The respondents (N=211) came from two different academic disciplines. Of the respondents, 38.9 percent came from the faculty of theology and 61.1 percent from the faculty of teacher education. Of the respondents, 74.9 percent were female and 25.1 percent were male. In terms of grouping themselves, 60.4 percent categorized themselves as part of the religious majority group among the students, and 13.0 percent considered themselves as a religious minority. Of the respondents, 19.8 percent considered themselves to be non-religious, and 6.8 percent placed themselves in the group of "others". There were no statistical differences on the division between memberships of majority or minority groups among students of these two educational fields. Table 2 presents the means and the standard deviations of sum items.

Table 2. Means and standard deviations of sum items.

	Mean	Std. dev	N
The effects of personal worldview on goals	2.98	1.13	206
Worldview commitment	3.49	1.06	206
Private personal perspective on religion and spirituality in higher education	2.47	.77	205
Structural worldview diversity	3.40	.57	208
Certainty of career choice	4.07	.93	210

3.1 Students' backgrounds in academic disciplines in relation to personal worldview and experienced aspects of the teaching-learning environment

According to results, there were certain significant differences among teacher education students and theology students in their worldview commitment and experiences of the religious and spirituality aspects of their teaching-learning environment in general.

Table 3 presents the results of the t-test to test mean differences between the perspectives of teacher education students and theology students. Theology students experienced that their personal worldviews had affected their goals and that they were more committed to their personal worldview than the teacher education students. Neither of these student groups thought that privacy in the religious and spirituality perspectives in higher education was very important. However, teacher education students considered that to be significantly more important, with a medium effect size. Theology students' experiences of the structural worldview diversity of their teaching-learning environment were stronger than those of teacher education students. Teacher education students reported significantly higher certainty in their career choices.

Table 3. Mean differences among teacher education students and theology students.

		N	Mean	Std. dev.	H	Sig.	d	Size
The effects of personal worldview on goals	Teacher education students	127	2.71	1.15	18.62	.000	.62	Large
	Theology students	79	3.38	.97				
Worldview commitment	Teacher education students	126	3.22	1.04	22.48	.000	.69	Large
	Theology students	80	3.92	.96				
Private personal perspective on religion and spirituality in higher education	Teacher education students	125	2.57	.80	5.92	.015	.32	Medium
	Theology students	80	2.32	.70				
Structural worldview diversity	Teacher education students	127	3.20	.46	37.68	.000	.93	Large
	Theology students	81	3.71	.59				
Certainty of career choice	Teacher education students	129	4.27	.86	16.44	.000	.57	Large
	Theology students	81	3.76	.96				

3.2 Gender differences in meanings of personal worldview, experienced teaching-learning environment, and certainty of career choice in the context of different disciplines

The relationship between gender and the reported worldview commitment was different with respect to students' gender (see Table 4). Among teacher education students, male students reported more often than female students that their personal worldview had affected their goals. In addition, the tendency

seemed to be similar for the factor of worldview commitment; however, that relation was not quite significant. The same relation was not true among theology students in these respects.

Theology students' perspectives on the importance of a private personal perspective on religion and spirituality in higher education differed among male and female students. The female students seemed to think that a private personal perspective was significantly more important, with a large effect size.

Table 4. Gender differences among theology and teacher education students.

		Gender	N	Mean	Std. dev	U	sig.	d	size
Teacher education students	The effects of personal worldview on goals	F	107	2.62	1.15	1349.00	.022	.41	Medium
		M	19	3.21	1.02				
	Worldview commitment	F	106	3.15	1.09	1281.00	.058	.34	Medium
		M	19	3.58	.63				
	Private personal perspective on religion and spirituality in higher education	F	107	2.57	.77	878.00	ns.		
		M	17	2.51	1.01				
	Structural worldview diversity	F	107	3.20	.46	992.50	ns.		
		M	19	3.21	.50				
	Certainty of career choice	F	109	4.31	.85	885.50	ns.		
		M	19	4.09	.90				
Theology students	The effects of personal worldview on goals	F	42	3.29	1.06	700.00	ns.		
		M	31	3.46	.93				
	Worldview commitment	F	43	4.02	.95	586.00	ns.		
		M	31	3.83	.99				
	Private personal perspective on religion and spirituality in higher education	F	42	2.46	.66	463.00	.022	.55	Large
		M	32	2.13	.72				
	Structural worldview diversity	F	43	3.71	.60	678.50	ns.		
		M	32	3.63	.57				
	Certainty of career choice	F	43	3.87	1.01	613.50	ns.		
		M	32	3.77	.81				

3.3 Religious majority and minority, and non-religious groups in relation to personal worldviews

With respect to the third research question, teacher education students and theology students were compared in terms of how they categorized themselves as part of a minority or majority religious group, a non-religious group, or other. The differences are presented in Table 5. The effects of personal worldview on goals varied significantly in terms of majority, minority, and non-religious groups, among both teacher education students and theology students.

Religious minority teacher education students experienced that their personal worldview had affected their goals most often ($\bar{x}=3.89$). The difference was significant ($p<.05$) from the religious majority group ($\bar{x}=2.54$), as well as from the non-religious group ($\bar{x}=2.44$), according to pairwise comparisons. A similar tendency was found among theology students (religious minority ($\bar{x}=4.09$), religious majority ($\bar{x}=3.60$), and non-religious ($\bar{x}=2.47$) group, $p<.05$).

Commitment to personal worldview varied similarly among teacher education students (minority ($\bar{x}=4.27$), majority ($\bar{x}=3.12$), non-religious ($\bar{x}=2.79$)), with differences being significant ($p<.05$) between minority and majority groups, as well as between minority and non-religious groups. Among theology students, the religious minority group ($\bar{x}=4.39$) and the religious majority group ($\bar{x}=4.31$) did not differ significantly in their commitment to their personal worldview, according to pairwise comparisons. However, both of these groups differed from the non-religious group ($\bar{x}=2.94$), as well as from the group of others ($\bar{x}=3.10$) ($p<.05$).

Members of majority, and minority, and non-religious groups thought differently about the importance of the privacy of personal perspectives on religion and spirituality. Teacher education students from the non-religious group more often thought that it is important to keep perspectives on religion and spirituality in private in higher education ($\bar{x}=2.91$). According to pairwise comparisons, the difference was significant ($p<.05$) between the non-religious and religious minority groups ($\bar{x}=2.05$).

Certainty of career choice varied significantly between minority and majority groups only among theology students. The most certain about their career choices were the religious minority ($\bar{x}=4.17$) and religious majority groups ($\bar{x}=4.00$). The least certain was the non-religious group ($\bar{x}=3.04$).

Table 5. Differences in worldview commitment and experiences of the teaching-learning environment among minority, majority, and non-religious students of teacher education and theology students.

		N	H	Sig.	d	Size
The effects of personal worldview on goals	Teacher education students	125	16.84	.001	.72	Large
	Theology students	78	22.60	.000	1.20	Large
Worldview commitment	Teacher education students	124	17.27	.001	.74	Large
	Theology students	79	31.11	.000	1.55	Large
Private personal perspective on religion and spirituality in higher education	Teacher education students	123	8.58	.035	.44	Medium
	Theology students	79	7.42	.060	.50	Medium
Structural religious diversity	Teacher education students	125	3.10	ns.		
	Theology students	80	4.56	ns.		
Certainty of career choice	Teacher education students	127	4.36	ns.		
	Theology students	80	16.84	.001	.94	Large

4. Discussion

In general, there were significant differences in how teacher education students and theology students in a higher-education context reflect on the effects of their personal worldview in setting goals. In addition, there were differences in their reported levels of commitment to their personal worldviews. It was also found that the dynamics of relations between students' gender and identity as a member of majority, minority, or non-religious group varied in different ways among these student groups. It is noteworthy that the students' background in academic disciplines was considered here as the basis of categorization for further analyses and group comparisons. Another possibility would have been to include theology students aiming for a teacher program as part of the teacher education profession. This was not done because the nature of the studies in teacher education and in theology are considerably different. Teacher education students have educational science as their major in their Bachelor's and Master's degrees, and theology students have theology. Theology students, even when aiming for a religious education teacher program, study in the faculty of theology and participate, to a large extent, in the same courses as students who are aiming at the profession of the clergy, and they are therefore exposed continuously to questions related to religions and worldview, to which teacher education students are not, in a similar way. Thus, if theology students interested in a teacher education program with official teacher qualification had been integrated in the classification with teacher education students, we would not have been able to differentiate between their experiences in their learning environment. In addition, theology students could not be included in the teacher education program until the end of their second study-year at the earliest, and therefore, at the time the data was collected, the students could not have made a certain choice of teacher education. Of course, this choice could nevertheless have been clear to the students themselves at that time.

Among teacher education students, it seems that male students choose their goals more decisively, and base their goals on their personal worldview, as well as seeming to commit to their personal worldview more strongly than female students do. In terms of perceiving goals based on a personal worldview similar to the concept of a calling, this finding is contrary to the findings of Davidson and Caddell (1994), who found that males tended to think of their work as a career, while females were more likely than males to view their work as a calling. Furthermore, female theology students perceived more often that the privacy of personal religious and spiritual perspectives was important. From this gender perspective, it seems that perhaps students of the more under-represented gender in the higher-education context more often reflect features of their personal worldview and identity. Males are under-represented in Finnish teacher education, and teacher education, as well as many other professions that relate to the care of children, is considered more of a female profession even today.

In terms of theology education, Finnish higher-education institutions with a theology major prepare a large group of students for the profession of a pastor. However, the faculties of theology also provide students with a general theological education with a focus on research and general academic theology. Until 1986, only male theology students could be employed as a pastor, and

therefore, there is a long tradition of females not having a very active role in the profession of the clergy. There are also some religious communities inside the Finnish Evangelical Lutheran church that still oppose females in the pastoral profession. Thus, some female students may have felt excluded from the religious discourse of some of their fellow students, and would therefore prefer more privacy in the expression of personal perspectives on religion and spirituality. If we consider non-religious students in that kind of context, it seems clear that religious minority students more often choose their goals reflectively based on their personal worldview, and they seem to be the most committed to their worldview.

This study shows the varied relationships that students' personal worldviews may have with the learning environment. The results suggest the importance of the students' experiences in the social learning environment from a systematic perspective. This data shows that, in addition to contextualized experiences in the context of one institution, students implicitly or explicitly may have to reflect on more of the practices and choices indicated by traditions and cultural perspectives. This perspective is suggested by the differing experiences of female and male students, as well as minority, majority, and non-religious students, with regard to the meaning of personal worldview and varying perspectives on the privacy of religious and spiritual aspects in the learning environment. As students' approaches to learning have been seen to influence their experiences of the teaching and learning environment (e.g. Parpala, Lindblom-Ylänne, Komulainen, Litmanen, & Hirsto 2010), perhaps these more fundamental ways of experiencing oneself in relation to the learning environment have similar effects.

This study opens up some interesting lines of further research. This study related theoretically functional personal worldview perspectives to the perspectives of a calling in career development. This relation between a calling and goal-setting on the basis of personal worldview and a person's commitment to it may open up interesting new empirical approaches to research on career development and the fundamental processes related to it. As higher education students' goal-setting is based on their personal worldview, and commitment to their worldview seems to vary in these two professional fields and in relation to a student's gender, it would be worthwhile investigating these relations in more diverse fields.

In addition, students' experiences of belonging to a religious minority or majority group were also related to goal-setting and worldview commitment in these two professional contexts, and to career choice in the theological field. This highlights the importance of conceiving the higher-education teaching-learning environment as a whole, as students define themselves in continuous interaction with their environment, and this may affect the way their career perspectives and calling develop, and how they see themselves as members of their future profession. The students in this study were investigated in their first and second study years, thus in the early stages of their studies. With respect to previous research, university students' motivation for university studies seems to be higher at the beginning of the studies, and there is some evidence that there is a tendency for it to decrease during university studies (e.g. Busse, 2013; Brahm, Jenert, & Wagner, 2017). From the theoretical perspective of personal worldview,

it is also assumed that the process of goal-setting is continuous and dynamic, and integrated into the social and physical environment (Rauste-von Wright, 1986), and therefore these goals and the commitment to a personal worldview represent these students' perspectives at a certain point in time. In the later phases of their studies, the variability may be different. For example, in terms of investigating teacher education students in religious education, Ubani (2015) found that changes in the students' worldviews and in their commitment may lead to changes in their goals during their studies. In addition, Hirsto and Buchert (2016) have shown that theology students, whose context of study is explicitly connected to their worldview, may even struggle with a changing personal worldview and, due to that, with changing goals and career certainty.

Theoretically, the instruments used and developed in this paper could be developed as additional tools for research on varying orientations and motivational perspectives on careers in both theology and the teaching profession, in order to understand the special career development dynamics and to support higher-education students in their meaning-making related to their professional perspectives.

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