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Subjective definitions of *spirituality* and *religion*

An exploratory study in Germany and the USA

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This paper shows how corpus methods can be usefully employed in the field of psychology of religion in triangulation with other empirical instruments. Current international surveys mirror an on-going transformation in subjective meanings in religious discourse cumulating in the question: what do people actually mean when they describe themselves as spiritual, religious or neither? The paper presents results of a cross-cultural study with 1,886 participants in the USA and Germany. The thematic goal is to explore subjective understandings by examining personal definitions of *religion* and *spirituality*. Methodologically, the study shows how the key word procedure can be used to compare the semantic profile of subjective concepts between different languages and cultures by contrasting them to standard language and by using socio-biographical context variables to build contrasting sub-corpora. To control the in-equivalence of existing reference corpora in terms of size and design a so-called reference control corpus (RCC) is introduced.

Keywords: semantics, key words, mixed-method approach, cross-cultural comparison, discourse analysis

1. Introduction

Corpus linguistic methods are increasingly used to study a range of discourses and address research questions in areas such as medical discourse (Harvey 2013), political discourse (Partington 2010) or cultural key terms such as 'sustainable development' (Mahlberg 2007). A challenge for such approaches is not just to apply standard techniques in corpus linguistics, but also to find underlying theoretical links and/or practical implications. At the same time, many questions in subject areas other than linguistics have linguistic implications which are rarely explored. If it is true that the "words we use in daily life reflect who we are and the

social relationships we are in" (Tausczik & Pennebaker 2010: 25, Pennebaker et al. 2003), then it would be vital to pay much more attention to people's language use even outside linguistics – especially in the social sciences. With the question what people actually mean when speaking of themselves as being spiritual, religious or neither, this paper addresses such a linguistic phenomenon that has recently been vividly discussed in the field of psychology of religion (Ammerman 2013, Streib & Hood 2011), but without paying sufficient attention to its linguistic dimension. Its methodological objective is to show how introducing a corpus linguistic approach to empirical studies in the field of psychology of religion opens new problem-specific insights and – at the same time – makes a significant contribution to ongoing debates on mixed-method and cross-cultural comparative approaches in corpus linguistics (Dörnyei 2007, Mahlberg 2014). After reviewing recent studies in both fields, we will first describe our methodological framework. Then, we will present the results of our corpus linguistic study of language use as part of a comprehensive empirical study on semantics of *spirituality* in Germany and the USA. Finally, these results will be discussed with regard to their contributions to the research on *spirituality* and *religion*, as well as to a consideration of mixed-method and cross-cultural comparative approaches in corpus linguistic methodology.

2. Cross-cultural studies on semantics of *spirituality* and comparative approaches in corpus linguistics

In recent years, discussions in the field of psychology of religion have focused on a phenomenon labelled as a 'spiritual turn' (Houtman & Aupers 2007) or a 'spiritual revolution' (Heelas et al. 2005). Current international large-scale surveys such as the Religion Monitor (Bertelsmann-Foundation 2009) illustrate that the self-identification "spiritual" is gaining popularity, and thus an increasing number of people prefer to speak of themselves as being "spiritual and religious," or "spiritual but not religious" (Streib et al. 2009: 36-42, Streib 2008). In the USA, as Streib et al. (2009: 39) have calculated from the data of the Religion Monitor, a great majority identify as "more spiritual" (31.3%) or "equally spiritual and religious" (45.5%). In European countries with a higher degree of secularity, this prevalence is significantly lower, but nevertheless in Germany for example, there is one quarter of the population self-identifying as "spiritual," and the number tends to increase (Keller et al. 2013). The statistically observed phenomena mirror an on-going transformational change in everyday language that is nearly unexplored: "[...] we have recently become familiar with the

category 'spiritual but not religious' without knowing what this means to those who identify themselves as such" (Barker 2007: iii).

Corpus linguistics offers a methodology for exploring patterns of language that can also be interpreted from cross-disciplinary perspectives (for examples see: O'Keeffe & McCarthy 2012:545-645). The question how meaning is created, transported and interpreted in language use designates the interface where linguistic and extra-linguistic interests meet. While corpus linguistics looks at the actual use of language and its inherent patterns, other disciplines such as psychology of religion, may ask for the interrelation of such patterns with people's perceptions and contextual (individual, social, religious, etc.) conditions. The study of the 'semantics of spirituality' (Keller et al. 2013) means exactly such contextual constructions of meaning, which are reflected in language use as well as in social or cultural contexts.

From a corpus linguistic perspective, a specific field of research where those questions have recently been thoroughly discussed is corpus-driven discourse analysis (Baker 2006, Partington 2010). If we define 'discourse' in a general way as "the place where meanings are created and interpreted" (Mahlberg 2014: 216), the link to a search for subjective semantics becomes evident. In her recent research report, Mahlberg (2014) identifies an increasing body of research using corpus methodology to elucidate aspects of social reality. Following the lines of critical discourse analysis, certain studies employ corpus methods to explore common stereotypes or preconceptions about social groups in public texts (e.g. Baker et al. 2013), while others focus more strongly on cultural contexts and aim to explore the meaning of so-called cultural key words like *sustainable development* or *globalisation* (e.g. Mahlberg 2007, Teubert & Čermáková 2004). Teubert (2007) looks at the Catholic social doctrine by means of a corpus-driven critical discourse analysis. In contrastive approaches, corpora are used to compare specific discourses in order to identify discourse strategies or group specific argumentation patterns (e.g. Scott & Tribble 2006). Altmeyer (2011, 2015) uses a cultural and contrastive corpus approach within the field of religious education and theology.[1] He investigates the language use of students writing texts about God and contrasted it to the God-talk of professional religious speakers. In line with this corpus-driven approach to discourse analysis, our present study draws attention to the discourse of *spirituality* and *religion* and looks for cultural specifics (USA versus Germany) and contrastive profiles (*spirituality* versus *religion*) in language use. Unlike previous studies, we do not look on naturally occurring language in a narrow sense. Because we are highly interested in the interrelation between language use and individual and contextual background variables we refer to texts that

resulted from a comprehensive empirical study. In doing so, we follow the position of Baker (2006: 15) using corpus linguistics as a methodological key element in triangulation settings.

Concerning our specific question of subjective meaning of *spirituality* in contrast to *religion*, studies in the USA and Europe have focused on people's self-description as "spiritual" or "religious" (see e.g. Zinnbauer et al. 1997, Greenwald & Harder 2003, Schlehofer et al. 2008, LaCour et al. 2012, Keller et al. 2013). Taking into account that different methods and sample restrictions only allow for hypothetical conclusions, we sum up the results of recent studies in the form of trend hypotheses.

i. Focusing on general semantic patterns, *spirituality* tends to replace *religion* in the sense that *spirituality* seems to have attracted almost every meaning which is connected to *religion*. As frequencies of self-identifications in the general population indicate, a shift from *religion* to *spirituality* is taking place, especially in the USA (Fuller 2001, Hood 2003, Streib et al. 2009). While *spirituality* also appears as semantically growing, "religion only" is getting semantically poor. Due to the Euro-secular tradition, in Germany both concepts are more critically perceived (Keller et al. 2013).

ii. Though they are widely overlapping, *spirituality* and *religion* differ in one major semantic aspect: *spirituality* is more often embedded in personal experience, characterized by flexibility and openness and therefore more positively evaluated, whereas *religion* is more strongly related to organizational and institutional aspects, being associated with strictness and narrowness (Schlehofer et al. 2008, Zinnbauer et al. 1997: 560, Keller et al. 2013, Streib & Hood 2011, critically: Ammerman 2013: 259).

iii. The search for general definitions and trends obscures the fact that there is a plurality of subjective meanings. How someone identifies him/herself as being spiritual, religious or neither strongly influences his or her concept of "spirituality" or "religion" with a wide range of possible meanings from belief in a higher power to commitment to belief systems (Greenwald & Harder 2003, Schlehofer et al. 2008, LaCour et al. 2012, Keller et al. 2013).

Looking critically on these trend hypotheses, we can identify linguistic implications that have not been addressed so far. Previous studies refer implicitly to the question of a transforming semantic prosody of the key terms *spirituality* and *religion* when they broach the issue of linguistic patterns, semantic contrasts and plurality of meaning. But nowhere has the language use of people been addressed systematically. We propose to relate and possibly correct previous top-down approaches to a straightforward bottom-up analysis of peoples' subjective definitions of *spirituality* and *religion*. To this end, we introduce a corpus linguistic approach to the psychological study of subjective semantics. Our minimal assumption (Mahlberg 2005: 31-39) is that the language use of people writing short texts about what they would call *spirituality* or *religion* will provide new insight into the subjective and cultural meaning of these terms. Therefore, our research questions are these: can we identify linguistic patterns in subjective definitions of *spirituality* and *religion* that differ (i) by cultural context, (ii) by semantic context, and (iii) by self-identifications as spiritual, religious, or neither?

3. Corpus description and methodological questions

The corpus for our study is part of the Bielefeld-based Cross-cultural Study on Spirituality with participants ($n = 1,886$) in the US and Germany.[2] This study combines multiple instruments such as questionnaire data, personal interviews, and an experimental task. The online-questionnaire includes general demographics and several measures that allow detailed profiling of research participants' self-identifications as spiritual, religious or neither (for more details see: Keller et al. 2013). Additionally, the questionnaire offers a space for free text entries where participants could give their personal definitions of the terms, by answering the following two questions: "How would you define the term *religion*?" and "How would you define the term *spirituality*?" The questions were presented in the first part of the questionnaire soon after the demographics section. At that very moment, participants only knew that they were taking part in a study on spirituality, so that their language use would not be influenced by definitions and items related to *spirituality* or *religion* or similar words which were offered later. Here, we report the linguistic analyses of the two corpora compiled of these free-text entries summing up to about 40,000 tokens in total for the US and 30,000 for the German sample (see Table 1). Though only containing elicited data, our corpus can be seen as a sample of authentic language, since participants' attention was not actively placed

on language use or influenced by earlier formulations in the questionnaire, so that a corpus-driven search for linguistic patterns seems reasonable (Gilquin & Gries 2009: 7).

Table 1. Corpus statistics: free-text entries on *spirituality* and *religion* of the Bielefeld-based Cross-cultural Study on Spirituality split by spiritual self-description (Group 1-4)

Part of corpus		Group 1	Group 2	Group 3	Group 4	Total
Spirituality (US)	**N**	60	276	545	158	1,039
	tokens	981	5,361	12,481	2,948	21,771
	types	353	951	1,624	718	2,211
Spirituality (GER)	**N**	73	134	364	156	727
	tokens	1,489	2,798	8,413	2,595	15,295
	types	652	986	1,936	1,015	3,108
Religion (US)	**N**	59	279	545	161	1,044
	tokens	914	4,753	10,618	2,927	19,212
	types	282	960	1,728	748	2,286
Religion (GER)	**N**	73	134	363	158	728
	tokens	1,313	2,768	6,887	2,729	13,697
	types	537	1,039	2,034	1,091	3,236

The quantitative data collection was closed in early summer 2011. In the American sample, we have $n = 1,045$ free-text entries of participants with an age range from 15 to 82 years ($M = 34.7$, $SD = 14.7$) and with 62.9% being female. In the German sample, we have $n = 742$ participants with an age range from 17 to 90 years ($M = 43.5$, $SD = 14.0$) and 57.5% being female. Regarding education, comparison with OECD data indicates that a much higher percentage of well-educated respondents from both countries are found in our data (in the American sample, 50.4% have upper secondary, not tertiary education, 49.4% have tertiary education; in the German sample, 42.8% have an upper secondary, not tertiary education and 55.9% have completed tertiary education), while lower-educated people are under-represented.

For the analyses reported in this article, data were split according to the respondents' self-identification of being religious or spiritual. To assess this, we used a forced choice four item format including the options "more religious than spiritual" (Group 1), "equally religious and spiritual" (Group 2), "more spiritual than religious" (Group 3) and "neither religious nor spiritual" (Group 4). Ratings to this item have been used for a division into four sub-groups and sub-corpora. About every second participant in the US sample (52.2%) and in the German sample (49.1%) self-identified as "more spiritual than religious" (Group 3). Thus, compared to general population, this group is strongly over-represented. Self-identifying as "more religious than spiritual" (Group 2) is, in contrast, the option least chosen (5.9% US, 10.2%

Germany). For the US, those identifying as "equally religious and spiritual" (Group 3) are the second-largest group (26.7%), in the German sample those identifying as "neither religious nor spiritual" (Group 4) are taking the second-largest position (21.6%).

The sexes are differently distributed among the four sub-groups, but the distributions within both language-subsamples resemble each other: almost two-third of the "more spiritual than religious" group (Group 3) are women (US: 64.9%; GER: 62.9%). This also holds for the "religious" groups (Group 1; Group 2) in both language-subsamples – with the exception of even 71.1% females in the German "more religious" group. In the American "neither religious nor spiritual" group (Group 4), gender is almost equally distributed (50.9% male); in the German subsample, however, a majority of 65.6% is male.

Exploring semantics in psychology of religion means asking what people actually mean when they use the words *spirituality* or *religion*. The main focus of this study is therefore on linguistic patterns reflecting lexical differences between definitions of both concepts that originated from different groups of individuals. In terms of Sinclair (2004), we are looking for 'semantic prosodies' of our key terms *spirituality* and *religion* with special attention to cultural-linguistic and group-specific contrasts. For our corpus linguistic approach we focused mainly on key word and concordance analyses and semantic interpretation. As a considerable body of research shows, key word analysis offers a solid way to look for contrasting profiles in language use, especially in regard to typical expressions and words that characterise both the content and the style of texts (Bondi & Scott 2010, Scott & Tribble 2006: 55-72, Wynne 2008: 733). It has been deemed crucial that a theoretical framework is needed to enable semantic interpretations of key words (Mahlberg 2014, Teubert 2010). Following a corpus-theoretical approach (Mahlberg 2005), Altmeyer (2011: 141-157) describes this interpretational process as a step by step development of exploratory hypotheses which takes analytical and theoretical context information into account. Here, the categorisation or classification of key words plays an important role (Baker 2010: 133-141, Wynne 2008: 722-724). To this end, analytical instruments like concordance analyses (Mahlberg 2007), collocates (Baker et al. 2013) or key word links (Scott & Tribble 2006) as well as theoretical input (McEnery 2006) have been shown to provide useful results.

We operationalized our threefold research question by key word analysis using different reference corpora. In the following sections we give a detailed description of the methodology and discuss important methodological problems that arise in this context.

3.1 Cross-cultural comparison

Looking for cultural differences, we compared our corpora to reference corpora of standard German and American language. For the German corpora we opted for the core corpus of the Digitales Wörterbuch der Deutschen Sprache ("Berlin-Brandenburg Academy of Sciences and Humanities") while we compared the US corpora to the written part of the American National Corpus (ANC). In order to classify the key words, we referred to the theory of communicative action according to Habermas (1984, 1987) and distinguished among five general dimensions of communication: the subjective, the objective-material, the inter-subjective, the contextual and the aesthetic-formal dimension. For interpretation we used the five dimensions as a general heuristic model to handle the complexity of key word findings with minimal theoretical input.[3] After that, the cumulative keyness for these classes was computed comparing them once again to standard language; finally, we visualized normalized proportions as a vertical-bar chart for each term in both languages.

3.2 Contextual comparison

A comparison of the corpus texts on *spirituality* to those on *religion* aimed to yield contextual profiles. For this purpose we opted for a contrastive approach and calculated key words for *spirituality* with reference to our *religion* corpus and vice versa. In order to realize a more systematic interpretation related to the specific semantic sphere of *religion* and *spirituality*, we classified the key words in our *religion* corpus by means of a heuristics using Smart's (1998) model of religion, which distinguishes seven dimensions, i.e. the ritual, narrative and mythic, experiential and emotional, social and institutional, ethical and legal, doctrinal and philosophical, and finally the material dimension of religion. For our *spirituality* corpus, this deductive model did not explain much variation so that we decided to build semantic classes inductively by investigating links between key words. Here, we followed Scott's (2012: 199-201) concept of links as key word collocates of a given key word. We computed co-occurrences of key words within a collocational span of eight words, estimated the relational strength using a mixture of frequency rank and MI score (following Baker 2006: 102) and interpreted groups of linked key words semantically (as a result of concordance analyses).

3.3 Group comparison

We attempted to identify different semantic profiles according to spiritual or religious self-description. For this end, we used the self-descriptions of participants to split up the corpus material into sub-corpora according to their membership in one of the four groups presented in Table 1. For each group *X* we carried out a key word analysis with all other groups' definitions as reference corpus *Y*. In order to identify avoided words ($n = 0$), we also looked for key words of *Y* in comparison to *X*. Together, words that are typically often (positive key words) or seldom used (negative key words) characterize the group differences in language use.

3.4 Methodological problems

In the context of cross-cultural comparison on the one hand and key word analysis on the other hand, some methodological issues arose which we discuss here. As this paper tries to find cross-cultural differences in language use by comparing American and German corpora with reference corpora of standard language, which are obviously not designed according to the same criteria, the question of comparability arises. We must ask to what extent the differences found by such an approach indeed reflect on language use or rather are induced by differences between the reference corpora. To clarify this issue, we performed a control comparison by using another reference corpus called 'reference control corpus' (RCC). This RCC is defined to be a parallel corpus of translational equivalence consisting of texts being close to the register of the texts under investigation. For this purpose, we used two translations of the Bible from the late 20th century both of which are aligned with standard language, namely the New American Bible (revised 1986) and the German Einheitsübersetzung (1980). In order to keep the linguistic variation low, we restricted this RCC to the text of the four Gospels. The control examination had the task of comparing the calculated key word lists and thus to identify key words that are not due to patterns in our corpus material, but due to the design of the reference corpora. The comparison to standard language may be called robust against the selection of reference corpus if it meets two criteria: all key words only found against standard language belong to the semantic field of religion, and key words only identified from the RCC have to be untypical for biblical language. To give an example: let us assume that *car* would be found as key word by comparing our *religion* corpus against

standard language but not against the RCC. We than ought to conclude that either *car* is typical for religious or biblical language (which seems to be quite unlikely) or *car* is strongly under-represented in the reference corpus of standard English (editors did not like *cars*). And vice versa: if for instance *Jesus* was identified as key by using the RCC but not against standard language, we would have to conclude that either *Jesus* does not belong to biblical semantics (which sounds strange) or *Jesus* is strongly over-represented in the standard corpus (editors liked *Jesus*).

A second methodological issue concerns specific limitations of key word analysis connected especially to the statistical test procedures, which are used to calculate the key words. Several studies have pointed out in particular that key word calculation on the basis of absolute word frequencies may be misleading since "such frequencies in isolation […] do not take into consideration the degree of dispersion of the relevant linguistic variable" (Gries 2008: 403). A usual list of key words of a multi-text corpus extracted by log-likelihood ratio cannot distinguish between a key word that is evenly dispersed and another key word going back to only one corpus part or text, hence between 'global' and 'local' key words (Paquot & Bestgen 2009: 250). By comparing different procedures Paquot & Bestgen (2009: 263) show "that the selection of a statistical test strongly influences the type of results obtained in keyword extraction". As these problems are aggravated the more heterogeneous a corpus is, they otherwise concluded that if "one single text is analysed", key words still are best defined on the basis of frequency comparison "and the log-likelihood ratio is a good test to extract them" (Paquot & Bestgen 2009: 264). In all other cases, a strategy to consider frequency dispersion has to be developed.

For the current study, the question of dispersion is already integrated in our research design, since the corpora are divided into parts according to the participants' membership in one of the four groups of religious self-description. Because individual entries in our questionnaire range from a few words to some sentences only we did not interpret one single entry as a "text" but collated all entries of a group of participants into one group text. One hypothetical problem within this definition of corpus text could be that for example one single participant has made use of exceptional word repetitions so that a word would possibly become key for the whole group he or she belongs to. We checked this problem in the context of a further qualitative empirical study of the same text material so that word frequencies are effectively to be considered as head counts (Keller et al. 2016). The methodological problem of key word dispersion therefore boils down to the content-related question whether a term in our *religion* or *spirituality* corpus is a global or local key word, meaning whether it is typical

for all groups of participants or only for some or even one group. Our third research question exactly covers this ground. In the light of the above we decided to use the standard key word procedure as implemented in *WordSmith Tools 6* (Scott 2012) together with log-likelihood statistics since dispersion problems are controllable.

4. Profiling country specific concepts

Looking for the meaning of *spirituality* and *religion*, we first try to profile country specifics. Do the definitions of the terms given in the survey vary because of different cultural and linguistic contexts? In answer to this research question we looked for key words using standard language as comparison norm. The results have been filtered for lexical categories (selection of nouns and full verbs) and frequency ($n \geq 10$). Before presenting this, we will first consider the methodological question in how far the results depend on differences between the reference corpora of standard language. We checked the key word lists resulting from comparison to standard language by using our RCC ($n \geq 10$, $p < 10^{-8}$). The result is that they are highly identical, reaching from 114 matches out of 177 (64.4%) for the US spirituality corpus to 77 out of 96 (80.2%) for the German religion corpus (religion-US: 115/159=.72, spirituality-GER: 101/137=.74).

To consider the rest, Table 2 contrasts all words (selection: nouns and full verbs) that are only identified as key by one reference corpus. The table has to be read as follows: The term *Jesus* was found key in the US *religion* corpus when the reference corpus was the ANC and occurred 599 times in the RCC. It definitely belongs to religious language. The term *experience* occurred as key word when the reference corpus was the RCC and has been correctly ignored by the original key word procedure as not being religious (RCC frequency n = 0). The table shows that both criteria of comparability (see Section 3.4) are met, whereby the second (key words found by RCC must be untypical for biblical language) is most clearly to be seen: RCC frequencies are completely near or equal to zero with the only exception of *think* (13). But as the German equivalent *denken* is parallely found, this discrepancy is also explicable. The first criterion is obviously met by all terms like *creation*, *Jesus*, *love*, *powers*, *prayer*, etc. They are correctly identified as religious by comparison to standard language. Other key words occur in both languages (*beings/Menschen*, *man/Mensch*, *path/Weg*, *world/Welt*) so that their coming up is correct, too. Only one term for the American context remains critical as it does not unambiguously belong to religious semantics and its RCC

frequency is low: *follows*. So with this single exception, our procedure of key word extraction is robust.

Table 2. Control comparison of key words

Corpus	KW vs. RC of standard language *only*	KW vs. RCC *only*
Religion (US)	beings (n = 7*), fear (22), follows (1), Jesus (599), living (12), man (280), path (8), world (98)	experience (n = 0*), explain (2), feel (1), groups (3), help (5), humans (0), individual (0), nature (1), part (5), sense (0), think (13), type (0), values (0), views (0)
Spirituality (US)	body (40), creation (2), Jesus (599), love (56), path (8), peace (25), powers (6), prayer (11), spirits (14), things (97), way (72), worship (16)	control (0), definition (0), focus (0), idea (0), ideas (0), individuals (0), part (5), rules (0), state (0), system (0), terms (1), values (0), view (0)
Religion (GER)	Christus (9), Gottes (148), Jesus (792), V/vertrauen (3), Welt (109), W/wissen (30)	D/denken (0), Rahmen (0), Sinne (0)
Spirituality (GER)	Erde (49), Gebet (8), Gottes (148), Macht (62), Mensch (45), Menschen (181), Wahrheit (32), Weg (126)	Art (3), Einheit (1), Erkenntnis (1), Form (4), Freiheit (1)

* RCC frequencies

After having checked the validity of key word calculation we now turn to the presentation of our results of cross-cultural comparison. Tables 3 and 4 exemplarily show the first 45 key nouns and verbs for *religion* and *spirituality* in the US and German corpus arranged by semantic classes and sorted by keyness. Key words that only occur for one corpus and therefore may point on cross-cultural differences have been italicized.

Table 3. Highest scoring 45 key words for *religion* (US and GER) compared to standard language arranged by semantic classes, sorted by keyness[*]

Semantic class: Subjective	
GER	*Rückverbindung* (n=10), *Rückbindung* (10), *Sinn* (23), Existenz (14), Verbindung (15), *Halt* (10), *fühlen* (10)
US	faith (72), *person* (54), relationship (34)
Semantic class: Objective-material	
GER	Gott (157), G/glaube (124), G/glauben (124), Religionen (47), Dogmen (39), Regeln (60), Glaubens (30), Götter (29), Kirche (41), Macht (55), Traditionen (19), Glaubenssätze (10), Institution (17), Jesus (15), Dogma (10), Gottes (19), Wesen (22), *Weltanschauung* (12), Gottheit (10), *Institutionen* (13), Bibel (11), Christus (10), *Kirchen* (11), Tradition (12), *W/wissen* (22), Vorstellungen (10)
US	belief (266), beliefs (229), God (227), *set* (189), rules (128), *system* (121), believe (91), dogma (39), doctrine (39), gods (43), power (83), church (59), believing (28), *define* (36),

traditions (29), being (95), religions (23), *organization* (49), deity (20), doctrines (17), teachings (19), *followers* (19), *follow* (30), bible (21), believes (23), deities (11), *afterlife* (10), guidelines (18), *following* (25)

Semantic class: Inter-subjective

GER	Menschen (116), Glaubensgemeinschaft (27), Gemeinschaft (46), Religionsgemeinschaft (13), Zugehörigkeit (18), *Verantwortung* (12)
US	group (132), people (182), community (56), adherence (18), denomination (12)

Semantic class: Contextual

GER	L/leben (80), Welt (37)
US	life (76)

Semantic class: Aesthetic-formal

GER	Rituale (29), Ritualen (15), Riten (18), Form (20)
US	*worship* (115), rituals (53), *practices* (64), practice (45), *worshiping* (14), *worshipping* (13), way (76)

* $p < 10^{-6}$ (reference corpus: DWDS core corpus respectively ANC written)

Table 4. Highest scoring 45 key words for *spirituality* (US and GER) compared to standard language arranged by semantic classes, sorted by keyness*

Semantic class: Subjective

GER	Geist (n=62), S/suche (38), Verbundenheit (23), Bewusstsein (19), Achtsamkeit (11), Sinn (37), Spirit (11), Verbindung (31), *Einklang* (18), spüren (18), fühlen (22), L/liebe (35), Kraft (33), *Offenheit* (13), Existenz (21), Seele (27), Erfahrungen (21), Erfahrung (22), erfahren (21), Energie (15)
US	spirit (95), connection (99), relationship (117), feeling (74), faith (68), existence (55), *person* (83), soul (56), sense (75), connectedness (16), *individual* (50), meaning (37), understanding (35), awareness (24), feel (45), *purpose* (24)

Semantic class: Objective-material

GER	G/glaube (86), Gott (88), G/glauben (70), *Esoterik* (22), *Jenseits* (35), Universum (20), Dinge (38), Realität (23), Wesen (34), *Materie* (16), *Religionen* (12), erkennen (24), Dingen (18), W/*wissen* (34)
US	belief (269), God (237), believing (90), being (201), power (133), beliefs (59), universe (58), believe (73), *Christ* (36), *Jesus* (38), reality (39), *define* (30), essence (18), *creator* (16), things (68), science (29), force (35), *bible* (18), *deity* (11), *guides* (15)

Semantic class: Inter-subjective

GER	Menschen (62)
US	beings (23), *humanity* (15), *peace* (25)

Semantic class: Contextual

GER	L/leben (160), Welt (66), *Alltag* (16), Natur (34), Lebens (30)
US	life (161), world (97), nature (38)

Semantic class: Aesthetic-formal

GER	Meditation (27), *Wahrnehmung* (15), *Beschäftigung* (14), wahrnehmen (11), Gebet (11)
US	living (15), prayer (19), *worship* (15)

* $p < 10^{-6}$ (reference corpus: DWDS core corpus respectively ANC written)

Comparing the key word lists of both languages, surprisingly many similarities can be found. 67 out of 90 key words (74.4%) listed in Table 3 and 69 out of 90 (76.7%) in Table 4 can be

read as inter-linguistically shared key words. This indicates a quite low level of cultural-linguistic difference. Compared to standard language, the semantic field for *spirituality* and *religion* in Germany and the US seems to be astonishingly similar. If we further ask for the semantic intersection of both terms by looking for key words that are key for the *spirituality* as well as the *religion* corpus we can see: there are many shared key words showing that – in both languages – the concepts are located within the same subject area, notwithstanding different weightings in detail.

In order to describe the cross-cultural differences more carefully we consider the italic terms in Tables 3 and 4 together with the semantic classes. For *religion*, most differences occur in the subjective, material and aesthetic dimensions. German speakers make a relation to aspects of certainty (*Rückbindung* ("bonding"), *Halt* ("footing"), *Vertrauen* ("confidence"), *Hoffnung* ("hope")) while in the American context people as members of a concrete *religion* are addressed (*followers*, *believers*). The latter tallies with the observation that terms like *practices* and *worship* belong to the semantic prosody of *religion*. It has to be noted further that there are not any key words in the US sample that are unique for *religion* in its subjective dimension; this points to the conclusion that there is not any specific profile of subjectivity within *religion*. *Religion* can be identified by affiliation, while *spirituality* appears not as something one can belong to as a member. Beyond the question of affiliation, cultural differences in key words expressing social values can be found in words such as *Verantwortung* ("responsibility") related to the German notion of *religion*, while *peace* and *humanity* are connoted to the American definitions.

Looking on *spirituality* the subjective and objective-material dimensions once again show the most interesting cultural linguistic profile of difference. In the German sample, *spirituality* is related to *Offenheit* ("openness") and *Einklang* ("harmony"), which opens a field of clearly non-organizational religiousness: *Esoterik* ("esotericism"), *Materie* ("matter"). Different to the German context, the American word is connected to explicitly Christian vocabulary like *Jesus*, *creator*, *Christ* and *Bible*. Additionally, the question of *purpose* is something that makes the American context distinguished from the German one.

Beyond these differences in detail, the question of cultural linguistic differences is now addressed by comparing the proportions of key word classes. The result, as indicated in Figure 1, is quite clear. First, attending to concepts, language use about *religion* appears to be dominated by the objective-material dimension, while all other dimensions tend to be of no special relevance. For *spirituality*, however, while also being portrayed by content, the subjective factor appears to be of almost equal importance. Second, the patterns for the

German and the US sample are nearly identical – with the only exception that German speakers attach about twice as much importance to the contextual dimension of *spirituality* than the English-speaking respondents. Altogether, our first conclusion is this: compared to standard language, the concepts of *spirituality* and *religion* seem to be more similar than expected; they appear to compete in the same field. The cultural linguistic difference between the German and the US sample is low.

Figure 1. Proportions of cumulative keyness[*] for semantic classes, split by sub-corpora (spirituality GER/US, religion GER/US)

[*] Keyness calculated per semantic class, $n \geq 10$, $p < 10^{-6}$ (reference corpus: DWDS core corpus respectively ANC written); visualization of cumulative keyness proportions ($\sum = 1.0$).

5. Contrasting contextual concepts

When looking "from the outside," as in the previous section, the concepts appeared to be more similar than expected. In order to sharpen the contrasts and attend to differences, the reference for comparison can be changed and focused on the nearer context. Tables 5 to 8 present the contrasting profiles and show key words (selection: nouns) resulting from a direct internal comparison of our corpora.

Table 5. Key words (nouns) *religion* vs. *spirituality* (GER sample, $n \geq 5$, $p \leq .0025$)

Regeln (n = 60), Kirche (41), Gemeinschaft (46), Glaubensgemeinschaft (27), Gott (157), Dogmen (39), Götter (29), Religionen (47), Glaubens (30), Rituale (29), Menschen (116), Glauben (124), Traditionen (19), Zugehörigkeit (18), Religionsgemeinschaft (13), Institution (17), Riten (18), Ritualen (15), Rückverbindung (10), Rückbindung (10), Angst (10), Glaubenssätze (10), Glaubensrichtung (9), Organisation (9), Tradition (12), Dogmatismus (8), Gläubigen (8), Intoleranz (8), Glaube (123), Macht (55), Kirchen (11), Glaubenssystem (7), Institutionen (13), Halt (10), Gottheit (10), Lehre (10)

Table 6. Key words (nouns) *religion* vs. *spirituality* (US sample, $n \geq 5$, $p \leq .0025$)

set (n = 189), group (132), rules (128), beliefs (229), people (182), worship (115), system (121), organization (49), community (56), rituals (53), practices (64), church (59), members (25), gods (43), followers (19), traditions (29), structure (26), adherence (18), doctrine (39), doctrines (17), dogma (39), worshiping (14), practice (45), fear (13), worshipping (13), regulations (17), believers (10), views (10), groups (16), guidelines (18), behavior (18), texts (9), religions (23), behaviors (12), stories (8), form (22), deities (11), rites (7), institution (13), denomination (12), order (21), way (76), code (14), tradition (14)

Table 7. Key words (nouns) *spirituality* vs. *religion* (GER sample, *n* ≥ 5, *p* ≤ .0025)

Geist (n = 62), Natur (34), Meditation (27), Seele (27), Jenseits (35), Esoterik (22), Materie (16), Suche (38), Leben (160), Universum (20), Realität (23), Verbundenheit (23), Beschäftigung (14), Einklang (18), Dingen (18), Geistes (12), Körper (20), Dinge (38), Bewusstsein (19), Kraft (33), Wahrnehmung (15), Energie (15), Dimension (9), Offenheit (13), Alltag (16), Gefühl (8), Kontakt (8), Bewußtsein (8), Erde (15), Lebens (30), Liebe (35)

Table 8. Key words (nouns) *spirituality* vs. *religion* (US sample, *n* ≥ 5, *p* ≤ .0025)

connection (n = 99), spirit (95), feeling (74), soul (56), self (59), relationship (117), sense (75), knowing (31), energy (25), awareness (24), being (201), science (29), universe (58), life (161), meaning (37), peace (25), connectedness (16), force (35), reality (39), world (97), individual (50), understanding (35), existence (55), essence (18), state (13), forces (20), mind (25), things (53), realm (15), presence (19), prayer (19), love (28), emotions (8), nature (38), meditation (12), feelings (12)

Having furthermore classified the key words by means of Smart's (1998) dimensional model of *religion*, a negative finding becomes immediately evident: the material dimension, encompassing religious objects, places and building, etc., is not present at all in both corpora. Additionally, the narrative dimension is only addressed by Americans (*texts*, *stories*). The dogmatic-philosophical and social-institutional dimensions, however, dominate the texts: they are represented by 9, respectively 11 key words (out of 44) in the US and 14, respectively 11 key words (out of 36) in the German corpus. Together they comprise 61% (GER) and 50% (US) of the whole keyness. Key words assigned to these two groups are largely identical in both languages (e.g. *beliefs*, *traditions*, *doctrines*, *Church*, *community*, etc.) with one major exception: *Gott* ("God") is key word for the German texts on *religion*, meaning that, unlike for American participants, for the German participants, *God* belongs to the semantics of *religion*, but not of *spirituality*.

Among Smart's (1998) other dimensions, the ethical and legal dimension dealing with rules about human behaviour seems to be of some importance for both German and American participants. It is indicated by high scoring key words such as *Regeln/rules* and is even more diversified in the American corpus (*system*, *regulations*, *guidelines*, *order*, etc.). Furthermore, the ritual dimension is also clearly addressed (*rituals*, *worship*, etc.), with a high degree of congruence in both countries. Finally, Smart's (1998) experiential-emotional dimension is of special interest, because it sheds light on how *religion* is evaluated in contrast to *spirituality*: in both languages, *religion* is related to *fear/Angst*; in the German corpus, we even find further expressions of negativity like *Intoleranz* ("intolerance") and *Dogmatismus* ("dogmatism"), but also positive aspects like *Halt* ("footing") and *Rückbindung* ("bonding").

Comparable negative evaluations also occur in the American corpus, in adjectives such as *rigid*, *ritualistic* and *man-made*.

The key word tables for *spirituality* show the contrasting context profile revealing obvious differences that emerge from direct comparison to the *religion* corpus. All institutional, doctrinal or legal aspects disappear and are being replaced by something new shimmering between various polarities like *spirit*/*Geist* and *Materie* ("matter"), *body*/*Körper* and *soul*/*Seele*, *knowing* and *feeling*, or *connectedness*/*Verbundenheit* and *Offenheit* ("openness"). From this we conclude that there exists more variety in the definitions of *spirituality* than of *religion*.

In order to structure this variegated picture, we investigated the links between key words. By looking on the most frequent co-occurring key words (*joint n* ≥ 5), we were able to identify three groups for the German corpus and semantically interpret them as three different conceptions of *spirituality*:

i. Conception "spirit and soul": The German key words *Geist* ("spirit") and *Seele* ("soul") are strongly linked with each other (*MI* = 6.37); furthermore, they share the relationship with the key words *Körper* ("body") and *Materie* ("matter"). This first group of key words seems to represent a conception of *spirituality* as a specific holistic way of life: integrating mental and physical dimensions of human life.

ii. Conception "life": The key word *Leben* ("life") is linked with seven other key words building a kind of semantic network, comprising *Liebe* ("love"), *Kraft* ("power"), *Bewusstsein* ("awareness"), *Realität* ("reality"), and *Natur* ("nature"). We interpret the conception of *spirituality* behind this network of terms as a specific footing of life. *Spirituality* is connected to elementary values of human life.

iii. Conception "perception": A third semantic group is defined by the two strongly related (*MI* = 7.19) key words *Wahrnehmung* ("perception") and *Jenseits* ("afterlife"). Within this context, *spirituality* is connected to specific phenomena transcending inner-wordly aspects of life.

For the American corpus, the picture is slightly more complex. By looking on the most frequent links between key words (*joint n* ≥ 8), we were able to identify three major and one smaller group of key words representing different conceptual focal points.

i. Conception "mind and soul": The English key words *mind* and *soul* co-occur significantly often (*MI* = 7.07) and are furthermore linked with *spirit* and *relationship*. This grouping of words leads to the assumption that *spirituality* in our American corpus is used – within a first concept – to speak about mental processes in the field of *religion*. Thus, the focus of this conception on *spirituality* lies on the inner dimension of being religious.

ii. Conception "connection": The second network of key words is built around the term *connection* and comprises *feeling*, *reality*, *sense*, and *world*. Within this semantic group, the inner dimension of *spirituality* is linked to an external reality. *Spirituality* means the subjective feeling of being connected with something.

iii. Conception "meaning and life": The third group of key words stresses the significance of a *spirituality* concept, which is expressed in terms like *life*, *meaning*, and *understanding*. *Spirituality* is used not only as a descriptive term, but also as a concept for personal life orientation.

iv. Conception "practice": A small group, compassing only two, but strongly linked key words (*MI* = 9.74), is formed by *meditation* and *prayer*. This pair reveals a *spirituality* concept focused on typical practices that are identified as spiritual.

Taking these different findings together, we conclude: while competing in the same semantic field (see Section 4), *spirituality* and *religion* are profiled contrastingly. *Religion* is primarily perceived in its dogmatic, social and legal aspects with a tendency towards negative evaluation as being rigid, ritualistic or man-made. Compared with this, *spirituality* is more embedded in positively connoted personal-experiential aspects. The semantics of institution, dogma and rules disappear for the benefit of a variegated picture of different conceptions: *Spirituality* may stand for (i) a holistic lifestyle, (ii) the addressing of specific phenomena or typical practices, (iii) mental processes typically labelled with "mind and soul"; additionally, the term refers to (iv) a meaningful life orientation and (v) the feeling of living in connection with something or someone. Furthermore, our finding of only low cultural-linguistic differences reported in Section 4 is confirmed.

6. Linguistic portraits of groups

The third question to be addressed is whether *spirituality* and *religion* are to be understood as plural concepts. We wanted to know whether the definitions differ between members of different groups of participants. At the same time, this third approach addresses explicitly the methodological question of dispersion of key words insofar we now ask whether the patterns found in the previous sections characterize the whole or only parts of the corpus. Tables 9 to 12 list positive and negative key words (including *n* = 0 as avoided words) connected to *spirituality* and *religion* in both languages.

Table 9. Key words (nouns) for Group 1 compared to residual texts

	Religion (GER)	Spirituality (GER)	Religion (US)	Spirituality (US)
Pos. KW	Leben (n = 23[*]), Gott (31), Glaube (24), Jesus (6), Hilfe (4), Gottes (6) Sinne (4)	Bibel (3), Gott (17), Esoterik (6)	God (28), power (15), belief (24), relationship (6), conduct (3), bible (4), right (3)	spirits (4), church (3)
Neg. KW[**]	--	Natur (0), Menschen (1), Verbundenheit (0), Existenz (0), Körper (0), Bewusstsein (0)	world (0)	beliefs (0), living (0)

[*] Corpus frequencies, $n \geq 3$, $p < .05$
[**] Including "avoided" key words

Table 10. Key words (nouns) for group 2 compared to residual texts

	Religion (GER)	Spirituality (GER)	Religion (US)	Spirituality (US)
Pos. KW	Lebensweise (n = 4[*]), Liebe (8), Christus (7), Praxis (4), Jesus (7), Glaubens (11)	Spiritus (4), Spirit (6), Dimension (5), Alltag (7), Verbindung (11), Gottes (6)	God (83), study (7), faith (30), act (9), church (25), being (36), beliefs (73), practices (24), worshipping (7), teachings (9), […][**]	God (96), faith (31), spirit (39), worship (9), relationship (42), life (52), side (4), father (4), son (6), Jesus (15), […][**]
Neg. KW	Götter (1), Tradition (0), Wahrheit (0), Wissen (1), Vorstellungen (0), Vertrauen (0), Organisation (0)	Universum (0), Teil (0), Beschäftigung (0), Form (0), Erkenntnis (0), Tod (0), Einheit (0), Kräfte (0)	rules (17), fear (0), conduct (0), use (0), systems (0), behavior (1), stories (0), idea (0), salvation (0), term (0), […][**]	control (0), state (0), things (6), individual (5), universe (7), pursuit (0) existence (7), people (5), mankind (0), thinking (0), [...][**]

[*] Corpus frequencies, $n \geq 4$, $p < .05$
[**] Cut off after ten highest scoring key words

Table 11. Key words (nouns) for group 3 compared to residual texts

	Religion (GER)	Spirituality (GER)	Religion (US)	Spirituality (US)
Pos. KW	Regeln (n = 41[*]), Konstrukt (5), Unterdrückung (5), Dogmen (27), Lehren (7), Vorstellung (6), Glaubenssystem (6)	Liebe (27), Quelle (6), Freude (5), Sein (70), Einheit (9), Wahrheit (14), Gedanken (11), Wissen (25), Teil (13) Wissenschaft (13), [...][**]	groups (14), rules (86), self (6), lead (6), attempt (12), method (5), acts (5) expectations (5), business (5), excuse (5), […][**]	desire (14), morals (8), principles (7), laws (6), flow (6), heaven (6), experience (21), view (10), respect (5), happiness (5), […][**]
Neg. KW	Christus (0), Jesus (1), Leben (27), Glaube (47), Beziehung (1), Hilfe (1), Phänomene (1), Fragen (1), Gott (65)	Esoterik (3), Energien (0), Glauben (28), Kontakt (1), Glaube (36), Bezug (1) Geistes (3)	God (91), life (26), being (36), belief (122), day (0), study (1), power (34), faith (39), beings (2), worshipping (3), […][**]	term (4), powers (2) God's (0), belief (135), worship (4), gods (1), spirits (3), idea (4), thoughts (2) sense (34), […][**]

[*] Corpus frequencies, $n \geq 5$, $p < .05$
[**] Cut off after ten highest scoring key words

Table 12. Key words (nouns) for group 4 compared to residual texts

	Religion (GER)	Spirituality (GER)	Religion (US)	Spirituality (US)
Pos. KW	Götter (n = 15[*]), Einfluss (5), Erfindung (3), Märchen (3), Aberglauben (3), Verhaltensregeln (3), Weltvorstellung (3), Wesen (10), Phänomene (5), Antworten (4), [...][**]	Glaube (32), Blah (4), Esoterik (11), Glauben (23), Bedeutung (5), Begriff (9), Mächte (4), Übernatürliches (4), Versuch (5) Sinne (4), [...][**]	world (16), life (23), mythology (3), belief (61), group (34), deities (6), beings (6), meaning (4), leader (4), cause (3), […][**]	belief (59), nonsense (3), term (9), force (11), gods (4), existence (15), deity (5), body (9), things (14), nature (11), […][**]
Neg. KW	Gemeinschaft (3), Tun (0), Liebe (0), Mensch (0), Rahmen (0), Bibel (0), Gott (21), Gottheit (0), Vertrauen (0), Rückverbindung (0), [...][**]	Gott (5), Suche (1), Liebe (1), Wissen (1), Erde (0), Gottes (0), Vertrauen (0), Offenheit (0), Inneren (0), Gedanken (0), [...][**]	church (2), structure (0), religions (0), bible (0), God (21), laws (0), relationship (1), going (0), attempt (0), Jesus (0), […][**]	God (7), spirit (3), Jesus (0), Christ (0), relationship (6), love (0), live (0), awareness (0), being (16), bible (0), [...][**]

[*] Corpus frequencies, $n \geq 4$, $p < .05$
[**] Cut off after ten highest scoring key words

Group 1 consists of participants who describe themselves as being "more religious than spiritual." In this group, *spirituality* and *religion* seem to be very close to each other and associated with religious core vocabulary such as *God* and *Bible*, and, additionally, with *Jesus* in the German corpus. Especially in the German texts, the key words mirror two main

alternatives: either *spirituality* is integrated into the concept of *religion*, e.g. *der Bibel entsprechend, sein Leben ausrichten* ("to live according to the Bible"), or it is constructed as the very opposite: as *Esoterik* ("esotericism"). Corresponding to this, members of Group 1 (GER) avoid thinking of *spirituality* in naturalistic and universalistic terms. The second observation can also be found in the US corpus. There are members of Group 1 tending to separate *spirituality* and *religion*, because *spirituality* means *believing in spirits* and not attending *Church*.

Group 2 ("equally religious and spiritual") is more profiled. In the German sample, the difference line can be located between *religion* as a practice (*Praxis* ("practice"), *Lebensweise* ("way of living")) and *spirituality* as a dimension of awareness (key verb: *spüren* ("feel")). One may conclude that people who describe themselves as "equally religious and spiritual" tend to distinguish between the concepts. They use them to speak about different aspects of life. In the US sample, we see more similarities between *religion* and *spirituality*. Both concepts are strongly connected to *God* and *faith*. Nevertheless, *religion* is more located in institutional settings (*church*, *practices*, and as verb: *organize*) and *spirituality* fits more to thematic aspects of Christian religiosity (*father*, *son*, *Jesus*). Comparing the languages, we see a strong presence of Christian core vocabulary in the American Group 2, while the Christian core vocabulary is less visible in the German Group 2 than in the German Group 1, as we have seen. This may reflect the fact that the more traditional and perhaps conservative Christians assemble in the American "equally religious and spiritual" group (Streib et al. 2009).

Within Group 3, the "more spiritual than religious," we find the concepts most differentiated (it is, of course, the largest group in our sample): overall, *spirituality* seems to work as a distinguishing label to establish a border to the religious territory. *Religion* is associated with negative features such as *Unterdrückung* ("oppression"), *set of rules, laws*/*Regeln*, *dogma*/*Dogmen* while positive factors are avoided (see negative key words such as *Hilfe* ("help"), *Beziehung* ("relationship"), *power*, *need*). On the other hand, we find very positive connotations in the definitions of *spirituality* such as *desire*, *heaven*, *happiness*, *loving*, *help*, *love* or *morality* (German: *Liebe* ("love"), *Quelle* ("resource"), *Freude* ("joy"), *Einheit* ("unity"), *Wahrheit* ("truth"), together with key verbs like *erkennen* ("be aware"), *öffnen* ("open"), *erfahren* ("experience")). Looking on negative key words, we see that Group 3 writes mostly outside traditional religious language, regardless of which of both concepts they are considering: they do not speak about *God* or *Christ*, *worship* or *faith*, and *believing*.

If people choose to describe themselves as "neither religious nor spiritual" – this defines them as members of Group 4 – they simultaneously show a strongly negatively connoted linguistic concept of both *religion* and *spirituality*. We conclude that the self-concept is mirrored in the language chosen to define the terms. One can see this negative view in key words like *Erfindung* ("fiction"), *Märchen* ("fairy tale"), *Aberglauben* ("superstition") connected to *religion*, *Blah*, *Esoterik* ("esotericism") linked to *spirituality* in the German corpus, and *mythology*, *fear* as key words for *religion*, and *nonsense* for *spirituality* in the US corpus. Corresponding to these findings we can identify many positive values as negative key words meaning that they are avoided while writing about *religion* and *spirituality*. Additionally, Group 4 does not use any religious core vocabulary: in both languages *Bible*, *Jesus*, *God* are negatively key. Instead, they tend to use terms that are more routed in the philosophy of religion (including religious criticism): *gods*, *deities*, *powers*, *force*, etc.

In sum, the linguistic portraits of the groups of participants presented above show that language use differs significantly according to spiritual or religious self-description so that we were able to identify a specific set of key words for each group of participants: words that are both typically chosen and typically avoided while speaking about *spirituality* or *religion*. Comparing the concepts, we may conclude: people who describe themselves as neither religious nor spiritual (Group 4) rarely distinguish between *religion* and *spirituality* while these features are more common in the other groups. Here, the question is more how the difference line is constructed: either as opposition between competing concepts (especially Group 3 but in parts also Group 1) or as a polarity of complementary realities (Group 2).

7. Conclusion

Being part of a comprehensive cross-disciplinary study of subjective semantics of *spirituality* and *religion* in Germany and the USA, this paper examined a corpus of free text entries collected by a quantitative online-questionnaire and written in answer to the questions: "How would you define the term *religion/spirituality*?" The aim was to explore subjective understandings by paying attention to the language use of participants. Numerous findings of previous studies have been confirmed through our linguistic approach. Furthermore, new findings are revealed which complete the main deductive approaches in a fruitful way. First and foremost, on the basis of subjective language use, it can be shown that the concepts "spirituality" and "religion" are currently defined in a very similar way in both languages and

cultures. Much more similar, anyway, than one might infer from the very different religious situation in Germany and the US, and from the partially divergent history of concepts. Furthermore, specific key words can now be identified, which characterize the language use of different groups of people, namely those which they typically employ to talk about *religion* and *spirituality*, and those which they typically avoid.

To hypothesize overall semantic tendencies in the transforming and pluralizing field of *religion* and *spirituality*, we would conclude from our findings: compared to *spirituality*, the semantic profile of *religion* appears to be quite reduced to systemic aspects with a pejorative note, while *spirituality* seems to attract a wide range of possible meanings in the field of contrasting poles like "body and soul", "knowing and feeling", "spirit and nature", as well as "connectedness and openness". This finding is in line with one of the trend hypotheses formulated above: *spirituality* emerges as the notedly richer concept insofar as it is able to attract more positively connoted meaning than *religion*. Beyond this, there are scarcely any other positive aspects left that might be expressed by *religion*, but not by *spirituality*.

However, we have to be aware of the fact that, due to the sampling procedure, the "more spiritual than religious" group represented nearly half of our sample. Thus, the appearing semantic richness of *spirituality* in contrast to *religion* might at least in part be also a result of the overrepresentation of definitions preferring *spirituality* to *religion*. Our comparison to standard language could nevertheless clearly validate the hypothesis that *religion* and *spirituality* compete in the same semantic field. Where they are different, an institutional tenet-bound factor shifts to the foreground for *religion*; for *spirituality*, however, a subjective experience-oriented factor is gaining in importance.

From a methodological point of view, the above presented conclusions show how key word analysis can be employed to explore cross-cultural differences in language use and subjective meaning of concepts. Especially if the semantic prosody of specific concepts – like in our case "spirituality" and "religion" – is of interest, a contrastive approach using standard language as comparative norm has proven highly effective. In order to consider the methodological problems of a lack in comparability of reference corpora of standard language, the use of a reference control corpus (RCC) has been proposed and tested. If this RCC meets the double criteria of translational equivalence and proximity to the register of the research corpus, the extraction of key words can be checked for robustness against the choice of reference corpus of standard language. While in our study American and German Bible translations in contemporary language could fulfil these conditions, further studies of

concepts deriving from other thematic fields would of course have to face the challenge to identify any parallel corpus as appropriate RCC.

As a second contribution to corpus linguistics our study shows how corpus linguistic methods can be fruitfully integrated into a research area like psychology of religion, which is largely dominated by social-empirical methods. Similar cross-disciplinary research has been successfully implemented in other domains such as sociolinguistics, teacher education, and the study of different types of discourse. For research on religious phenomena in psychological, social or theological terms we see high potential for development. Linguistic patterns of language users are associated with their habitual behaviour and are correlated with formative social contexts and typical types of action. Therefore, it would be vital to pay much more attention to people's language use also in the field of religion (Altmeyer 2015). Our study shows how a search for textual patterns by means of corpus linguistic methods can become an integral part within a comprehensive research design, which includes further quantitative and qualitative instruments that illuminate the individual and the social context of a linguistic utterance. By triangulation of these different methods double value is gained: (i) Corpus linguistic investigation is embedded in an empirical exploration of extra-linguistic contexts. Especially a corpus compilation by means of a comprehensive empirical study does not necessarily have to be seen as problematic in terms of "naturalness" of corpus data. On the contrary, it offers the opportunity to connect samples of discourse to accurately described contextual conditions like socio-biographics, religious affiliation, or religious/spiritual self-description. (ii) By employing corpus methods, social-empirical research gains insight into its central medium − the language that participants use to articulate their understandings. It further opens up efficient inductive alternatives to the common use of strong theoretical constructs in quantitative studies, where the exploration of subjective meanings is methodologically tied up to *a priori* definitions of the concepts in question. However, combining corpus linguistic investigation with established standardized measures for constructs of interest might even provide an opportunity to complement bottom-up and top-down strategies of empirical research in a fruitful way. Such a triangulation of methods goes beyond a classical mixed-methods approach, meaning a "simple" combination of quantitative and qualitative methods, but it rather combines different disciplinary perspectives. From the experience of our research, we propose to go further into this direction.

Notes

1. Religious texts have from time to time been of interest for corpus linguists. Just to name an early study of catechisms using a dia- and synchronical contrastive approach one can refer to Dengler (1974). Recently, Oakes (2014: 149–206) has published a stylometric analysis of religious texts. What has, however, been underrepresented before the work of Altmeyer (2011, 2015) was the investigation of religious language use beyond canonical texts and official statements.

2. These 1,886 participants are the result of a sampling strategy that aimed at inviting especially participants who self-identify as "spiritual". Therefore, our sample includes ca. 50% "more spiritual than religious" participants – considerably more than in the general population in both the USA and Germany. For more information about sampling strategy and sample structure, see Keller et al. (2016).

3. Such attributions (as all classifications presented in this paper) are of course not without ambiguity but have to be understood as attempts to reach maximal plausibility.

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figure 1