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SPECIFICITY OF GUILT, SHAME, AND EMBARRASSMENT IN NORTH AMERICAN AND GERMAN CULTURES: CORPUS DATA

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Abstract: The article employs a corpus-based methodology that has been used to identify the peculiarities of the conceptual structures of the emotion concepts SHAME, GUILT, and EMBARRASSMENT in North American vs. SCHAM, SCHULD, and VERLEGENHEIT in German cultures. The application of the methodology involved qualitative and quantitative analysis of samples formed on the basis of English (COCA) and German (DWDS) corpora, allowing the determination the level of cross-cultural equivalence of these emotion concepts.

Keywords: emotion concept, cross-cultural equivalence, conceptual structure, semantics, language corpus.

"Zonder gevoel geen taal ('without emotion no language')".

Jos van Berkum

1. Introduction

The "emotional turn" at the end of the last century (Foolen 2022: 47) contributed to the rise of the "affectivism era" (see more details in: Dukes et al. 2021), during which the emotions have been actively studied not only in psychology (e.g., cognitive psychology, psychiatry, psychotherapy), but also in a number of other sciences that focus on humans and their emotional world (e.g., cognitive science, neuroscience, sociology). This scientific symbiosis led to the emergence of *affective science*, addressing the diverse issues of emotion-related affects. Affective science has in fact become a scientific field that



has encompassed more than a dozen scientific disciplines, which is why researchers are increasingly using the term *affective sciences* (Handbook of affective sciences 2003). The inclusion of linguistics in the affective sciences indicates that the latter's interdisciplinary methodology is quite objective in the study of emotions. The basis for this is the assumption that emotion labelling can play a role in the cognitive processes of processing emotional experiences, since through cognition, there is a correlation between a person's emotional level and the level of language (Foolen 1997). Therefore, words for emotions are key indicators of the knowledge about them (Barrett et al. 2011).

Emotions can be viewed as a complex phenomenon – emotion concepts (ECs) – manifested at the cognitive and linguistic levels (Kövecses 2020; Mizin et al. 2021b; Panasenko 2012; Wierzbicka 1999). ECs are sensitive to the influence of culture (Wilson & Lewandowska-Tomaszczyk 2019: 92), so culture-specific meanings contain both "culture-dependent" (derived from basic) and "culture-independent" (basic) emotions (Foolen 2012; Mizin & Ovsienko 2020; Ogarkova et al. 2013). Cultural marking of ECs is the basis for treating them as cultural concepts (Kollareth et al. 2018; Mizin et al. 2023; Ogarkova 2013; Panasenko et al. 2023; Soriano 2015).

The relevance of studying linguistic objectification of cultural concepts, in particular ECs, is primarily determined by today's globalization processes requiring successful intercultural communication (Kapranov 2016). The latter can be achieved only on condition of correct identification in the target culture (TC) of the cultural concepts most similar in their semantic structure to the concepts of the source culture (SC).

Finding cross-cultural equivalents for the EC of any SC is an extremely difficult task, as due to the dynamic and diffuse nature of the human emotional world, representatives of different linguistic societies encode, remember, and respond to emotions in different ways (Russell 1991: 427). This can be explained by the fact that the emotional world of a human balances between an individual and a group to which this individual belongs. On the one hand, the expression and experience of even universal emotions is somewhat subjective, as each person has a unique physiology as well as a different level of mental and moral development, which affects the way a particular emotion is expressed and perceived by an individual. On the other hand, the expression and perception of emotions depends to some extent on ethnic and socio-cultural factors, since each individual is part of a certain linguistic community.

The cultural marking of ECs is the reason why there are no complete equivalents among them, even in typologically close cultures (Mizin & Slavova 2023). Therefore, one of the acute problems that

arise in the cross-cultural transfer of ECs is the differentiation by representatives of the TC of the semantically similar concepts of the SC. This problem is exacerbated by the fact that even the bearers of the SC themselves cannot always fully distinguish between some ECs. For example, the ECs JEALOUSY and ENVY are so close in Anglo-Saxon culture that researchers are still working out the exact criteria for their distinction (Mizin & Slavova 2023). An illustrative example, characteristic not only of Anglo-Saxons, is the ECs that represent self-conscious emotions of shame, guilt, and embarrassment. This is obviously linked to the fact that due to the diffuse nature of the SHAME, GUILT, and EMBARRASSMENT ECs, it is difficult for individuals at the level of "naïve" worldview to clearly determine whether they feel shame, guilt or embarrassment in various shameful and unpleasant situations (Mizin & Slavova 2024). It is even more difficult for representatives of "foreign" cultures to distinguish between the ECs that reflect these three close emotions, as each culture has its own set of values and guidelines.

Cultural psychologists have found that cultural differences in emotions correlate with the basic value orientations in a particular language community. A comparison of Japanese and North American cultures (NAC), for example, revealed that the most common and intense emotions are those that correspond to the basic value orientations in these cultures. For example, anger is more relevant for the individualistic NAC, as this emotion denotes individual entitlement and establishes clear boundaries between individuals. In contrast, shame has a greater cultural significance for the collectivist Japanese community, as it plays an important role in maintaining social ties and adaptation of individuals in the community (Boiger et al. 2013a). These emotions can be culturally specific even within similar communities. Thus, there is a slight difference in the perception and expression of anger and shame between NAC and Dutch-speaking Belgians, as the former tend towards competitive individualism, while the latter prefer a more egalitarian version of individualism. Therefore, cultural practices promote the development of beneficial emotions (anger in the US, shame in Belgium) and the avoidance of harmful ones (shame in the US) (Boiger et al. 2013b). It is noteworthy that different levels of individualism in similar cultures can influence the formation of some specific characteristics of shame and guilt. For example, among Anglo-Saxons, a high individualism index (Hofstede Insights 2024) determined a greater privacy of shame, which brought the EC SHAME closer to GUILT in terms of sanctioning. As a result, the connection between the ECs SHAME and GUILT is highly relevant for Anglo-Saxons, which emphasizes their belonging to "guilt cultures". On the other hand, in German culture (GC), which also belongs to "guilt cultures" but has a lower index of individualism, shame is more public, i.e., it has a noticeable external sanction (Mizin & Slavova 2024: 246).

Against the background of the above, it remains unclear how similar/different are the semantic structures of those ECs that represent the self-conscious emotions of guilt, shame, and embarrassment in the individualist NAC and GC.

2. Aim, material, and methods

The aim of the proposed article is to identify, using a corpus-based methodology, the distinctive features of the conceptual structures of the ECs SHAME, GUILT, EMBARRASSMENT, SCHAM, SCHULD, and VERLEGENHEIT with the subsequent determination of the level of equivalence between these ECs in NAC and GC. The tested methodology involves qualitative and quantitative analysis of samples formed on the basis of data from the corpora of English (American version) and German – The Corpus of Contemporary American English (COCA) and Digitales Wörterbuch der deutschen Sprache (DWDS).

The following considerations are methodologically relevant for the proposed study:

- (a) Shame, guilt, and embarrassment are social emotions. However, it should be noted that scholars still have no consensus concerning the distinction between basic and social emotions. Therefore, some emotions, such as shame, are defined as basic emotions in some works, and as social emotions in others. This is probably due to the "dual" nature of shame, as despite the fact that it is not innate, it has at least several characteristics of basic emotions, primarily a clear physiological expression (facial flushing, gaze averting, head lowering, etc.) (Tracy & Matsumoto 2008: 11655).
- (b) Shame, guilt, and embarrassment are related but different emotions. This fact should be emphasised because Anglo-Saxons have a close connection between shame and guilt at the level of "naïve" worldview, so the lexemes *shame* and *guilt* can be interchangeable (Kollareth et al. 2018). Semantically close to them is the lexeme *embarrassment*. Despite the similarity in the meanings of these three lexemes in English, the emotions they denote are quite distinct (Krawczak 2018; Merkin 2017; Peeters 2020; Tangney 2003; Tracy & Robins 2004). The difference between these emotions is clearly demonstrated in Table 1, which shows their prototypical elements.
- (c) Methodologically important is also the idea that each EC, as a dynamic mental construct, is a "cocktail" of various meanings. These meanings indicate the connections of ECs with other cultural concepts – emotional, moral and ethical, ethno-cultural, etc. As a rule, each EC is dominated by emotional meanings, which, in turn, represent those ECs that closely correlate with it. It is therefore possible to identify in the conceptual structure of an EC the *emotional conceptual proximates* (ECPs) that are closest to it (Mizin et al. 2021a: 82). The hierarchy of the most relevant ECPs in the semantic structure of ECs can provide a clear idea of their content, which in turn makes it possible to detect rather imperceptible semantic differences when determining their cross-cultural equivalence.

Table 1. Prototypical elements of guilt, shame, and embarrassment used to create the different scenarios.
Source: Giorgetta et al. 2023

Elements referred to the protagonist of the story	Scenarios		
	Guilt	Shame	Embarrassment
Feeling an emotional experience	+	+	+
Feeling responsible for the actions	+	-	-
Thinking that there is a victim (unjust damage)	+	-	-
Self-criticism	+	-	-
Tendency to take action to repair the harm	+	-	-
Feeling tightness in the chest and restlessness	+	-	-
Thinking that there is a shared value	-	+	-
Thinking that there is a damage in the self-image	-	+	-
Desire to disappear	-	+	-
Looking down	-	+	-
Feeling blushing and hot flashes	-	+	-
Thinking that the situation is uncertain and unclear	-	-	+
Feeling not knowing what to do	-	-	+
Doubts on the correct action	-	-	+
Thinking that the self-image might be damaged	-	-	+
Thinking that the self-image might be damaged in presence of familiar, known people	-	-	+/-*
Thinking that the self-image might be damaged in presence of unknown people	-	-	-/+*

*The presence/absence of these prototypical elements is the basis for distinguishing two types of embarrassment (Giorgetta et al. 2023).

In view of the above, the proposed research methodology is based on the following procedures:

(a) Identifying similar and different meanings in the conceptual structures of the ECs GUILT, SHAME, EMBARRASSMENT in American and SCHULD, SCHAM, VERLEGENHEIT in German cultures by determining their most relevant ECPs. The latter are identified based on the frequency of the occurrence forms of their names in the COCA and DWDS corpora. To this end, for each of these ECs, a sample of 20 lemmas was formed, but only those that denote emotions. These lemmas were selected manually in accordance with the principle of the highest frequency (Table 2 and Table 3) on the basis of automatically generated lists of the occurrence forms of the query words *guilt*, *shame*, *embarrassment*, *Schuld*, *Scham*, and *Verlegenheit* (functions "Collocates" in COCA and "Wortprofil 2024" in DWDS). A sample of 20 lemmas is, in my opinion, quite sufficient to get a fairly complete picture of the semantic organisation of the analysed ECPs. Moreover, the lists in Wortprofil 2024 are limited to 100 collocates and co-occurrences of query words, so it is somewhat problematic to select from these lists more than 20 nominal lemmas denoting emotions.

(b) Establishing semantic similarity of the ECs GUILT, SHAME, EMBARRASSMENT, SCHULD, SCHAM, and VERLEGENHEIT, along with determining the level of cross-cultural equivalence between the ECs SHAME vs. SCHAM, GUILT vs. SCHULD, and EMBARRASSMENT vs. VERLEGENHEIT (Table 4).

(c) Verification of the results of the first two procedures by comparing the conceptual structures of the ECs GUILT, SHAME, EMBARRASSMENT, SCHULD, SCHAM, and VERLEGENHEIT based on two characteristics of their ECPs – valence and arousal (Table 5 and Table 6). The inclusion of these characteristics is explained by their importance in revealing the nature of emotions (Foolen 2015; Russell 2003). Valence describes the degree to which a stimulus causes a positive or negative emotion; arousal refers to the intensity or level of energy inverted in the emotion (Citron et al. 2014). The distinction between the notions of "arousal" and "intensity" is not essential for achieving the goal of the proposed study because the term *intensity* is synonymous with *arousal* (cf. also, e.g., Citron et al. 2014).

3. Results

The fulfillment of the proposed research's objectives required that the following criteria be taken into account when selecting corpora of English and German: a) the availability of the function to automatically generate a list of occurrence forms of the query word by frequency index; b) the proportionality in the size of the compared corpora; c) compliance with the time frames of the corpora creation; d) limiting the corpus material to one language variant (important due to the presence of a number of variants in English and German). COCA and DWDS meet these criteria to a large extent, since:

(a) In these corpora, by entering a query word, one can obtain lists of occurrence forms ordered by frequency (the "Collocates" function in COCA and the "Wortprofil 2024" function in DWDS). It is the frequency index that allows determining the relevance of both the studied ECs in the compared cultures and the ECPs that represent these ECs.

(b) COCA has a vast volume of 1 billion words. This means that the word frequency processed by the "Collocates" function is quite objective. The Wortprofil 2024 involves an even larger amount of material – 6 billion words, based on 12 corpora, e.g.: Die Welt (1999–2023); Die ZEIT (1946–2023); Wikipedia (2023). These corpora largely encompass the 8 genres (e.g., popular magazines, newspapers, Wikipedia) whose texts are balanced in COCA. The difference in the amount of material processed by "Collocates" and "Wortprofil 2024" is not fundamental to the proposed study, as it does not affect the determination of the relevance of the ECs and ECPs in NAC and GC on the basis of lemma frequency indicators. Moreover, the author of the study to some extent balanced the collocates frequency shown in the study samples (Table 2 and Table 3) by presenting them in terms of per 1 million words (pmw).

(c) "Collocates" and "Wortprofil 2024" process a significant part of contemporary texts, which is important in establishing relevant associations (conceptual links) of the representatives of NAC and GC.

(d) Both English and German have regional variants and there are significant differences between some of them (cf., e.g., Austrian and Swiss variants of German). Therefore, when comparing English and

German, a certain degree of proportionality should be observed and only one of the variants is to be chosen. Such proportionality exists between COCA and DWDS, as the former represents the American variant of English and the latter reflects the main (literary) variant of German.

Table 2. The most relevant ECPs of the ECs SHAME, GUILT, and EMBARRASSMENT.

Source: Own processing

N	SHAME		GUILT		EMBARRASSMENT	
	CPs	F./ pmw	CPs	F./ pmw	CPs	F./ pmw
1	GUILT	0.69	SHAME	0.69	SHAME	0.22
2	FEAR	0.23	FEAR	0.25	HUMILIATION	0.07
3	EMBARRASSMENT	0.22	REMORSE	0.16	FEAR	0.07
4	HUMILIATION	0.09	DOUBT	0.16	FRUSTRATION	0.04
5	ANGER	0.09	GRIEF	0.13	GUILT	0.04
6	PRIDE	0.07	ANXIETY	0.13	ANGER	0.04
7	REMORSE	0.06	ANGER	0.12	PRIDE	0.03
8	GRIEF	0.06	REGRET	0.08	DISAPPOINTMENT	0.03
9	REGRET	0.05	DEPRESSION	0.07	SHOCK	0.02
10	SORROW	0.05	SADNESS	0.07	CONFUSION	0.02
11	RAGE	0.04	RESENTMENT	0.07	ANXIETY	0.02
12	CONFUSION	0.04	SORROW	0.06	AWKWARDNESS	0.01
13	SADNESS	0.03	RELIEF	0.04	TENSION	0.009
14	ANXIETY	0.03	EMBARRASSMENT	0.04	ANNOYANCE	0.009
15	PITY	0.03	CONFUSION	0.04	CHAGRIN	0.008
16	DISGUST	0.02	FRUSTRATION	0.04	HORROR	0.007
17	HORROR	0.02	DESPAIR	0.04	DISTRESS	0.007
18	SELF-LOATHING	0.02	PLEASURE	0.03	SADNESS	0.007
19	FRUSTRATION	0.02	RAGE	0.03	DISGUST	0.007
20	DESPAIR	0.02	STRESS	0.02	RAGE	0.006

Table 3. The most relevant ECPs of the ECs SCHAM, SCHULD, and VERLEGENHEIT.

Source: Own processing

N	SCHAM		SCHULD		VERLEGENHEIT	
	CPs	F./ pmw	CPs	F./ pmw	CPs	F./ pmw
1	ANGST 'anxiety'	0.06	SCHULD 'guilt'	0.07	SCHAM 'shame'	0.006
2	SCHULD 'guilt'	0.04	SCHAM 'shame'	0.07	ÄRGER 'anger'	0.005
3	SCHANDE 'ignominy; shame'	0.04	REUE 'remorse'	0.02	ANGST 'anxiety'	0.005
4	REUE 'remorse'	0.03	SCHANDE 'ignominy; shame'	0.02	PEINLICHKEIT 'embarrassment'	0.004
4	SCHULDGEFÜHL 'sense of guilt'	0.02	LEID 'suffering'	0.01	SCHANDE 'ignominy; shame'	0.004
5	WUT 'rage'	0.02	ANGST 'anxiety'	0.01	VERÄRGERUNG 'annoyance'	0.003
6	TRAUER 'sorrow'	0.02	LIEBE 'love'	0.009	VERZWEIFLUNG 'despair'	0.003
7	STOLZ 'pride'	0.02	TRAUER 'sorrow'	0.005	TRAURIGKEIT 'sadness'	0.003
8	ZORN 'rage'	0.01	SCHULDGEFÜHL 'sense of guilt'	0.005	SCHRECKEN 'horror'	0.003
9	VERZWEIFLUNG 'despair'	0.01	VERZWEIFLUNG 'despair'	0.003	UNRUHE 'restlessness'	0.002
10	FURCHT 'fear'	0.009	SORGE 'worry'	0.003	LANGWEILIGKEIT 'boredom'	0.002
11	EKEL 'disgust'	0.007	ÄRGER 'anger'	0.003	PANIK 'panic'	0.002

12	ENTSETZEN 'horror'	0.006	PEINLICHKEIT 'embarrassment'	0.002	ENTTÄUSCHUNG 'disappointment'	0.002
13	PEINLICHKEIT 'embarrassment'	0.004	WUT 'rage'	0.002	BITTERKEIT 'bitterness'	0.002
14	EMPÖRUNG 'indignation'	0.004	EKEL 'disgust'	0.002	ZWEIFEL 'doubt'	0.002
15	BEDAUERN 'regret'	0.003	DEPRESSION 'depression'	0.002	AUFREGUNG 'excitement'	0.002
16	ÄRGER 'anger'	0.002	FRUST 'frustration'	0.002	VERWIRRUNG 'confusion'	0.002
17	VERLEGENHEIT 'embarrassment'	0.002	PANIK 'panic'	0.001	EMPÖRUNG 'indignation'	0.002
18	BETROFFENHEIT 'shock'	0.002	STRESS 'stress'	0.001	FRUSTRATION 'frustration'	0.001
19	LIEBE 'love'	0.002	TRAURIGKEIT 'sadness'	0.001	NEID 'envy'	0.001
20	SCHAM 'shame'	0.002	FRUSTRATION 'frustration'	0.001	EKEL 'disgust'	0.001

Table 4. Percentage of close ECPs in the conceptual structures of the ECs SHAME, GUILT, EMBARRASSMENT, SCHAM, SCHULD, and VERLEGENHEIT. Source: Own processing

ECs	SHAME & GUILT	SHAME & EMBARRASSMENT	GUILT & EMBARRASSMENT
%	67.5	75	62.5
ECs	SCHAM & SCHULD	SCHAM & VERLEGENHEIT	SCHULD & VERLEGENHEIT
%	75	62.5	65
ECs	SHAME vs. SCHAM	GUILT vs. SCHULD	EMBARRASSMENT vs. VERLEGENHEIT
%	77.5	67.5	72.5

As mentioned in Section 2, data verification (Tables 2, 3, and 4) is carried out by comparing the conceptual structures of the ECs GUILT, SHAME, EMBARRASSMENT, SCHULD, SCHAM, and VERLEGENHEIT based on two characteristics of their ECPs – valence and arousal. Valence and arousal indicators of ECs GUILT, SHAME, EMBARRASSMENT, SCHULD, SCHAM, and VERLEGENHEIT are established on the basis of the data presented in Bradley and Lang (1999).

According to the conception of the study, ECs and ECPs that represent them are cultural concepts. This means that in the process of cross-cultural study of these concepts, it should be taken into consideration that their names may not have complete equivalents in the target languages. This fact may affect the results of our research to some extent, since due to the lack of a list of German words with their valence and arousal, processed by the ANEW method, the author presented in Tables 5 and 6 the data of the English equivalents of these words. At the same time, the author realizes that the data in these tables may be somewhat inaccurate. However, for the purposes of this study, such inaccuracy is considered irrelevant.

Table 5. Mean value of indicators of valence (V.) and arousal (A.) of the most relevant ECPs of the ECs SHAME, GUILT, and EMBARRASSMENT. Source: Own processing

N	SHAME			GUILT			EMBARRASSMENT		
	CPs	V.	A.	CPs	V.	A.	CPs	V.	A.
1	GUILT	2.63	6.04	SHAME	2.50	4.88	SHAME	2.50	4.88
2	FEAR	2.76	6.96	FEAR	2.76	6.96	HUMILIATION	2.24	6.14

3	EMBARRASSMENT	3.03	5.87	REMORSE	2.28	5.74	FEAR	2.76	6.96
4	HUMILIATION	2.24	6.14	DOUBT	3.27	5.55	FRUSTRATION	2.48	5.61
5	ANGER	2.34	7.63	GRIEF	1.65	4.81	GUILT	2.63	6.04
6	PRIDE	7.00	5.83	ANXIETY	2.76	6.96	ANGER	2.34	7.63
7	REMORSE	2.28	5.74	ANGER	2.34	7.63	PRIDE	7.00	5.83
8	GRIEF	1.65	4.81	REGRET	2.25	5.75	DISAPPOINTMENT	2.39	4.92
9	REGRET	2.25	5.75	DEPRESSION	1.85	4.54	SHOCK	3.12	7.02
10	SORROW	1.65	4.81	SADNESS	1.61	4.13	CONFUSION	3.27	5.55
11	RAGE	2.41	8.17	RESENTMENT	3.76	4.47	ANXIETY	2.76	6.96
12	CONFUSION	3.27	5.55	SORROW	1.65	4.81	AWKWARDNESS	3.03	5.87
13	SADNESS	1.61	4.13	RELIEF	7.07	3.93	TENSION	3.56	6.53
14	ANXIETY	2.76	6.96	EMBARRASSMENT	3.03	5.87	ANNOYANCE	2.74	6.49
15	PITY	3.71	3.48	CONFUSION	3.27	5.55	CHAGRIN	2.79	5.64
16	DISGUST	2.45	5.42	FRUSTRATION	2.48	5.61	HORROR	2.76	7.21
17	HORROR	2.76	7.21	DESPAIR	2.19	5.72	DISTRESS	1.65	4.81
18	SELF-LOATHING	2.45	5.42	PLEASURE	8.00	6.20	SADNESS	1.61	4.13
19	FRUSTRATION	2.48	5.61	RAGE	2.41	8.17	DISGUST	2.45	5.42
20	DESPAIR	2.19	5.72	STRESS	2.09	7.45	RAGE	2.41	8.17
\bar{x}		2.70	5.86		2.96	5.74		2.80	6.09

Table 6. Mean value of indicators of valence (V.) and arousal (A.) of the most relevant ECPs of the ECs of the ECs SCHAM, SCHULD, and VERLEGENHEIT. Source: Own processing

N	SCHAM			SCHULD			VERLEGENHEIT		
	CPs	V.	A.	CPs	V.	A.	CPs	V.	A.
1	ANGST	2.76	6.96	SCHULD	2.63	6.04	SCHAM	2.50	4.88
2	SCHULD	2.63	6.04	SCHAM	2.50	4.88	ÄRGER	2.34	7.63
3	SCHANDE	2.50	4.88	REUE	2.28	5.74	ANGST	2.76	6.96
4	REUE	2.28	5.74	SCHANDE	2.50	4.88	PEINLICHKEIT	3.03	5.87
4	SCHULDGEFÜHL	2.63	6.04	LEID	1.65	4.81	SCHANDE	2.50	4.88
5	WUT	2.34	7.63	ANGST	2.76	6.96	VERÄRGERUNG	2.74	6.49
6	TRAUER	1.61	4.13	LIEBE	8.72	6.44	VERZWEIFLUNG	2.19	5.72
7	STOLZ	7.00	5.83	TRAUER	1.61	4.13	TRAURIGKEIT	1.61	4.13
8	ZORN	2.41	8.17	SCHULDGEFÜHL	2.63	6.04	SCHRECKEN	2.76	7.21
9	VERZWEIFLUNG	2.19	5.72	VERZWEIFLUNG	2.19	5.72	UNRUHE	4.81	6.92
10	FURCHT	2.76	6.96	SORGE	1.55	6.20	LANGWEILIGKEIT	4.61	3.18
11	EKEL	2.45	5.42	ÄRGER	2.34	7.63	PANIK	3.12	7.02
12	ENTSETZEN	2.76	7.21	PEINLICHKEIT	3.03	5.87	ENTTÄUSCHUNG	2.39	4.92
13	PEINLICHKEIT	3.03	5.87	WUT	2.34	7.63	BITTERKEIT	3.95	4.24
14	EMPÖRUNG	3.52	6.83	EKEL	2.45	5.42	ZWEIFEL	3.27	5.55
15	BEDAUERN	2.25	5.74	DEPRESSION	1.85	4.54	AUFREGUNG	2.48	4.73
16	ÄRGER	2.34	7.63	FRUST	2.48	5.61	VERWIRRUNG	3.27	5.55
17	VERLEGENHEIT	3.03	5.87	PANIK	3.12	7.02	EMPÖRUNG	3.52	6.83
18	BETROFFENHEIT	3.12	7.02	STRESS	2.09	7.45	FRUSTRATION	2.48	5.61
19	LIEBE	8.72	6.44	TRAURIGKEIT	1.61	4.13	NEID	2.51	6.36
20	SCHAM	2.50	4.88	FRUSTRATION	2.48	5.61	EKEL	2.45	5.42
\bar{x}		3.24	6.55		2.74	6.14		3.06	6.01

4. Discussion and conclusions

The data analysis (Tables 2, 3, and 4) revealed that both the ECs SHAME, GUILT, and EMBARRASSMENT in NAC and SCHAM, SCHULD, and VERLEGENHEIT in GC demonstrate significant semantic similarities. This finding is in line with the widespread thesis of psychologists about the close connection between the corresponding self-conscious emotions. The fact of these ECs "overlapping" in NAC is indicative here, since GUILT is the most relevant ECP in the conceptual structure of the EC SHAME, while SHAME

appears to be the most relevant ECP in the EC GUILT and also in the EC EMBARRASSMENT. Though not completely identical, but a very similar trend can be observed in GC, where the "overlapping" ECPs SCHULD and SCHAM hold the second position in the ECP hierarchy of the ECs SCHAM and SCHULD. This suggests that in the naïve perception of the representatives of NAC and GC, there is no clear boundary between the studied ECPs, so in numerous affective situations these representatives cannot be quite sure whether they are experiencing shame, guilt or embarrassment. This is especially true of the SHAME & EMBARRASSMENT ECs, whose semantic similarity among Americans reaches as much as 75%.

The close correlation between the ECs SHAME & GUILT (67.5%) and SCHAM & SCHULD (75%) confirms the opinion widespread among anthropologists (see, e.g., Benedict 1946) that Americans and Germans belong to "guilt cultures". At the same time, the stronger correlation of SCHAM & SCHULD does not indicate that the German community has a more pronounced characteristic of a "guilt culture". This can be explained, first of all, by the high occurrence of the phrase *Scham und Schuld* in various contexts, which is due to the socio-historical background, namely the atonement in Germany for the criminal consequences of World War II. The main role in this "national atonement" is assigned to the concepts of SCHAM & SCHULD (see, e.g., Brogle 2017).

The frequency indicators (Table 2 and Table 3) clearly show that both the ECs SHAME & GUILT and SCHAM & SCHULD are more culturally significant than the ECs EMBARRASSMENT & VERLEGENHEIT. This is especially true of the EC VERLEGENHEIT, which demonstrates low relevance in GC (according to DWDS data, there is a significant decrease in the frequency of the lemma *Verlegenheit*, as in 1960 it had an index of 6.34 (per 1 million tokens), and in 2024 – 0.86). This can probably be explained by the fact that the emotion represented by the EC VERLEGENHEIT contains more positive and less intense shades of embarrassment (Table 6), i.e. it is more neutral than, for example, the EC EMBARRASSMENT. However, stronger expressions of embarrassment, such as bewilderment, confusion or shock, are likely to be in demand in today's German community.

Despite the semantic similarity of the ECs GUILT & SHAME, each of them has its own semantic hierarchy, in which dominant meanings are clearly distinguished. If we disregard the above-mentioned "overlapping" ECPs of these ECs, which occupy the first positions in their hierarchies, then the common dominant meaning for them is fear (ECP FEAR). Below fear are the dominant meanings that provide an idea of the main semantic differences between the GUILT & SHAME ECs: for the former, these meanings are remorse, doubt, and grief, and for the latter – embarrassment, humiliation, and anger. It can be assumed that Americans associate guilt primarily with deep sadness

(grief) that results from "mental anguish" – remorse and doubt. Shame, on the other hand, is perceived as an "angry" emotion that arises from embarrassment and humiliation. It is noteworthy that the distinction between the ECs SCHAM & SCHULD is not so clear among Germans, although the semantic outline of the EC SCHAM being an "angry" emotion (ECP WUT) and the EC SCHULD being a "suffering" emotion (ECP LEID) can be traced here.

Not only is there a noticeable similarity in the semantic structures of the studied ECs within NAC and GC, but also a rather high level of their cross-cultural equivalence. The data in Table 4 show that the highest level of equivalence is demonstrated by the ECs SHAME vs. SCHAM (75%), the lower one – by EMBARRASSMENT vs. VERLEGENHEIT (72.5%), and the lowest – by the ECs GUILT vs. SCHULD (67.5%). It is notable that the EC SHAME is perceived by Americans as a "heavy" (negative) and "deep" (non-intense) emotion (Table 5), which is associated with humiliation (ECP HUMILIATION) of human dignity (ECP PRIDE). For Germans, by contrast, the EC SCHAM is more positive and intense, although here, too, there is a conflict of dignity (ECP STOLZ) with the emotion that combines feelings of disgrace and shame (ECP SCHANDE). It is noteworthy that Germans have a strong association of shame with remorse (ECP REUE), which can probably be explained by the influence of the aforementioned "national atonement" on the formation of this concept. The latter fact might be the reason why the EC SCHULD is somewhat more negative and intense than the EC GUILT. Besides, one more factor should not be overlooked here: different levels of individualism in American and German cultures. Thus, the higher competitive individualism of Americans compared to Germans may have contributed to a more positive perception of guilt and a more negative perception of shame.

Overall, the results of comparing the conceptual structures of the ECs GUILT, SHAME, EMBARRASSMENT, SCHULD, SCHAM, and VERLEGENHEIT based on the valence and arousal indicators of their ECPs (Table 5 and Table 6) serve as a rather objective confirmation of the results of the first two procedures of the proposed research methodology:

(a) Based on the 10-point scale used to measure valence and arousal of the ECPs, an indicator of 5 reflects a certain neutrality of the emotion represented by the corresponding ECP with respect to these two characteristics. Therefore, indicators below 5 reflect a negative valence and low arousal of emotions (increasing negativity and decreasing arousal from 5 to 0), and indicators above 5 imply a positive valence and high arousal (increasing positivity and arousal from 5 to 10). Given this, emotions of shame, guilt, and embarrassment show noticeable negativity and low arousal in both NAC and GC.

(b) The minor differences in the valence and arousal of shame, guilt, and embarrassment between Americans and Germans can be explained by the likely influence of cultural factors on the expression

and perception of these emotions. So, the greater negativity of the EC SHAME compared to the EC SCHAM is fully consistent with the tendency to avoid the emotion of shame in NAC. On the other hand, the lower arousal of the EC GUILT compared to the EC SCHULD may be due to the fact that for Americans the emotion of guilt is more private (internal sanctioning).

Notes

All the examples are borrowed from the following corpora:

- 1) English: COCA <https://www.english-corpora.org/coca/>;
- 2) German: DWDS (Wortprofil 2024) <https://www.dwds.de/wp/>.

All German examples have been translated by the author.

List of abbreviations

COCA – Corpus of Contemporary American English

DWDS – Digitales Wörterbuch der deutschen Sprache

EC(s) – emotion concept(s)

ECP(s) – emotional conceptual proximate(s)

GC – German culture

NAC – North American culture

pmw – per 1 million words

SC – source culture

TC – target culture

References

1. Benedict, R. (1946). *The chrysanthemum and the sword: Patterns of Japanese culture*. Boston: Houghton Mifflin.
2. Barrett, L.F., Mesquita, B. & Gendron, M. (2011). Context in emotion perception. In *Current directions in psychological science*, 20 (5), p. 286-290. DOI: [10.1177/0963721411422522](https://doi.org/10.1177/0963721411422522)
3. Boiger, M., De Deyne, S. & Mesquita, B. (2013a). Emotions in "the world": Cultural practices, products, and meanings of anger and shame in two individualist cultures. In *Frontiers in psychology*, 4, p. 867. DOI: [10.3389/fpsyg.2013.00867](https://doi.org/10.3389/fpsyg.2013.00867)
4. Boiger, M., Mesquita, B., Uchida, Y. & Barrett, L.F. (2013b). Condoned or condemned: The situational affordance of anger and shame in the United States and Japan. In *Personality and social psychology bulletin*, 39 (4), p. 540-553. DOI: [10.1177/0146167213478201](https://doi.org/10.1177/0146167213478201)
5. Bradley, M.M. & Lang, P.J. (1999). *Affective norms for English words (ANEW): Instruction manual and affective ratings*. Technical Report C-1, The Center for Research in Psychophysiology, University of Florida.
6. Brogle, Ch. (2017). *Deutschland zwischen Schuld, Scham und Stolz: Eine ethische Betrachtung der Gefühle Schuld, Scham und Stolz im Hinblick auf die Staatsangehörigkeit*. München: Grin Verlag.

7. Citron, F.M., Gray, M.A., Critchley, H.D., Weekes, B.S. & Ferstl, E.C. (2014). Emotional valence and arousal affect reading in an interactive way: neuroimaging evidence for an approach-withdrawal framework. In *Neuropsychologia*, 56 (100), p. 79-89. DOI: [10.1016/j.neuropsychologia.2014.01.002](https://doi.org/10.1016/j.neuropsychologia.2014.01.002)
8. Dukes, D., Abrams, K., Adolphs, R., Ahmed, M.E., Beatty, A., Berridge, K.C., Broomhall, S. et al. (2021). The rise of affectivism. In *Nature human behaviour*, 5, p. 816-820. DOI: [10.1038/s41562-021-01130-8](https://doi.org/10.1038/s41562-021-01130-8)
9. Foolen, A. (2022). Language and emotion in the history of linguistics. In *Language and emotion. An international handbook*. Schiewer, G.L., Altarriba, J. & Chin Ng, B. (eds.). Berlin – Boston: De Gruyter Mouton, p. 31-53. DOI: <https://doi.org/10.1515/9783110347524-002>
10. Foolen, A. (1997). The expressive function of language: Towards a cognitive semantic approach. In *The language of emotions*. Niemeier, S. & Dirven, R. (eds.). Amsterdam: John Benjamins, p. 15-31. DOI: [10.1075/z.85.04foo](https://doi.org/10.1075/z.85.04foo)
11. Foolen, A. (2012). The relevance of emotion for language and linguistics. In *Moving ourselves, moving others: Motion and emotion in intersubjectivity, consciousness and language*. Foolen, A., Lüdtke, U., Racine, T. & Zlatev, J. (eds.). Amsterdam: John Benjamins, p. 347-368. DOI: [10.1075/ceb.6.13foo](https://doi.org/10.1075/ceb.6.13foo)
12. Foolen, A. (2015). Word valence and its effects. In *Emotion in language*. Ulrike, M. & Lüdtke, U. (eds.). Amsterdam: John Benjamins, p. 241-255. DOI: [10.1075/ceb.10.12foo](https://doi.org/10.1075/ceb.10.12foo)
13. Giorgetta, C., Strappini, F., Capuozzo, A., Evangelista, E., Magno, A., Castelfranchi, C. & Mancini, F. (2023). Guilt, shame, and embarrassment: Similar or different emotions? A comparison between Italians and Americans. In *Frontiers in psychology*, 14, Article 1260396. DOI: [10.3389/fpsyg.2023.1260396](https://doi.org/10.3389/fpsyg.2023.1260396)
14. *Handbook of affective sciences*. (2003). Davidson, R.J., Scherer, K.R. & Goldsmith, H.H. (eds.). Oxford – New York: Oxford University Press.
15. Hofstede Insights. (2024). *Compare Countries – Hofstede Insights*. Available at: <https://www.hofstede-insights.com/product/compare-countries/>
16. Kapranov, O. (2016). Conceptual metaphors in British Foreign Secretary's Twitter discourse involving Ukraine. In *Respectus philologicus*, 29 (34), p. 75-86. DOI: [10.15388/RESPECTUS.2016](https://doi.org/10.15388/RESPECTUS.2016)
17. Kollareth, D., Fernandez-Dols, J.-M. & Russell, J.A. (2018). Shame as a culture-specific emotion concept. In *Journal of cognition and culture*, 18 (3-4), p. 274-292. DOI: [10.1163/15685373-12340031](https://doi.org/10.1163/15685373-12340031)
18. Kövecses, Z. (2020). Emotion concepts in a new light. In *Italian journal of philosophy of language: SFL Language and emotions*, p. 42-54. DOI: [10.4396/SFL201917](https://doi.org/10.4396/SFL201917)
19. Krawczak, K. (2018). Reconstructing social emotions across languages and cultures: A multifactorial account of the adjectival profiling of shame in English, French, and Polish. In *Review of cognitive linguistics*, 16, p. 455-493. DOI: [10.1075/rc1.00018.kra](https://doi.org/10.1075/rc1.00018.kra)
20. Merkin, R.S. (2017). From shame to guilt: The remediation of bullying across cultures and the US. In *The value of shame*. Vanderheiden, E. & Mayer, C.H. (eds.). Cham: Springer. DOI: [10.1007/978-3-319-53100-7_10](https://doi.org/10.1007/978-3-319-53100-7_10)
21. Mizin, K. & Ovsienko, L. (2020). The German linguo-cultural concept SCHADENFREUDE in cross-cultural perspective: A corpus-based approach. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, 2020, V (1), p. 143-184.
22. Mizin, K. & Slavova, L. (2023). The corpus-based methodology of close emotion concepts differentiation: A case study of ENVY and JEALOUSY. In *Cognitive studies | Études cognitives*, 23, Article 2811. DOI: [10.11649/cs.2811](https://doi.org/10.11649/cs.2811)
23. Mizin, K. & Slavova, L. (2024). Vicarious shame in a cross-cultural perspective: Emotion concepts A.-S. SPANISH SHAME and Ger. FREMDSCHÄMEN/FREMDSCHAM. In *Alfred Nobel university journal of philology*, 1 (27), p. 233-250. DOI: [10.32342/2523-4463-2024-1-27-16](https://doi.org/10.32342/2523-4463-2024-1-27-16)

24. Mizin, K., Slavova, L. & Khmara, V. (2021a). The equivalence of terms denoting the emotion concepts of Ger. ANGST and A.-S. FEAR: A corpus-based method. In *Lege artis. Language yesterday, today, tomorrow*. Trnava: University of SS Cyril and Methodius in Trnava, 2021, VI (2), p. 69-104.
25. Mizin, K., Slavova, L., Lyashuk, A. & Hromovenko, V. (2021b). The emotion concept of SHAME as one of the markers of social infantilism: Cross-cultural analysis based on language corpora data. In *Amazonia investiga*, 10 (48), p. 97-106. DOI: [10.34069/AI/2021.48.12.11](https://doi.org/10.34069/AI/2021.48.12.11)
26. Mizin, K., Slavova, L., Petrov, O. & Yumrukuz, A. (2023). Organizing the Germans' emotional world through the prism of the opposition ORDNUNG vs. CHAOS: Ambivalent emotion concepts. In *Amazonia investiga*, 12 (61), p. 224-235. DOI: [10.34069/AI/2023.61.01](https://doi.org/10.34069/AI/2023.61.01)
27. Ogarkova, A. (2013). Folk emotion concepts: Lexicalization of emotional experiences across languages and cultures1. In *Components of emotional meaning: A sourcebook*. Scherer, K., Fontaine, J. & Soriano, C. (eds.). Oxford: Oxford University Press, p. 46-62. DOI: [10.1093/acprof:oso/9780199592746.003.0004](https://doi.org/10.1093/acprof:oso/9780199592746.003.0004)
28. Ogarkova, A., Panasenko, N. & Lewandowska-Tomaszczyk, B. (2013). Language family similarity effect: Emotion term semantics in Russian, Ukrainian, Czech, Slovak, and Polish. In *Components of emotional meaning: A sourcebook*. Fontaine, J.J.R., Scherer, K.R. & Soriano, C. (eds.). Oxford University Press, p. 502-506. DOI: [10.1093/acprof:oso/9780199592746.003.0042](https://doi.org/10.1093/acprof:oso/9780199592746.003.0042)
29. Panasenko, N. (2012). Linguistic markers of emotional concept LOVE in literary texts. In *US-China foreign language*, 10 (4), p. 1067-1084.
30. Panasenko, N., Stashko, H. & Zabuzhanska, I. (2023). Love and rhythm in poetry and music. In *Language and emotion*. Vol. 3. Lenore Schiewer, G.S., Altarriba, J. & Ng, B.Ch. (eds.). Berlin – Boston: Walter de Gruyter, p. 1529-1558. DOI: [https://doi.org.10.1515/9783110795486-009](https://doi.org/10.1515/9783110795486-009)
31. Peeters, B. (2020). Language makes a difference: Breaking the barrier of "shame". In *Lublin studies in modern languages and literature*, 44 (1), p. 27-37. DOI: [10.17951/lsml.2020.44.1.27-37](https://doi.org/10.17951/lsml.2020.44.1.27-37)
32. Russell, J.A. (1991). Culture and the categorization of emotions. In *Psychological bulletin*, 110 (3), p. 426-450. DOI: [10.1037/0033-2909.110.3.426](https://doi.org/10.1037/0033-2909.110.3.426)
33. Russell, J.A. (2003). Core affect and the psychological construction of emotion. In *Psychological review*, 110 (1), p. 145-172. DOI: [10.1037/0033-295X.110.1.145](https://doi.org/10.1037/0033-295X.110.1.145)
34. Soriano, C. (2015). Emotion and conceptual metaphor. In *Methods of exploring emotions*. Flam, H. & Kleres, J. (eds.). New York – London: Routledge, p. 206-214.
35. Tangney, J.P. (2003). Self-relevant emotions. In *Handbook of self and identity*. Leary, M.R. & Tangney, J.P. (eds.). New York: Guilford Press, p. 384-400.
36. Tangney, J.P., Miller, R.S., Flicker, L. & Barlow, D.H. (1996). Are shame, guilt, and embarrassment distinct emotions? In *Journal of personality and social psychology*, 70 (6), p. 1256-1269. DOI: [10.1037/0022-3514.70.6.1256](https://doi.org/10.1037/0022-3514.70.6.1256)
37. Tracy, J.L. & Matsumoto, D. (2008). The spontaneous display of pride and shame: Evidence for biologically innate nonverbal displays. In *Proceedings of the National Academy of Sciences of the United States of America*, 105, p. 11655-11660. DOI: [10.1073/pnas.0802686105](https://doi.org/10.1073/pnas.0802686105)
38. Tracy, J.L. & Robins, R.W. (2004). Putting the self into self-conscious emotions: A theoretical model. In *Psychological inquiry*, 15 (2), p. 103-125. DOI: [10.1207/s15327965pli1502_01](https://doi.org/10.1207/s15327965pli1502_01)
39. Wierzbicka, A. (1999). *Emotions across languages and cultures: Diversity and universals*. Cambridge: Cambridge University Press. DOI: [10.1017/CBO9780511521256](https://doi.org/10.1017/CBO9780511521256)

40. Wilson, P.A. & Lewandowska-Tomaszczyk, B. (2019). Cognitive structure and conceptual clusters of emotion terms. In *Filozofia i nauka. Studia filozoficzne i interdyscyplinarne*, 7 (1), p. 91-123. DOI: [10.37240/FiN.2019.7.2.1.6](https://doi.org/10.37240/FiN.2019.7.2.1.6)

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