5.4 Testing Hypothesis 3

Hypothesis 3 stated that there will be differences in the degree of individualism and collectivism between cultures and sub-cultures (see explicit hypotheses below). In this part, I intend to replicate the finding that Germany is primarily an individualistic culture, while Peru is primarily a collectivistic culture. Furthermore, I expect sub-cultural differences in Peru, with the students expressing a more individualistic attitude than the non-academic groups, and the partly illiterate group of the Andean Indians expressing the most collectivistic attitude. This analysis was included to test whether the role of education determines one's identity more strongly than one's nationality. In detail I expect to find the following:

1. German subjects will produce more individualistic answers, whereas Peruvian subjects will produce more collectivistic answers.
2. German and Peruvian students will show a higher similarity than Peruvian students and the lower educated Peruvian sub-groups, which should make the answers of the Peruvian students more individualistic than the Peruvian non-academic groups.
3. In spite of this similarity, Peruvian students are still expected to score higher on collectivism than German students. The Peruvian Indians are expected to produce the highest degree of collectivism in their answers.

Our interview did not contain a specific instrument to test the degree of individualism-collectivism, since this had not been a major interest of the study. To test this hypothesis, a sub-optimal approach had to be followed in which previous analyses were used: Together with a German psychologist, who was familiar with the distinction between individualism and collectivism, we rated the categories which were developed for the ideal concept and Ebersole's categories, which were used to classify perceived meaning and happiness, for the degree to which they displayed individualistic and collectivistic attitudes. Six of the categories for the ideal concept and three of Ebersole's categories (in their modified version for this thesis) were discounted for not giving information about these constructs. Of the remaining five for the ideal concept, two turned out to be ambiguous, which means that there was no clear consensus between the raters as to whether the category in question was primarily of an individualistic or collectivistic nature. A closer look at the original answers in those categories confirmed that no clear statement could be made, so these categories were also excluded. The three categories which achieved a 100 % consensus between the raters, and whose original answers confirmed that judgment, were '*Mature personality'* for individualism and '*Social attitude IIIb*' and '*Relationships'* for collectivism. In the case of meaning and happiness, the categories '*Growth'* and '*Pleasure'* were uniformly defined as individualistic ones, while the categories '*Relationships',* '*Service'*, and '*Political/Social belief*' were identified as

collectivistic ones. All other categories were not included in the analyses. Although it remains doubtful if the construct can be adequately represented by categories which were not developed specifically for this purpose, it seems to make sense that in a long, semi-structured interview about human nature, participants should express elements of individualism and collectivism in their answers about an adult, since they are regarded as a key variable of the self (e.g. Markus & Kitayama, 1991b; Triandis et al., 1998). In the following, the individualistic and the collectivistic categories shall be compared to test the hypotheses.

1) Testing culture, using categories for the ideal concept.

As Table 5.14 and Table 5.15 show, the assumption that Germans supply more cases for the primarily individualistic category '*Mature personality'* than for the merged collectivistic categories '*Social attitude IIIb'* and '*Relationships'* could not be confirmed (219 versus 190). Likewise, the assumption that Peruvians supplied more collectivistic than individualistic answers received no support (204 versus 229).

Table 5.14: Absolute frequencies for the ideal concept.

Sample	Total of partici-pants	Total of answers through-out the interview	Total of answers in the three cate-gories under investigation	Individualistic category (Mature personality)	Collectivistic categories (Social attitude IIIb & Relationships)
All Germans	104	643	409	219	190
All Peruvians	157	831	433	204	229
Peruvian students	83	542	336	180	156
German students	62	400	260	145	115
Peruvian non-students	74	289	97	24	73
Indians	60	228	54	9	45
Peruvians without Indians	97	603	379	195	184

Table 5.15: Absolute frequencies of individualistic and collectivistic answers (ideal concept) by Germans and Peruvians.

	Individualistic category	**Collectivistic categories**	**Total**
All Germans	219	190	409
All Peruvians	204	229	433
Total	423	419	842

As Table 5.15 shows, Germans and Peruvians do not differ in regard to how many answers they provided for the individualistic and the collectivistic categories. The four cells in Table 5.15 show that Germans provided more answers for the individualistic category, while Peruvians provided more answers for the collectivistic categories. Although the difference within the groups did not turn out to be statistically significant, the difference between the groups suggests that Germans have a slightly higher inclination towards individualistic answers and Peruvians a slightly higher inclination towards collectivistic answers.

The question then arises whether this difference will disappear when only comparing students of the two nations, which leads us to hypothesis 2.

2) Testing education, using categories for the ideal concept.

Although the German students are slightly more inclined to provide their answers for the individualistic than for the collectivistic categories. We find no difference in the Peruvian student-sample, they use both categories equally frequently to describe an ideal adult (180 versus 156). Comparing the German with the Peruvian students, there is no significant difference between both groups (χ^2 = .29; *p* ns.), although the effect size is greater in the German groups than in the Peruvian ones.

Table 5.16: Absolute frequencies of individualistic and collectivistic answers (ideal concept) by students.

	Individualistic category	**Collectivistic categories**	**Total**
German students	145	115	260
Peruvian students	180	156	336
Total	325	271	596

Note: χ^2 = .29; *p* = ns.

The question which remains to be answered for the second hypothesis is whether or not Peruvian students are closer to the German students than to the Peruvian non-students. The following Table 5.17 shows the results for the Peruvian sub-samples. As Table 5.14

illustrates, Peruvian non-students less often gave individualistic than collectivistic answers (24 versus 73). As expected, Peruvian non-students differ significantly from Peruvian students ($\chi^2 = 25.11$; $p < .001$), confirming that education plays a crucial part in the concept of human nature.

Table 5.17: Absolute frequencies of individualistic and collectivistic answers (ideal concept) by Peruvian students and Peruvian non-students.

	Individualistic category	**Collectivistic categories**	**Total**
Peruvian students	180	156	336
Peruvian non-students	24	73	97
Total	204	229	433

Note: $\chi^2 = 25.11$; $p < .01$.

3) Testing Indians, using categories for the ideal concept

As can be seen in Table 5.14, the Indians provide more answers for the collectivistic categories than for the individualistic one, and proportionally more than all other sub-samples, which is in line with the hypothesis.

Meaning of life. For meaning of life and happiness, those categories which focus on aspects of individual happiness and meaning (self-fulfillment, having fun) were contrasted with those which define happiness and meaning with regard to the social context (friendships, helping others, political/social engagement). The number of cases in the categories which belong to the concept of 'individual meaning and happiness', such as '*Growth*' and '*Pleasure*', will be merged and contrasted with the number of cases in the categories belonging to the concept of 'meaning and happiness related to the social context', namely '*Relationships*', '*Service*', and '*Political/Social belief*'. The procedure which was used above with the categories for the ideal concept will now be applied using the categories for meaning of life.

1) Testing culture, using categories for meaning in life

As Table 5.18 shows, the assumption that Germans supply more cases for the merged individualistic categories than for the merged collectivistic categories could be confirmed (141 versus 99). Likewise, the assumption that Peruvians would supply more collectivistic than individualistic answers received support (155 versus 247).

Table 5.18: Absolute frequencies for meaning of life.

Sample	Total of partici-pants	Total of answers through-out the interview	Total of answers in the five cate-gories under investigation	Individualistic category (Growth & Pleasure)	Collectivistic categories (Relationships, Service & P/S Belief)
All Germans	104	343	240	141	99
All Peruvians	157	498	402	155	247
Peruvian students	83	263	224	115	109
German students	62	200	135	74	61
Peruvian non-students	74	235	178	40	138
Indians	60	195	154	30	124
Peruvians without Indians	97	303	248	125	123

As Table 5.19 displays, Germans and Peruvians differ in regard to how frequently they used the two categories ($\chi^2 = 24.66$; $p < .001$). Germans supply more individualistic oriented answers in comparison to Peruvians.

Table 5.19: Absolute frequencies of individualistic and collectivistic answers (meaning) by Germans and Peruvians.

	Individualistic category	Collectivistic categories	Total
All Germans	141	99	240
All Peruvians	155	247	402
Total	296	346	642

Note: $\chi^2 = 24.66$; $p < .001$

Within German students (74 versus 61.) as well as within Peruvian students (115 versus 109), no difference between the number of individualistic or collectivistic-oriented answers could be observed (see Table 5.18). In addition, German and Peruvian students do not differ significantly ($\chi^2 = 0.41$; p ns.) in their preference for an individualistic or collectivistic category (see Table 5.20). This is unexpected for a presumably individualistic and a presumably collectivistic sub-sample, but confirms Oerter's assumption that students all over the world, regardless of their origin, have more elements in common than students and non-

academic sub-groups of the same nation. The second part of this last statement will now be tested.

Table 5.20: Absolute frequencies of individualistic and collectivistic answers (meaning) by students.

	Individualistic category	**Collectivistic categories**	**Total**
German students	74	61	135
Peruvian students	115	109	224
Total	189	170	359

Note: $\chi^2 = 0.41$; p = ns.

2) Testing education, using categories for meaning of life

In contrast to Peruvian students, Peruvian non-students show a clear asymmetry between individualistic and collectivistic answers (40 versus 138; $\chi^2 = 53.96$; $p < .001$). As Table 5.18 and Table 5.21 demonstrate, within the Peruvian non-students sample, collectivistic answers clearly outnumber individualistic ones. In line with the hypothesis, Peruvian students and Peruvian non-students differ significantly ($\chi^2 = 34.89$; $p < .001$). As opposed to the students, the Peruvian non-students prefer the collectivistic category to the individualistic category.

Table 5.21: Absolute frequencies of individualistic and collectivistic answers (meaning) by Peruvian students and Peruvian non-students.

	Individualistic category	**Collectivistic categories**	**Total**
Peruvian students	115	109	224
Peruvian non-students	40	138	178
Total	155	247	402

Note: χ^2 34.89= ; p <.001.

3) Testing Indians, using categories for the ideal concept

As Table 5.18 depicts, the Indians have the most pronounced collectivistic attitude of all sub-samples.

1) Testing culture, using categories for happiness.

As Table 5.22 shows, the assumption that Germans would supply more cases for the merged individualistic categories than for the merged collectivistic categories could be confirmed (220 versus 103). However, the assumption that Peruvians would supply more collectivistic than individualistic answers received no support (202 versus 224).

Table 5.22: Absolute frequencies for happiness.

Sample	Total of partici-pants	Total of answers through-out the interview	Total of answers in the five cate-gories under investigation	Individualistic category (Growth & Pleasure)	Collectivistic categories (Relationships, Service & P/S Belief)
All Germans	104	398	323	220	103
All Peruvians	157	564	426	202	224
Peruvian students	83	299	238	122	116
German students	62	241	202	141	61
Peruvian non-students	74	265	188	80	108
Indians	60	222	153	67	86
Peruvians without Indians	97	342	273	135	138

As Table 5.23 illustrates, Germans and Peruvians differ in regard to how frequently they supplied individualistic and collectivistic answers (χ^2 = 31.98; p < .001). As expected, Germans preferred individualistic-oriented answers more often than Peruvians.

Table 5.23: Absolute frequencies of individualistic and collectivistic answers (happiness) by Germans and Peruvians.

	Individualistic category	Collectivistic categories	Total
All Germans	220	103	323
All Peruvians	202	224	426
Total	422	327	749

Note: χ^2 = 31.98 ; p < .001

2) Testing education, using categories for happiness.

Contrary to the results for meaning, German and Peruvian students differ significantly in their answer distribution for happiness (χ^2 = 15.62; p < .001). This time, German students show a clear preference for the individualistic categories, as we would expect members of an individualistic country to do (141 versus 61; χ^2 = 31.68; p < .001). Peruvian students, on the other hand, show no preference for the collectivistic categories, which is not in line with the classical individualistic-collectivistic hypothesis (122 versus 116; χ^2 = 0.16; p = ns.).

Table 5.24: Absolute frequencies of individualistic and collectivistic answers (happiness) by students.

	Individualistic category	**Collectivistic categories**	**Total**
German students	141	61	202
Peruvian students	122	116	238
Total	263	177	440

Note: $\chi^2 = 15.62$; $p < .001$

In contrast to Peruvian students and in line with expectation, Peruvian non-students supplied significantly less individualistic than collectivistic answers (80 versus 108; $\chi^2 = 4.18$; $p < .05$). However, this time, the difference between Peruvian students and Peruvian non-students is only marginally significant (see Table 5.25) ($\chi^2 = 3.19$; $p = .10$). Nonetheless, viewed in concert with the results for the ideal concept and meaning, it points in the same direction.

Table 5.25: Absolute frequencies of individualistic and collectivistic answers (happiness) by Peruvian students and Peruvian non-students.

	Individualistic category	**Collectivistic categories**	**Total**
Peruvian students	122	116	238
Peruvian non-students	80	108	188
Total	202	224	426

Note: $\chi^2 = 3.19$; $p = .10$.

3) Testing Indians, using categories for happiness.

Contrary to expectation, as can be seen in Table 5.22, the Indians show no clear preference for the collectivistic categories when we analyze the answers for happiness. This is due to the high number of cases in the category '*Pleasure'*, composed of answers referring to parties and alcohol consumption, the first-rank category for women. The question arises whether, in this case, the choice of '*Pleasure'* as representing an individualistic attitude was justified. I will come back to this topic in the Discussion.

In sum, it was not possible to confirm all sub-hypotheses completely. Depending on the categories which were chosen to measure the individualistic and collectivistic attitudes of the participants, different assumptions were either supported or unsupported. The results will be discussed more thoroughly below.