CHAPTER 6:
DISCUSSION

As I stated in the introduction, I am looking for answers to three questions: do individuals have **one coherent** cultural bias, several cultural biases that are **sequentially** organized, or several cultural biases that are **synthesized** together? These questions are easier to ask than to answer, although the asking itself can help to clarify the theory. To answer these questions one must first know whether individuals have one or several cultural biases, whether the effects of cultural biases are additive or not, and how important rejections of cultural biases are (Table 6.1). If individuals regularly support more than one cultural bias, the Coherent Individual Approach does not reflect reality well because it assumes individuals supporting only one cultural bias. Additivity of cultural biases' effects is a phenomenon that cannot be explained by the Sequential Individual Approach, because the biases are kept separate from each other in the individual, whereas the Synthetic Individual Approach is dependent on this additivity to form a synthesis. Last but not least, if rejections do play a major role in cultural theory,

	Coherent	Sequential	Synthetic
Number of Cultural Biases an Individual Supports	one	several	several
Additivity of Biases Effects	not relevant	no	yes
Rejection of a Bias	no	no	yes

Table 6.1 Theoretical Expectations for Each of the Approaches

this would support the Synthetic Individual Approach, or at least a signify that the Coherent and Sequential Individual Approaches are in need of modification, since they assume that individuals cannot live and act on the basis of the rejection of a bias (an individual relates to one bias and this must be a positive one).   The answers can be found by comparing the analyses performed in chapters three to five, but before this comparison I will shortly summarize the results from each chapter.

6.1   Summary

In **the first chapter** I showed how cultural theory does not have a well-developed model for how individuals and cultural biases are related to each other. There are several possible interpretations of this relationship, and I have specified three of them: the Coherent Individual, the Sequential Individual, and the Synthetic Individual Approaches. These three approaches express different views of the individual; of its

relation to cultural biases, of the cultural biases's relation to each other, and of how cultural biases are acquired. It is possible to detect some of these differences with statistical methods (see Table 6.1).

In **the second chapter** I present my data material, construct measures for cultural biases, and test for their reliability and validity. For my data I have used the Norwegian version of the 1993 ISSP survey on *Attitudes towards the Environment*, because it was the only survey with questions specially tailored to measure cultural biases. Cultural biases are indicated by the respondents' answers to questions about social issues. I have used a total of eight questions, each cultural bias being indicated by two questions. These question-pairs tap to two domains each, giving them better coverage of the content of each cultural bias.   These domains are central to cultural biases, and therefore the measures display content validity, i.e., the measures act as indicators of cultural biases. Unfortunately, Fatalism questions only tap to a single domain, which weakening their content validity.   I have tested for construct validity by using factor analysis to examine how these questions relate to each other. The questions used in the measurement clearly do have construct validity, because the four cultural biases emerge in the factor analysis. The scales are formed by taking the average of the standardized scores of the two questions. This way I achieve comparability between the scales on a numerical level, without losing the connection to the questions in the survey (as could happen through use of factor analysis). I have also tested these questions for reliability

by using Cronbach's alpha, which was low. This can be partly explained by the fact that each scale is based on only two questions. Another explanation lies in that most of the scales tap to two domains, and the correlation between the two domains is only moderate. Taken together, these two aspects result in a low alpha; scales based on few variables are less reliable than scales based on many variables. Considering all these aspects of measurement, I have confidence that the cultural bias scales measure what they are intending to measure, and that they are scales with mathematical properties.

The third chapter was based on the **Coherent Individual Approach.** This approach received empirical support. First, the sizes of the cultures were fairly similar in both my and Grendstad's (1995) operationalizations, even though these two operationalizations are quite different.   Second, cultural bias categories behaved as expected by the Coherent Individual Approach; respondents can be placed into the four cultures, and the four cultures differ from each other regarding age, education, sand ocial position. It is difficult to distinguish the individual effects of age, education, and social position on the relative strengths of the cultural biases, but in general the patterns found support the theoretical perspective.   This increases my confidence in the operationalization of the cultural biases.

The Coherent Individual Approach claims that the individual has only one cultural bias, or that one cultural bias dominates over the other cultural biases. To study this, one must look at effects of the cultural biases , for example on party preference. The four

cultures have clear effects on party preference (as anticipated by cultural theory), which could indicate that the strongest cultural bias dominates over the others. Hierarchists show a tendency to prefer DNA and Krf, and to not prefer SV and RV. Individualists show a tendency to prefer H and Frp, and to not prefer DNA and SV. Egalitarians show a tendency to prefer SV and RV and to not prefer H and Frp.   Fatalists show a tendency to prefer parties listed under "Other", or they would choose not to vote, and they show a tendency to not prefer H.

The Coherent Individual Approach has shown that the operationalization of cultural biases on the basis of the eight questions can be used with good results.

The fourth chapter is an exploration based on the **Sequential Individual Approach.** The respondents are categorized after how many and which cultural biases they support. This produces four monocultural biases, several bi- and tricultural biases and one quadracultural bias group, and the relative sizes of these groups varied from 2,6% to 21,3% of the sample. Most of the groups were fairly equal in size (around 5%).

Social background is clearly related to cultural bias and cultural bias combinations. Older people seem to prefer Hierarchy, while younger people show a tendency to prefer Individualism or Egalitarianism.   Age also has a very clear effect on the number of cultural biases a respondent supports. Respondents who support four cultural biases have a mean age of 60 years, while respondents with only one cultural bias have a mean age of 37.   Education has the opposite effect; increasing amounts of education seem to

lead to a reduction in the number of supported cultural biases, even when controlled for the effects of age. It is significant that age and education have opposite effects, and I suspect that they are sources of different types of knowledge. While age can provide an opportunity to experience several cultural biases, education is theoretical and most often has a strong socializing effect on the prevailing cultural bias.

Contrary to my expectations, social position did not have a considerable effect on the number of supported biases, when controlled for age and education. Social position (as defined here), though, is a poor measure of context; better data could have given different results.

Party preference is clearly influenced by sequential individuals' cultural biases. In very many cases the patterns can be explained by the Sequential Individual Approach, but there are also several cases that will be better explained by the Synthesized Individual Approach. My criteria for what should be considered as supporting the Sequential Individual was quite lenient, but still I found almost a third of the patterns did not fit this approach. This indicates that either the Sequential Individual Approach needs further development, or that there are other variables creating the unexpected deviations.

The **Synthetic Individual Approach** received empirical support in **chapter five**. Synthetic individuals' cultural biases are coded in order to take advantage of different degrees of rejection and support for cultural biases.   In the Synthetic Individual

Approach increasing age increases the general level of support for cultural biases. The increase in support for cultural biases is clearest for respondents over 50 years old. Education has the opposite effect, decreasing the amount of general support for cultural biases. When age and education are combined, their effects can still be distinguished; education has a decreasing effect on cultural bias support for all age groups, but this effect weakens with increasing age. There is also a difference in their effect on specific cultural biases: increasing age increases support for Hierarchy, and increasing education decreases support for Individualism. Most significant, though, is that age increases support for cultural biases in general. As stated before, this can be explained if cultural biases are interpreted as being a result of life experience. The same phenomena (age and education having opposite effects on the general support for cultural biases) were also found in the Sequential Individual Approach, and they can be explained by both approaches.

There seems to be several indications of additivity of cultural biases. By treating them as additive on an aggregate level, it is possible to predict coalition patterns for parties which seem to correspond to common coalitions in Norwegian politics. It is also possible to show that the effects are present on an individual level by looking at party preferences for the different clusters of cultural biases. A test of non-additivity showed that, for the most part, additive effects dominate; but in some situations non-additive effects between cultural biases become important. It is also possible, with a satisfying

level of precision, to build models to predict individuals' party preferences. In these models cultural biases are treated as additive and having a nonlinear effect on party preference, . This analysis also reveals that cultural biases seem to be only one of many aspects influencing party preference, and that in many cases cultural biases' effects are substantial.

None of these chapters alone can produce answers to my original three questions. The results are heavily influenced by the assumptions. The questions I am attempting to answer are included in the assumptions used in the three different approaches. For example, it would be a tautological situation to use the Coherent Individual Approach to prove that individuals support only one cultural bias.   The answers must be looked for in a systematic comparison of the results as described in Table 6.1. *Comparison will give results that are not dependent on only one set of assumptions; lacking an independent point of view, I am using a triangulation of assumptions to obtain more reliable information about individuals' relations to cultural bias.*   I shall first look at the number of supported cultural biases, then at the additivity of cultural biases' effects, and finally, on the importance of rejecting a cultural bias. These three aspects together are enough to differentiate between the three approaches.

6.2   Do Individuals have One or Several Cultural Biases?

In *Cultural Theory* references are made both to individuals who support one cultural bias and to individuals who support several. I will here try to judge the three approaches and find empirical signs supporting the one or the other alternative. If individuals' preferences are affected by more than just one cultural bias the Coherent Individual Approach cannot explain these findings.

6.2.1   Coherent

In the Coherent Individual Approach one of the assumptions was that the individual supports only one cultural bias, rejecting all others.   In Table 3.1 (Support for the Rejected Cultural Biases and the Coherent Individual) we can see that when individuals are grouped according to the cultural bias they support the most, the other cultures have considerably lower support levels than the strongest cultural bias. This could indicate that for most of the individuals there is one dominant cultural bias. The table is, though, based on the averages for each group, therefore it is impossible to say that all - or even most - individuals have a dominant culture.   Besides, dominance should probably be treated as an issue of effect, not just as presence of support.

6.2.2   Sequential

The Sequential Individual Approach assumes that individuals support several cultural biases. Even if the biases are used one at a time, the measurement is a composite of all the supported cultural biases because it is done at only one point in time. I have to

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Cultural Bias: mono and combinations
Based on the 30% rule.
                             Valid
 Number of      Freq.  Percent Percent
 Cultural Bias

 Mono            371     26.2    47.3
 Bi              252     17.8    32.1
 Tri             108      7.6    13.8
 Quadra           53      3.7     6.8
                 630     44.6  Missing
                ------- ------- -------
    Total       1414    100.0   100.0
```

Table 6.2 Number of Biases Supported by Sequential Individuals

assume that I can generalize from this one point of measurement - when the respondent answered to the survey - to other contexts, and that if a respondent supports several cultural biases, this is interpreted as support for these cultural biases in different contexts. This assumption is questionable, and reveals the need for collecting data from several different contexts for each individual.   By adding up some groups from Table 4.1 (Sequential Individual's Cultural Bias Combinations) we get Table 6.2, which shows how many cultural biases individuals support.   The largest group is clearly the respondents with only one cultural bias (47%), but at the same time this means that more than half of the respondents have more than just one cultural bias.

6.2.3   Synthetic

The Synthetic Individual Approach takes as its starting point the assumption that individuals' relations to the four cultural biases vary from strong support to strong rejection. Given this assumption one can still ask how many cultures each individual supports. The cluster analysis in chapter five shows the empirically significant combinations of cultural biases. In Table 6.3 we see frequencies for each cluster sorted by the number of cultural biases supported. 44.3% of the respondents support only one,[1] while 32.1% support two or several cultural biases. This indicates that it is an oversimplification for cultural theory to assume that individuals have only one cultural

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[1] There are 23% who have no preferred cultural bias in Table 6.2 and all these respondents are included in table 6.1, where such category is missing. In the Sequential Individual Approach I used the highest ranking 30% as supporters of a cultural bias. These 23% can thus have received a a score claiming that they support a monocultural bias, when they actually are against it. It just happens to be the cultural bias they are least against. Unfortunately I do not have the possibility to explore this indication of a potential problem in the Sequential Individual Approach (see Appendix ...)

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                         Valid            Valid
Value Label  Frequency  Percent    Freq  Percent

Rejection or none:
hie              90       6.7       317    23.6
none            113       8.4
f                62       4.6
e                52       3.9

mono:
hiEf             83       6.2       594    44.3
He               56       4.2
hiE              65       4.8
Ief             121       9.0
F                96       7.2
hIe              47       3.5
hE              126       9.4

Bicultural
HiE             134      10.0       134    10.0

Tricultural
HEF              56       4.2       187    13.9
IEF              97       7.2
HIE              34       2.5

Quadracultural
HIEF            110       8.2       110     8.2
                 72 Missing
               -------   ------     ----   -----
    Total       1414    100.0      1342   100.0

 Valid cases    1342
```

Table 6.3 Synthetic Individuals in Clusters Ordered by the Number of Supported Biases

bias. One should also note that the number of people supporting more than one bias is smaller than the number of people supporting only one bias (36% <44%). The reservations I had concerning the results from the Sequential Individual Approach do not apply here. Possible problems in this analysis are the "random" character of cluster analysis[2] and, as always, the operationalization of the variables, but neither of these could cause such big

fluctuations that they could explain that a third of rthe espondents have two or more cultural biases.

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[2] There are many ways of performing cluster analysis. The main differences are in the way the cluster centers are determined, and how the respondents are placed into these clusters. Every analysis gives somewhat different results, and often, as in this case, there are no compelling reasons to prefer one type of cluster analysis over another one.

6.2.4   Discussion

The Coherent Individual Approach cannot be directly used to estimate the number of biases supported by the respondents, because only a dominant bias is assumed. Indirectly, it shows that party preference can partly be explained by knowing which cultural bias the individual shows the most support for (this was also the criteria used to establish their cultural bias). Both the Sequential and the Synthetic Individual Approaches indicate clearly that there are a considerable number of respondents who support more than one cultural bias. These two approaches are based on different assumptions and operationalizations, albeit on the same measurements. There seem to be two possible interpretations of the empirical findings for the analyses used in the different approaches. First, the Coherent Individual Approach is correct, individuals are best described by only one culture that dominates the others. If this is true, one would find that in both the Sequential and Synthetic Individual Approaches the effects of the multiple biases do not really differ from the monocultural biases' effects. This is clearly wrong; in practically all cases where I have looked upon what kind of effect cultural biases have, we have seen that multiple cultural biases have an effect that differs from the monocultural biases' effects. The second possible interpretation is that many individuals do support more than one culture. I believe that the results in Table 6.1 and Table 6.2 cannot be interpreted in any other way.

One cannot, of course, dismiss the Coherent Individual Approach based on just one survey, but its applicability seems to be limited in this case since one of the central assumptions does not hold. The Coherent Individual Approach still has the advantage of being the simplest of the three approaches (Popper 1965). In many situations one might achieve sufficient precision by using the Coherent Individual Approach; after all over 44% of individuals seem to have only one bias.

6.3   Are Cultural Biases' Effects Additive?

The difference between the Sequential and Synthetic Individual Approaches should be apparent in the lack of additive effects for sequential individuals, and their presence for synthetic individuals.

In addition to the formal tests of additivity I believe that it is perhaps even more important to see what kind of **analysis** can be performed based on these assumptions. The quality of these analyses can be used to judge the usefulness of the assumptions.

6.3.1   Sequential

Throughout this thesis I have used party preference when I wanted to study the effects of cultural biases, because party preference offers a familiar, multi-dimensional system that actually allows for a study of interaction effects in a four-dimensional cultural bias system. In the chapter about the Sequential Individual Approach I focused

on structures in the data instead of on individuals' party preferences; I presented an

overview of how two monocultural biases' effects on party preference can relate to the

the bicultural biases' effects on party voting.[3] I was looking for different types of

relations between the mono- and bicultural respondents that could show whether the

bicultural biases effects' are the results of an additive or a non-additive process, or are

the results of something new and unexpected. The same overview can be used to

compare the Sequential Individual and the Synthetic Individual Approaches with each

other.   These results are reorganized for a comparison in Table 6.4. In Table 6.4 we see

how the Sequential and Synthetic Individual Approaches compare to each other when it

comes to the expectations about the relations between the mono and bicultural biases'

effects on party preference.[4]   Table 6.4 shows that there are 33 cases supporting the

Sequential Individual Approach and 15 against, which gives a balance of 18 in favor to

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[3] The overview is in Table 4.6. I have excluded RV and V because they have so few respondents. They are included in the illustrations in chapter 4 because RV, in particular, provides the possibility for interesting comparisons, and the uncertainty involved with the results RV are somewhat compensated by the use of adjusted residuals. Also, in Chapter 4 I could see what the results were for RV and V, whereas here I cannot use my judgement in the same way (all parties look equal after the frequensies are counted). In the comparison between the Sequential and Synthetic Individuals I prefer to be on the safe side, and use a conservative approach without the two smallest parties.

[4]   This discussion is based on the figures and discussion in Chapter 4. I have included the ynthetic Iindividuals in the same table to make it possible to compare them. Each case is ca omparison of how one party's supporters with different cultural bias deviates from the sample average. These comparisons reveal structural relations between the mono- and bicultural biased respondents.

	Supports Sequential	Weakens Sequential	total	balance
Supports Synthetic	16	3	19	-10
Weakens Synthetic	17	12	29	
Total	33	15	48	
Balance	18			

Table 6.4   Comparison of the Sequential and Synthetic Individual Approaches fit to the expectations of biases effect on party preference. RV and V are excluded.

Sequential. There are 19 cases supporting the Synthetic Individual Approach and 29 cases that weaken it, which gives a balance of 10 against the Synthetic Individual Approach. The Sequential Individual Approach fits much better with the patterns found here than does the Synthetic Individual Approach. One reason for this could be that the variables are coded for the Sequential Individual Approach, which could give it some advantage compared with the Synthetic Individual Approach. Rejections of culture are not counted in at all, and in Chapter 5 I showed how rejections of some cultural biases combined with support for another one can lead to a strong effect (as with SV, RV and Frp). Also, the Sequential Individual does not differentiate between different degrees of support. For example, DNA, SV, and RV differ in the degree they support Egalitarianism. I was looking for additive effects, but the coding behind the data reduces the measurements in a manner that hides many of the possible additive effects. Therefore I am not willing to conclude from Table 6.4 that Sequential Individual

Approach is better than the Synthetic Individual Approach. With confidence I can say

that Sequential Individual Approach seems to fit in two-thirds of the cases.

It is significant to note how big an effect the assumptions of the two approaches

have on the results of a comparison like this.   It is difficult to find a form of comparison

where both versions of the theory are on their "best", and can be judged by the same

standards. As a corrective for the analysis of the Sequential Individual Approach I have

performed an analysis of the Synthetic Individual Approach that focuses on the same

question: Is there additivity between cultural biases or not?

6.3.2   Synthetic

In chapter five I tested for additivity of cultural biases (in a situation where both

the variables and the analysis fit the assumptions for the Synthetic Individual Approach)

by adding the 16 clusters formed by the cultural biases to the additive logit model (see

Table 5.6: Test for Non-Additivity for Cultural Biases). The non-additive effects can be

ignored for most of the parties, but for DNA and Don't Know additive effects were so

small that non-additive effects become significant.   Both these groups are close to the

average in many ways, and the regression is a one way to predict deviation from the

average.[5] It is therefore possible that the results for DNA and Don't Know are at least

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[5] If a group does not deviate from the sample average on a variable, its regression coefficient on this variable
will be zero. The tests of significance can be interpreted as answering the question: Does the coefficient deviate so
much from zero that it is unlikely to get such a value as a result of sampling error?   Therefore, a zero coefficient can
be simultaneously "correct" and statistically insignificant.

partly caused by their location close to the sample means on several cultural biases. The

test of additivity indicates that additive effects are important when cultural biases are

defined so that they take into account degrees of support and rejection.

In chapter five I also presented an illustration of how cultural biases influence

party preferences. Graphs 5.6 to 5.21 show how for some respondents cultural biases

have a strong effect and for others they have practically no effect on the choice of party.

It is significant that in all these graphs, if there were two cultural biases that had effects,

additivity of the effects seems plausible.   For example, the simultaneous rejection of

Egalitarianism and support for Individualism, would lead to a high probability for Frp

and H, and an extremely low probability for SV. The graphs show how one cultural bias

alone is not able to create as strong effects as can the two together. The graphs

themselves represent a certain way of interpreting cultural theory; additivity is an

integral part of both the logit analysis and of the presentation. For me, the intelligibility

of the graphs and their ability to describe and explain phenomena in a manner that is

congruent with our understanding of Norwegians' party preferences, is a strong

argument in favor of the additive character of cultural biases.

6.3.3   Discussion

The results from the Sequential Individual and Synthetic Individual Approaches
are contradictory. Both approaches claim to be better than the other. In the Sequential
Individual Approach cultural biases are defined so that rejection of cultural bias is
excluded, and the coding does not take account for degrees of support. The results in the
Sequential Individual Approach analyses show that additivity is not important, and more
effects can be explained by the Sequential Individual Approach than cannot be explained
by it. There is a partiality in this analysis, as in all analyses; when there are degrees of
support are not taken into account, it is understandable that additive effects are not
important. It is difficult to add together variables that indicate only presence or absence.
 In the same manner, Synthetic Individual Approach is also partial; both rejection and
different degrees of support are included in the coding of cultural biases, which leads to
a situation where small additive effects become common, and most analytical techniques
for continuous variables assume additivity.

The most reasonable conclusion on the theoretical level seems to be that both
approaches have some truth in them: Cultural biases have both additive and non-
additive effects, and, depending upon how the analysis is performed, one of them
dominates.

One must separate theoretical arguments and practical arguments. One should
consider that when all available information from the survey is used (as in Synthetic
Individual Approach), theoretically it is equally possible to detect both the additive and

non-additive effects, and the additive effects proved to be more important. This does not

serve as a theoretical argument against the Sequential Individual Approach because

cultural biases are treated as continuous during coding and analysis. There seems to be

several practical arguments in support of the Synthetic Individual Approach; it makes

better use of the data, since all available information is used (degrees of support and

rejection); it allows use of several statistical techniques, since the variables are treated as

continuous; and there are several practical applications, as, for example the prediction of

coalitions between parties and the prediction of individuals' party preferences, possible

only when cultural biases are treated as continuous. None of these practical arguments

can be used to show that the Sequential Individual Approach has theoretical weaknesses,

but they are important for evaluation of use-value, which is important when theories are

judged against each other. Theoretical discussions are both interesting and important,

but ultimately they need to have possiblities for practical applications.

6.4   How Important is Rejection of Cultural Biases?

In cultural theory there is no systematic treatment of rejection of cultural bias. In my interpretations coherent individuals and sequential individuals do not actively reject cultural biases. Synthetic individuals do genuinely reject cultural biases, and this rejection is not simply a side-effect of supporting a different cultural bias.

6.4.1   Sequential

Rejections are not supposed to play a significant role in the Sequential Individual. It is interesting to notice that in Table 6.3 (Synthetic Individuals and the Number of Supported Biases), 23.6% of the respondents do not support any cultural bias. One third of these are indifferent about all cultural biases, 8.5% have rejection of one cultural bias as their only strong bias, and many (6.7%) reject all three active biases: Hierarchy, Individualism and Egalitarianism.[6] This can be a result of the operationalization,[7] or it

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[6] In addition to these respondents without a preferred bias, there is a high number of respondents who support at least one and reject at least one bias in Table 6.3. This is not a problem for the Sequential Individual Approach, since it could result from the supported bias causing rejection of the other biases.

[7] There is a certain degree of arbitrariness in these percentages because there is no agreed upon cut-off-point to use to determine when the cultural bias has an effect. Future research should try to establish a value for this. Additionally, I have standardized the answers from the survey so that the mean for a cultural bias will be close to zero, but it is not given that this mean should be zero. Perhaps the population is, on average, supportive of Egalitarianism, in that case I have systematically underestimated the support for Egalitarianism and overestimated the rejection of it.

can signify that there are individuals who mainly have opinions against something. If their number is significant, as it seems to be here, one of the assumptions for the Sequential Individual is incorrect. I assumed in the Sequential Individual that individuals cannot only use a rejection as a basis for their lives, because it does not give any guidelines for action. I only used support for cultural biases to divide the individuals into groups, but I probably should have tried to include the respondents with strong rejections.   If one is willing to accept rejection as a primary cultural bias, the theory of surprise needs to be rewritten; rejection also has a big effect on change. Rejections have an effect on what changes are possible....

6.4.2   Synthetic

The Synthetic Individual Approach is the only one of the three approaches that assumes that individuals can also reject a cultural bias, unrelated of what they feel about other cultural biases. The coding of the cultural biases takes into account different degrees of support and rejection.

In chapter five there are several examples of the importance of rejection; youth and supporters of radical parties tend to reject several cultural biases; in the analysis based on clusters rejection was as important as support; and in the logit analysis predicting individuals' party preferences rejection of a bias had a clear effect.   The analysis of age showed that a typical respondent below 40 years of age would reject two or even three of

the four cultural biases. Given that rejection has an effect, a description of these younger age groups would be poor if it left out the possibility of rejection. The rejection of cultural biases helps to explain why youth are often more radical than the rest of the people.   The same kind of radicalism resulting from rejection of cultural bias can be seen in the supporters of RV, SV, and Frp in the cluster analysis. For them, rejection of other cultural biases is an important part of their political ideology. Accepting rejection as part of cultural theory give us better means of understanding political parties that are not in the mainstream.

In the logit analyses we saw how rejection of a bias reduces the probability for preferring a party to close to zero (often in combination with support for an other bias), or rejection of a bias can trigger preference for a party. Respondents who reject Individualism and support Egalitarianism have practically a zero probability for preferring either H or Frp, but they would have a high probability for preferring either DNA or SV.   This indicates the importance of both additivity and the rejection of a cultural bias. We also saw how farmers had a fairly high probability for preferring Sp, but if they rejected Hierarchy and/or Fatalism, this probability decreased considerably. Also in this case we saw how rejection of a cultural bias effects party preference; even if the structural variable (occupation in agriculture, fishing, or forestry) points towards Sp, cultural bias variables have a strong modifying effect.

In addition to the empirical examples above, there are purely methodological arguments favoring inclusion of rejection in cultural theory. Most statistical techniques (regression, correlation, factor analysis, discriminant analysis, cluster analysis, ANOVA, etc.) do not separate the effect of rejection from that of support; they use only the numerical representations of the values. In other words, with all techniques where mean is used in the formula, positive and negative values are treated alike, in the sense that the sum of (-2, 0, 2, 2) is the same as the sum of (0, 0, 1, 1). Thus, if these techniques are used with the Coherent or Sequential Individual Approaches, one must note that the input into these procedures does not contain information about rejections; otherwise it would be just as significant as the information about supporting a cultural bias.   These techniques also assume that all or at least some of the variables are a continuum and most of these techniques assume additivity between the biases.

6.5   Conclusion

6.5.1   Comparison

This last chapter, and the design of this thesis, has been built on the idea of **a systematic comparison** of the results from the Coherent, Sequential and Synthetic

Individual Approaches stemming from the specification of individuals in cultural theory. I now turn to the results from the comparison.

There seem to be several indications of **multiple cultural biases** in the individual. I estimated that number of respondents who are multibiased varies from 32% in the Synthetic Individual Approach to 53% in the Sequential Individual Approach. These multibiased respondents' party preferences differ considerably from the monobiased respondents' party preferences, mostly in the magnitude of the tendencies, but sometime also in the direction. Cultural theory has no systematic treatment of the individuals who support several cultural biases.

There were signs of both **additive** and non-additive effects, depending on which approach was used. The Synthetic Individual Approach is the only one in which both additive and non-additive effects have an equal chance to be detected. The additive effects dominated over the non-additive effects, which became significant only when the respondents were close to the sample average on several cultural biases.

There are several indications of the **importance of rejections**. The only approach that accepts rejections and takes them into account, the Synthetic Individual Approach, shows that 15% of respondents support none of the cultural biases, but are against one or several cultural biases. Almost half of these reject all three active cultures (Hierarchy, Individualism and Egalitarianism). Cultural theory is silent about the possibility of having individuals who only reject a cultural bias.

This last chapter, and the design of this thesis, has been built on the idea of a systematic comparison of the results from the Coherent, Sequential and Synthetic Individual Approaches.   I shall here quickly summarize the results from the previous discussions, and try to draw a conclusion.

There seem to be several indications of **multiple cultural biases** in the individual. I estimated that number of respondents who are multibiased varies from 32% in the Synthetic Individual Approach to 53% in the Sequential Individual Approach. These multibiased respondents' party preferences differ considerably from the monobiased respondents' party preferences.

There are several indications of the **importance of rejections**. The only approach

	Coherent	Sequential	Synthetic	Empirical, based on the comparison
Number of Cultural Biases an Individual Supports	one	several	Several	Several
Additivity of Biases Effects	not relevant	no	yes	yes/no
Rejection of a Bias	no	no	yes	yes

Table 6.5 Theoretical Expectations for each Approach and Results from the Comparison of the Empirical Analyzes.

that accepts rejections and takes them into account, the Synthetic Individual Approach, shows that 15% of respondents support none of the cultural biases, but are against one or several cultural biases. Almost half of these reject all three active cultures (Hierarchy, Individualism and Egalitarianism). There is no room for these respondents in Coherent, or Sequential Individual Approach, because, even if these approaches can accept the idea of one bias being in opposition to another, they cannot deal with individuals who don't support any bias. In addition to these respondents, there are clear effects of rejection in party preferences; a typical supporter of a radical party rejects all other biases than the one its party bases its politics on. Rejections can also help to explain the radicalism of youth.

There were signs of both **additive** and non-additive effects, depending on which approach was used. The Synthetic Individual Approach is the only one in which both additive and non-additive effects have an equal chance to be detected. The additive effects dominated over the non-additive effects, which became significant only when the respondents were close to the sample average on several cultural biases.

Tabel 6.5 present a summary of the emprical expectations for each of the approaches and the results from the comparison of the empircal results. These results do not support the Coherent Individual Approach, since it does not take into account the presence of multiple cultural biases in the individual. Cultural theory has explanatory

strength also in this form, and it is clear and concise. One will probably need to modify this stringent version of the theory in empirical analyses to make it work.

The Sequential Individual Approach takes into account multiple cultural biases, but it does not accept rejections of cultural biases, even if they seem fairly common in the sample and have effects on party preferences. Whether Sequential Individual Approach can be modified to consistently include rejection of a bias without losing integrity is yet to be tested.

The Synthetic Individual seems to be the approach that structurally resembles the empirical findings closest. It incorporates individuals' support for several cultural biases, the eventual additivity of the biases effects, and the rejection of a cultural bias in the model. This model is not only the one that has the best structural resemblance, but is also the one that uses the most of the information available in the data, and is the one that successfully predict party coalitions and individuals party preferences.

It is difficult to **summarize other empirical foundings** from three different analyses, but there are some common traits.

As expected, **assumptions** have a strong impact on the results of each of the analyses (Strømsnes 1993). The different approaches give results that differ from each other significantly. I have tried to correct for this by using a systematic comparison of the results, and by focusing on the structures in both the theory and in the data.

Some sociodemografical characteristics have been stable in all approaches. **Age** increases support for all cultures, especially for Hierarchy. This can be explained both, by cultural biases being internalized in several contexts as in the Sequential Individual Approach, and by cultural biases being learned in several contexts as in Synthetic Individual Approach. **Education** has the opposite effect; increasing education causes people to have clearer opinions based on fewer biases.

It appears to be possible to use **individual level** data, and to base the analysis on measurements of cultural biases instead of measurements of grid-group dimensions. To be able to use cultural theory consistently on an individual level is a major **advancement.** We already have several works showing cultural theory's value in explaining phenomena on the meso and macro levels. The real challenge now lies in incorporating the findings on the individual level into cultural theory: individuals have simultaneous relation to several cultural biases, and these relations vary from strong rejection via indifference to strong support. Even if cultural theory is on the meso and macro levels, it includes a feedback mechanism involving individuals. It is tantamount that the individuals' position is clarified before cultural theory can become a general theory of social organization.

6.5.2   Conclusions

I will draw three **main conclusions** from the theoretical and empirical discussions

in this thesis.

First, individuals have a relation to several cultural biases. Cultural theory does not

treat this systematically.

Second, individuals can reject cultural biases independently of the biases they

support. Cultural theory is silent about such a possibility.

Third, cultural theory can be succesfully used on the individual level to predict

party preferences when multiple biases and rejections are incorporated in to the model

(i.e., using Synthetic Individual Approach).

These conclusions will have consequenses for cultural theory; for example, the

theory of surprise needs revision if the synthetic individual approach is accepted.

My development of the three approaches has been partly driven by my empirical

findings, and more empirical work will be needed before fundamental theoretical

changes are warranted. Cultural theory is a theory about the relation between the

context and cultural bias, and to further clarify individuals' relations to cultural biases

context-sensitive data about individuals' placements in the grid-group dimensions are

needed together with data about individuals' cultural biases. There is also a need to study

under which conditions individuals are likely to develop Coherent, Sequential, or

Synthetic traits, and whether it is possible for one individual to combine these different

ways of relating to the cultures, or, as the authors of *Cultural Theory* wrote:

> The challenge for future research lies in specifying the conditions under which one [consistency or
> compartmentalization] is more likely than the other (Thompson, Wildavsky & Ellis 1990:266).

FIGURES:

TABLES:

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