

# Nyborg's 'The Intelligence-Religiosity Nexus' and the Benefits of Consilience

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## Abstract

A critique of Nyborg's (2009) analysis of the relationship between IQ and religiousness is presented. It is argued that its problems, although relatively minor, could have been avoided if Wilson's (1998) consilience model were followed. In particular, it presents a number of errors of categorization (which impact its results) that could have been avoided if a Religious Studies expert had been involved in the review process.

**Keywords:** Intelligence, Religion, Religious Studies, Consilience.

## 1. Introduction

Nyborg (2009) has presented an analysis of the relationship between intelligence and Christian denomination amongst whites in the USA. A large number of studies, and a number conducted since 2009, have found a weak but significant negative correlation (around 0.2) between religiousness and intelligence (e.g. Dutton & Lynn, 2014, Kanazawa, 2012; Meisenberg et al., 2012; Lewis et al., 2011; for meta-analyses Dutton, 2014, or Zuckerman et al., 2013). Many of these studies, as with Nyborg (2009), have also noted that those who are dogmatic in their religiousness have lower intelligence, on average, than those who are questioning (or liberal) in their religiousness, though religiousness overall is negatively associated with intelligence. It has also been found that this relationship exists even amongst those with very high IQs (Dutton & Lynn, 2014). Based on the NLSY 97, Nyborg (2009) shows that atheists are more intelligent than agnostics, agnostics are more intelligent than the liberal religious, and the dogmatic religious are the least intelligent of all. Certainly, other studies have ranked denominations in terms of IQ differences or proxies such as education. For example, Verhage (1964) using a nationally representative Dutch sample of 1538, found that agnostics scored 103.8, two Protestant groups scored 100.55 and 99.85 respectively and Catholics scored 97.95 IQ points.

However, there are a series of relatively minor problems with Nyborg's analysis which I wish to highlight. I argue that these errors demonstrate the importance of Wilson's (1998) 'consilience' model: that the humanities need to be integrated into the sciences, with the same vocabulary and empirical worldview, such that the humanities are consistent and meaningful and the sciences and can benefit from the knowledge gained therein. In the following commentary, I will examine Nyborg's study for reasons of accuracy and in the hope that such an exercise will be useful to other researchers who may conduct similar projects in the future.

## 2. Consilience

What is 'consilience'? In essence, the physical sciences are relatively unified but the social sciences are much less so, each with their own vocabulary, theoretical constructs and (sometimes dogmatic) assumptions (see Wilson, 1998). An example would be the cultural determinist assertion that environmental variables explain all differences in religiousness, despite considerable evidence (based on twin-adoption studies) that religiousness is about 44% genetic (see Dutton, 2014). This lack of unity is not only inefficient but it renders some

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research in social science irrelevant to those who do not share its assumptions, just as some forms of research in theology are irrelevant to non-believers.

The unifying ideas of physical science - logic and the empirical method - lead to us being able to make correct predictions about how the world works, and we cannot live if we cannot do this. The philosophical principle of pragmatism argues that theories are tools to better understand, and find our way through, the world. If a theory is sound then you should be able to live by it. James (1907, p.28) therefore presented pragmatism as a 'method for settling metaphysical disputes that might otherwise be interminable.' Unless a 'practical difference' would follow from one or the other side's being correct, the dispute is idle.

Following logic and the empirical method (the essence of 'science'), we can argue that from a pragmatic perspective the success of science in answering questions evidences the need for social science to be consilient with science. It is simply inconsistent for it not to be. As Richard Dawkins (2003, p.15) puts it:

'Show me a cultural relativist at 30,000 feet and I'll show you a hypocrite<sup>2</sup> . . . If you are flying to an international conference of anthropologists . . . the reason you will probably get there, the reason you won't plummet into the ploughed field - is that a lot of Western, scientifically trained engineers have got their sums right.'

This is not the case with many examples of social science, which are based on dogma rather than the scientific method. Many of the predictions with this basis have been proven incorrect, such as the belief that the behavior patterns in puberty exist entirely for cultural reasons (see Freeman, 1983).<sup>3</sup> Thus, from a pragmatic perspective, the social sciences need to be reducible to - consilient with - the natural sciences. Rejecting this proposal rejects the ability to make correct predictions about how the world works, we cannot live if we do this, so it is not pragmatic.

This system of reductionism involves each discipline being reducible to the one beneath. Thus, the test of an assertion in a humanities subject (such as Religious Studies) is that it can be reduced to a social science, such as sociology or anthropology. The test of an assertion in anthropology is that it can successfully be reduced to psychology, any assertion in psychology must be explicable in terms of research in biology, biological research must be reducible to chemistry, chemistry must be reducible to physics and physics must be reducible to pure Math, in other words, the basics of logic. There are some postmodern scholars who argue that 'logic' is merely a Western ideology. However, there are two problems here: (1) It is clear that you cannot successfully negotiate life if you do not accept logic and empirical method. Unable to comprehend experience, you would not survive. (2) The postmodern argument is internally inconsistent because it attempts to prosecute its case logically. If it is asserted that 'there is no such thing as objective truth' then that proposition is not objectively true. As such, we only persuade others through violence and intimidation. This would lead to chaos and the destruction of the cultural space in which postmodern anthropologists operate. Once the disciplines are consilient then we have a clear benefit: disciplines such as Religious Studies are no longer strongly separated from quantitative psychology.

## **2. Problematic Categorization of Denominations**

Firstly, Nyborg's categorization of religious groups - with which he reaches his statistical conclusions on the relationship between intelligence and religiousness - can be seriously questioned. His categorizations can be seen in Table 1.

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<sup>2</sup> It might be argued that this term is an appeal *ad hominem*. Perhaps Dawkins should have substituted 'hypocrite' for 'highly inconsistent.' But it would be inconsistent for a person who rejects logic to criticise him on these grounds anyway.

<sup>3</sup> It might be argued that a number of branches of social science adopt a scientific methodology but still make incorrect predictions. However, this is something true in biology as well. It is likely caused by minor errors of logic and observation and would be more likely to occur if the disciplines were built around dogmatic assumptions.

**Table 1: Rough Divisions of Religious Orientations (Nyborg, 2009)**

Denomination	Atheist	Agnostic	Liberal	Dogmatic
Anglican			X	
Jewish			X	
Atheist	X			
Agnostic		X		
Methodist			X	
Presbyterian			X	
Lutheran			X	
Protestant (Other)			X	
Disciples of Christ				X
Roman Catholic				X
Other				
Mormon				X
Un. Church of Christ				X
Bible Church				X
Muslim				X
Personal Philosophy				
Holiness				X
Baptist				X
Pentecostal				X

Nyborg defines 'liberal' religiousness as 'fairly open, critical, less committed, metaphorical, cultural heritage-type persuasion.' He defines 'dogmatic' as 'more committed, personal relationship with Jesus, emphasis on sinfulness, explicit rules for behaviour and need for atonement.' He finds that the denominations that are 'liberal' all have higher IQs while those that are 'dogmatic' have lower IQs.

Just as many in the humanities, especially when influenced by postmodernism, are sceptical of quantitative methods, many of those in the sciences can tend to be dismissive of humanities or social science subjects. Kanazawa (2012, p.83), for example, dismisses sociology - all sociology - as a 'pseudoscientific.' However, humanities writing tends to focus on the importance of accurate, nuanced definitions - understanding the essence of something (Dennett, 1995). This is important if we want to make an accurate division between 'liberal' and 'dogmatic.'

As such, let us turn to the analyses of these groups in Religious Studies and the social sciences. 'Disciples of Christ' can only ambiguously be placed in the 'dogmatic' category. Members must accept only one essential dogma: that Jesus is the Son of God. They do not, in theory anyway, need to assent to any other dogmas (e.g. Boring, 1997). As such, Disciples of Christ should be categorized as 'liberal' or, at least, there is a persuasive argument for so categorizing it. The United Church of Christ is generally regarded as theologically liberal. Indeed, Sherkat (2010, p.406) goes so far as to classify the United Church of Christ as 'ultraliberal' and indicates that it is widely accepted among religion scholars that it is an extremely liberal church. It is unclear on what basis Nyborg decided that 'Protestant (Other)' was 'liberal.' In that this is likely to refer to churches with small numbers of adherents or simply independent churches that are not part of any broader congregation, it seems just as likely that these churches would be a mixture or even moving towards dogmatic.

The placing of Catholicism in the 'dogmatic' category is extremely questionable, at least among a white sample. The Catholic church is broad with 'conservative' and 'liberal' congregations. Within this broad church there are both conservative and liberal tendencies,

rendered pronounced by the large number of adherents (e.g. Dolan, 2003). In addition, Catholicism can be supposed to involve a strong conventional element: people who do not necessarily believe in its doctrines remaining members of the church, or practitioners, for cultural reasons. For example, the rituals of Catholicism (specifically) are significant to those who wish to maintain Irish or Italian American heritage (e.g. McCaffrey, 1997). Interestingly, Nyborg actually finds that Catholic IQ is the average for all the religious groups, which would again imply it is at best border-line dogmatic/liberal.

Nyborg does not categorize 'Personal Philosophy' as 'liberal' or 'dogmatic.' However, the research on those who claim to have 'personal philosophy' indicates that it is seemingly not dogmatic. It involves accepting a variety of perspectives and believing that there is some kind of ultimate meaning behind the universe (e.g. Bailey, 1997). As such, there would be a sound case for categorizing this as 'liberal,' despite the fact that the average IQ of adherents is quite low, 16th out of all the groups Nyborg looks at, beneath 'Mormon' and 'Bible Church.' Nyborg (2009, p.90) concedes the 'limitation' that, 'The IQ differences between the various religious categories most like are seriously underestimated, because the delineation is qualitative rather than definitive.' However, a clear further limitation is the author's lack of familiarity with the research on the nature of the groups he is studying. It may well be that, for this reason, he actually over-estimates the IQ differences between groups. This is because groups that are clearly liberal are categorized as dogmatic. In addition, 'Protestant (Other)' can only, with hesitance, be categorized as being 'dogmatic,' as it may include Unitarians, for example. If we follow the categorization system drawing upon Religious Studies research, then Nyborg's conclusion - that liberal churches have higher IQs than conservative ones - is less clear cut, though still broadly correct. This is because the most extreme liberal church - United Church of Christ - has the lowest IQ of any church in the liberal category, below highly conservative groups, like the Mormons.

This problem of categorization could have been obviated if an expert on religion *per se* - and who would accordingly be unlikely to be associated with the journal *Intelligence* - had been given the opportunity to review Nyborg's study. Clearly, if the humanities were properly consilient with the sciences then organizing this would be relatively easy. However, a step in this direction would be that scientific journals presented with studies of this kind appoint a reviewer from the relevant humanity subject. It is possible that this will result in a series of post-modern criticisms which we can safely ignore (and a sensible editor would also ignore any recommendation of rejection on these grounds) but it may also result in some very useful ideas that could seriously improve the study.

### **3. Defining 'Liberal' and 'Dogmatic'**

Anyone who has any training in the humanities will be aware of the essentialist emphasis that is placed on defining key terms in a satisfactory way. The negative dimension of this is that it can become a way of suppressing analyses which the critic dislikes. He can insist that certain key terms cannot be satisfactorily defined only when he dislikes the consequences of employing them, when all concepts suffer from the same philosophical problems.

For all these reasons, a degree of caution with regard to the humanities' emphasis on defining words is understandable. However, as Dennett (1995, p.35) points out, we must clarify our terms 'up to a point.' There is some benefit in examining the meaning of concepts and I would suggest that Nyborg's study would have been much improved if 'dogmatic' and 'liberal' had been problematized in considerably more detail. From a scientific perspective, for example, a factor analysis could be conducted to see if there really is a meaningful distinction between 'liberal' and 'dogmatic' within denominations. In general, Nyborg is probably correct in distinguishing between 'liberal' and 'dogmatic' within religion. Overall, he does find that the very conservative religious groups (such as Pentecostals) have significantly lower IQs than the very liberal ones. But when it comes to understanding why different denominations are where they are in his rankings then this may come down to

subtle combinations of 'liberal' and 'dogmatic' aspects. As such, examining what these might be in much greater detail would have benefited his study and this would have been recommended by most Religious Studies reviewers.

A further problem is that the terms 'liberal' and especially 'dogmatic' effectively relate to belief. This is relevant in terms of understanding monotheistic religions, in which membership is defined by belief in certain dogmas, but it is less relevant when broadening our inquiry into polytheistic religion. Benoist (2004) has observed that those who are considered 'religious' in countries such as India and Japan are not those who have fervent beliefs but rather those who scrupulously engage in ritual activities. As such, Nyborg's analysis can be rendered more broadly relevant by adopting terms which do not inherently relate to belief, such as, perhaps, 'liberal' and 'conservative.' Moreover, Benoist points out that Catholicism is, in a sense, more 'polytheistic' than Protestantism, in that it has the Cult of the Saints (as minor gods) and also in that it has a heavy emphasis on the importance of ritual. Thus, understanding the degree to which a religious group is 'liberal' or 'conservative' needs to take both dogma and ritual into account, especially as a negative correlation has been found between intelligence and religious practice (Zuckerman et al., 2013). This kind of nuance could have been achieved if a Religious Studies scholar had been consulted as part of the peer-review process. It is likely that he would have been sceptical of the concept of 'intelligence' and even of quantitative analyses but he would probably have had a more in-depth knowledge of differences between denominations and what is usefully understood as 'liberal' and 'dogmatic.'

#### **4. Defining 'Atheist'**

Nyborg's understanding of 'Atheist' would seem to be questionable. He assumes that atheism is inherently rational: 'In terms of evolution, modern Atheists are reacting rationally to cognitive and emotional challenges, whereas Liberals and, in particular Dogmatics, still rely on ancient, pre-rational, supernatural and wishful thinking' (Nyborg, 2009, p.82). However, this is not the case when atheism is a dogma within a broader ideology which functions in a similar way to religiousness, a point made by many Religious Studies scholars (e.g. Boyer, 2001). Many atheists may be political extremists of the far left, and there is evidence that such a viewpoint - we might term it 'dogmatic atheism' - is associated with relatively low intelligence (e.g. Rindermann et al., 2012). This would help to explain the weak correlation between intelligence and religiousness. Again, an insight of this kind, from Religious Studies to a considerable degree, would have improved and nuanced Nyborg's study and thus it is further evidence of the usefulness of consilience.

#### **5. Conclusion**

Though examining the relationship between intelligence and religiousness based on national samples is to be welcomed, there are a number of problems with Nyborg's (2009) research. These all related to a relative lack of space given over to defining his key terms. If he had spent more time doing so, it would have generated possible insights and much improved his very interesting study. Thus, Nyborg's study evidences the need for greater consilience in the study of religion. Those who study it as part of quantitative psychology would benefit from collaboration with those who study it in the humanities. We can move towards this goal with a policy whereby studies of religion and intelligence are routinely sent for review not just to intelligence researchers but to those in the field of Religious Studies. And, of course, this could be extended beyond Religious Studies to any subject area which intelligence researchers might wish to examine.

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