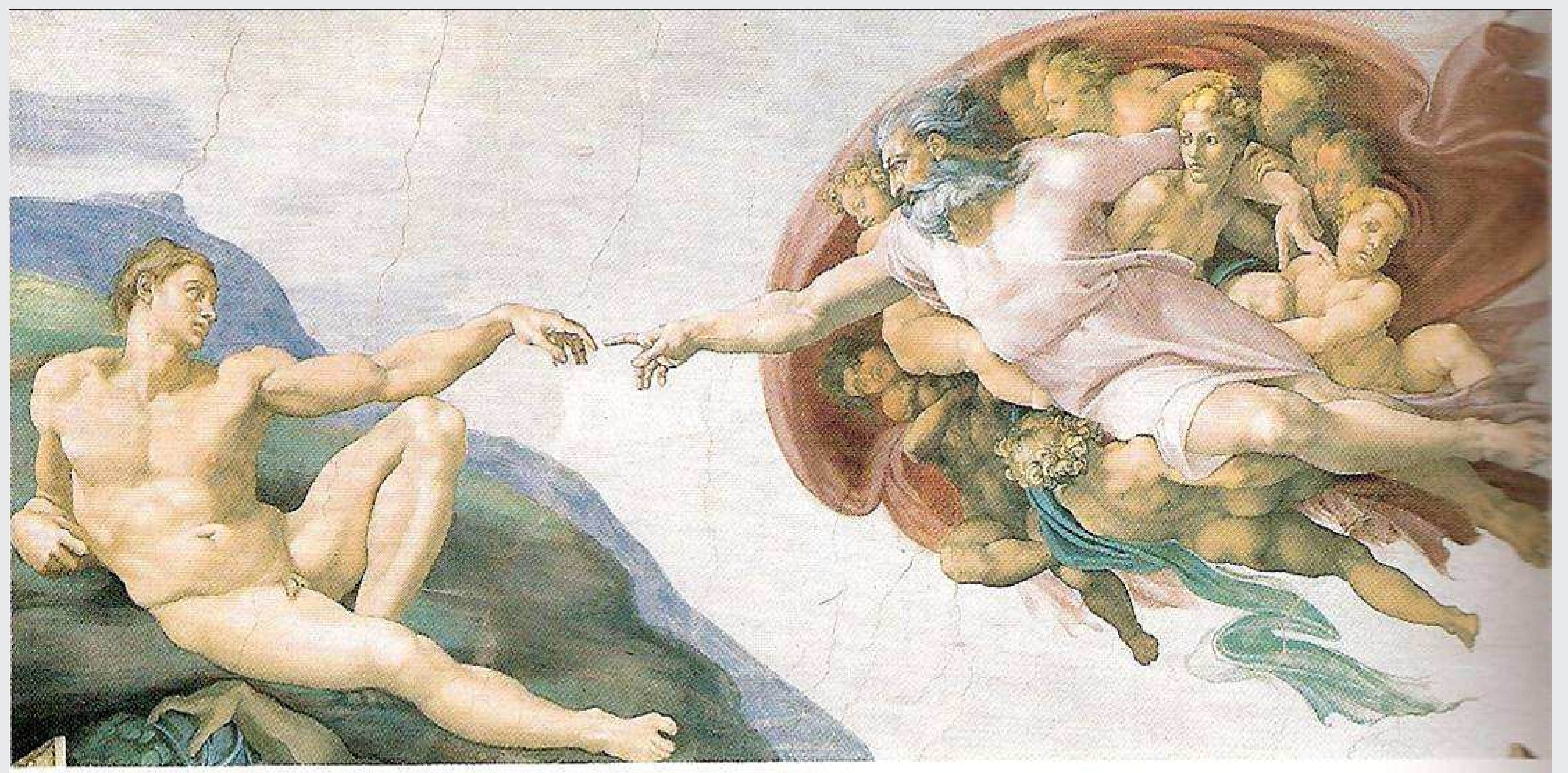


Nienke Moor, Ariana Need & Wout Ultee

Radboud University Nijmegen, Sociology

Funded by the NWO-program Evolution and Behaviour
Project number 051-12-018



Explaining worldwide religious diversity

The relationship between subsistence technologies and ideas about the unknown

Research question

What religious ideas prevail under which circumstances?

Interdisciplinary character

- We demonstrate that evolutionary theories from biology, which are diffusing to psychology, might also be of interest for the social sciences.
- We contribute to the interdisciplinary discussion between theories who consider religion as adaptive (commitment theory; ecological regulation theory) and theories that consider religion as non-adaptive (cognitive theory; ecological evolutionism).
- We use both fieldwork descriptions and survey data to answer our research questions.

Theory

Ecological evolutionism (Lenski 1970)

Changes in a society's subsistence technology are the primary force driving social evolution. Religious ideas are a *by-product* of technological development.

Topitsch (1954):

People interpret the unknown through analogies with the known.

The known can consist of biological processes (biomorphism), societal relations (sociomorphism) and technical skills (technomorphism)

Table 1: Hypothetical link between a pre-industrial society's level of technology and its thought models

A society's level of subsistence technology	The main thought models in a society's creation stories
Hunting and gathering	- Biomorphic analogies (vital processes, natural phenomena) - Sociomorphic analogies (kinship ties, female influence)
Fishing	- Biomorphic analogies (vital processes, natural phenomena) - Sociomorphic analogies (kinship ties, female influence)
Simple horticulture	- Biomorphic analogies (vital processes, natural phenomena) - Sociomorphic analogies (kinship ties, female influence)
Advanced horticulture	- Biomorphic analogies (vital processes, natural phenomena) - Technomorphic analogies (technical achievement / plan) - Sociomorphic analogies (kinship ties, ruler, female influence)
Agriculture	- Technomorphic analogies (technical achievement / plan) - Sociomorphic analogies (ruler, male dominance)
Herding	- Technomorphic analogies (technical achievement / plan) - Sociomorphic analogies (ruler, male dominance)

Data for pre-industrial societies

Murdock's Standard Cross-Cultural Sample

- Coded information (from fieldwork descriptions) for 186 societies, each pinpointed to a particular locus and point in time.
- Most data pertain to the period between 1800 - 1950.
- Societies are not neighbouring

Human Relations Area Files

- Uncoded information for over 370 societies
- We coded fieldwork descriptions for obtaining data about creation myths for a majority of the societies of Murdock's Standard Sample (138 societies).

Data for (post-)industrial societies

The European Values Studies and The World Values Surveys

- Large scale, cross-national survey data
- Information about people's ideas about god, heaven and hell
- The questionnaires of the two research groups display many similarities

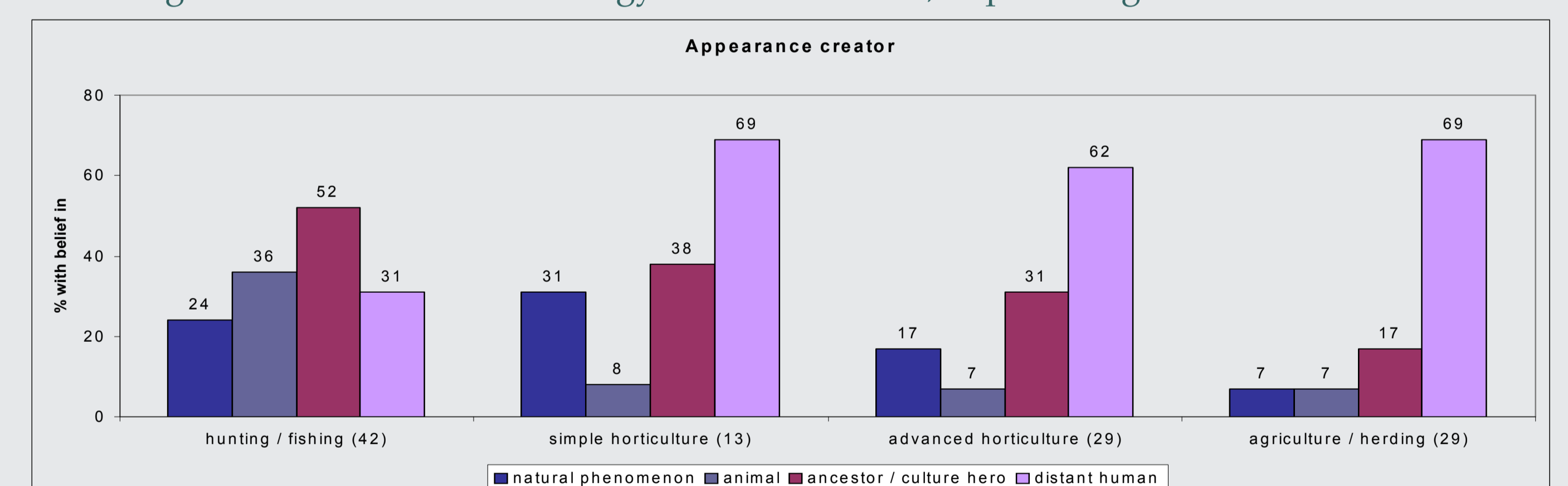
Results

Religious diversity in pre-industrial societies:

A shift from questions regarding gods who now and then create, to questions about creations that sometimes involve a god.

- The belief in a non-moralizing all-powerful god prevails in societies where people are expected to reason in technomorphic terms (advanced horticultural societies), whereas the belief in a moralizing all-powerful god prevails in societies where people are expected to reason in sociomorphic terms that refer to states (herding & agrarian societies).
- The belief in a moralizing all-powerful god frequently occurs in agrarian societies, because it is closely linked with craftsmanship (indirect influence of subsistence technology).
- The independent effect of subsistence technology on reproductive success is larger than the effect of a society's godly image (this supports the argument that religion is a by-product of technological development).
- In technologically lower advanced societies creation myths are based on biomorphic analogies, kinship analogies and female participation analogies, whereas in technologically higher advanced societies creation myths are based on male dominance analogies and ruler analogies.

Table 2: Type of creative force mentioned in creation stories of 116 pre-industrial societies according to the subsistence technology of these societies, in percentages



Religious diversity in (post-)industrial societies:

A shift from the question which people believe in god to questions in which god people believe and which other phenomena feature in stories about god.

- Ongoing industrialization makes the image of a personal god less likely, in favour of the belief in an abstract god, agnosticism and atheism. The belief in an abstract god and atheism are both popular among high educated people.
- Ongoing industrialization makes the belief in heaven, and especially the belief in hell less likely.
- It is not only people's experience with the societal structure (contextual influence) that influence their religious ideas, but also their own characteristics (compositional influence).
- There is not one specific process that can account for the relationship between industrialization and ideas about god, heaven and hell (democratization, rationalization, individualization, increasing human security).
- The transition of traditional ideas from old generations to new generations is complicated by people's detachment from traditional institutions.

Table 3: belief in heaven and hell by type of society (%)

belief in heaven and hell	agrarian	Industrial	post-industrial
belief in heaven and hell	74.3	44.6	31.7
belief in heaven, not in hell	9.1	11.4	18.6
belief in hell, not in heaven	0.6	0.7	0.5
belief in none	16.0	43.3	49.2
N	48.293	81.061	74.093

