



# Explaining religiosity: towards a unified theoretical model

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## Abstract

The article presents a unified theoretical model, explaining differences in Christian and 'alternative' religiosity at individual and collective levels. The model reconstructs and integrates the most important theories explaining religiosity (deprivation, regulation, socialization, cultural production, and ethnicity) as complementary causal mechanisms in a rational-action based framework. It is maintained that the mechanisms of the various theories are not exclusive, but complementary, and that integration into the general model is both theoretically and empirically beneficial. The model is tested on representative data from Switzerland. Substantively, I find for the Swiss case that Christian religiosity can be best explained by a religious socialization mechanism. The most important mechanisms accounting for alternative religiosity involve deprivation, gender, and age.

**Keywords:** Christian religiosity; alternative religiosity; explanation; rational action; deprivation

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## 1. Introduction<sup>1</sup>

The question as to how we can explain religiosity sociologically gives rise to a variety of answers. Modernization theorists claim that religiosity changes with the level of rationalization and differentiation (Wallis and Bruce 1995; Dobbelaere 2002). Rational-choice theorists want to convince us that what really influences religiosity is regulation of the 'religious market' (Iannaccone 1991). Still others argue forcefully that socialization is most important (Kelley and De Graaf 1997; Voas 2003; Voas and Crockett 2005). Recently, Pippa Norris and Ronald Inglehart (2004) have claimed that religiosity is really explained by two things only: existential insecurity (a form of deprivation) and religious culture. The discussion is lively, to say the least, with opponents accusing each other of serious errors of fact, revisionism, incompetence,

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1 untruthfulness and sometimes even going so far as to wish for the death of  
 2 their adversaries' theoretical constructions (Stark and Finke 2000: 79; Bruce  
 3 1999: 2).

4 In this multiplicity of different opinions, many researchers seem to think  
 5 that one or the other theory 'must be right', and that one mechanism should  
 6 be able to explain everything. While this would certainly be 'elegant' from a  
 7 theoretical point of view, it is in my view highly unlikely. The nature of social  
 8 and historical reality is such that many different economical, social, technical,  
 9 and historical mechanisms are at work in different times and places. We will  
 10 not find the *one* cause of religiosity even if we do surveys for another fifty  
 11 years.

12 Given this state of affairs, it seems sensible to set up a list of the most  
 13 important theoretical mechanisms known to date, and to integrate them into  
 14 a common theoretical framework. In doing so, we will get a larger picture of  
 15 possible causalities and interactions and will be able to use them jointly in  
 16 order to explain specific socio-historic settings. This is what I try to accom-  
 17 plish in this paper. In order to do this, I use a general model of action  
 18 advanced by German scholar Hartmut Esser as a common theoretical  
 19 denominator, extract the (implicit or explicit) mechanisms that different  
 20 theories and empirical studies propose, give them a properly explanatory  
 21 structure, cleanse them of unnecessary assumptions, and build them into a  
 22 common theoretical framework. I maintain that theories that have been  
 23 transformed into causal mechanisms in the general model will usually  
 24 become both theoretically more interesting and easier to operationalize and  
 25 test. In what follows, I

- 26 – define the terms 'religiosity' and 'explanation' and sketch the abstract  
 27 explanatory model by Hartmut Esser (section 2)
- 28 – outline five of the most important theories that aim to account for religi-  
 29 osity and integrate them as complementary causal mechanisms into the  
 30 general model by Esser (section 3)
- 31 – describe the theoretical advantages that have been gained by building the  
 32 mechanisms into the model (section 4)
- 33 – describe a case study that applies the model to representative data in  
 34 Switzerland, showing empirical pay-offs (section 5)

## 35 36 **2. The problem: explaining religiosity**

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38 The goal of this article is to construct a unified model for the explanation of  
 39 religiosity. It is therefore useful to define the central terms of this problem and  
 40 to discuss the main theoretical background we will use.

## 2.1 Religiosity and religion

I define *religiosity* as *individual* preferences, emotions, beliefs, and actions that refer to an existing (or self-made) religion. ‘Religion’ then denotes the whole of cultural symbol-systems that respond to problems of meaning and contingency by alluding to a transcendent reality which influences everyday life but cannot be directly controlled.<sup>2</sup> Religious symbol-systems incorporate mythical, ethical and ritual elements as well as ‘salvation goods’. Note that – following these definitions – religiosity is an individual and religion a cultural phenomenon. If an individual prays, sacrifices, believes, loves or fears his god – then this is ‘religiosity’. ‘Christianity’, ‘Islam’, ‘Christian Science’ or ‘Raelianism’, on the other hand, are religious symbol-systems, that is, ‘religions’. In the example below we will be measuring and explaining two distinct religiosities: Christian and alternative. While the first religiosity is made up of preferences, emotions, beliefs, and actions referring to the Christian symbol system, alternative religiosity concerns preferences, emotions, beliefs and actions that are concerned with ‘New Age’ or ‘Alternative Spirituality’ (Stolz 2005; Bloch 1998).<sup>3</sup>

□

## 2.2 Sociological explanation

Explanations are not just descriptions, typologies or ‘conceptual frameworks’, but very concrete answers to ‘why-questions’. In a very general way, a phenomenon can be said to be explained if one can show how it results from a set of initial conditions and a generative (and therefore causal) mechanism (Hedström 2005). More specifically, a sociological explanation is given if we can show how an initial situation (macro) leads individuals to react to this situation (micro) and how, through aggregation, these individual reactions combine to form a new social outcome (macro), that is, the phenomenon to be explained (Coleman 1990). The ‘social causality’ or the ‘mechanism’ therefore incorporates

- (a) opportunities, norms, and cultural resources in a situation,
- (b) ‘rational’ action, based on beliefs and preferences by various individuals reacting to these situations and
- (c) the fact that these reactions may have various intended and unintended effects.<sup>4</sup>

Important authors in the field of explanatory sociology are, for example, Boudon (1998), Coleman (1990), or Goldthorpe (2000). A new formulation of the model that summarizes and integrates the advances of recent decades appears in the books by Hartmut Esser (1999, 2000). ‘Explaining religiosity’ with such a mechanism-based approach requires us therefore to show how

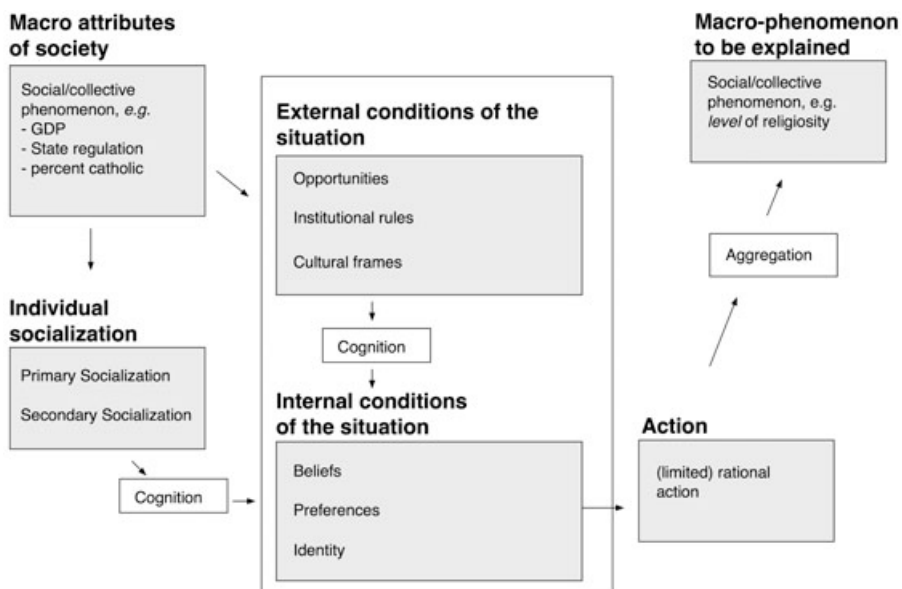
attributes of initial situations (concerning opportunities, norms and culture) will lead individuals to adapt rationally by choosing more (or less) religious actions, thereby creating, when the individual actions are aggregated, the differences in religiosities we wish to explain (Stolz 2009a). Note that such a unified theory is not restricted exclusively to one type of religiosity, but should be applicable to religiosity in general.<sup>5</sup>

### 2.3 An explanatory model of action (Esser)

The Esser model is outlined (in a simplified way) in Figure I. In what follows, I explain the most important elements of this model by beginning on the top right:

1. The model explains *macro-phenomena*. The goal is not to account for the actions of a single individual, but to explain differences between social groups (e.g. differing *levels* of religiosity, *rates* of suicide, etc.).
2. The macro-phenomenon that is to be explained results from the *aggregation* of individual actions. A *rate* of suicide comes into being through the aggregation of the different individual suicidal *actions*.
3. Individual actions are assumed to be *rational*. An action is said to be rational, if it chooses from all possible options the one that promises the greatest utility. We opt for a model of ‘bounded rationality’ (Simon 1983);

Figure I: The explanatory model of action



1 this means that we acknowledge the influence of institutional and cultural factors as well as the fact that individuals only have a limited faculty of calculation.  
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- 4 4. Individual actions take place in *situations*. Here, Esser distinguishes external and internal conditions of the situation. *External conditions of the situation* are again broken down into opportunities, institutional rules, and cultural framing. Opportunities consist of factual options faced by individuals, that is, the means an actor controls in a situation in order to reach his or her goals (Esser 1999: 52). This is where scarcity plays an important role, which is why economists focus (often exclusively) on this level. A second element of external conditions of the situation consists of institutional rules, e.g. societal norms, roles or constitutions, which are backed up by positive or negative sanctions (Esser 1999: 53). The third element of external conditions is cultural frames. These are ‘models’ for typical situations and processes such as ‘frames’ or ‘scripts’, as well as symbol systems (like languages or ideologies).<sup>6</sup>  
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- 17 5. The *internal conditions of the situation* of individuals consist of beliefs, preferences and identity. Beliefs include cognitions, the stock of different types of expertise, and the expectations that an individual has at its disposal. Preferences are ordered evaluations by means of which an individual assesses its environment. Personal identity is the sum of self-descriptions and self-evaluations of an individual (including descriptions and evaluations of him- or herself to the environment).  
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- 24 6. In our model, the external conditions of the situation are influenced by  
25 ‘*Macro attributes of the society*’. These can be societal structures (e.g. the  
26 existence of a welfare state or democracy), societal processes (e.g. inflation or industrialization) or events (e.g. natural catastrophes or the soccer world championship). Certain societal attributes influence individual situations necessarily. This is the case for compulsory school attendance or military service. Other societal attributes have the effect that individuals will be subjected to certain phenomena with a certain probability only (e.g. poverty, illness, alternative culture, and religious socialization). Still other societal attributes apply to all individuals in the abstract, but may become important only in specific situations (e.g. juridical norms).  
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- 36 7. The internal conditions of the situation are influenced in an important way by (primary and secondary) *socialization* of the individual that has taken place in the past. In childhood, during so-called ‘primary socialization’, the individual learns beliefs and preferences which are internalized into the personality of the individual to an important extent (Esser 2000: 371). Fundamental belief- and preference-structures often remain  
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1 relatively stable during adulthood and constitute an ‘internal environ-  
2 ment’ of individual action.

- 3 8. Interestingly, however, in this model internal conditions of the situation  
4 are influenced not only by (former) socialization, but also by current  
5 external conditions of the situation, specifically by *institutional and cul-*  
6 *tural parameters* (Esser 1999: 75 ff.). The reason for this is that individuals  
7 know that their most elementary needs (especially physical well-being  
8 and social status) can only be fulfilled if they adapt in fundamental ways to  
9 the respective society, culture, and institutions. Every society, historical era  
10 or social group prescribes in a different way what goals or goods should be  
11 striven for and by which means one should strive for them in a socially  
12 accepted way. In science, for example, a central ‘goal’ is ‘reputation’, which  
13 is to be attained with publications of high quality. In professional sports,  
14 success in tournaments is the central goal; the accepted means is ‘training’  
15 (and the forbidden means: doping). The fact that we use means in order to  
16 produce goods, which in turn provide utility (all of which is embedded in  
17 institutions and culture) has been called ‘social production function’  
18 (Lindenberg 1989). With the help of social production functions, we can  
19 suddenly explain why individuals will often strive ‘from their very heart’  
20 exactly for those goals that are the primarily valued goals and goods in a  
21 given society or social group. They also help to explain sudden shifts in  
22 individual preferences. For example, in the GDR, before 1989, to be a  
23 member of the SED provided societal status. Many individuals therefore  
24 developed preferences for membership and high positions in the party.  
25 After the ‘Wende’, party membership was suddenly an important stigma  
26 and individual preferences changed dramatically.

27 Note that with the help of this model a long-standing debate is overcome.  
28 We do not address the question if individuals *either* react to opportunities *or*  
29 follow norms and culture. Rather, the model supposes that individuals react (in  
30 a limited sense) rationally *both* to opportunities *and* to institutions and culture,  
31 and that their beliefs and preferences are shaped by opportunities, institutions,  
32 and culture. In my view, one of the great strengths of this type of model is that  
33 it succeeds in linking the different levels of social and individual reality in a  
34 straightforward way. We thus begin to understand how macro-, meso- and  
35 microlevels are interacting in order to produce social reality.<sup>7</sup>

### 36 37 **3. A unified model for the explanation of religiosity**

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39 This model presented above shall now serve us as a ‘baseline structure’ in  
40 order to integrate the most important elements of previous explanations of  
41 religiosity. The central idea is very simple. The five most prominent theories

1 that explain religiosity (deprivation-, market-, modernization-, ethnicity-, and  
 2 socialization-theory) can *all* be reformulated as macro-micro-macro mecha-  
 3 nisms inside the framework of the Esser model. Seen in this way, the theories  
 4 are not mutually exclusive, but complementary (and themselves causally  
 5 linked in various ways). It depends on the given historic-geographical context  
 6 if and how strongly one or the other of the mechanisms will actually operate.  
 7 A central point of the rational action reconstruction is that I systematically  
 8 build in a micro foundation as well as the possibility to choose between  
 9 religious and secular alternatives into every one of the mechanisms. In what  
 10 follows, I describe the five reconstructed theories.

### 12 **3.1 Macro attributes of society and external conditions of the situation**

#### 13 *Deprivation*

14 The first mechanism we introduce argues that deprivation of different kinds  
 15 leads to or reinforces religiosity (Weber (1978 (1920): 299ff; Stark and Bain-  
 16 bridge 1985; Gill and Lundsgaarde 2004; Norris and Inglehart 2004; Sherkat  
 17 and Ellison 1999). Deprivation may be defined as a situation in which an  
 18 individual is not able to satisfy one or several needs. Without claiming to be  
 19 exhaustive, I name the following *societal attributes* that express presence or  
 20 absence of deprivation: a high or low level of the supply of material goods,  
 21 absence or presence of a welfare state, (non)existence of high standard  
 22 medical care and of political/juridical security. When Individuals find them-  
 23 selves in these and other depriving circumstances, they will seek a solution to  
 24 their problems. It may therefore be rational to turn to a religion that offers  
 25 help in various forms. Religions can help by (a) referring to myths and thus  
 26 provide 'meaning' to deprivations, e.g. theodicies; (b) embedding suffering into  
 27 ritual actions and strict rules of conduct (e.g. prayers, sacrifice, religious service,  
 28 ethics); (c) rendering suffering bearable through a specific 'habitus', e.g. being  
 29 one of the 'chosen few'; (d) promising hope and good outcomes for the future.  
 30 Apart from these rather intangible goods, religious groups may also offer very  
 31 concrete help with housing, food, comfort, finances, medical care, etc. Thinking  
 32 back to our general theoretical framework we see that the given attributes of  
 33 society will influence the external conditions of the situation mainly through  
 34 *opportunities*. Our rational action reconstruction of deprivation theory empha-  
 35 sizes especially two points. First, a low level of the societal deprivation  
 36 attributes will lead to an overall reduced probability of basic deprivations on  
 37 the individual level. Individuals simply do not face many of the problems that  
 38 are completely normal in other societies (high mortality of children, famine,  
 39 cholera, etc.); accordingly, they do not need corresponding (religious or  
 40 secular) coping strategies. Second, for remaining deprivations, individuals face,  
 41 besides religious answers, very powerful (sometimes even obligatory) secular

1 coping strategies. Examples are unemployment insurance, health insurance,  
 2 centers for psychological help, etc. If such secular solutions to deprivations  
 3 exist, demand for religious coping strategies will often decrease, since secular  
 4 solutions will often be perceived as more efficient and reliable (Bruce 1999: 17;  
 5 Stolz 2008).<sup>8</sup>

### 6 7 *Regulation*

8 A second mechanism may be termed regulation. I define regulation very  
 9 broadly as the ways in which the state or social groups influence individual or  
 10 collective actors through enforceable rules and norms. Relating this mecha-  
 11 nism to our general framework, we see that here it is mainly *norms* that lead  
 12 actors to various types of rational adaptations. Two main theoretical  
 13 approaches to regulation can be distinguished, one concerning ‘supply’, the  
 14 other one ‘demand’.

15 The *supply-side regulation mechanism*, proposed by ‘rational-choice-  
 16 theorists’ is as follows (Iannaccone 1991; Finke and Stark 1992; Stark and  
 17 Iannaccone 1994). The state regulates the supply of religion by applying rules  
 18 and norms, thus favouring some religious groups and discriminating others. In  
 19 extreme cases, it establishes one state religion and bans all or other religions  
 20 (as is the case in current Saudi Arabia) or it bans or hinders religion altogether  
 21 (as was the case in former East Germany). In moderate cases, such as modern  
 22 Germany, Italy or Sweden, some religious groups with ‘official recognition’  
 23 enjoy various advantages. Other unrecognized groups are therefore  
 24 disadvantaged. Such regulations, rational-choicers say, prevent the religious  
 25 market from working properly; it will be rational for ‘recognized’ religious  
 26 groups and church leaders to become lazy and they will supply – as all  
 27 monopolists do – a product which is too expensive and insufficiently attuned to  
 28 customer needs. As a result, customers do not find the religious product they  
 29 are looking for and – as a rational adaptation – will not ‘consume’ as much as  
 30 they would have done in a free market. Hence, overall religiosity goes down.  
 31 While this mechanism of market-like inter-religious competition seems to be  
 32 at work in some socio-historic cases (Finke and Stark 1992), a very large  
 33 number of regularities cannot be explained with its help (Bruce 1999, 2002;  
 34 Chaves and Gorski 2001).<sup>9</sup> In order to integrate this mechanism into our  
 35 general framework, I have to drop the (theoretically very unfortunate) sup-  
 36 position of ‘stable religious demand’ dear to the rational choicers. In contrast,  
 37 I suppose that demand for religious goods may change due to changing social  
 38 production functions and changing relative attractiveness of religious and  
 39 secular goods. Regulation of supply will therefore not only influence inner-  
 40 religious competition, but also (and in modern societies more importantly)  
 41 competition between the religious and the secular.



1       The *demand-regulation story* is very different and told less often. The state  
 2 and social groups can regulate individuals' demand for religion: positive or  
 3 negative sanctions may apply to religious membership, participation, belief (or  
 4 at least absence of visible disbelief) may be positively or negatively sanctioned.  
 5 Rational individuals will now follow the rules and show or abstain from  
 6 showing religiosity in order to gain social approval and/or avoid punishment.  
 7 Such a regulation of demand may be a deliberate state policy (Borowik 2002;  
 8 Froese and Pfaff 2005); it may also be the result of anonymous social control in  
 9 small (e.g. rural) communities or generally in social groups with strong and/or  
 10 many social ties (McLeod 1998; Sherkat 1997; Olson 1999) Especially if we  
 11 look at historical evidence, there can be no doubt, that 'regulation of demand'  
 12 has been a very important element of the religiosity, say, in Europe up until the  
 13 twentieth century. The normative pressure on individuals to belong to a certain  
 14 confession, to follow the prescribed rites and, hide disbelief and to abstain  
 15 from seeking out religious or magical alternatives was very high indeed (e.g.  
 16 Poos 1995; Swanson 1990).<sup>10</sup>

### 18       *Production of culture*

19       Societal 'production of culture' also influences the level of religiosity of a given  
 20 society (Weber 1978[1920]; Wilson 1982; Wallis and Bruce 1995). This fact  
 21 seems to almost have fallen into oblivion in the current discussion. The key  
 22 point here is that individuals will find religious beliefs and 'truths' more con-  
 23 vincing to the extent that they are surrounded by religious culture, be this  
 24 through products of societal subsystems (e.g. the media) or individual  
 25 interaction. There are various *societal attributes* that touch upon this point, the  
 26 most important being probably the following. First, the extent of development  
 27 of an independent and secular industry of leisure, a media system, and modern  
 28 science. From a certain level of societal differentiation and further, these  
 29 domains produce cultural goods (activities, information, interpretations, and  
 30 knowledge) that have freed themselves from religious connotations and follow  
 31 a systemic logic of their own (Dobbelaere 2002; Luhmann 1982).<sup>11</sup> Second, the  
 32 size and effervescence of religious groups in a given society (Kelley and De  
 33 Graaf 1997; Norris and Inglehart 2004). If there are large and powerful reli-  
 34 gious organizations in a society, they may run their proper production of media  
 35 and leisure facilities and thus make it more likely that individuals will come  
 36 into contact with religious culture. However, culture is not only transmitted by  
 37 media or leisure products, but also, and perhaps more importantly, by everyday  
 38 interactions among individuals. Thus, the size and effervescence of religious  
 39 groups also influences the likelihood with which individuals will come into  
 40 contact with religious or secular business partners, school mates and teachers,  
 41 potential spouses, neighbours etc.

1 Relating this mechanism to our general theoretical framework, we note that  
 2 the most important influence operates (independently from concrete deci-  
 3 sions) through *cultural frames*. In a society with a high level of secular  
 4 culture production (through societal subsystems or individual interactions),  
 5 individuals face an enormous amount of non-religious cultural interpretations  
 6 for whatever they encounter (Berger 1990[1969]: 107–8). Certainly, religious  
 7 interpretations of the foundation of the state of Israel, the terrorist attack on  
 8 the World Trade Center, or a stock market crash remain possible. However, the  
 9 dominant cultural patterns of interpretation explain these phenomena by  
 10 pointing to historical, sociological, psychological, economic, and other causes.  
 11 Rational individuals will therefore weigh the ‘evidence’ made available to  
 12 them and, by and large, adopt secular interpretations of what happens. Con-  
 13 versely, in a society with a high level of religious culture production, individuals  
 14 will have a high probability of coming into contact with religious interpreta-  
 15 tions of events. They will therefore have a much higher probability of adopting  
 16 religious beliefs and interpretations themselves. Cultural frames aside, the  
 17 leisure industry and the media system also have effects on the *opportunities* of  
 18 individuals. As a matter of fact, individuals often have a *choice* between reli-  
 19 gious and secular options. Secular and religious newspapers, TV-stations, sport  
 20 clubs, get-togethers etc. compete for attention, time and money. Depending on  
 21 the quality and cost of the religious and secular options, rational individuals  
 22 will then ‘consume’ more or less religious or secular culture products and as a  
 23 consequence ‘become’ more or less religious.

#### 24 *Ethnic and cultural assertion of identity*

25  
 26 A further mechanism may be called ‘ethnic and cultural assertion of identity’  
 27 (Bruce 1999). Identity may be defined as the set of descriptions that individuals  
 28 or a social group construct about themselves and their relations to their  
 29 environment. These descriptions and hypotheses find support on distinctions  
 30 (about what one is *not*), including norms and values that may be used in power  
 31 struggles (Esser 1999). Identity may be considered ethnic, if it supposes a  
 32 common descent and rests on a common language, culture, nationality or  
 33 religion. The basic idea is that religiosity and religion become strong where  
 34 they can be used as resources, in order to conserve and defend ethnic and  
 35 cultural identities. The *societal attributes* that are important in this case are a  
 36 rapid social and cultural change, the social and cultural threatening of all or  
 37 parts of the population as well as the level of immigration. These attributes  
 38 affect especially the *cultural frames* and *opportunities* of two types of actors.  
 39 First, we have individuals negatively affected by rapid social and cultural  
 40 change and/or political or cultural repression or conflict. These individuals see  
 41 their acquired human, social and cultural capital being devalued by rapid  
 42 social change or by oppression. It therefore becomes rational for them to fight

1 for the importance of their ascribed identity markers, of their cultural-ethnic  
 2 and religious identity. In this way, they can regain social worth. Well-known  
 3 examples are Polish or Quebec Catholics as well as Protestants and Catholics  
 4 in Ireland. Second: immigrants will often gather in the host country and build  
 5 social networks and communities, in order to conserve their cultural (and often  
 6 religious) identity and to receive help with integration. This may lead to a  
 7 special emphasis on religion and religiosity in ‘diaspora groups’ (e.g. Baumann  
 8 and Salentin 2006; Warner 1998).

### 9 10 *Socialization*

11 Yet another mechanism works through socialization. Socialization may be  
 12 defined as an interactive, both voluntary and involuntary, process of transmis-  
 13 sion and learning in which individuals teach and learn norms, values, behav-  
 14 iour, expertise, meanings and identity, and in which socialized individuals may  
 15 integrate these elements into their personality by internalization (compare to  
 16 Esser 2000: 371). Since religiosity refers to religious symbol systems, individu-  
 17 als have to learn ‘religious content’ before they can even become religious. (De  
 18 Roos, Iedema and Miedema 2004). Thinking back to our general theoretical  
 19 framework, we see that socialization is one of the most important ways of  
 20 influencing the *beliefs and preferences* of children. When we look at how  
 21 children are influenced by socialization, we see that often little rationality is  
 22 involved. Thus, parents are likely to transmit their personal religious prefer-  
 23 ences, beliefs and practices to their children – even if they do not consciously  
 24 try to do so. Conversely, children may learn consciously or unconsciously by  
 25 listening to, imitating, or just watching their parents. Not surprisingly, high  
 26 parental religiosity therefore leads on average to higher religiosity of children.  
 27 This mechanism may be described as ‘social learning’ (De Roos, Iedema and  
 28 Miedema 2004) ‘sedimenting of beliefs’ (Bruce 1999) or ‘transmission of reli-  
 29 gious human capital’ (Iannaccone 1990). Empirical studies show that the  
 30 power of this transmission is influenced by various contextual factors and by  
 31 the type of values, beliefs or practices (Hoge, Petrillo and Smith 1982; De Roos,  
 32 Iedema and Miedema 2004; Lindner and Moore 2002). Especially important  
 33 is the question of whether the couple is religiously homogamous or hetero-  
 34 gamous, the former being much stronger in transmitting religious member-  
 35 ship, behaviour, and belief to children (Voas 2003; Need and De Graaf 1996;  
 36 Iannaccone 1990).<sup>12</sup>

37 This, however, is not the whole story. Theoretically more interesting is the  
 38 question under what conditions parents will *want* to socialize their offspring  
 39 religiously. What *norms and opportunities* of the situation of parents will lead  
 40 them to search for or refrain from a religious upbringing of their children? This  
 41 is where rationality strongly comes into play. Important *societal attributes* are  
 42 (without asserting completeness): The importance of religiosity as a ‘religious

capital' in the society; the relative size and type of religious group, and the freedom of religious groups to produce and run various services and facilities. These societal attributes translate into situations of both parents and children in the following ways. Generally, parents will teach religious values to their children if they believe that these values are 'important' and 'useful' in society (often independently of whether they themselves are personally religious or not). The central factor here is societal *norms*. If 'being religious' is important in order to be considered a valuable member of the community or society (i.e. is an important 'social capital'), parents will put a lot of effort into the religious education of their children. A study by David Voas (2003), for example, suggests that baptism of children was considered an important social convention if not a religious duty in England before the 1940s, so that even children of mixed marriages were very likely to be baptized. After the 1940s, however, these societal norms withered, and since then children in mixed marriages have a very low probability of being baptized. This mechanism also explains the fact that individuals who become parents will often increase their religious practice in order to set an example for their children (Sherkat and Ellison 1999). A relatively low general 'social value' given to religion as a social capital has therefore the effect on most parents that they will – rationally – bring up their children less religiously. However, it has a different effect on a few parents who – for individual reasons or because they are members of a highly religious group – still think that religion is very important. This minority of devout parents now has to put – again: rationally – much more personal effort into socializing their children, if they want the socialization to be successful. For now, they must not only teach the religious symbols and practices to their children, but also must control their children's surroundings from secularizing influences in order to better inculcate religious beliefs and preferences. They will therefore try to choose schools, youth groups, friends, television programs, and music styles for their children, in order to let them live in a more or less protected religious world. This has the overall effect that religious upbringing becomes an extremely important explanatory concept especially in relatively secular societies (Kelley and De Graaf 1997). In this respect certain *opportunities* are equally important. Whether devout parents can find religious structures for their children indeed depends on societal structures such as the relative size and type of religious group and the freedom of religious groups to produce various goods and services (such as television shows, radio programmes, kindergartens, schools, universities, hospitals, therapy programmes). If a society has powerful and relatively free religious groups that provide such structures (as in the USA), it is possible for parents to protect their children from secularizing influences quite easily (Bruce 2002). If a society does not include religious groups with a lot of facilities or if religious groups are not allowed to run a lot of facilities themselves, then socialization will become much more difficult.

### 3.2 *Internal conditions of the situation*

The internal conditions of the situation consist of the beliefs, the preferences, and the identity of the individual. These phenomena are, as already noted, strongly influenced by individual socialization (especially through parents and peer groups). They are thus to some extent *not* rationally chosen. Another part of internal conditions of the situation, however, can be assumed to follow our rationality assumptions. Let us first look at *beliefs*. Individuals – we assume – will rationally try to get information on how they can solve their concrete problems of life. They will adopt beliefs that are supported by ‘strong reasons’, given the evidence (Boudon 1998). This means that their beliefs will be to a large extent influenced by their ‘information environment’ concerning religious or secular possibilities, e.g. how, in their society, one routinely copes with deprivations in a religious or secular manner, what norms concerning religion are currently valid etc. (Stolz 2009a). *Preferences* may equally – in part – be chosen rationally. Following the theory of social production functions, we assume that the way in which physical well-being and high social status may be produced varies from society to society; every society or social group fixes certain instrumental goals and acceptable means in order to reach important final goals. Individuals have to adapt to these social production functions if they want to meet their basic needs. Therefore, individuals will develop preferences for religious or secular actions depending on how important these actions are as a means of reaching final goals highly valued in their society or social group (Stolz 2009b). For example, if no or insufficient possibilities of secular coping with deprivation are available, individuals will develop strong preferences for religious coping strategies. Participation in religious rites and help through transcendent forces are now thought to be of primary importance. Conversely, if powerful possibilities of secular coping exist, many individuals will suddenly feel that religion is ‘not so important’ for them. Religion is now seen to be responsible only for remnants of insecurity and contingency (e.g. in the case of death). Or take the example of the regulation mechanism: In societies with a high regulation of religious demand, individuals will build up preferences for or against religious behavior as a means of avoiding sanctions and of producing social esteem (‘extrinsic motivation’). In societies with low regulation, on the other hand, individuals will develop largely ‘intrinsic motivations’ for or against religiosity, etc.

### 3.3 *Rational religious action*

Individuals will react – following our model – to external and internal conditions of the situation in a rational way. Given their knowledge and their preferences and based on their evaluation of opportunities, institutions and cultural frames, individuals will choose the action that seems – from their

1 subjective point of view – to provide the greatest utility (Elster 1986; Stolz  
 2 2009a). If individuals pray to God for healing or alleviation of poverty, as may  
 3 be the case in many current agrarian societies, if they fulfill their religious  
 4 duties in order to be seen as respected members of the community, as in many  
 5 European societies until the end of the nineteenth century, if they go to Mass  
 6 as a sign of protest against a political regime, as in Poland before 1989, or if  
 7 they take their children out of religious instruction courses at school because  
 8 they deem religious knowledge ‘not important’ – in every one of these cases  
 9 they decide with the help of (bounded) rationality. On a very abstract level, the  
 10 model assumes that individuals will have a higher probability of choosing a  
 11 religious action, the more they are deprived (and the poorer the available  
 12 secular coping strategies), the more they are forced to exhibit religiosity by  
 13 norms and sanctions, the lower the secular production of culture, the more they  
 14 feel their ethnic or cultural identity threatened by social or cultural change,  
 15 and the more they have been socialized religiously. Individuals will have a  
 16 higher probability of giving their children a religious socialization, the more  
 17 religion is seen to be an important ‘cultural capital’ in society.

#### 18 *Open and problematical alternatives*

19  
 20 At this point, I have to treat the way in which secular and religious alternatives  
 21 present themselves to the individual in everyday life. The entire model builds  
 22 on the idea that individuals (at least in certain societies) can ‘choose’ between  
 23 religious and secular options. One might now object that such decisions (e.g.  
 24 going to church or sleeping in, choosing either a religious youth group or a  
 25 football club) are empirically rare. However, this only *seems* to be the case,  
 26 because, once taken, decisions are routinized. In the words of Schütz and  
 27 Luckmann (1974 : 208ff.), when individuals routinize their behaviour, they  
 28 transform ‘problematic alternatives’ into ‘open alternatives’ that are not really  
 29 perceived as situations of decision anymore. Once I have decided to sleep in on  
 30 a Sunday morning instead of going to church, I do so routinely and do not  
 31 make a ‘conscious decision’ of this behaviour every Sunday. Conversely, under  
 32 certain conditions the ‘open alternatives’ may be transformed back into ‘prob-  
 33 lematic alternatives’.

#### 34 35 **4. Theoretical advantages of the unified model**

36  
 37 A central claim of this paper is that the reconstruction in the macro-micro-  
 38 macro framework is not just a way of classifying possible mechanisms, but  
 39 leads to the following theoretical advantages:

- 40 1. The model presents a *guide to possible causal mechanisms in a given*  
 41 *socio-historical setting*. It provides researchers with a convenient tool in

1 order to think through the possible causalities and interactions and to set  
 2 these in relation with the historical parameters of the case under  
 3 investigation.

- 4 2. Since we routinely build a theoretical micro-foundation into the mecha-  
 5 nisms, they all become *explanatory*. Instead of just describing trends, they  
 6 can now predict variation of religiosity. The mechanisms implicit in mod-  
 7 ernization theory and socialization theory are especially in dire need of  
 8 such micro-foundations.
- 9 3. *Unnecessary and theoretically harmful assumptions are eliminated*.  
 10 Examples are the idea of stable religious demand, the idea of an incompat-  
 11 ibility of socialization and rational action or the notion that one could  
 12 not react rationally to changing of norms.
- 13 4. The mechanisms become *clearly distinctive, operationalizable, and*  
 14 *empirically testable*. It becomes clear that the mechanisms are – on a  
 15 theoretical level – complementary. We therefore have to assess empiri-  
 16 cally if they operate in a given socio-historical context, and if they do,  
 17 what is their relative importance.

## 18

### 19 **5. An empirical application: Switzerland**

20

21 Since – as the English like to say – the proof of the pudding is in the eating, I  
 22 will now try to show that the proposed model has not only theoretical but also  
 23 empirical advantages, by applying it to representative data from Switzerland.  
 24 As the model has been formulated in the abstract and for general purposes, it  
 25 has to be adapted to my special case. Decisions have to be taken as to what  
 26 types of religiosity to investigate, what ‘levels’ to consider, what variables to  
 27 measure at what levels and so on. In this example, my goal is to explain  
 28 Christian and alternative religiosity by specifying all the theoretical mecha-  
 29 nisms mentioned above, and using a two-level model with cantons on the  
 30 aggregate and persons on the individual level. Switzerland provides an inter-  
 31 esting case for testing different mechanisms producing religiosity, since it  
 32 includes extremely rural and modernized cantons, cantons with a virtually  
 33 absolute separation of church and state, others where church and state are  
 34 closely linked and three regions with different language and ethnic cultures.

#### 35

#### 36 **5.1 Data**

37 The data stem from a joint file of two surveys. First is the survey ‘Religion  
 38 et lien social’ (Campiche 2004). This study is based on telephone inter-  
 39 views carried out in 1999. The population includes all individuals living in

Switzerland aged between 16 and 75. Sampling was done in a two-stage, random way, first sampling communes, and then individuals inside the communes. Response rate was 54 per cent; the number of interpretable interviews was 1562. Second was the ISSP-study in Switzerland in 1999. This survey was a posted questionnaire to people who had already participated in the survey 'Religion et lien social'. The additional questionnaire was completed by 1212 individuals. This leads to the fact that for some items only a restricted sample of individuals is available. Analysis below will take this into account very carefully.<sup>13</sup> Tests show an overall good representativity for standard demographic variables. Specifics can be found in Campiche (2004). For the purposes of this paper, individuals belonging to non-Christian religions had to be excluded from analysis, since non-Christian religions in Switzerland are so small that they appeared in the sample with too modest frequency to allow valid analysis.

### ***5.2 Operationalizing Christian and alternative religiosity***

I use four indicators in order to measure Christian religiosity: importance of religion in general (7-point scale), frequency of prayer (5-point scale), frequency of Christian religious service (5-point scale), belief that God exists and that he has shown himself in Jesus Christ (5-point scale). These indicators tap belief, preferences, individual and collective practice and are highly correlated. I use four indicators in order to measure alternative religiosity: Belief in astrology (yes/no), belief that some fortune tellers can really see in the future (yes/no), belief that good luck charms really sometimes work (yes/no) and belief in reincarnation (5-point scale). These items only tap beliefs. With factor analysis techniques I built two scales for the two types of religiosities respectively (see appendix, Table AI). These two variables will be the 'dependent' variables of further analyses. They measure two clearly different types of religiosities and are empirically not correlated.

### ***5.3 Operationalizing the mechanisms***

#### *Deprivation*

'Objective' deprivation was operationalized by two variables: income (11-point scale) and education (7-point scale). These two indicators were combined to form a 'structural deprivation index'. 'Subjective' deprivation by the variables of self-reported class-membership (5-point scale) and happiness (4-point scale).

#### *Socialization*

Religious socialization was captured by five indicators, two tapping primary and three secondary socialization. A summated index of parents' church going



1 when the respondent was 12 years old measured parents' religious practice in  
 2 the formative years of the respondent (11-point scale). A dummy variable  
 3 indicated if parents are religiously homogeneous, that is, if mother and father  
 4 belong to the same denomination (Catholic, Reformed etc.). A dichotomous  
 5 variable indicated if the respondent has been 'confirmed' a rite which  
 6 presupposes a period of catechism. An interval scale measured years of reli-  
 7 gious education in school. And a further dichotomous question asked if the  
 8 respondent had attended a religious youth group at the age between 16 and 20.  
 9 Using factor analysis techniques, these variables were combined to form a  
 10 'religious socialization index',

### 12 *Regulation of demand*

13 In our theoretical section we have argued that religious demand may be  
 14 regulated by social norms. We assume that these norms will be stronger in  
 15 small villages, rural contexts and where norms of religious practice and belong-  
 16 ing have not visibly been broken. Regulation of demand is measured in this  
 17 study by three indicators. One is an index of community size (less than 3,000;  
 18 3,000–9,999; 10,000–100,000; more than 100,000 inhabitants). A second indica-  
 19 tor is a dichotomous variable distinguishing urban and rural living contexts in  
 20 Switzerland created by the FOS (federal office of statistics) in Switzerland.<sup>14</sup> A  
 21 third indicator is the percentage of individuals without religion in the commu-  
 22 nity where individuals live, calculated on the basis of the national census from  
 23 1990. Using factor analysis techniques, these variables were combined to form  
 24 a 'regulation of demand index'.

### 26 *Ethnicity*

27 Nationality was captured by using a dummy variable for 'naturalized Swiss'  
 28 (the official term for a person who has acquired Swiss nationality after having  
 29 had a different nationality before) and 'foreigner', Swiss being the reference  
 30 category. Mother language was likewise captured by creating a dummy vari-  
 31 able for French-speaking and one for Italian-speaking individuals (German-  
 32 speaking being the reference category).

### 34 *Regulation of supply*

35 As already noted, the 26 Swiss cantons all have adopted different ways degrees  
 36 of regulating religion, leading to very weak regulation in, for example, Geneva  
 37 and Neuchâtel and very strong regulation in cantons like Zurich or Berne.  
 38 Regulation of supply was measured with an adapted version of the well-known  
 39 scale by Chaves and Cann (1992). I adapted the scale in order to capture the

1 differences in regulation between Swiss cantons as precisely as possible. This  
 2 led to a scale which ranges from 0 – 9 points.<sup>15</sup>

### 3 4 *Production of culture*

5 Production of culture was operationalized concerning leisure opportunities,  
 6 closeness to the scientific world and religious culture. Leisure opportunities  
 7 were operationalized as the mean state expenditure for culture in different  
 8 cantons per capita from 1990–98. While this is only an indirect measure for  
 9 total leisure possibilities, it nevertheless captures some of the leisure opportu-  
 10 nity differences between cantons. Cantons with few large leisure facilities such  
 11 as theatres, museums, opera will have lower state expenditure for culture per  
 12 capita.<sup>16</sup> Closeness to the ‘scientific world’ was coded on the basis of the  
 13 information found in the Statistisches Jahrbuch der Schweiz 1998. Specifically, [2]  
 14 we operationalized it as the percentage of state expenditure on education  
 15 related to total state expenditure per canton (including communes). Religious  
 16 culture was coded with two dummies, one for Reformed culture, one for mixed  
 17 (Reformed and Catholic) culture, Catholic being the reference category.

### 18 19 *Individual-level and social-level variables*

20 The theoretical model presented above gives possible independent variables  
 21 on social and individual levels. In order to keep my model reasonably simple,  
 22 I have entered on a collective level variables where cantons are known to  
 23 differ in important manners<sup>17</sup> and/or where the variable does only make sense  
 24 on a social level (regulation, religious tradition, production of secular culture).  
 25 All other variables are measured on individual levels.<sup>18</sup> Problems of this kind  
 26 have to be addressed with multi-level models (Hox 2002; Snijders and Bosker  
 27 2000). In our case, we use a two-stage-model, in which one level concerns the  
 28 cantons, while the other level concerns the individuals.<sup>19</sup>

### 29 30 **5.4 Hypotheses**

31 Table I gives on the ‘predicted’ side to the left an overview over our hypoth-  
 32 eses, distinguishing 7 causal mechanisms and two types of religiosity. These  
 33 hypotheses imply a knowledge of how the mechanisms have been  
 34 operationalized. Hypothesis (1) expects that religious regulation of supply will  
 35 diminish both Christian and alternative religiosity. Hypothesis (2) expects that  
 36 secular culture will diminish both Christian and alternative religiosity. Hypoth-  
 37 esis (3) expects that traditional Catholic culture will lead to more Christian  
 38 religiosity (compared to Protestant culture). Hypothesis (4) expects that  
 39 (Christian) religious socialization will further Christian, but not alternative  
 40 religiosity. Hypothesis (5) expects deprivation to raise both types of religiosity.

**Table I:** Hypotheses: predictions and findings

	Predicted		Actual	
	Christian religiosity	Alternative religiosity	Christian religiosity	Alternative religiosity
<i>Collective</i>				
(1) Regulation of supply	–	–	n.s.	n.s.
(2) Secular culture	–	–	n.s.	n.s.
(3) Religious (Catholic) culture	+	n.s.	+	n.s.
<i>Individual</i>				
(4) (Christian) socialization	+	–	++	n.s.
(5) Deprivation	+	+	+	+
(6) Regulation of demand (norms)	+	–	+	n.s.
(7) Ethnicity	+	n.s.	+	n.s.
<i>Individual (control)</i>				
(8) Gender (woman)	+	+	+	+
(9) Age	+	–	+	–

Notes: – = negative relationship ; n.s. = not significant; + = positive relationship; ++ = strong positive relationship.

Hypothesis (6) expects that the stronger the social norms (e.g. the smaller the community), the higher Christian religiosity but the lower alternative religiosity. Hypothesis (7) expects that foreigners or naturalized Swiss as well as French- or Italian speaking individuals will show more Christian religiosity than individuals with the Swiss nationality and German-speaking Swiss. Drawing on previous research (Campiche 2004), we can hypothesize that women will show more Christian and alternative religiosity than men and that older individuals will show more Christian but less alternative religiosity than younger individuals.

### 5.5 Data analysis

Data analysis was conducted with the statistical packages SPSS for data exploration and -preparation and HLM6 for the multi-level modelling. All variables were standardized. As a result, the regression coefficients given in the tables below are standardized coefficients. We can thus compare the relative importance of different causal factors.

### 5.6 Findings

#### *Explaining Christian religiosity*

What theoretical mechanisms do explain religiosity in Switzerland? Let us first look at Christian religiosity (first column in Table II).<sup>20</sup> The coefficients presented are the standardized regression coefficients in a multi-level multiple regression. These coefficients measure the ‘influence’ of each indicator on the dependent variable ‘Christian religiosity’ while controlling for all other variables in the model.<sup>21</sup>

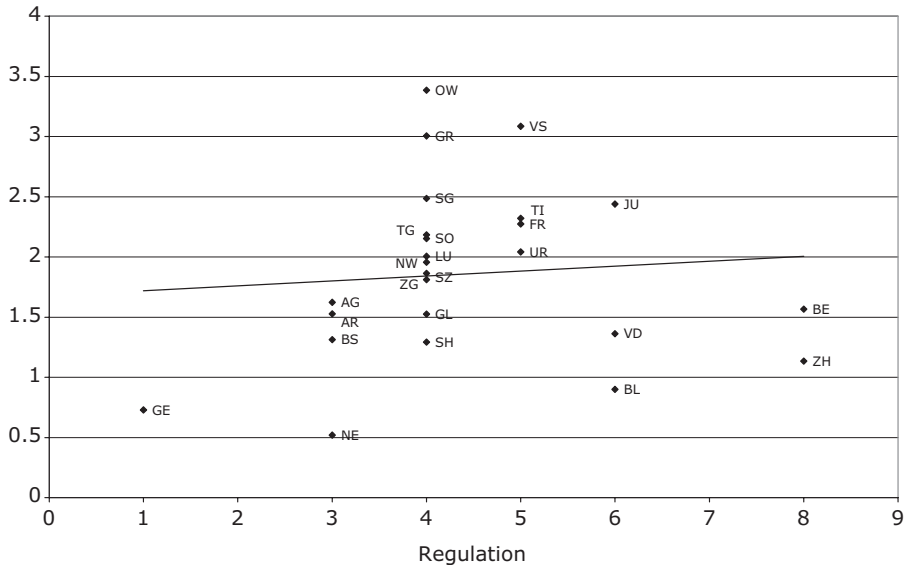
**Table II:** Multi-level multiple regressions for Christian and alternative religiosity

	Christian religiosity	Alternative religiosity
<b>Fixed</b>		
<i>Regulation rel. supply</i>		
State regulation	0.031	0.016
<i>Secular culture</i>		
State expend. on culture	0.101	-0.004
State expend. on educ.	0.014	-0.010
<i>Religious tradition</i>		
Traditionally mixed	0.123	0.061
Traditionally catholic	0.145*	0.007
<i>Socialization</i>		
Religious socialization index	0.339**	-0.070
<i>Deprivation</i>		
Income&Education Index	-0.108**	-0.168**
Happiness	0.051	-0.032
<i>Regulation rel. demand</i>		
Regulation of demand index	-0.080*	0.024
<i>Ethnicity</i>		
Naturalized Swiss	0.068*	-0.052
Foreigner	0.050	-0.054
French-speaking	0.010	-0.079
Italian-speaking	0.046	-0.063
<i>Control</i>		
Gender (woman)	-0.025	0.298**
Age	0.102*	-0.098
Gender * Age	0.173*	-0.186**
Full time	-0.061	0.076
Part time	-0.092**	0.044
Roman/Christ Catholic	-0.037	0.102*
Other Christian	0.187**	-0.084*
No Religion	-0.163**	-0.030
<b>Random</b>		
$s^2 = \text{var}(R_{ij})$ (level 1 variance)	0.649	0.871
$r_0^2 = \text{var}(U_{0j})$ (level 2 variance)	0.007	0.000
N (level 1, individuals)	755	683
N (level 2, cantons)	21	21
$R_1^2$ (level 1)	34.8%	13.2%
$R_2^2$ (level 2)	55.2%	30.6%
Deviance	1903.066	1918.437

For Christian religiosity the results are as follows: *State regulation of religious supply* (measured by the regulation index) and *secular culture* (measured by state expenditure on culture and education) have no significant effect on Christian religiosity. Here, we are on the collective level, that is, we look only at how well the explanatory indicators explain the difference in mean Christian religiosity between cantons. The theories expect that cantons with high regulation and strong state expenditures on secular culture will show low Christian religiosity. Clearly, we find no evidence for these theoretical mechanisms. In contrast, '*religious tradition of the canton*' has a significant effect on Christian religiosity. Cantons in Switzerland are traditionally either Protestant, Catholic or mixed (Protestant and Catholic). The variables used in this model are dummy-variables, the base category being 'Protestant'. The

**Figure II:** Christian religiosity and regulation (level of cantons)<sup>27</sup>

Notes: GE = Genève, AG = Aargau, AR = Appenzell Ausserrhoden, BS = Basel Stadt, NE= Neuchâtel, OW = Obwalden, GR = Graubünden, SG = Sankt Gallen, SO = Solothurn, LU = Luzern, SZ = Schwyz, GL = Glarus, SH = Schaffhausen, VS = Valais, TI = Ticino, FR = Fribourg, UR = Uri, JU = Jura, VD = Vaud, BL = Basel Land, BE = Bern, ZH = Zürich

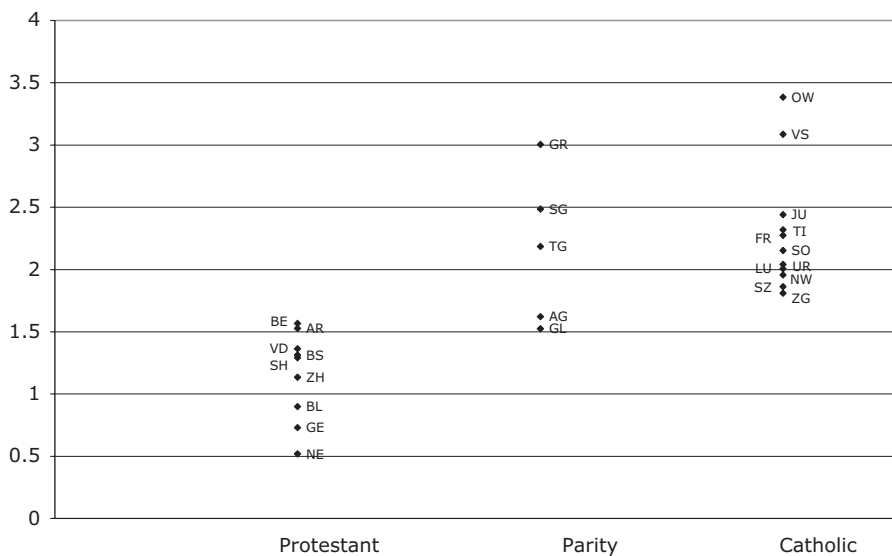


regression coefficients thus show the difference of the respective category to the ‘Protestant’-category. The hypothesis was that cantons with a Catholic tradition would show stronger religiosity than Protestant cantons (as has been often shown in various studies on the level of countries in Western Europe). This turns out to be correct (beta = 0.145\*). The fact that regulation does not explain anything, while religious tradition is the one important factor which explains inter-cantonal differences in Switzerland is shown graphically in Figure II and III.

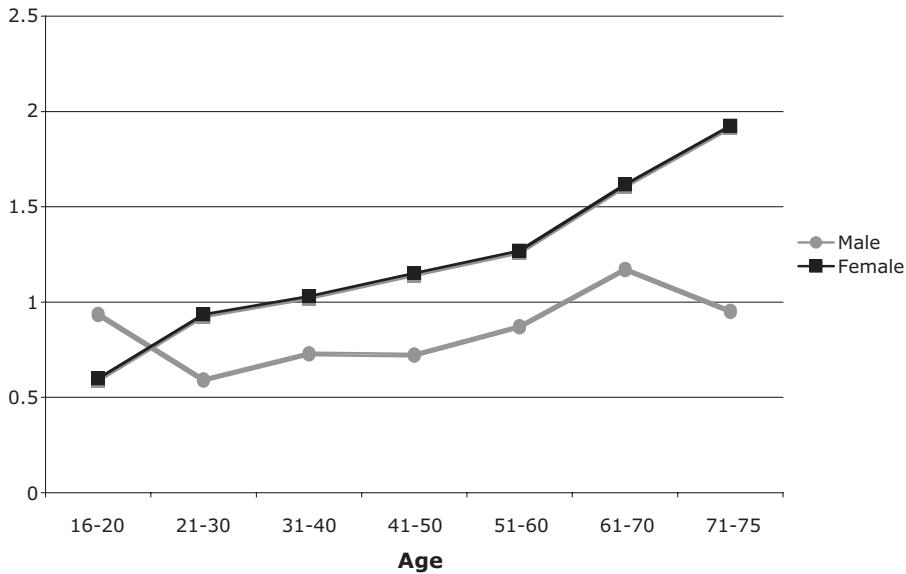
The *socialization* mechanism finds strong support in the data (beta = 0.339\*\*). The higher the religious socialization by parents, school and peers, the higher the Christian religiosity of children when they have become adults. Socialization turns out to be – by far – the most important mechanism explaining Christian religiosity in our specific case. The *deprivation* mechanism finds some, but not unequivocal support in the data. The structural deprivation index is significantly related to Christian religiosity: the lower an individual finds itself concerning education and income (i.e. the higher the ‘deprivation’), the higher religiosity (–0.108\*\*). However, the subjective indicator of deprivation – self-reported happiness – is not related significantly to the prediction of the theory. This may be due to the fact that causalities are difficult to assess when looking at the link between religiosity and (un-)happiness.

**Figure III:** Christian religiosity and religious tradition (level of cantons)

Notes: see Notes for Figure II



For (un-)happiness may be the cause of religiosity just as well as its effect. Thus deprived persons may become religious and due to religions' compensatory power may then see themselves as rather happy. Effects may then cancel out in the aggregate. The mechanism involving *regulation of demand* finds a certain, although limited, support in this model. The theory predicts that individuals have a lower probability of being (in a Christian way) religious if they live in larger communities, if they live in an urban area and if the percentage of individuals without religious affiliation in their village or city is higher. This turns out to be correct ( $\beta = -0.080^*$ ); the effect is, however, rather small. The *ethnicity* mechanism is only very slightly supported by the data. The theory would have predicted a higher Christian religiosity for immigrants and language minorities. In the model, only the effect of being a 'naturalized Swiss' has a (small) positive effect: naturalized Swiss show a slightly higher Christian religiosity. Concerning our control variables, we see a strong interaction between *gender* and *age*. While there is little difference in religiosity between old and young men, age makes a lot of difference for women: Older women show a lot more Christian religiosity than men. This interaction is shown graphically in Figure IV. We also see that individuals who *work part time* have a slightly lower probability of Christian religiosity than individuals who are not working (base-line group). Furthermore, *other Christians* (e.g. Evangelicals, Orthodox) have a clearly higher probability and individuals with *no official religiosity* a lower probability of showing Christian religiosity. This model explains 34.8 per cent of the variance of Christian religiosity on the individual level and 55.2 per cent on the collective level.<sup>22</sup>

**Figure IV:** *Christian religiosity, age and gender*

### Explaining alternative religiosity

We now turn to the explanation of alternative religiosity (second column in Table II). As we can see, the only theoretical mechanism explaining anything in our case is the deprivation mechanism: individuals with higher levels of structural deprivation (lower levels of education and income) show higher levels of alternative religiosity. All the other mechanisms, be they regulation of demand and supply, secular culture, religious tradition, socialization, or ethnicity fail to explain this particular kind of religiosity. An important effect is however to be found concerning our control variables. First, women show much more alternative religiosity than men. Again, we find an interaction between age and gender: younger women find alternative religiosity to be significantly more interesting than older women, while the effect is not significant for men. Furthermore, we find that Roman Catholics have a slightly higher and Other Christians a slightly lower probability to be alternatively religious. In this model we are able to explain 13.2 per cent of alternative religiosity on the individual level and 30.6 per cent on the collective level.

All in all, explained variance is much lower for alternative religiosity than for Christian religiosity both on the individual and the collective level. This may be due to mainly two factors. First, alternative religiosity has probably not been as reliably measured as Christian religiosity. Better items might lead to higher explained variance. Second, there might be additional explanatory variables that have been omitted for the case of alternative religiosity. Note, specifically, that religious socialization (the most important predictor of

Christian religiosity) is only geared to Christian, but not alternative religious socialization.<sup>23</sup>

## 6. Summary and discussion

This study has tried to make both a substantive and methodological contribution by presenting the first comprehensive application of a new unified theoretical framework for the explanation of religiosity to a special, namely the Swiss, case. This new framework postulates seven distinct 'generative mechanisms' that 'produce' religiosity and are all integrated on a common 'rational action' basis. Such a theoretical integration has several advantages. It provides researchers with a guide to possible causal mechanisms in a given socio-historical setting, it renders the mechanisms explanatory and operationalizable, cleanses them from unnecessary theoretical assumptions and leads to more systematic empirical research. When applying the framework, I have used multi-level multiple regression models in order to explain Christian and alternative religiosity in Switzerland. Since I started with strong theory and clear hypotheses, the results are interesting even when we do *not* find significant relationships. Table I summarizes the findings by comparing our predictions to the findings.

*Substantively*, the study throws new light on the case of Switzerland. Put succinctly, we see that, in Switzerland, *Christian religiosity* could be best explained by religious socialization mechanisms. Individuals had a much higher probability of showing Christian religiosity if they had been strongly socialized by their parents, if they came from a mono-religious household and if they had Christian peer-socialization. Deprivation, social control, religious tradition of the canton as well as gender and age also played a certain role. Individuals with less education and income, living in smaller and rural communities and in traditionally Catholic (or mixed) cantons had a higher likelihood of showing Christian religiosity. The latter finding is very similar to that by Norris and Inglehart (2004) who were also able to show that religious culture was important on a collective (national) level. Furthermore, the study shows that especially older women had a much higher probability than younger women to be religious, while age was much less important for men. The mechanisms linked to state regulation, ethnicity or the secular culture of the canton had no explanatory power in our specific case. Although the Swiss cantons show tremendous differences in regulation (going from almost complete separation to the churches as state agencies), state regulation did not explain any variation of Christian religiosity. These findings are additional evidence for the view that regulation mechanism are not of primary importance for the explanation of religiosity at least in western democracies (Chaves and Gorski 2001). The predictions by the secular culture mechanism did not



fare any better. This mechanism supposes that the production of secular leisure opportunities, secular media and modern science may ‘crowd out’ religious products and interpretations. Again, the indicators used did not explain any variance of Christian religiosity. It is probable that Swiss Cantons are uniformly on a rather high level of secular production of culture and that remaining variance is not able to influence religiosity. On the other hand, we have to acknowledge that operationalization of secular culture is not entirely satisfactory and could be much improved in future research. With a maximum of explanatory variables I was able to explain 34.8 per cent (level 1) and 55.2 per cent (level 2) of the variance of Christian religiosity. *Alternative religiosity* could be explained to a lesser extent than Christian religiosity (13.2 per cent on level 1 and 30.6 per cent on level 2). The most important mechanisms were linked to deprivation, gender and age. Individuals with lower education and lower income as well as women and younger individuals had a higher probability of being alternatively religious. All in all, it seems as if alternative religiosity is especially important for individuals searching for ‘empowerment’ in the face of deprivation and/or social barriers and obstacles. Somewhat similar findings are reported by Houtman and Mascini (2002) and Mears and Ellison (2000).<sup>24</sup> All other mechanisms (regulation of supply, secular culture, religious tradition, socialization, regulation of demand, ethnicity) had no substantial explanatory value for alternative religiosity. As was the case for Christian religiosity, the ‘market mechanisms’ did not have any effect on alternative religiosity in our specific case. We did not find more alternative religiosity where regulation was lower; nor was alternative religiosity stronger where Christian religiosity was waning. Since previous accounts concerning the Swiss case (e.g. the contributions in Campiche and Dubach 1992) did not use the systematic approach advocated here (using a list of possible causal mechanisms and two clearly distinguishable religiosities), they have overlooked both the central part played by socialization for Christian religiosity and of deprivation for alternative religiosity.

As has been mentioned above, the present approach does not suppose that the postulated mechanisms have to exhibit the same importance everywhere. In fact, in Switzerland, the market, culture – as or ethnicity mechanisms *do not seem to operate at all* – even though they are clearly very important in other socio-historical contexts. This leads us to the question of *why* this is the case. In principle, we would now have to explain due to what ‘initial conditions’ certain mechanisms are operable or not in a given context. I have tried to do this above, although these explanations have had to remain ‘post hoc’. In the future, comparative research will have to try to include variables which explain the presence or absence of certain mechanisms in given countries *in the model itself*.

Concerning *methods*, this article has tried to make advances in two respects. First, not just one but two types of religiosity have been operationalized and ‘explained’: Christian and alternative religiosity.<sup>25</sup> A lot of the literature looks

only at one type of religiosity – mostly Christian, often operationalized by frequency of church-attendance and/or strength of belief in god or self-description as being more or less ‘religious’. As this contribution shows, however, alternative religiosity is in our case not correlated to Christian religiosity or to the importance one attributes to ‘religion’ in general (see Appendix, Table A1). Furthermore, the structure of the generative mechanisms are very different for alternative religiosity than for Christian religiosity. Second, we have used a multi-level model in order to investigate the various generative mechanisms which may ‘take effect’ on different levels of social reality. The literature so far has mostly just looked at either the individual level or the collective level (mostly: at nations), neglecting other levels. As is well known in the methodological literature, such procedures are in danger of producing artefacts (e.g. ecological or atomist fallacy). For example, if we looked in our study only at the collective level and inferred from there directly to the individuals, we would be inclined to say that religious culture is the one important factor explaining individual religiosity in Switzerland. When looking at the individual level, however, we note that other factors, such as socialization or deprivation, are much more important.

While the proposed *specific application* of the unified theoretical framework certainly has its limits concerning operationalization and generalizability<sup>26</sup>, I hope, nevertheless, to have been able to show the basic strength of my *general approach*: The proposed unified framework produces testable hypotheses and its different parts can be verified or falsified for different types of religiosities and in different socio-historical contexts. Theory and empirical research are thus brought in a closer relationship than before. If this proposal will be used in future cross-national comparative research, an improved state of the art may be expected.

(Date accepted: January 2009)

## Appendix

**Table A1:** Factor analysis for two types of religiosity

	Factor 1	Factor 2
	Christian religiosity	Alternative religiosity
Importance of religion	<b>0.829</b>	0.037
Frequency of prayer	<b>0.716</b>	0.111
Frequency of religious service	<b>0.662</b>	0.055
God and Jesus	<b>0.652</b>	-0.211
Belief in astrology	0.035	<b>0.632</b>
Belief in good luck charms	-0.048	<b>0.627</b>
Belief in fortune tellers	-0.040	<b>0.567</b>
Belief in reincarnation	0.033	<b>0.516</b>

Notes: Principal Axis Factoring, Rotation = Oblimin; Factor correlation  $r = -0.007$ . The factor analysis was also carried out on the polychoral correlations (instead of the Pearson Correlations) and yielded essentially similar results. This analysis was carried out in R.

**Table AII:** Multi-level multiple regressions for Christian and alternative religiosity (higher N)

	Christian religiosity	Alternative religiosity
<b>Fixed</b>		
<i>Regulation rel. supply</i>		
State regulation	0.040	-0.009
<i>Secular culture</i>		
State expend. on culture	0.039	-0.054
State expend. on educ.	-0.026	0.043
<i>Religious tradition</i>		
Traditionally mixed	0.108*	0.016
Traditionally catholic	0.088*	-0.061
<i>Socialization</i>		
Religious socialization index	0.326**	-0.073*
<i>Deprivation</i>		
Income&Education Index	-0.043	-0.151**
<i>Regulation rel. demand</i>		
Regulation of demand index	-0.077*	0.017
<i>Ethnicity</i>		
Naturalized Swiss	0.027	-0.045
Foreigner	0.067**	-0.085
French-speaking	-0.002	-0.072
Italian-speaking	0.032	-0.020
<i>Control</i>		
Gender (woman)	-0.002	0.275**
Age	0.066*	-0.122**
Gender * Age	0.200**	-0.161**
Full time	-0.040	0.093
Part time	-0.064**	0.068
Roman/Christ Catholic	-0.009	0.108**
Other Christian	0.140**	-0.096**
No Religion	-0.195**	-0.030
<b>Random</b>		
$s^2 = \text{var}(R_{ij})$ (level 1 variance)	0.684	0.876
$r_0^2 = \text{var}(U_{0j})$ (level 2 variance)	0.001	0.008
N (level 1, individuals)	1,472	1,007
N (level 2, cantons)	21	21
$R_1^2$ (level 1) <sup>ix</sup>	31.8%	11.9%
$R_2^2$ (level 2) <sup>ix</sup>	68.0%	17.3%
Deviance	3712.853	2810.017

Notes: This is essentially the same analysis as that presented in the text above in that indicators from all explanatory theories as well as control variables are included. The one difference is that we exclude variables for which only limited N were available. This means that we use only three variables for our religious socialization index (excluding number of years of religious education), that we use only the variable 'education' in order to measure 'structural deprivation' and that we exclude the variable 'happiness'. In this way we can run the analysis on a much larger data-set (N = 1,472 instead of N = 755 and N = 1,007 instead of N = 638). The findings are largely similar which gives our analysis additional support.

## Notes

1. I thank Steve Bruce, Hartmut Esser, Philippe Gilbert, Stefan Huber, Denise Hafner Stolz, Julian Höbsch, Jeanne Rey, Mallory Schneuwly-Purdie, David Voas, the editors, and four anonymous reviewers for their helpful comments on previous versions

of this paper. Jean-Philippe Antonietti has given statistical advice and Christine Rhone has corrected the text. The usual disclaimers apply.

2. See for similar definitions Geertz (1993), Theissen (2000), Stolz (2004). Some

1 scholars doubt if we can define 'religion' in a  
 2 general way, arguing that 'religion' is a  
 3 Christo- or Eurocentric concept. In my view,  
 4 however, we do seem to need *some* general  
 5 term (be it 'religion' or some other expres-  
 6 sion) and even scholars rejecting the term  
 7 do not seem to be able to do without it.  
 8 Given this state of affairs, it seems to be  
 9 preferable to define the term than to use an  
 10 implicit definition. Note also that 'religion'  
 11 and 'religiosity' do not cover everything that  
 12 might interest a sociologist of religion. Espe-  
 13 cially, there are 'religious institutions' (like  
 14 congregations, denominations, churches,  
 15 roles, etc.) that can be analytically distin-  
 16 guished from both religiosity and religions  
 17 as cultural symbol-systems.

18 3. Alternative spirituality is not just an  
 19 'individual phenomenon' as some research-  
 20 ers seem to think. Rather, it has – just as  
 21 Christianity or Islam – both an individual  
 22 side (= religiosity or spirituality) and a cul-  
 23 tural side (= symbol system, language).  
 24 Alternative spirituality systems are made  
 25 up of a large number of symbols coming  
 26 from various traditions; there exist,  
 27 however, shared ways to apprehend and  
 28 'mix' these symbols. This has been  
 29 described with terms such as individualism,  
 30 holism, pluralism, or reflexivity (Bloch  
 31 1998, Besecke 2001). Still by far the best  
 32 description of alternative spirituality in  
 33 Switzerland is Mayer (1993).

34 4. The social phenomenon, which is the  
 35 outcome of a macro-micro-macro-explana-  
 36 tion, can then itself be seen as the starting  
 37 point of a new macro-micro-macro element  
 38 (Esser 2000). Since the theory links micro-  
 39 and macro levels (involving meso-levels, if  
 40 warranted), there is no 'causal priority' of  
 41 one or the other level. Any macro-situation  
 42 that is the initial 'cause' of a phenomenon to  
 43 be explained is itself the outcome of micro-  
 44 level actions and vice-versa.

45 5. It is clear, however, that we restrict our-  
 46 selves to *sociological* factors that can en-  
 47 hance or diminish religiosity in individuals.

48 6. The distinction between opportunities,  
 49 institutions, and cultural frames is an ana-  
 50 lytical one. In concrete empirical cases, the

51 three 'domains' are very often linked in  
 52 various ways (Esser 1999: 51).

53 7. Because of space requirements, the  
 54 meso-level remains less explicit in this  
 55 article than would be warranted from the  
 56 point of view of the theory. Stolz (2009b) is  
 57 an attempt to show how this framework  
 58 might explain the success and failure of reli-  
 59 gious organizations (i.e. on the meso-level).

60 8. Gill and Lundsgaarde (2004) convinc-  
 61 ingly show how churches may be 'crowded  
 62 out' by the state when it comes to the pro-  
 63 duction of 'welfare state goods' and thus  
 64 how aggregate religiosity turns out to be  
 65 weaker in countries without a welfare state  
 66 than in countries with one.

67 9. See for a harsh critique: Bruce 1999, for  
 68 a sympathetic overview: Warner 1993, and  
 69 for an attempt to typologize salvation goods  
 70 and show the limits of the religious market  
 71 concept: Stolz 2006.

72 10. Note that states may (and do) use  
 73 regulation of demand and supply simulta-  
 74 neously, which can lead to opposite effects  
 75 on religiosity.

76 11. Historically, the possibilities of  
 77 secular leisure and media consumption  
 78 appeared first in the cities (McLeod 1998:  
 79 14).

80 12. Research shows that various struc-  
 81 tural barriers exist for heterogamous  
 82 couples to transmit their faith (e.g. they have  
 83 to decide which religion to transmit, the reli-  
 84 gious officials may not consent to 'mixed  
 85 transmission' etc.). It has to be noted,  
 86 though, that individuals in religious hetero-  
 87 gamous couples have not made religious  
 88 membership an important criterion for the  
 89 choice of their partner; it is therefore likely  
 90 that they do not put much emphasis on reli-  
 91 gion or the religious socialization of their  
 92 children in the first place.

93 13. Two points are noteworthy. First,  
 94 explanation of Christian religiosity can rely  
 95 on more data than explanation of alterna-  
 96 tive religiosity, since important items for the  
 97 latter are only given in the ISSP survey.  
 98 Second, the more predictors a model  
 99 includes, the lower the N we can rely on,  
 100 since the probability of missings increases.

Concerning missing values, I have (1) refrained from ‘imputing’ data in case of missing values. (2) in case of missing values in items that belong to a scale, I have calculated values for the scale on the basis of existing data (3) calculated models for both Christian and alternative religiosity in which missing data are minimized. See Table AII in the Appendix.

14. ‘Urban’ contexts are made of cities and agglomerations. A city has more than 10,000 inhabitants; an agglomeration includes more than 20,000 individuals, integrates different communities and disposes of a ‘central zone’ which is made up of different community centres.

15. I thank René Pahud de Mortanges for help with questions of cantonal church law. The specifics of the operationalization and coding can be obtained from the author.

16. A problem with this operationalization is that it focuses on high culture, whereas popular culture might be also relevant. Unfortunately, I have not been able to track down indicators for popular culture by canton.

17. For example, it would not be sensible to measure existence of a highly developed welfare state on the cantonal level in Switzerland, since this is a constant.

18. This choice of what variables have to be measured at what levels would be made quite differently if one wanted, say, to compare nations on a world-wide basis. It would then be mandatory to measure GDP and the existence of a welfare state on the aggregate level.

19. The alternative to a hierarchical linear model would be a covariance model with the group levels as fixed factors. Such a model, however, seems to be less useful for my purposes since I want to assess the effect of different variables measured at the group level. Unexplained variance on the group level is in my case not to be seen as due to

sampling error (since I include all Swiss cantons), but to unmeasured variables and residual error. See Snijders and Bosker 2000: 43. I thank Joop Hox and Jean-Philippe Antonietti for discussions on this point.

20. The zero-order correlations can be obtained from the author.

21. After inspection of the data, I present a random intercept model (Snijders and Bosker 2000: 38 ff). Estimating different slopes for different parameters in different cantons does not improve the fit of the model substantially.

22. We calculate explained variances for level 1 and level 2 with formulas given by Snijders and Bosker 2000: 102.

23. Due to many missings in some variables, the N’s in these models are somewhat reduced. In Table AII in the Appendix I show the same two models while excluding the variables with many missings.

24. In an interesting paper, Woodhead (2007: 123) explains the preponderance of women in alternative spirituality by pointing to the fact that women in late modernity are ‘more likely to suffer from more complex and far-reaching conflicts of role and identity than men’. Further empirical research has to show if this mechanism is correctly identified and stable.

25. While other types of religiosity exist and might be included, the two types investigated here can be reasonably well established in the data and have led to a considerable body of literature.

26. e.g. in some instances, operationalizations could have been more fortunate (especially concerning secular culture, regulation of demand and alternative religiosity).

27. The variable Christian religiosity is standardized and has therefore mean = 0 and sd = 1. In Figures II–IV, I have performed a linear transformation on the variable for better visibility. This has no effect on the associations between variables.

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