

Cultural Group Selection and the Russian Old Believers. Adaptive and Maladaptive Outcomes of the Group-Cohesive Effects of Religion

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Current adaptationist approaches view religion as a system of beliefs, behaviours, social norms, taboos and collective rituals, which enforce social cohesion and intragroup solidarity that lead to group cooperation and coordination. These prosocial effects then translate into success in between-group competition. Cultural group selection is seen as the process that led to the emergence of religion as a cultural adaptation that enables the persistence of cooperative social groups. This article applies this theoretical approach to the so-called Old Believers: a diverse and fractioned branch of Russian Orthodox Christianity, whose history is marked by apocalyptic worldviews and antagonism towards state powers and the Russian Orthodox Church. Since their split with the Russian Orthodox Church in the 17th century, the Old Believers evolved towards egalitarian communities, asceticism, isolationism and traditionalism. The author argues that Old Believers can be in many respects viewed as prototypic examples of how religious systems promote social cohesion, in-group solidarity, identity and commitment. Yet, contrary to what the theory assumes (or at least emphasizes), the very same collective rituals, social norms, supernatural beliefs and taboos, and their systemic interdependence, can lead to group harmful outcomes (e.g., splintering, excessive celibacy, mass suicide). In other words, high levels of in-group prosociality linked to religion cannot be simply viewed as exclusively mediating group benefits.

Keywords: Old Believers, cultural group selection, social cohesion, ritual, religious systems

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1. Introduction

Old Believers¹ are a diverse and factionalized branch of Russian Orthodox Christianity whose history is defined by antagonism towards state authorities and the Russian Orthodox Church and by a pessimistic perception of the outside world and tendencies towards egalitarianism, asceticism, isolationism and traditionalism. One of the key characteristics of this religious movement is the strong emphasis on a tightly knit and ritually integrated community. This article focuses on features of this religious tradition that relate to contemporary evolutionary theories of social functions of rituals (Hobson et al., 2018; Watson-Jones, Legare, 2016; Whitehouse, 2021; Xygalatas, 2022) or religion as a system of beliefs and behaviours (Norenzayan et al., 2016; Purzycki, Sosis, 2022).

The idea that religion and especially rituals have a crucial influence on the formation and maintenance of social groups has been part of anthropology and sociology since Émile Durkheim (Durkheim, 1964 [1912]). However, the last two decades have brought a massive multidisciplinary renaissance of this classic theme in the light of evolutionary theory. There is general agreement that living in cohesive groups has brought many adaptive benefits to humans. A growing body of evidence suggests that religious beliefs, rituals and social norms galvanize group solidarity and motivate intragroup cooperation. Hence, religion could be one of the forces that drove the evolution of large-scale human cooperation.

Several domains have been identified in which rituals seem to affect human prosociality. As group-specific forms of behaviour, rituals are an effective tool for identifying the group membership of unfamiliar individuals and thus facilitating affiliative and cooperative interactions (Watson-Jones, Legare, 2016). Rituals also represent a forum for group commitment signalling where costly forms of behaviour serve as a reliable hard-to-fake signal that evokes trust and fosters cooperation (Sosis, Bressler, 2003; Xygalatas et al., 2013). A costly ritual behaviour also increases the credibility of associated verbal declarations and hence fosters cultural learning (Henrich, 2009). Rituals also affect in-group cohesion and solidarity at a physiological level. The perception of emotional and behavioural synchrony triggers feelings of mutual similarity, trust and self-other overlap (Gelfand, Caluori, Jackson, Taylor, 2020). Rituals have been found to reinforce the learning and imitation of social norms and increase the value of cultural knowledge and the willingness to behave according to it (Hobson et al., 2018).

Several authors within this evolutionary approach to religion claim that the prosocial effects of collective rituals and supernatural beliefs have evolved through the process

¹ Two labels are currently used, Old Believers (*Starovertsy*) and Old Ritualists (*Starobryadtsy*). In Russian literature and public discourse, the term *Starobryadtsy* dominates; therefore, the use of Old Ritualist would undoubtedly be more appropriate and also more accurate, since the emergence of this religious group and their self-perception is defined by the perseverance of older forms of rituals. However, English literature is dominated by Old Believers so I will follow this convention.

of cultural group selection (CGS) (Atran, Henrich, 2010; Norenzayan et al., 2016). CGS is a set of processes that pay regard to the effect of between-group competition on cultural evolutionary outcomes and drive the evolution of group-beneficial traits, as follows: 1. Natural selection of groups. Direct between-group competition through success in population growth, daughter groups' production, conflict and war. 2. Selective imitation, in which the more successful group is imitated and causes group-beneficial traits to spread into other groups. 3. Selective migration, where individuals are more likely to migrate from dysfunctional groups to more successful groups (Richerson et al., 2016; Soltis, Boyd, Richerson, 1995).

This article has two main goals. The first is to show how the beliefs, rituals and social norms of the Old Believers in a complex and multifaceted way interlock to create a very resilient cultural system, which complies with the above-mentioned prosocial functions of religion. Even though Old Believer groups share some common features, which exaggerate the social regulatory effects of religious rituals and beliefs, the specific differences between various groups within the Old Believer movement are even more informative for the theory of CGS. Therefore, the second goal is to point out that the prosocial effects of religion do not necessarily translate into the success of the group. With the example of different factions within the Old Believer movement, I want to illustrate that groups with high in-group solidarity, cohesion and cooperation can 'successfully' achieve both adaptive and maladaptive ends. While all Old Believer groups faced similar social status in the Russian state, the divergent social practices they developed enable an informative comparison of the two main branches of the movement: the so-called priestly and priestless Old Believers.

Richerson et al. (2016) distinguish between mechanisms that cause and maintain high levels of intergroup variation (in-group homogeneity and between-group diversity) necessary for CGS to happen and the actual mechanisms of the CGS that lead to the spread of group-beneficial behaviour. While the above-mentioned prosocial effects of religion may positively affect the former and enable or hasten CGS, they may do so for both the "winning" and "losing" sides of the between-group competition. That is, an increase or high levels of group cohesion linked to religion cannot be simply viewed as a group benefit. In the past, scholars of CGS have already admitted that excessively strict traditions built upon social technologies for increasing in-group cohesion can in fact damage a group's evolutionary success and, so to speak, erase themselves (i.e., the Shakers) (Norenzayan et al., 2016); however, I believe these cases deserve far more attention and elaboration than they have received so far.

2. Historical background

Old Believers represent several independent religious movements whose common origins lie in the Great Schism of the Russian Orthodox Church, a revolt against the liturgical reforms that occurred in the Russian Orthodox Church in the second half of the 17th century. After entering office in 1652, the Moscowite Patriarch Nikon

decided to eliminate liturgical modifications that had accumulated in Russian Orthodoxy during the previous centuries and to unify them with Greek and Ukrainian practice. The reforms brought a wave of rejection, which provoked a series of church councils (1654–1656) that confirmed the reform. The reform gained the support of Tsar Aleksey Mikhaylovich and the Russian state was engaged in the coercive implementation of the reforms (Crummey, 1970; Zenkovsky, 1957).

From an outsider's perspective, most of the changes introduced by the reforms may seem trivial or formal compared to the theological background of the reform movement in Western Europe. The most well-known are the position of the fingers used in the sign of the cross, the direction of the procession, the spelling of Jesus's name and wording changes in the creed. The opponents of the reform proclaimed that both the practice and the doctrine of the Russian Church are holy, and nothing about them must be suppressed or changed. Changes being made to the liturgy were making the path to salvation impossible, and both Patriarch Nikon and the Tsar were leading the Church into apostasy (Cherniavsky, 1966; Crummey, 1970, Chapter 1; Zenkovsky, 1957).

At the same time, the resistance to the reform was linked to Nikon's attempt to centralize the Russian Orthodox Church and to end the relative autonomy of individual parishes and monasteries. That awoke the already existing power tensions within the Church, especially between the ecclesiastical hierarchy and the monasteries, which became the first centres of opposition. However, as the revolt spread from the rather small clerical faction to peasants, merchants or craftsmen communities, it expanded quickly into a massive and popular movement that combined religion with social dissent. As state power became involved in the actual enforcement of reform, the resistance to liturgical changes also gained the function of symbolic antagonism to the ongoing consolidation of serfdom and centralization of state power. This linkage brought an instant spread and popularity of the schism (*Razkol*) and led the authorities to perceive this religious movement as a threat to not just the Church but also to the state's interests, which exaggerated coercive reactions (Crummey, 1970, Chapter 1; Scheffel, 1991: 37–38).

The Church definitively confirmed the liturgical reforms in 1666 and anathematized the proponents of the old liturgy, and the old liturgical books. This final verdict on the reform started a period of violent military campaigns against the communities and monasteries of the Old Believers, which led the opponents of the reform to eschatological interpretations of the events. Even before Nikon's reform, a certain apocalyptic mood prevailed in Russia. In the late 1640s, a printed collection of Ukrainian and South Slavic religious apocalyptic writings, the Book of Cyril, began to be popular in Russia and achieved record sales. Several subsequent events fit into the apocalyptic view: in 1652, the year of the accession of Patriarch Nikon, a devastating plague epidemic erupted in Russia; in 1654, a solar eclipse occurred; and in 1680, a comet appeared in the sky. The liturgical reform itself, its coercive implementation, and, last but not least, the very figure "666" in the date of the council also fitted into this context. Thus, the idea that the last days were coming and that the Church and Tsar were representatives of the Antichrist quickly developed and became firmly

established among the Old Believers (Cherniavsky, 1966; Crummey, 1970). This is one of the critical elements of the whole Old Believers' movement for it defines much of the later development of the relationship between the Old Believers and the Russian Orthodox Church, and the Russian state, or any non-Old Believers and the secular world in general. The Old Believers started to interpret not only the changes explicitly introduced by the reform but virtually all the changes in religious and social life that followed as apostasy or directly as the seal of the Antichrist.

The combination of the need to escape the harsh persecution of state power and the inner desire to avoid contact with the "kingdom of the Antichrist" led to the formation of isolated communities and migration beyond the reach of the Russian state, either to the territory of the countries to the west of Russia or its peripheral regions in the European north, to the Cossack lands, the Urals, Siberia, Altay and the far east (Cherniavsky, 1966).

The second crucial feature of Old Believers that shaped the development of the movement is the fact that no bishop joined the movement. This inevitably brought the inability to ordain priests according to the old rite, and two main branches emerged. At some point, the more moderate Old Believers, later known as the priestly (*popovtsy*), began to address the problem by recruiting priests ordained in the Russian Orthodox Church. The so-called priestless (*bespopovtsy*) adopted a more ritually consequential solution. As the Orthodox Church became representative of the Antichrist, the apostolic succession was irreversibly broken and no more priests could be ordained. The function of religious leaders and liturgical celebrants was assumed by the educated members of the community elected primarily from among the oldest members (Crummey, 1970; Robson, 1995). Any member of the community could become its spiritual leader, if necessary, which created pressure for the required religious and liturgical education and religious engagement of all members and led to a crucial difference between priestly and priestless Old Believers on both a social and psychological level.

Old Believers had never been a unified movement. On the contrary, several separate concords (*soglasia*) gradually formed, but even though they were fully aware of their common roots in the schism and their opposition to the post-Nikonian Orthodox Church and the Russian state, the different groups often considered each other as heretical as the Nikonians. Among the priestly Old Believers, the situation was not that escalated, and the individual concords were rather regional unions. In 1846, the priestly Old Believers succeeded in fulfilling their long-term pursuit and won over to their side an Orthodox bishop, a former bishop of Sarajevo, Amvrosia. Thus, gaining the ability to ordain their own priests independently, the so-called Belokrinitsa hierarchy was formed, under which the majority of previous priestly concords united. A smaller part remained fugitive-priestly (*beglopopovtsy*),² but in

2 Fugitive-priestly (*beglopopovtsy*) refers to the praxis of converting priests from the official Orthodox Church. Hence, till the formation of the Belokrinitsa hierarchy, all priestly Old Believers were so-called fugitive-priestly.

1923 they won the archbishop of Saratov, Nikola, to convert to their side (Vurgraft, Ushakov, 1996).

One priestly concord, called Chasovennye, on the contrary, did not seek to re-establish an independent hierarchy and gradually lost its trust in priests lured from the ranks of the Russian Orthodox Church. While not denying the possibility of priesthood, the Chasovennye became at the beginning of the 19th century de facto priestless (Robson, 1995).

The priestless Old Believers had to deal with a much wider range of dogmatic problems. The disappearance of the priesthood brought certain ritual restrictions. The sacraments, except for baptism and penance, and parts of the liturgy dependent on priesthood, were lost. Moreover, whenever various dilemmas were raised, such as the question of liberalization in attitudes towards marriage or towards the state, contradicting opinions were triggered and this resulted in a splintering of the priestless Old Believers into numerous concords.

The general ideological principles of the Old Believers can be summarized in two points. First, the need to preserve the Orthodox ritual tradition of pre-Nikonian Russia, which also extends to many everyday customs relating to dress, diet and communal life. In response to liturgical reform and to justify the unchangeability of the rituals, the defenders of the old ritual form have come to theologically exaggerate the significance of rituals in what scholars of the movement call “belief in ritual” (*obriadoverie*) (Melnikov, 1909). The contrast between Old Believers and the Russian Orthodox Church was not just through the different ritual forms but also through the amount of time and commitment dedicated to rituals.

The second general feature of the Old Believers is their emphasis on the communal, egalitarian organization of religious and social life, and the placing of themselves in contrast with the centralized model of parishes of the post-Nikonian Russian Orthodox Church, against subordination to state authorities.

Adherence to these principles resulted, on the one hand, in strong traditionalism, ritualization, and asceticism and, on the other hand, in communitarianism and isolationism. The paradigm in which Old Believers understood the world took the form of a suspended apocalyptic expectation that not only nourished their aversion to change but strengthened their longing for salvation. This powerful acknowledgment of the end of time was projected into a struggle to maintain the old Orthodox rites in everyday practice, leading to a powerful fusion of religious and social experience.

In general, this is true for Old Believers, regardless of concord. However, different concords and currents within them differ in the degree of strictness through which they implement this approach. There is also significant variability within single concords because many rules happened to be interpreted and implemented on the communal level in different contexts. Nevertheless, the priestly Old Believers occupy the relatively liberal side of the spectrum both in terms of isolationism and asceticism. In contrast, priestless concords occupy the other side of the spectrum. Within the priestless Old Believers, lay monasticism is considered the ideal way of life, not just for pious individuals but also as a general model for the whole community (Robson, 1995).

3. Group identity markers

In situations where social networks extend beyond mutually familiar individuals, preferring similarity is an effective strategy for anticipating potential partners. To do so, people often have to rely on proxy identifiers of group membership, using externally observable similarities (Watson-Jones, Legare, 2016). Cultural traits like group-specific behavioural patterns, even though they do not seem to have any other practical function, can be adaptive as they may function as reliable group markers. It is argued that group-specific rituals, customs and etiquette provide relatively effective signals of a certain “behavioural type” that indicates particular values and ideas. As an indicator of group membership, they thus mediate affiliation and cooperation (McElreath, Boyd, Richerson, 2003). In the process of CGS, then, rituals are capable of being a group marker and can act in favour of in-group cooperation and thus have an adaptive function; but, at the same time, they can also foster intergroup contrast and in-group homogeneity essential for something like CGS to take place.

Since the central subject of the schism in Russian Orthodoxy was the form of ritual, rituals themselves constituted the primary group identifiers from the very inception of the movement and differing ritual practices clearly defined boundaries of belonging to the new or the old. Perhaps the most iconic symbol of the Old Believers is the sign of the cross. Nikon’s reform introduced the so-called three-finger sign of the cross, in which one holds the thumb, middle finger and index finger together to symbolize the Holy Trinity. In contrast, the pre-reform sign of the cross used a two-finger form in which an index and middle finger were erected as a sign of the two natures of Christ, and the thumb, ring and little finger held together symbolized the Trinity. The Old Believers claimed that Nikon had simply abolished Christ. With this theological underpinning, the “two-fingered” sign became a non-negotiable identifier of the Old Belief (Cherniavsky, 1966; Crummey, 1970). As the sign of the cross is in Orthodoxy a very repetitive everyday ritual activity, it inevitably served as an easily observable group marker. Beyond the very act of crossing oneself, the gesture also became a kind of ostentatious declaration of belonging and often an expression of resistance.

In addition to the ritual differences defined by the liturgical reform and as a result of the Old Believers’ deliberate resistance to any innovations, many other cultural traits started to serve as group membership markers. One such example is the prayer rope called *lestovka*. The *lestovka* was not a subject of the reform changes and its use was not formally restricted in any way. Nevertheless, after the schism, its use ceased in the Russian Orthodox Church and was replaced by another form of prayer rope called *vervitsa*. In contrast, among the Old Believers, *lestovka* became one of the symbols of their faith, and it became a norm that one should have it by them at specific occasions or rituals (Clopot, 2016; Robson, 1995). For instance, after photography became accessible in Russia in the 19th century, *lestovka*, along with the two-fingered gesture and traditional dress, was a constant component of any formal photography of the Old Believers (Robson, 1995).

In the 17th century, Western art forms spreading from Ukraine and Poland, began to be popular in Russian Orthodoxy. The Old Believers, however, reacted to these trends with criticism and rejection. One was the introduction of elaborate polyphonic singing into the liturgy (I will return to this later), and the other was Western naturalism, which started to be applied to religious iconography. In the official Orthodox Church, these trends came to have an impact resulting in the accumulation of further distinctive differences in liturgy and visual expressions between the Old Believers and the Russian Orthodox Church. There was also a gradual evolution in the structure of the liturgical space in the Russian Orthodox Church, while the Old Believers adhered to the pre-reform church architecture or adapted the design of the traditional Russian peasant house for the needs of their liturgical buildings (Robson, 1995). Also on the list of observable group markers could be things like the adherence to traditional dress (Clopot, 2016) and the long beards of the men. A beard was seen as a symbol of gender and age difference and, at the same time, a symbol of aesthetic perfection and male divine beauty. The retention of traditional dress and men's long beards is on one side a consequence of overall traditionalism but also a direct reaction to Peter I's drastic introduction of westernized fashion, including a special beard tax (Paert, 2003: 43). Thus, they became also hard-to-fake ostensive manifestations of group belonging.

Similarly, many other aspects of lifestyle supported by the movements' traditionalism and reflective rejection of innovations served as a secondary group marker. The resistance to mechanization in agriculture and the idealization of historical forms of life and social organization, typical of rural Old Believers till today, grows from the effort to preserve an idealized past in its ritual and non-ritual aspects of life, while similarly serves to articulate group identity. On top of that, however, sits a belief in supernatural punishment that any departure from the pre-Nikonian ideal could cause a spiritual corruption that hinders salvation.

4. Out-group threat and the ethos of dissent

Broad ethnographic, historical (Gelfand, 2019; Gelfand et al., 2011) and experimental evidence (Lang et al., 2021) suggests that threats increase the need for affiliation, cooperative behaviour and in-group fairness. It has been argued that intergroup conflict was a constant evolutionary force that shaped human social psychology towards evolved dispositions that increased parochialism when under out-group threat (Bowles, 2008, 2009; Whitehouse et al., 2017). The history of the Old Believers is for a large part a story of persecution and represents a good example of how conflict and out-group threat can lead to the emergence of cohesive groups that evolve distinct cultural traits.

The first decades immediately following the schism may be considered the most brutal. The implementation of the liturgical reform was imposed by force, and any resistance was suppressed by military intervention and public executions of those

who refused to conform. The very fact that the Old Believers were officially anathematized justified and escalated the violence. During the reign of Peter the Great, the most brutal persecution ceased, but new administrative persecutions were introduced, like the double taxation for Old Believers and the additional beard tax. The writings of the Old Believers deal with many things – ritual, dogma, way of life – but almost always the sources of the greatest concern are the state authorities, the government, and especially the Tsar, who ruled with absolute power over both the state and the Church (Cherniavsky, 1966; Crummey, 1970). The very repressions against Old Believers can be seen as one of the major forces that helped to create and maintain a high level of social cohesion among their communities.

On the other hand, an out-group threat can lead to increased religiosity and norm adherence. Expressions of religiosity are often closely linked to commitment signalling that serves as a mechanism to reinforce coalitional safety when facing out-group threats (Boyer, Firat, van Leeuwen, 2015). Groups under threat endorse more strict norms (Gelfand, 2019; Gelfand et al., 2011) and costlier forms of ritually signalled compliance to norms. A cross-cultural study found that exposure to war leads to increased participation in religious groups and rituals that last for an extended period (Henrich et al., 2019). One of the main features of the Old Believer movement is higher ritualism, asceticism and religious commitment relative to the main Russian Orthodox Church, which could be, in this context, explained by the norm endorsing effects of a salient out-group threat. Another study found that exposure to violent intragroup conflict creates a lasting increase in egalitarian motivations towards in-groups, but not out-groups (Bauer, Cassar, Chytilová, Henrich, 2014), which fits nicely with the egalitarian and exclusivist nature of Old Believer communities.

The interpretative framework for the social experience of persecution was dominated by apocalyptic beliefs that associated the state, the Church or any out-groups with the Antichrist. The world outside the community thus became a source of supernatural threats that cause the inaccessibility of salvation, regardless of the actual level of persecution. This perpetuated the cultural and social isolationism of many groups even in times when the state tried to liberalize its attitude to Old Believers (the reign of Catherine the Great, the late imperial period or after the fall of communism) (Crummey, 1970; Robson, 1995). Many priestless Old Believers saw the hardship of their lives and the status of a persecuted social group as an integral part of their identity and an intrinsic part of reaching salvation. In other words, in the world of the Antichrist, being part of religious and social dissent is not just a consequence of historical events but a desirable state. Avoidance of the supernatural threats to salvation was often prioritized over individual survival, resulting in extreme forms of self-sacrifice (see below) (Pulkin, 2013; Robbins, 2016).

5. Social conservatism and ritual restrictions

Social conservatism is defined as any socio-cultural value system that promotes tight adherence to social norms that highlight social exclusivity and encourage in-group cohesion. Those who adopt such social norms show little tolerance for individuals who deviate from conventions (Altemeyer, 1988; Terrizzi, Shook, 2012). As a value typical of social conservatism, collectivism has been found to encourage in-group reciprocity but not between-group reciprocity (Yamagishi, Jin, Miller, 1998). In the form of religious conservatism, it manifests in dogmatical allegiance to particular religious texts, doctrines and rituals but also correlates with intolerance and prejudice towards out-groups (Altemeyer, Hunsberger, 2004; Laythe, Finkel, Kirkpatrick, 2001). In an evolutionary context, it is argued that socially conservative values are built upon a cluster of psychological mechanisms (disgust, contagion avoidance, avoidance) called the behavioural immune system that evolved to promote disease-avoidant behaviour (Terrizzi, Shook, McDaniel, 2013; Terrizzi, Shook, 2012). Therefore, socially conservative norms often address social interaction in intuitive concepts linked to disease-avoidance, like purity, contagion and contamination, and restrict social interaction with exclusion, segregation or need for cleansing.

The ideology of the Old Believers provides a large number of normative ritual prohibitions that reinforce communitarian solidarity and offer religious justifications to retain traditional forms of domestic life and the means of livelihood. There is an elaborated system of apartheid focused on social relationships and also restrictions that pertain to food, drinks and technology. Most of these restrictions follow a dichotomy that opposes the “faithful” and the “heretical” and serves to set the Old Believers apart from the rest of society. Many of these norms are concord specific or apply only locally; some, however, were supported across many different groups (Robson, 1995).

Especially among the priestless groups, the outside world is considered evil, pagan and unclean. Any contact with the Orthodox Church (later extended to the secular world or generally any out-groups) is viewed as a union with the Antichrist’s servants; a sin called worldliness (*mirshchenie*) (Paert, 2003; Robson, 1995). The priestless Old Believers agree that one must separate oneself from outsiders by avoiding both spiritual and physical contact. Praying together, sharing a meal, a drink or a bath (*banya*, Russian sauna) is restricted only to community members. A system of sanctions and anti-pollution rituals symbolically mark the in-group-out-group boundaries. For instance, among the Pomortsy, contact with the out-groups was sanctioned with the loss of the right to receive the blessing of the censer, and prayer with the heterodox meant immediate outlawing from the community. The Chasovennye excluded those who ate or drank with outsiders from the communal prayer for six days, when it happened for the first time, the second time for a year, and the third time for three years (Paert, 2003: 37–3; Robson, 1995: 99). These are tough penalties when we consider how central collective prayer is for the social life of the Old Believers both in terms of time and the symbolic value they ascribe to it. Social exclusion is known to be one of the primary and most effective forms of in-group

ostracism that trigger affiliative, imitative and conformist behaviour (Wesselmann, Nairne, Williams, 2012; Williams, Nida, 2017).

Some Old Believer groups extended the set of situations that could cause contamination with the outer world to nearly any aspect of life. For instance, many priestless groups required food bought on the market to be purified with a prayer, required separate dishes for out-groups and community members and that hands must have been washed after handling money ahead of touching food. Avoiding worldliness was also why some Old Believer groups were cautious or even paranoid about adopting technological novelties, like mechanization, vaccinations or even new crops. For instance, potatoes quickly became a staple food in Russian cuisine, but among the priestless Old Believers remained almost absent (Robson, 1995).

Contrary to the priestless, most priestly Old Believers gradually stopped adhering to the bans on worldly interactions, dining segregation and restrictions on certain foods. Instead, especially after creating the Belokrinitsa hierarchy, the priestly Old Believers started to play a more active role in Russian society, attempting to gain general acceptance and recognition.

6. Fused in rituals

The ritual life of the Old Believers created a system of symbols and rituals that purposely shaped the faithful in a very different way from their Russian Orthodox counterparts. Discipline, uniformity, unity in verbal expression and physical rigor were explicitly addressed to create an atmosphere that fostered the community (Robson, 1993).

Collective rituals are theorized to play a central role in the prosocial effects of religion, and one of the assumed mechanisms mediating this effect is behavioural synchrony, which is one of the universal elements of collective rituals across cultures. Behavioural synchrony in rituals takes various forms, such as prescribed movements and gestures, singing, chanting, dancing and marching (Gelfand et al., 2020). A massive body of research on synchronicity shows that the perception of successful behavioural synchrony has a profound effect on later social interactions among participants. Experimental evidence suggests that synchronous activities lead to helping behaviour (Kokal, Engel, Kirschner, Keysers, 2011; Valdeso, DeSteno, 2011); increase cooperation in economic games (Launay, Dean, Bailes, 2013; Reddish, Bulbulia, Fisher, 2014; Wiltermuth, Heath, 2009); endorse interpersonal liking and rapport (Hove, Risen, 2009; Miles, Nind, Macrae, 2009); create entitativity (Lakens, Stel, 2011; Reddish, Fisher, Bulbulia, 2013); enhance trust; and lead to the feeling of similarity and self-other overlap. These effects of behavioural synchronicity have also been shown to be related to the functioning of the endogenous opioid system (Cohen, Ejsmond-Frey, Knight, Dunbar, 2010; Lang et al., 2017; Machin, Dunbar, 2011; Tarr, Launay, Dunbar, 2014). In addition to increasing group cooperation, cohesion and coordination, synchrony has been found to affect social liability by increasing

conformity, destructive compliance, subordination and group thinking, but also decreasing creativity and productive dissent (Gelfand et al., 2020).

An illustrative example of the accentuation of behavioural synchrony among the Old Believers is ritual bowing.³ While in the Russian Orthodox Church, the importance of bowing and prostration in the liturgy gradually faded away and took the form of an individual act of devotion, performed according to one's own feelings, among the Old Believers its form and its place in the liturgy was precisely prescribed. An emphasis was also placed on the necessity to perform them collectively and in unity, which is highlighted especially among the priestless Old Believers. If someone arrived late and missed the initial purificatory congregational bows, he was not allowed to receive the blessing of the censer. Although the Orthodox Church still formally prescribed bows at a few points of the liturgy, this rule was not followed or sanctioned in any way. On the contrary, the Old Believers, in order to maintain discipline, excluded the performance of individual extra bows and prostrations altogether and denounced them as showing off or a form of pharisaic piety that disrupts the harmony of communal prayer (Robson, 1993).

Already during the early days of the schism, the forming protocol of the Old Believers prescribed strict behavioural rules for the attendance of the service: the faithful were to stand almost motionless the whole time during the long divine services, with their arms folded across the chest, in even rows with enough space to prostrate and without any change of place, turning or leaning (Crummey, 1970: 28). Also, liturgical manuals prescribe the chanting only at prescribed moments and that prayers must be said collectively and in unison "in one thought, and accord, and love of union" (Robson, 1995: 49) not as if read in individual prayer. The looser liturgy of the Orthodox Church, on the other hand, was held in contempt by the Old Believers (Robson, 1993).

A specific form of behavioural synchrony, which is relevant to the study of rituals, is the synchrony of sound, such as in singing and chanting (Savage et al., 2020; Weinstein et al., 2016). In addition to collective prayers, the Old Believers' desire for voice synchrony is also manifested in liturgical singing. The Old Believers rejected polyphonic singing altogether, not only because it was a Western cultural import but also because it undermined the symbolic meaning of monodic singing (in one voice) and was seen as a loss of the ideal communal worship (Robson, 1993). The development of the complexity of polyphonic singing in the Orthodox Church also led to a physical separation of the choir from the congregation: it required professional training and, within the design of Orthodox churches, the choir was segregated from the nave (the central part of the church) to a balcony and thus separated from the congregation (Robson, 1995: 70).

3 Bowing and prostrations are relevant examples here because lowering behaviours are suggested to physiologically trigger feelings of subordination and submission (Kundtová Klocová, Geertz, 2019; Kundtová Klocová, Lang, 2016) and thus may be another aspect of Old Believer ritualism that suppresses individualism.

Among the priestless Old Believers, in addition to a generally higher degree of strictness in maintaining and sanctioning ritual uniformity, a feeling of communal unity was emphasized by the erasure of the boundary between the priests and the congregation. The function of the priest was undertaken by a preceptor elected from within the community. With the disappearance of the sacrament of communion, the liturgy ended with the reading from the gospel and the central point became the collective prayer itself (Robson, 1993). In this context, Roy Robson points out that the unity among the priestless Old Believers was also symbolically manifested in the design of their liturgical buildings. The altar (and the sanctuary) disappeared, but its function was assumed by the gospel table, which was placed in the nave, and so all ritual activities were undertaken spatially unseparated from the congregation (Robson, 1995).

7. The cost of the old belief

The crucial idea behind adaptationist views on the evolution of religion is an interconnection between two evolutionary puzzles. The first is the so-called free-rider problem in the evolution of extensive cooperation, and the second is the apparent cost of religions, which at first glance might seem, from an evolutionary point of view, to be wasteful. The argument goes that the costs of religion enable the detection and control of free-riders and therefore are counterbalanced by the benefits of the lasting cooperation they allow. The theory of costly signals argues that many seemingly wasteful and non-instrumental behaviours actually function as measures of communication regarding group-relevant qualities of the signaller that might not be observable. Specifically, the costs an individual has to invest into the performance of certain religious rituals or when conforming to certain religious norms, restrictions and obligations, provide a hard-to-fake signal of in-group loyalty and commitment to the community's beliefs and values (Iannaccone, 1994; Irons, 2001; Power, 2017; Smith, Bliege Bird, Bird, 2003; Sosis, Alcorta, 2003; Xygalatas, 2012). A wealth of empirical research has shown that the successful communication of a person's commitment can increase their reputation (Power, 2017), deter free-riders (Bulbulia, 2004; Iannaccone, 1994) and facilitate cooperation (Sosis, Ruffle, 2003).

Apart from the formal differences between pre- and post-Nikonian rituals, the Old Believers' rituals do not differ from the Russian Orthodox Church in terms of the cost of particular components of the liturgy. However, the Old Believers' ritual praxis became costlier in terms of dedicated time, discipline and obligatory attendance. The social norms of the Old Believers established much higher standards for ritual participation and endurance, making the liturgy and collective prayer the most important segment of social life and a lack of piety and ritual commitment a subject of social ostracism. This becomes even more obvious when comparing the priestly and priestless Old Believers. The absence of priests created a demand on most regular members of the community to be ritual experts. To have detailed theoretical and practical knowledge of how to perform rituals, be able to read, both in Russian

and Old-Church Slavonic, and for men eventually to lead the liturgy as an elected leader (*nastavnik*) or at a time of need. As noted by Roy Robson, the “Old Believers often accept (or reject) each other not on philosophical or ideological grounds but rather on their ability to sing, chant, read, and stand through the lengthy old ritualist divine services” (Robson, 1995: 140). These were not just qualities that are naturally admired in a pious community, if you are not a full-time religious professional, it requires much effort and large time investment and is nearly impossible to fake.

A large amount of costs derives just from being an Old Believer. On the one hand, the outside costs, such as persecution, ostracism and double taxations, which were imposed on Old Believers by the Russian state. Such costs were deliberately intended to serve as motivation to abandon the Old Belief. On the other hand, there were the already discussed restrictions the Old Believers imposed on themselves, including asceticism, emigration to areas with harsh natural conditions, rejection of mechanization, new crops or modern medicine.

However, the effects on group cohesion and cooperation is just one dimension that justifies the costly behaviour associated with religion. A second dimension of this issue is represented by the effects of higher costs on cultural learning. Joe Henrich argues that costly behaviour often functions as so-called credibility-enhancing displays (CREDS). When adopting beliefs, people are sensitive to cues that indicate whether the individual they consider learning from is genuinely committed to what he/she propagates. With the logic of “deeds are better than words”, costly behaviours support the spread of associated belief systems (Henrich, 2009). Consequently, adopting this perspective, it could be argued that if the Old Believer movement did not require higher costs compared to the reforming Orthodox Church, its ability to spread would have been reduced.

A third, a more proximate and, in my view, a neglected dimension in which costs associated with religion functionally relate to ritualization, represent the mechanisms that influence or underpin an individual’s endurance in investing higher costs in the long run. Recently, Rybanska and her colleagues have highlighted the fact that the acquisition and reproduction of ritualized behaviours lead to improved executive function and delayed gratification in children (Rybanska, 2020; Rybanska, McKay, Jong, Whitehouse, 2018). Improvement in executive functioning, though, does not only have implications for the individual but also for social cooperation. Resisting short-term temptations in favour of shared long-term goals is essential for effective cooperation. Enhanced inhibitory control and delayed gratification are crucial in the context of social interdependence (Koomen, Grueneisen, Herrmann, 2020). Cooperation, but also the accompanying reputation building, through direct and indirect reciprocity, are often long-term endeavours with unsecured gains. Delayed gratification has been found to be related to social trust (Michaelson, Vega, Chatham, Munakata, 2013; Michaelson, Munakata, 2016), while immediate gratification and low self-control with cheating (Muraven, Pogarsky, Shmueli, 2006; Sinha, Singh, 1989; Tibbets, Myers, 1999). Hence, if rituals are an effective way to cultivate the competence to delay gratification, they represent a possibly effective cultural tool to increase cooperation.

Most of the large world religions endorse delayed gratification with what in the context of the life history theory could be called “slow strategies” by emphasizing investment in cooperation and extended prosociality, restricted sociosexuality and beliefs that sanction these behaviours with supernatural justice (Baumard, Chevallier, 2015). Returning to the topic of costs that religion inflicts on individuals, I suggest that delayed gratification can also be framed as acceptance of immediate costs (missed opportunities) for the sake of believed future benefits. Ritualization could then be seen as a cultural instrument that cultivates individual executive functions that mediate costly and long-term expressions of group commitment. In more radical forms, interlocked with elaborated beliefs in eschatological reward and soteriology, high ritualism could mediate extensive asceticism and monasticism or quasi-monasticism.

8. Dying for or with the group?

A self-sacrifice is an extreme form of pro-group action, which requires strong group commitment to overcome individuals’ instinct of self-preservation. Harvey Whitehouse argues, for example, that willingness to die for the group is mediated by a specific form of group affiliation, which is based on identity fusion. Fusion with the group is established by emotionally intense experiences, which produce a self that is merged with the group and is, therefore, able to motivate extreme pro-group behaviour. Contrary to fusion, identification is a form of depersonalized group alignment that relies on shared traits and semantic schemas and is unable to overcome self-preservation, even though it can motivate other costly pro-group behaviour (Whitehouse, 2018, 2021).

In the context of religious ritual, Whitehouse argues that identity fusion is typical for the imagistic mode, a mode of religiosity characterized by small cohesive groups and the performance of highly emotional dysphoric rituals. On the other hand, identification is typical for the doctrinal mode with its highly repetitive and emotionally calm rituals. The Orthodox liturgy is, by many features, a prototypical example of doctrinal religiosity, and the Old Believers even elaborated the repetitive, procedural and doctrinal aspects of their rituals. No imagistic, highly emotional rituals to explain identity fusion can be found among Old Believers. However, identity fusion can also appear within routinized traditions that operate in the doctrinal mode in the context of heightened sensitivity to out-group threats and through behavioural synchrony in rituals (Whitehouse, 2018, 2021). Old Believers, especially the priestless concords, are saturated by both: traumatic experiences of persecution heavily fed by apocalyptic beliefs and an emphasis on ritual synchrony.

The persecution of the Old Believers became the context in which their main religious inspiration was not the apostles or prophets but martyrs (Crummey, 1970; Pulkin, 2013). In the early period of the schism, several leaders underwent trials and were eventually burned for heresy, including the main ideologist of the Old Belief, Archpriest Avvakum. Joe Henrich considers martyrdom as the ultimate form of

CRED (Henrich, 2009). The martyrs of the Old Believer movement became venerated models for their stubborn insistence on the Old Belief (Crummey, 1970). The second source of inspiration came from a small group of radical hermits called Kapitons, whose existence precedes but overlaps with the beginning of the schism. Their leader Kapiton encouraged his followers to escape the rule of the Antichrist through extreme asceticism and fasting till death or through being buried alive. During 1665 and 1666, the Kapitons started to burn themselves in small groups and served as a contagious example for several groups of Old Believers (Crummey, 1970: 45). For them, collective mass immolation became a radical form of social protest and an acceptable means of reaching salvation.

The first mass self-immolations appeared in central parts of Russia and quickly reached the thousands. For instance, in 1675 around 2,000 people burned themselves near the river Kudma and another 1,920 Old Believers died in flames in the Poshekhonsky County. Soon, the wave of self-immolations reached the main Old Believer regions, the Russian north, the Urals and Siberia. One of the largest self-immolations occurred at Paleostrovskii Monastery, where 2,700 and 1,500 peasants gathered and burned in 1687 and 1688, respectively (Pulkin, 2013). It is estimated, that let alone during the 1680s and 90s, more than 20,000 Old Believers burned themselves (Vernadsky, 1969: 716).

In the 18th century, most of the mass self-immolation occurred among the Siberian Old Believer communities and had shrunk in size to groups of hundreds and later dozens of burned individuals.⁴ Overall, there are around 100 recorded mass self-immolations, mainly taking place in the 17th and 18th centuries. In the last decades of the 18th century, self-immolations became rare, with occasional small relapses; they also appeared in the 19th century (Pulkin, 2013), and the last recorded cases are from 1926 and 1941 from Tuva (Poliakov, 1991: 126, 183–184). The gradual decrease in the size and frequency of self-immolations was due to several interconnected reasons. First, the spiritual leaders who supported this practice and actively spread its theological justification faced a large number of fierce opponents from among less radical Old Believers. Second, the intensity and violence of persecution decreased with time, and with that also the most prominent motivator to perform extreme self-sacrifice. And third, the self-immolations had a significant impact on the demographics of the most radical Old Believer communities. Communities prone to adopt the practice simply died out following the self-immolations.

These collective self-immolations did not occur spontaneously but rather acutely under the threat of coercive interventions of the Russian state against the Old Believers. However, these interventions were often deliberately provoked (Crummey, 1970: 51).⁵ At first Old Believers used churches or monastery buildings to burn

4 This was partially also because the relatively new settlements of Old Believer diaspora in Siberia were smaller and dispersed compared to villages of central Russia.

5 Sometimes just rumours about approaching soldiers were enough to trigger an atmosphere of hysteria that led to the mass-suicide (Pulkin, 2013).

themselves, but later they began to construct special buildings prepared specifically for this purpose. The act of immolation became elaborated and organized in advance and took a ritual form of a so-called “second baptism by fire” (Pulkin, 2003, 2013).

The self-immolations spread among the Old Believers not only spontaneously by the example of other communities and the martyrdom of the movement's early leaders but also by active preaching. One of the main spiritual centres of the priestless Old Believers and the heart of the Pomortsy concord was the quasi-monastic Vyg community, which derived its spiritual heritage from the Old Believers' uprising and the martyrdom of the Solovetsky monasteries. In the early decades of the schism, many promoters of self-immolation came from the Vyg community. They wandered to the ideologically not yet specified communities of Old Believers in the Urals and Siberia, promoting both priestlessness and the virtues of self-immolation (Pulkin, 2013). In addition, testimonies of various visionaries, who allegedly, in dreams or some kind of trance, glimpsed into the afterworld, appeared and circulated among the Old Believers in support of the collective suicide. These visions of the afterworld offered evidence that self-immolation offered a permissible entrance to paradise (Pulkin, 2013). Waves of mass self-immolations did not appear only in connection to coercive encounters with the state, which amplified religious devotion and group commitment, but also in connection with an inner threat of relaxation of the strict social norms and relationship with the state. For instance, when the priestless Pomorians decided to partially liberalize their relationship with the state, a more fundamentalist branch, called Filippovtsy, separated. Most of the self-immolations of the second half of the 18th century occurred among the Filippovtsy (Crummey, 1970). On the contrary, when the priestly Chasovennye turned priestless, they started to shift towards a more fundamentalistic end of the spectrum, with a new revival of burying alive, starvation to death and self-immolation (Sikorskii, 1897; Tatarinceva, 2015), even though this concord had no experience with religiously motivated suicides in the past.

Another religiously motivated costly behaviour that can have a negative effect on a group's success is extensive celibacy. Individual sexual abstinence as a display of religious commitment can be functional as a CRED that has a positive effect on the cultural learning of pro-group behaviours and norms (Henrich, 2009); however, when it reaches a certain level of the population, for obvious reasons it can lead to issues for community persistence.

The priestless Old Believers generally considered celibacy preferable to marriage when, as they believed, the world in its present form was coming to its end. In practice, though, marriage was more or less tolerated and later among the Pomortsy even explicitly accepted. Yet, more radical groups like Filippovtsy, Fedoseevtsy, Beguny, and others continued to practice celibacy and retained their original view of marriage as a vanished sacrament (Paert, 2004). Attempts to liberalize views on marriage or celibacy were usually followed by splintering and the formation of more fundamentalist groups that reasserted the asceticism and social radicalism of the earlier Old Believer movement (Paert, 2003). These more radical groups, even though

they were quite successful in attracting converts with their deep spirituality, communitarian life and prosperity, remained small minorities within the Old Believer movement, and some even vanished completely, in large part due to widespread celibacy.

For instance, John Bushnell (2017) looked at a wave of female celibacy among Russian peasants in the 18th and 19th centuries in the northeast provinces of central Russia. Putting together an analysis of various sources, such as soul registers, household inventories, landlords' instructions and investigations of schismatics, he revealed a picture of resistance to marriage, linked to a radical priestless concord called Spasovtsy, with celibacy rates running between 10% and 40%. This at times led to a collapse of entire communities, where, for instance, peasant farms ended up being run only by one or two older women (Bushnell, 2017).

Self-sacrifice and celibacy can be seen as extreme forms of religious commitment expressions that are at the individual level in conflict with survival and reproduction. On a moderate scale, however, they can positively affect the prosperity of a cultural group. As strong CREDs they are functional towards in-groups by facilitating compliance with social norms but also towards out-groups motivating them to join the group or to adopt its cultural traits. But, if these types of behaviour exceed a certain threshold, they start to negatively affect the survival and reproduction of the very group. The example of the Old Believers shows that this threshold was crossed most frequently among the groups, which most effectively exaggerated the prosocial effects of religious rituals, beliefs and social norms and their systemic dependences.

Conclusion

In this article, I have attempted to illustrate how the interlocking of beliefs, social norms and rituals of the Old Believers created a resilient cultural system that has endured 350 years of nearly constant persecution. Returning to the mechanisms of CGS outlined in the introduction, the Old Believers developed psychologically effective cultural tools to prevent selective imitation of new cultural elements from the outside and to regulate the probability of selective migration of its members out of the group. This seems to offer a relatively representative example of what Jesper Sørensen has called cultural immunology, a situation when a cultural system, such as a cluster of religious representations, imposes conceptual constraints on the acquisition of religious representations and, therefore, on the development of religious traditions (Sørensen, 2004). In many respects, the cultural system of the Old Belief tries to maximize between-group differences and in-group homogeneity.

Consistent with the prediction of the theories about the prosocial effect of religion, the cohesive and cooperative Old Believer communities were prosperous, productive and successful, even in very harsh natural conditions, compared to their mainstream Orthodox counterparts. One of the common traditions across the Old Believers was the provision of alms and material assistance to fellow believers. The

wealth accumulated by successful individuals and families was generously distributed across the coreligionists. Historians often report instances of how the households, villages or businesses of Old Believers were, in general, significantly wealthier than those of average Russians. Despite the persecution and obstacles imposed on them by state authorities and the demands they placed on themselves, frequent conversion to the Old Belief often meant a significant life improvement for many Russians, which was also reflected in a jealous resentment of the Russian Orthodox Church (Robson, 1995: 27).

The crucial argument of this article, rather than in the comparison to Orthodox Russians, lies in the comparison between the priestly and priestless (particularly the most radical priestless groups) Old Believers. This is an important point of comparison because it gives us groups with a similar history and context concerning the Russian state and the Russian Orthodox Church but with divergent ritual traditions. The priestless Old Believers more strongly adhered to ritually policed group unity, most strictly adhered to pro-group norms and were most inclined to the supernatural beliefs that defined them as a group in isolation. The groups that were the most cohesive and whose members were the most committed and most willing to endure the higher costs were also the most prone to develop or adopt group harming behaviours and persist (cooperatively) in them till the bitter end. I chose here the two most impressive examples of widespread adherence to celibacy and collective group suicides. Yet, other phenomena like frequent ideological splintering and extreme isolationism (up to family level; Peskov, 1994) could also have group harming potential in the context of CGS. On the contrary, the priestly Old Believers never engaged in mass self-immolations and excessive celibacy and tended rather to unite than to splinter.

The point I want to make is not that a particular religion can be maladaptive. This is just a single case study and evolution (biological or cultural) is a messy process often leading to dead ends. The more interesting implication is that religion can be maladaptive (group harmful) precisely because it endorses costly prosocial behaviours that are theorized to be group-level adaptations. Since we are talking about adaptive prosocial functions of religion, a possible maladaptiveness should be symmetrically theocratized as a malfunction. However, this is not the case here. Cases of mass suicide or excessive celibacy among the Old Believers are not consequences of a malfunction of prosociality or group commitment, quite the opposite.

Evolutionary functionalism carries a risk of a logical fallacy that stems from the fact that in the vast majority of cases, we are dependent on observing the results of the selection process and not the selection process itself. The outcomes of selective processes, however, tell us nothing about what the selection discarded. If we assume that the positive effect on group cohesion and solidarity is what explains the evolution of religion through CGS, but there existed forms of religion discarded by CGS precisely because of having the same or even stronger positive effects on group cohesion and solidarity, what then makes the difference? I suggest that in terms of group benefits, it would be more appropriate to talk about “optimal prosociality”,

“optimal group cohesion” or “optimal intragroup solidarity”, etc., putting the emphasis on “optimal”.

Accepting the argument of the proponents of a systemic approach to religion, who claim that religion is a system of beliefs and practices that adapts towards increasing prosociality, still, religion grasped in this way can be a system that is inherently blind to the above-mentioned optimum. Even if we consistently affirm that most religions today, and in the past, have or have had a positive influence on the process of CGS, it is still questionable what this is actually telling us about religion as such. If, as I argue, of the entire spectrum of social technologies that enhance prosociality, only a subset is adaptive (optimal), it follows from evolutionary logic that maladaptive forms of prosociality will always be minimally represented. Such a picture of religion can be misleading. Knowledge about religions that have been unsuccessful in the CGS process, therefore, deserves equal attention in order to judge the adaptiveness of religion.

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