CHAPTER 4

AUTISM SPECTRUM DISORDERS AND THE IMAGE OF GOD AS A CORE ASPECT OF RELIGIOUSNESS

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Abstract

Associations between Autism Spectrum Disorders (ASD) and the image of God were studied among adult mental health outpatients with ASD (N = 78) and compared to a psychiatric and a nonclinical norm group. The God image, which refers to the personal meaning that God/the divine has to the individual, of those with ASD had fewer positive and more negative traits than the God image of those without ASD. Especially impairments in the social domain of individuals with ASD were related to more feelings of anxiety toward God and the perception of God as ruling/punishing, which suggests that difficulties in the social, interpersonal domain and the accompanying feelings extend into the religious/spiritual domain. Religious saliency particularly predicted positive aspects of the image of God. This implies that the God image of individuals with ASD in this sample differs not only according to the degree to which autistic traits are present but also according to the degree in which religion is an essential factor in their lives. Implications for clinical care are discussed.
For many people in this world, religion and spirituality are essential elements of life. Spirituality and spiritual development are identified as part of children’s and adults’ lives in documents such as the United Nations (1990) Convention on the Rights of the Child. However, in the context of Autism Spectrum Disorders (ASD), these issues have hardly received any scientific attention. An ASD is a developmental psychiatric condition that usually presents in childhood. In the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev. [DSM–IV–TR]; American Psychiatric Association, 2000), ASD is subdivided into autistic disorder, Asperger’s disorder, and the pervasive developmental disorder not otherwise specified (PDD-NOS). In the proposed *DSM–5*, the subclassifications will no longer exist (http://www.dsm5.org). In *DSM–IV–TR* ASD is characterized by impairments in three domains: (a) reciprocal social interaction, (b) communication and imagination, and (c) restricted interests or stereotyped responses. The prevalence of ASD in childhood and adult populations is estimated to be around 1% (Baird et al., 2006; Brugha et al., 2011).

There are good reasons to investigate religion and spirituality in relationship to ASD, given frequent examples of rigid and literal interpretation of religious texts and dogmas, difficulty with the concept compassion, or complete denial of spirituality in clinical practice. From a theoretical perspective, there is also ample reason to believe that religion and spirituality among adults with ASD is worth studying. The words *religion* and *religiosity* share the Latin root *religare*, which means “to bind together.” The relationship or bond between God or the divine and humankind is at the core of many religions. However, being-in-relationship as such can be problematic for individuals with ASD who experience qualitative impairments in social interaction. Next, the three qualitative impairments that characterize ASD and form diagnostic criteria according to the *DSM–IV–TR* are discussed in relationship with religion and spirituality.

Qualitative impairments in social interaction are reflected in difficulties with interpreting, predicting, and anticipating the behavior of others. On a cognitive-psychological level, this is interpreted in terms of a delayed development of a “Theory of Mind” or “mindblindness” (Baron-Cohen, 1995), which accounts for restricted conceptual understanding of thought and feeling in the self and in others. Social interactions of individuals with ASD are also hindered by the fact that emotion perception, understanding, and sharing can be difficult. Compared to individuals without ASD, people with ASD often experience and express their emotions in a different way (Vermeulen, 2005). Different types of emotion can be difficult to distinguish, resulting in any emotion causing a high level of arousal and anxiety, although there is a lot of variety in the degree to which awareness of thoughts and feelings are limited between, and even within, individuals with ASD over time. In addition, to those with ASD, it is difficult to integrate the different perceptions of social interactions, to relate both verbal and nonverbal communicative expressions, and to take into account the context of these expressions. This is caused by an impaired central coherence (Plaisted, Saksida, Alcantara, & Weisblatt, 2003), which involves problems with prereflective integration of different sensory
perceptions into a meaningful whole. Encountering difficulties in relationships, and experiencing the world in fragments, devoid of a commonly shared context, individuals with ASD often have feelings of anxiety, uncertainty, and inadequacy (Bellini, 2004, 2006). Religion and spirituality may contribute to these feelings, as they are concerned with the experience of a meaningful whole and being part of something much larger, and as they have a social dimension, with religious practices, education, and communication regularly taking place within a community of believers. Religious experience and religious communication also appeal to emotional experience and expression. In addition, religion and spirituality appeal to Theory of Mind (Boyd, 2008), especially when they conceptualize God and humankind as partners in a reciprocal relationship, whose behaviors affect each other.

Qualitative impairments in communication become manifest when those with ASD use language in a rigid way, for example, by simply repeating the words of others (echolalia), or in an egocentric way, apart from social convention, and/or detached from any affect. They are inclined to comprehend symbolic and metaphorical language in an overly literal way and have difficulty understanding narrative humor (Baron-Cohen, 1997; Happé & Frith, 1996; Martin & McDonald, 2004; Ozonoff & Miller, 1996). This affects the religious and spiritual life as well, because religious beliefs and doctrines are often expressed and communicated in symbolic language, and spiritual experiences are expressed with help of metaphors.

Difficulties with the understanding of symbolic language are related to qualitative impairments in imagination, the third element of the autistic triad. An impaired imagination is also visible in repetitive behaviors, a rigid and conservative attitude, and an aversion toward change (Craig, Baron-Cohen, & Scott, 2001; Turner, 1999). An impaired imagination may hamper thinking about God as an invisible Other and may also lead to a rigid and dogmatic religious style with a preference for rituals that are constantly repeated.

Thinking about God and constructing representations of God/the divine is an essential part of religious life. Hence, the God image or God representation, which refers to the personal God of the individual or to the meaning that God/the divine has to the individual (Moriarty & Hoffman, 2007; Schaap-Jonker, 2008), is a core aspect of religiousness. In this study, the God image is understood as an object relation, which comprises an image of the other (or object, which is God/the divine in this case), an image of the self in relationship to the other, and a linking affect that characterizes the relationship between self and other (Rizzuto, 1979; cf. Kernberg, 2001). In this God object relation, emotional aspects (“heart knowledge”) and cognitive aspects (“head knowledge”; cf. Gibson, 2007) are dynamically interrelated (Schaap-Jonker, Eurelings-Bontekoe, Zock, & Jonker, 2008). One’s emotional understanding of God reflects subjective experiences of God/the divine (e.g., experiences that are characterized by trust, thankfulness, fear, or disappointment) and is developed through a relational, and initially subconscious, process to which parents and significant others make important contributions (Hoffman, 2005; Jones, 2007; Rizzuto, 1979). Early interactions with parents are generalized and represented in a preverbal way as “ways of being-with” (Stern, 2000, p. xv), resulting in a
characteristic way of relating. This seems to mediate the relationship between God images and parental images (Schaap-Jonker, 2008), as is suggested by the complex, indirect relationship between God images and parental images (Brokaw & Edwards, 1994; Janssen, De Hart, & Gerardts, 1994; Vergote, 1997) and supported by empirical studies in which individuals with a secure attachment style have a more loving, benevolent, and protective image of God than those with an insecure attachment style (Kirkpatrick & Shaver, 1992; cf. Granqvist, Mikulincer, & Shaver, 2010; Grimes, 2007).

One’s cognitive understanding of God, which forms the rational, more objective part of the God representation, is based on what a person learns about God in propositional terms. This is related to the doctrines that are taught and found within the family and the (local) religious culture (e.g., God as the ground of being; Rizzuto, 2002, 2006; Schaap-Jonker et al., 2008). Hence, empirical studies report denominational differences concerning the cognitive aspect of the God image (Eurelings-Bontekoe, Hekman-Van Steeg, & Verschuur, 2005; Noffke & McFadden, 2001). The culturally transmitted information about God is elaborated in a personal way, which “constitutes a moment of possible ‘psychological’ evaluation of belief and non-belief,” and may lead to the “birth of the believing man” (Aletti, 2005, p. 10; cf. Aletti, 1994; Aletti & Ciotti, 2001). Being intertwined with psychic experience and life history, the God image gives insight into the affective quality of the relationship with God and the meaning of religious behavior (Tisdale et al., 1997, p. 228).

As a relational process with affective and cognitive aspects, however, the God image makes use of processes that are thought to be limited or delayed in case of ASD. Difficulties in social interactions, both in early life and in the present, may result in a less social and less open relational disposition, which is expressed in feelings of anxiety and uncertainty in relationships in general, and may affect the God object relation. This is reinforced by an impaired imagination that results in a more rigid, inflexible attitude in relationships. As mentioned before, this impaired imagination may hamper thinking about and constructing mental representations of an invisible Other to whom/which is often referred in symbolic language, but understanding of symbols and metaphors is difficult because of impairments in communication.

To the best of our knowledge, no empirical studies have been published in international journals investigating the religious life and religious experience of individuals with ASD. Searches in databases such as PsycINFO and OvidSP yielded only a few studies on the religiousness of parents with autistic children (e.g., Coulthart & Fitzgerald, 1999; Gray, 2006; Ekas, Whitman, & Shivers, 2009) and a study on the integration of faith in the treatment of children with ASD (Marker, Weeks, & Kraegel, 2007), but none on the religiousness of adults with ASD. Although spiritual practice and organized religion were addressed in the context of social challenges and supports (Müller, Schuler, & Yates, 2008) and quality of life (Lee, Harrington, Louie, & Newschaffer, 2008), the cognitive and affective content of the religiousness of individuals with ASD have largely been ignored until now. Even in two special
issues of the *Journal of Religion, Disability and Health* (2009, Vol. 13, Nos. 1/2) that were devoted to autism, no empirical study of the faith of people with ASD was reported.

The God image has been studied in relation to mental health, being associated with personality pathology (e.g., Schaap-Jonker, Eurelins-Bontekoe, Verhagen, & Zock, 2002), object relations development (Brokaw & Edwards, 1994) and psychiatric disorders in general (Schaap-Jonker et al., 2008) but was never related to ASD. In the Dutch-speaking regions, only one study has been published that compares the God image and existential Theory of Mind between adolescents with and without PDD-NOS (Bouwman & Van der Maten-Abbink, 2008). Significant results were hardly found, which may be explained by the questionnaires that were used. The God Image Scales (Lawrence, 1997) that tapped the affective dimension of the image of God were only formulated in a positive way, which complicates the expression of negative feelings, and were highly interrelated in three American samples, with intercorrelations ranging between .71 and .86 (Lawrence, 1997), which could have been an interfering factor in the study among adolescents with PDD-NOS. In conclusion, there is a lack of knowledge regarding religious and spiritual issues in ASD.

The aim of the current study, which was conducted in a Christian cultural environment in the Netherlands, is to gain more insight into the religious life of individuals with ASD, especially in their image of God. The first research question is: Does the God image of individuals with ASD differ from the God image of those without ASD? The second research question is: Are specific autistic traits reflected in particular aspects of the image of God? Because of the relational impairments in the social domain and the accompanying anxiety in relationships (as set out previously; see also Bellini, 2004, 2006), our theoretical assumption is that the God image of individuals with ASD will have a less reciprocal nature, which will be reflected in less reported positive feelings toward God, fewer perceptions of God’s actions as supportive, and more passive perceptions as compared to individuals without ASD. In addition, because we expect that the feelings of anxiety, uncertainty, and inadequacy in the social domain that are typical of ASD extend into the religious domain, we predict a positive relationship between the severity of autistic symptoms among individuals with ASD and their scores on the scales of negative feelings and perceptions toward God. Finally, the rigidity and preference for structure and stereotype behaviors are hypothesized to be related to strict and dogmatic aspects in the image of God.

**Method**

**Procedure**

One hundred sixty-eight questionnaires, consisting of three measurement instruments (see next), were distributed among all clients of a Dutch Christian mental health care institution who were registered with a diagnosis of Autistic Disorder, Asperger’s Disorder, or PDD-NOS. Of these clients, 102 persons received psychotherapy and 66 persons received supportive
outpatient care such as sheltered accommodation but were not in a formal psychotherapy program. The latter group was also invited to participate in an additional interview as part of the qualitative approach to the subject matter (see next).

The DSM–IV–TR diagnoses of adults were based on clinical assessments by experienced psychiatrists and psychologists. In the assessments, a Dutch language semistructured clinical interview (Rimland interview) was used that is based on the Autism Diagnostic Interview Revised (Lord, Rutter, & Couteur, 1994). In addition, current state assessments and information from spouses, parents, or other informants were used, including all available documented information from schools and child psychiatric services concerning the development during childhood.

The 168 subjects were sent a letter that invited them to participate. The letter also offered information about the aim of the study and ethical aspects such as anonymity and the fact that the research was strictly separated from therapy or care. The questionnaires were returned by mail in a self-addressed envelope.

**Measurements Instruments**

The God image was investigated by means of the Dutch Questionnaire of God Images (QGI; Schaap-Jonker et al., 2008). The list contains 33 items and covers two dimensions: feelings someone has in relationship with God, and the perception of God’s actions. The dimension “feelings towards God” consists of three scales: Positive Feelings towards God (POS; e.g., thankfulness, love; Cronbach’s α = 0.94), Anxiety (ANX; Cronbach’s α = 0.84), and Anger (ANG; Cronbach’s α = 0.73) towards God. The dimension “God’s actions” has three scales: Supportive Actions (SUP; Cronbach’s α = 0.94), Ruling and/or Punishing Actions (RULP; Cronbach’s α = 0.52), and Passivity (PAS; Cronbach’s α = 0.76); passivity implies that God does not act. Answers are scored on a 5-point scale, ranging from 1 (*not at all descriptive*; “I am never in that position”) to 5 (*completely descriptive*; “I am always in that position”). In a validation study, psychometric qualities of the questionnaire appeared to be adequate (Schaap-Jonker et al., 2008). Normative data are available for psychiatric outpatients and the general population, and for respondents of diverse religious denominations (Schaap-Jonker & Eurelings-Bontekoe, 2007).

Autistic traits were measured with the Autism Spectrum Quotient (Dutch; AQ-NL), a self-report instrument of 50 items (Baron-Cohen, Wheelwright, Skinner, Martin, & Clubley, 2001; Hoekstra, Bartels, Cath, & Boomsma, 2008). This quantitative measure reflects a continuous approach to autistic traits, from classical autism at the most severe end of the autistic spectrum, via high-functioning autism, Asperger’s disorder, and PDD-NOS, to the general population. It consists of five subscales: Social skill, Attention Switching, Attention to Detail, Communication, and Imagination. Psychometric properties of the AQ-NL are satisfactory (Hoekstra et al., 2008). For the sake of consistency, participants used the same 5-point scale as they did in regard of the QGI. Computation of scores of all 50 items of the AQ-NL results in an “Autism Spectrum Quotient” (AQ). A high AQ score indicates a high autistic load, close to the
autistic end of the autism spectrum. In the Dutch AQ-study, a higher order factor “Social Interaction,” which encompasses the subscales Social Skill, Communication, Attention Switching, and Imagination, and a separate factor called Attention to Detail could be identified. A high sum score for the factor Social Interaction indicates a high autistic load and implies difficulties in social situations and communication with others, as well as impaired empathic abilities. ASD is also associated with a high sum score for the second factor, Attention to Detail, but this is not specific for ASD (Hoekstra et al., 2008). Because of parsimony, these two factors were used in the analyses.

To gain more insight into the participants’ religiousness, a five-item scale measuring religious saliency (i.e., the extent to which religious faith is meaningful to people) was administered (Eisinga et al., 2002, p. 26). Answers are scored on the same 5-point scale. Furthermore, respondents were asked about their frequency of church attendance and frequency of prayer.

Participants
The research group consisted of 78 respondents who returned the questionnaires anonymously, which implied a response rate of 46.4%. They ranged in age from 19 to 60 years ($M = 34.8$, $SD = 11.1$). Forty-nine individuals were male (64%) and 28 were female (36%); sex was not reported for one participant. Eleven respondents were diagnosed with Autistic Disorder (15%), 28 with Asperger’s Disorder (38%), and 35 persons reported PDD-NOS (47%). Four respondents did not specify their ASD diagnosis. Forty-three respondents belonged to the psychotherapy subgroup, and the other 35 persons received supportive outpatient care. Regrettably, we do not have much information about nonresponders. People who refused to participate in the interview mentioned reasons such as the degree of difficulty of the questionnaire and/or its theme, or the actual level of stress.

One third of the 78 respondents (33%) were members of congregations that are related to the pietistic-reformed (“bevindelijke”) tradition. The theology and spirituality of these strict Calvinists focuses on election and conversion. Twenty-seven percent of the respondents were members of moderately orthodox, less pietistic congregations, such as the Reformed Churches in the Netherlands (Liberated); 17% belonged to the Protestant Church in the Netherlands, not necessarily being orthodox. Fourteen percent of the respondents were evangelical or Baptist, whereas 8% belonged to another denomination. Information about church affiliation of one respondent was lacking. There was no significant association between autistic traits and religious denomination (Schaap-Jonker, Van Schothorst-Van Roekel, & Sizoo, 2012).

Twenty-nine percent of the participants had a partner, whereas 64% had no partner, and the remaining participants no longer had a partner. Educational level was low (a minimum of 8 years of education) in 3% of the cases and average in 74% of the cases (a minimum of 12 years of education). It was high in 23% of the cases (a minimum of 18 years of education). Half of the respondents went to church twice every Sunday (46%), and 31% attended once every
Sunday. Church services were attended every 2 weeks by 4%, less than once a month by 3%, and less often than once a month by 12%. Five percent never went to church. Frequency of church attendance was not related to AQ or diagnosis, as correlations and analysis of variance, respectively, were not statistically significant. More than half of the respondents prayed several times a week, 3% did it once a week, 4% were less regular prayers, and 4% never prayed.

Statistical Analyses
For the different scales of the QGI, mean item scores, which are mean scale scores divided by the number of items of the scale, were calculated, making possible a comparison between means of scales with a different number of items. T tests were done to assess differences in means of mean item scores. To assess whether differences between the God image of individuals with and without ASD are specific for ASD, not reflecting differences between people with and without any psychiatric disorder, the God image (as QGI-scores) of people with ASD was compared to the scores in a nonclinical and a psychiatric (non-ASD) norm group, using independent- samples T tests. Data for these two norm groups had been collected during earlier studies (Schaap-Jonker & Eurelings-Bontekoe, 2007; Schaap-Jonker et al., 2008). The nonclinical norm group was adapted to correct for the religious orthodox bias in the autistic sample by including only the normative data of individuals with a similar religious denomination as those with ASD in the nonclinical norm group. This means that data of Roman Catholic individuals were excluded. The clinical norm group needed no adaptation, because orthodox respondents were well represented in this group. There were no significant differences between the autistic individuals of the current sample and the psychiatric outpatients of the norm group regarding religious observance (frequency of church attendance) and religious saliency. To assess the effects of age and gender on the image of God, a multivariate analysis of variance was done with gender as fixed factor and age as covariate. Because results were not significant, age and gender were not included in other analyses.

To investigate the associations between God image and autistic traits, a series of multiple regression analysis were carried out, with the six scales of the QGI as dependent variables (method enter). Because in the QGI-validation study (Schaap-Jonker et al., 2008) an effect of religious background was found, hierarchical multiple regression analyses (HMRA) were done. In the first step, Social Interaction and Attention to Detail were entered as psychological variables. In the second step, Religious Saliency was added as a religious variable, reflecting differences in religious background. Semipartial correlations were also calculated.

Results

God Image of Individuals With ASD Compared to Those Without ASD
In Table 1 descriptive statistics of the six QGI scales for the current ASD sample are summarized. Generally, negative feelings toward God (i.e., feelings of anxiety and anger) did not dominate
the positive ones. T tests show that mean item scores of Positive Feelings towards God were significantly higher than mean item scores of both Anxiety and Anger towards God, t\(1\) = -2.22, \(p < .005\); t\(2\) = -8.45, \(p < .001\). Likewise, (potentially) negative perceptions of God's actions did not outweigh positive, supportive ones, as mean item scores of Supportive Actions were significantly higher than mean item scores of both Ruling/Punishing Actions and Passivity of God, t\(3\) = -3.82, \(p < .001\); t\(4\) = -15.47, \(p < .001\).

Table 1 also shows normative data for the psychiatric and nonclinical norm group. On average, the God image of individuals with ASD was characterized by fewer positive traits than the God image of (other) psychiatric patients/clients, as there were significant differences regarding Positive Feelings towards God, t\(5\) = 5.40, \(p < .001\), and Supportive Actions of God, t\(6\) = 4.93, \(p < .001\). Compared to the nonclinical norm group, the God image of individuals with ASD was characterized by lower scores on positive feelings, t\(7\) = 9.53, \(p < .001\), and supportive perceptions, t\(8\) = 7.89, \(p < .001\), and higher scores on negative feelings, t\(9\) = -5.08, \(p < .001\); t\(10\) = -5.61, \(p < .001\); ruling/punishing perceptions, t\(11\) = -3.53, \(p < .001\); and perceptions of God’s passivity, t\(12\) = -2.78, \(p < .01\).

Religious Saliency

On average, religious faith appeared to be important to the respondents with ASD in our sample. The mean score on the scale Religious Saliency among the respondents was 4.01 (SD = 0.96, range = 0–5), which is high compared to a mean score of 2.40 (SD = 1.18) among the general population in the Netherlands (Eisinga et al., 2002). Religious saliency was not associated with AQ scores, diagnosis, or frequency of church attendance. It was, however, related to frequency of prayer (r = .37, \(p < .01\)).
Table 2: Summary of Hierarchical Multiple Regression Analysis for Variables Predicting Various Aspects of the God image of Individuals with ASD (N = 78)

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<tr>
<th>Aspect</th>
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<tbody>
<tr>
<td><strong>POSITIVE FEELINGS TOWARDS GOD</strong></td>
<td>(Constant) 26.47 6.70</td>
<td>(Constant) 0.51 6.33</td>
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<tr>
<td>Social Interaction</td>
<td>-0.11 0.05 -26* -0.25</td>
<td>Social Interaction -0.11 0.04 -27** -0.25</td>
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<tr>
<td>Attention to Detail</td>
<td>0.38 0.15 .30* 0.28</td>
<td>Attention to Detail 0.17 0.12 .13 0.28</td>
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<tr>
<td>Religious Saliency</td>
<td>1.28 0.18 .64*** 0.29</td>
<td>Religious Saliency 1.28 0.18 .64*** 0.29</td>
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| **ANXIETY TOWARDS GOD**       | (Constant) 25.06 4.37 | (Constant) 29.59 5.56 |          |          |          |
| Social Interaction            | 0.10 0.03 .37** 0.37 | Social Interaction 0.11 0.03 .39** 0.37 |
| Attention to Detail           | 0.04 0.10 .01 0.03 | Attention to Detail 0.03 0.10 .04 0.03 |
| Religious Saliency            | -0.21 0.16 -.16 -.11 | Religious Saliency -0.21 0.16 -.16 -.11 |

| **ANGER TOWARDS GOD**         | (Constant) 8.29 2.40 | (Constant) 14.92 2.66 |          |          |          |
| Social Interaction            | 0.04 0.02 .26* 0.25 | Social Interaction 0.04 0.02 .27* 0.25 |
| Attention to Detail           | -0.07 0.05 -.16 -.15 | Attention to Detail -0.03 0.05 -.06 -.15 |
| Religious Saliency            | -0.32 0.08 -.46*** -.46 | Religious Saliency -0.32 0.08 -.46*** -.46 |

| **SUPPORTIVE ACTIONS OF GOD**  | (Constant) 39.90 7.67 | (Constant) 8.44 6.86 |          |          |          |
| Social Interaction            | -0.06 0.06 -.13 -.25 | Social Interaction -0.07 0.04 -.15 -.12 |
| Attention to Detail           | 0.38 0.17 .28* 0.28 | Attention to Detail 0.17 0.12 .12 0.27 |
| Religious Saliency            | 1.51 0.20 .69*** 0.71 | Religious Saliency 1.51 0.20 .69*** 0.71 |

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<tr>
<th><strong>RULING/PUNISHING ACTIONS OF GOD</strong></th>
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*Significant at p < 0.05
**Significant at p < 0.01
***Significant at p < 0.001
Associations Between God Image and Autistic Traits

Table 2 shows results of a series of hierarchical multiple regression analyses with each of the QGI scales as dependent variables and Social Interaction (SI), Attention to Detail (AD) and Religious Saliency (RS) as predictors.

When SI and AD were entered in the first step of an HMRA, autistic traits accounted for 15% of variance in mean scores of Positive Feelings, $F(2, 63) = 5.44, p < .01$; with high scores on SI ($\beta = -.26, p < .05$) and AD ($\beta = .30, p < .05$) predicting less Positive Feelings towards God. Adding RS in the second step resulted in a highly significant increase of 38% in the variance explained, $F(3, 62) = 22.91, p < .001$ ($F$ change = 49.48, $p < .001$). In total, 53% of variance was explained. RS was the most important predictor ($\beta = .64, p < .001$). The second predictor was SI ($\beta = -.23, p < .01$). AD was no longer a significant predictor. Thus, as religion was more important to the respondents, and impairments in the social domain were less, more positive feelings toward God were experienced.

Concerning Anxiety towards God, SI was the only significant predictor in the first step, which explained 14% of variance, $F(2, 63) = 5.11, p < .01$. Entering RS in the second step did not make a significant contribution ($F$ change, $ns$). In the final model, 16% of variance was explained, $F(3, 62) = 4.01, p < .05$. SI was the only significant predictor ($\beta = .39, p < .001$). This implies that the more individuals experienced difficulties in social situations and communication with others, having impaired empathic abilities, the more they were afraid of God.
For Anger towards God, autistic traits did not significantly account for explained variance in the first step. When RS was added, 29% of variance in mean scores of Anger towards God was explained, $F(3, 62) = 8.46, p < .001$ ($F$ change = 17.60, $p < .001$). RS was the best predictor ($\beta = -.46, p < .001$), followed by SI ($\beta = .27, p < .05$). Thus, the less religion was important to people and the more their autistic load, the more they were angry at God.

Supportive Actions of God could not significantly be predicted by autistic traits alone. When RS was included in the second step, 54% of variance was accounted for, $F(3, 62) = 23.95, p < .001$ ($F$ change = 59.72, $p < .001$). RS was the only significant predictor ($\beta = .69, p < .001$). This means that those who considered religion to be quite essential to their lives perceived God’s behavior more as supportive and helpful than those who did not.

In the first step of an HMRA, autistic traits predicted 13% of variance in mean scores concerning the perception of God’s behavior as ruling and punishing, $F(2, 63) = 4.45, p < .05$. Entering RS in the second step resulted in a significant increase of 7% of variance explained, $F(2, 63) = 4.92, p < .01$ ($F$ change = 5.24, $p < .05$), with SI ($\beta = .35, p < .01$) and RS ($\beta = .27, p < .05$) being associated with Ruling/Punishing Actions of God. Thus, those with a high autistic load, religion being an important aspect of their lives, saw God more as a judge than those with lower scores on SI and RS.

Passivity of God could not be predicted by autistic traits alone. In the final model, 24% of variance was explained, $F(2, 63) = 6.28, p < .05$ ($F$ change = 17.05, $p < .001$). RS was the only significant predictor ($\beta = -.48, p < .001$). This implies that the more people attach importance to religion, the less they perceive God to be passive.

In Table 2, semipartial correlations between autistic traits and the image of God are included. SI appeared to be most strongly related to Anxiety towards God ($r = .39$) and to ruling/punishing perceptions of God ($r = .35$). AD was hardly related to the image of God in a significant way. Highest semipartial correlations between RS and the God image were found regarding Supportive Actions ($r = .71$), Passivity ($r = -.47$), and Anger towards God ($r = -.46$).

**Discussion and conclusions**

The central issue of the present study was the God representation of individuals with ASD in comparison to individuals without ASD and in relation to their specific autistic traits. Although the sample does not represent the general population, but consists of highly religious participants, results point to two conclusions. The first conclusion is that there are indications that the God image of individuals with ASD differs from those without ASD. This image is characterized by fewer positive and supportive traits than the God image of other psychiatric patients and “normal” controls, and more negative traits than “normal” controls. This supports the hypothesis that the God image of people with ASD has a less reciprocal nature than the God image of people without ASD, especially those without any psychiatric disorder. Individuals with ASD resemble other psychiatric patients in reporting more negative feelings toward God.
(see also Schaap-Jonker et al., 2002; Schaap-Jonker, Eurelings-Bontekoe, Zock & Jonker, 2007; Schaap-Jonker et al., 2008), but the report of few positive traits in the God image seems to be specific to the ASD group. The second conclusion is that in the ASD group, impairments in the social domain are especially related to more feelings of anxiety toward God and the perception of God as a judge, which supports the second hypothesis of a positive relationship between the severity of autistic symptoms among individuals with ASD and their scores on the scales of negative feelings and perceptions toward God. The third hypothesis is also supported: Autistic traits are related to perceptions of God as strict, dogmatic, ruling, and punishing. We expected that the Attention to Detail factor on the AQ, which refers to a perceptual style with a preference for details and patterns, was also related to these perceptions. However, no associations were found, which can be explained by the fact that this factor lacks specificity for ASD (Sizoo et al., 2009).

The ANX scale consists of the items “fear of being punished,” “fear of being not good enough,” “fear of being rejected,” “uncertainty,” and “guilt.” On an item level, uncertainty had the strongest association with autistic load. This suggests that the feelings of anxiety toward God that are experienced by individuals with ASD are an expression of the fear and uncertainty, which is typical for ASD, implying that difficulties in the social domain extend into the religious/spiritual domain. The ruling/punishing aspect that characterizes their God image could be interpreted in a similar way, reflecting a resistance to change and a desire for unambiguous structure due to a fear of uncertainty.

In this study, fewer positive and more negative traits characterize the God image of individuals with ASD, especially negative feelings and the image of God as a ruler/punisher being related to autistic traits. However, this does not mean that positive aspects are simply lacking in the God representation of people with ASD. Positive feelings and perceptions are also present in their God representation and do even dominate the more negative ones. This suggests that individuals with ASD are able to tolerate and express ambivalence, which is supported in quotations from the qualitative part of this study (Schaap-Jonker & Schothorst-van Roekeel, 2009).

Although negative aspects of the God image are related to autistic traits in the current study, positive traits in the image of God are related to religious saliency. Especially participants’ perception of God as the one who actively supports and guides them is predominantly associated with the extent to which religion is important to them. This implies that the God image of these autistic individuals differs not only according to the degree to which autistic traits are present but also according to the degree in which religion is an essential factor in their lives. In this regard, religious saliency may be understood as a measure of affectively internalized religiosity, which is an intrinsic and essential aspect of an individual’s life (cf. Allport, 1950; Allport & Ross, 1967). This is the opposite of a religiosity with a more rational nature, which is the effect of religious socialization and religious culture and may be
used as a means for one’s own purposes, but which is not personally experienced as valuable and relevant.

Anger towards God was strongly related to religious saliency among the individuals with ASD, those with high scores on religious saliency reporting less anger toward God. Only if the effect of religious saliency was held constant, anger towards God was related to qualitative impairments in the social domain, more difficulties in the social domain being related to more angry feelings toward God. During the interviews, respondents expressed their discontent, asking why God had given them this disorder or did not remove it. These findings correspond to the positive association that Exline, Park, Smyth, and Carey (2011) found between anger towards God and holding God responsible, and the negative one between religiosity and anger towards God.

A limitation of the current study is its relatively small number of participants and the accompanying low power. Furthermore, this study was conducted among a specific group of patients, namely, pietistic and/or orthodox reformed individuals, to whom religion is very relevant. Consequently, the study has an exploratory nature. The associations between God image and ASD should also be investigated among individuals with other religious backgrounds (e.g., Roman Catholics, mainline Protestants, Muslims, and Jews) and among individuals with ASD without a religious affiliation. At present, this study is performed. Finally, in this article the measurement of ASD is restricted to self-report questionnaires concerning autistic traits, reflecting one’s conscious self-presentation; because of anonymous participation, we had no access to Autism Diagnostic Interview Revised data. Hence, data could be biased because of social desirability. The same applies to the image of God, which is measured only on a descriptive level. The complexity of this mental representation is not taken into account. Qualitative measures of the image of God are able to give more insight into both its content and complexity. Reports on the relationship between ASD and the God image, which include the measures mentioned, are in preparation. These qualitative results suggest that social desirability did not play an important part in the participants’ responses, as they discussed both positive and negative aspects of their religious lives, expressing views that should not be appreciated within their religious context (Schaap-Jonker & Schothorst-van Roekel, 2009).

Results of this study are relevant from a scientific point of view because they open up a new field of study and contribute to the study of religion and God representations in relation to mental health. Moreover, results have clinical relevance, as it is important for professionals to be aware of the fact that the religion and/or spirituality of clients with ASD may be a negative factor in their lives, being characterized by fear, uncertainty, and rigidity. Therefore, attention to religious and/or spiritual matters in general, and the image of God in particular, is both required and warranted. Professionals should interpret their clients’ difficulties concerning their image of God in relation to the qualitative impairments in the social, communicative, and imaginative domain. To adapt to the needs of their autistic clients, professionals should provide them with clarity and certainty when dealing with religious and/or spiritual issues. Ideally, this
clarity and certainty should concern both the way in which religious and/or spiritual matters are communicated and the content of the conversations regarding God/the divine. Both style and content of communication concerning religion should give clients something to hold on to. In this context, it is important for professionals to know their clients’ religious frame of reference and to respect their religiousness. If religion in general and the image of God in particular are distressing and fear-provoking factors in the client’s psychic life, the challenge is to contribute to their transformation into supportive and stabilizing factors.

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References


Chapter 4


