Construction and validation of the apperception test God representations : An implicit measure to assess God representations

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Chapter 3.

Construction and validation of an implicit instrument to assess God representations. Part 1: Associations between implicit and explicit God representation and distress measures

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Abstract

For adherents of theistic religions, God representations are an important factor in explaining associations between religion/spirituality and well-being/mental health. Because of limitations of self-report measures of God representations, we developed an implicit God representation instrument, the Apperception Test God Representations (ATGR) and examined its reliability and validity. Its scales could be scored reliably and were within a clinical sample associated more strongly than explicit God representation scales with the Global Assessment of Functioning scale. Compared to the ATGR scores of a non-clinical sample, the clinical sample had less complex, positive, and mature God representations, indicating discriminant validity.

Introduction

For many religious persons, the way they think and feel about the God they believe in, and about their relationship with this God, may be a central factor explaining associations between (other measures of) religiosity and well-being (Stulp, Koelen, Schep-Akkerman, Glas, & Eurelings-Bontekoe, 2019). We refer to this mechanism as "God representations". These relational representations have a stronger association with well-being than behavioral indicators of religion (Stulp et al., 2019). Much research has already been done into this aspect of religiosity, under various terms as God concept, God image, attachment to God, and God representations. Most of this research has been conducted with self-report measures, but the comprehensive scope and validity of these self-report measures have been questioned for several reasons, which we will elaborate on below. Therefore an implicit assessment measure might help solve some of these validity problems and shed more light on the (mental) processes and mechanisms at work. The present study aims at constructing and validating an instrument to assess implicit God representations.

God Representations As a Central Factor

Research into God representations is predominantly embedded in two theoretical frameworks: object relations theory and attachment theory. One of the main assumptions of both frameworks is that mental relational representations are particularly formed in early development, based on experiences with primary caregivers. A second assumption is that these representations are operating at a mostly implicit level. Representations of relationships involve more or less implicit expectations about the (positive or negative) attitude and availability of others in relation to the self. Mental representations are based on important early interpersonal experiences (Fonagy, 2001) in which caregivers more or less successfully regulate negative feelings of the child.

This influences the capacity of the child for affect regulation, since positive expectations about the availability of support from others foster the capacity to think about and understand one's own and other's thoughts, feelings and motives (Fonagy, Gergely, & Jurist, 2004). It decreases the level of negative emotions because it entails predictability about reactions of self and others and thereby provides a sense of control over the environment.

Scholars from both frameworks view God representations as a special form of relational representations that, as psychological phenomena, are subject to the same psychological mechanisms as interpersonal representations and that can be studied with the same methods (Kirkpatrick & Shaver, 1990; Rizzuto, 1979). Evidence indicates that God representations are indeed associated with interpersonal and mental functioning. A meta-analysis (Stulp et al., 2019) demonstrated significant relations between God representation measures (derived from attachment theory or object-relation theory) and measures of self-concept, of interpersonal relationships and of neuroticism. This suggests that the object-relational approach of God representations, with its emphasis on representations of self, significant others and on affect-regulation, is fruitful.

Use of Self-Report Measures of God Representations

Research on God representations and their measurement has met problems and limitations. Most of these problems are related to the use of self-report instruments. These instruments do not seem to capture particular specific features of God representations (Gibson, 2008; Hall & Fujikawa, 2013; Zahl & Gibson, 2012). In the next paragraphs, we discuss some of the conceptual and methodological issues that are associated with the use of these self-report instruments.

First, there is conceptual confusion about the construct of God representations, as evinced by the (often interchangeable) use of terms like God concept, God image, and God representation. Scholars have pointed to differences between two dimensions of God representation levels: cognitive/doctrinal beliefs and emotional/experiential feelings about God (Gibson, 2008). Often it is not clear which dimension a specific self-report instrument aims at or whether the responses really are at the supposed dimension. Instructions for self-report assessment aimed at addressing both dimensions separately indeed lead to different results (Jonker, Eurelings-Bontekoe, Zock, & Jonker, 2008; Zahl & Gibson, 2012).

Second, some aspects of God representations, especially those at the emotional/experiential level, are assumed to be more implicit than explicit. Although attachment theory and object relation theory both assume that our basic relational representations are predominantly implicit, and researchers therefore repeatedly emphasize that they should be examined with implicit measurement instruments,

practically all research on God representations has been based on self-report measures (Hall, Fujikawa, Halcrow, Hill, & Delaney, 2009; Hall & Fujikawa, 2013).

Third, it is assumed that one person may have multiple and even conflicting representations of God (Gibson, 2008). Explicit representations may be in tension with implicit representations. Discrepancies between implicit and explicit aspects of God representation may even reflect discrepancies in other, broader dimensions of mental health (Hall & Fujikawa 2013)

Fourth, God representations are supposed to reflect dynamic working models. Working models are internal scenario's representing relation- and situation-specific representations of the self and the persons' God and related imagined interactions between them. Different moods and situations activate different God representations (Gibson, 2008). Self-report measures of God representations may insufficiently take into account this dynamic aspect of God representations.

Apart from assessment problems stemming from the specific nature of God representations, self-report assessment of God representations also suffers from two often reported general limitations of self-report: reliance on the degree of respondents' self-insight/mentalizing skills, and a susceptibility to social desirability. The first limitation especially seems at work for persons suffering from personality disorders (Schaap-Jonker, Eurelings-Bontekoe, Verhagen, & Zock, 2002). Research (Eurelings-Bontekoe, Luyten, Remijsen, & Koelen, 2010) has demonstrated that the lack of self-understanding and introspection that may accompany structural personality pathology leads to denial of vulnerabilities on self-report measures.

The second limitation (social desirability) seems especially relevant for specific religious subgroups and can be labeled as 'doctrine effect': the tendency to give the 'right' doctrinal answers, instead of answers about real personal experiences. For example, research showed that clinically assessed depressive patients from orthodox protestant denominations scored lower on self-reported depressive symptoms than non-religious depressed patients (De Lely, Broek van den, Mulder, & Birkenhäger, 2009).

All in all, these notions raise serious doubts about the capacity of self-report measures to measure experiential, implicit, conflicting, dynamic, and situation-dependent aspects of God representations. We strongly agree with the statement of Hall and Fujikawa (2013) that advance in the field of God representation research is dependent on more sophisticated measurement methodologies that enable the exploration of the relationship between implicit and explicit God representations. Moreover, to be able to apply those measures to the clinical field, their validation should be partly based on clinical samples with patients with personality disorders, because of the questioned validity of self-report measures especially for this group. However, hardly any research into God representations has been done yet with clinical samples. This study is a first attempt aiming to overcome some of these pitfalls.

Aim of the Current Study

We developed a new apperceptive test for assessing God representations, the Apperception Test God Representations (ATGR). This instrument is based on the Thematic Apperception Test (TAT, Murray, 1943) and on a well-validated scoring system for it, the Social Cognition and Object Relations Scale (SCORS) system of Westen (1995). This study aims at examining the reliability and validity of the scales of the ATGR in two samples; a homogeneous sample of young Christian adults without mental health problems, and a sample of young Christian adults with personality pathology.

The validity of the ATGR scales will be undergirded when (a) its scales discriminate between patients and non-patients and (b) when its associations with implicit measures of distress are stronger than with explicit measures of distress, and also (c) when its scales are more strongly associated with implicit measures of distress than with explicit measures of God representations.

It is, to the best of our knowledge, the first study that assesses both implicit and explicit God representation measures in both a non-clinical as well as in a clinical sample.

Method

Participants

This study includes a non-clinical and a clinical sample. The first sample of this study is a convenience sample of 71 non-clinical participants, recruited at a Dutch Christian University of Applied Science and at a Dutch Christian intermediate vocational education school. These institutions train people for work in the domains social work, pastoral work, nursing, and education.

The recruiting was approved by the boards of both institutions. Global information about the aim of the study and procedures for participation were given on the website of our research institute, and in short group presentations at several student groups of both institutions. Additional recruitment took place in an Orthodox church community in the Dutch city of Kampen and on the websites of four Christian student's associations in Zwolle. Approximately 1500 persons were invited for participation. Exclusion criteria were: being younger than 17 or older than 30 years, suffering from mental health problems for which professional help had been —or was intended to be— called upon. The inclusion criterion was: having a relationship with God (self-stated). The respondents were recruited between 2012 and 2015. Of the 114 subjects that initially approved for participation, 38 (33.3%) opted out, partly by not starting or not finishing the online questionnaire, partly by failing to make an appointment for the assessment of the projective part. We excluded 2 participants who were younger

than 17 years, two participants with minimal scores on religious affiliation, and one participant for whom the assessment of the TAT and the ATGR did not meet the standards.

The second sample consisted of 74 hospitalized patients who followed one out of four inpatient treatment programs for personality disorders at a Dutch Christian mental health care institution. All patients received a letter with the request for signing for participation together with the sent invitation for their first appointment at the institute, and were asked then by the clinician if they signed the letter, thereby giving informed consent. Most of the patients (82 out of approximately 100) initially consented. Six patients withdrew later in the process, mostly because of the extra strain they thought it would give them, and the data of two patients could not be used because of incomplete data. The data were collected from February 2013 to February 2016. The study was judged to be not subject to the Medical Research on Human Subjects Act by the ethical medical committee of the Free University of Amsterdam, and approved by the ethical committee of the mental health care institution. On the basis of a clinical interview focusing on Axis II of the DSM IV-TR[1] (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) patients received the following classifications: Personality disorder NOS: 25 (33.8%); C-Cluster personality disorders or features: 28 (37.8%); B-Cluster Personality Disorder or features: 13 (17.6%); features of A-Cluster and B-Cluster personality disorders: 2 (2.7%); A-Cluster personality disorders: 1 (1.4%); Deferred diagnosis: 5 (6.8%).

Procedure

Respondents of the non-clinical sample who volunteered for participation received an email with a hyperlink to the online questionnaire with instructions. They were also invited by email for the assessment of the apperceptive test. This invitation and assessment were done by 14 fourth-year students of Social Work and Health Care of Viaa University who received assessment training by the first author. The assessments were recorded by voice recorders, and transcribed by the students according to a protocol, using the transcription software program F4.

Respondents of the clinical sample were invited within a timeframe of three weeks after the start of their treatment program for answering the online questionnaire at the institution. An appointment was also made for the assessment of the apperceptive test, often on the same day. The assessments were done by the first author and by a psychological testing assistant, both well-trained and experienced in administering

[1] The institution still used DSM-IV classifications, because the Dutch translation of the DSM-5 was published in 2014, and officially prescribed by the Dutch government from January the 1st, 2017.

apperceptive tests. These assessments were also transcribed according to a protocol, using the software program F4.

Measures

Implicit aspects of God representations.

Materials and assessment procedure. Implicit aspects of God representations are measured by the newly developed ATGR, an apperceptive test consisting of 15 cards especially developed for measuring implicit God representations. Resulting narratives are analyzed by the SCORS scoring system, which was adapted for measuring God representations in narratives. These SCORS scales have shown good reliability and validity (Huprich & Greenberg, 2003). Relevant in particular for this study is their ability to discriminate between patients with borderline personality disorders and non-clinical control groups (Nigg, Lohr, Westen, Gold, & Silk, 1992; Westen, Lohr, Silk, Gold, & Kerber, 1990; Westen, Ludolph, Lerner, Ruffins, & Wiss, 1990) and between cluster-B and cluster C-personality disorders (Ackerman, Clemence, Weatherill, & Hilsenroth, 1999) (Ackerman, Clemence, Weatherill, and Hilsenroth, 1999). Westen has developed a specific version of this coding system for analyzing TAT-based narratives (Westen, 1995). If the same processes in the development of interpersonal representations also apply to God representations, we assume that adaptation of the SCORS-scales to the specific nature of God representations will enable us to assess various important aspects of implicit God representations.

Construction of cards. The cards were assembled by the first author with photo editing software, using elements of pictures gathered from his private collection and from the internet. The depicted situations implied, for example, family harmony, potentially threatening or painful situations, and important religious events. We chose depictions that were most likely to elicit religiously/spiritually related thoughts and feelings. These thoughts and feelings are often triggered by religious rituals (Ladd & Spilka, 2013) and by important life experiences (Ingersoll, 1994). These life experiences may be of a positive nature, leading to experiencing feelings of gratitude, marveling, and connectedness with others and the world. But often life situations will also question the personal process of constructing meaning and will probe the personal relationship with God; old answers and certainties just do not simply suffice anymore, leading to religious doubts or problems with given meaning to life (Dittmann-Kohli & Westerhof, 2000). Therefore, in our selection of situations, we varied between religious and non-religious contexts, as well as between positive and negative or more ambiguous situations.

Coding system. The ATGR has six scales that are based on the four dimensions of the SCORS scoring system. In the following paragraphs, we describe and give a rationale for how we applied these four dimensions to develop six scales measuring representations of God. For both the SCORS scales Affect Tone and Capacity for emotional investment in relationships we developed two God representation scales.

Complexity of representation of God (Complexity). The SCORS-scale *Complexity of representations of people* assumes a developmental continuum at which low levels indicate immature and unhealthy functioning, characterized by problems with differentiation in perspective of self from others, problems with the integration of different aspects of self and others, and by splitting good from bad aspects of self and others. The transition to the experienced relationship with God can be easily made. God may be viewed as someone who has exactly the same feelings and motives as the respondent (or the character in the narrative) without any indication of differences. He may also be viewed as unidimensional, without much nuance, or as someone who is all good or all bad; maybe fluctuating in time, but never simultaneously. We assume that people with mature faith integrate different aspects of God representations, with some understanding of how negative aspects (e.g., anger and punishment) are related to positive aspects (e.g., love, forgiveness). The different levels of the representations are coded on a scale from 1 – 5, with lower scores representing lower levels of representations (see also Table 1).

Affect Tone of relationship with God for character and respondent (Affect Tone character and Affect Tone person). The SCORS-scale Affect Tone of the relationship measures the extent to which someone expects relationships to generally be painful and threatening, or pleasurable and enriching. Westen, the developer of the original SCORS scale, emphasizes that patients with borderline personality disorder tend to view others as malevolent, which may be regarded as the projection of their own aggression. Frustration of basic needs in early development has shaped rigid perceptions about all others as frustrating or unavailable, without much differentiation regarding different persons. It seems plausible to assume that for religious people with immature representations of others, these implicit rigid representations could emerge easily in their relationship with God, because this relationship has many parent-child characteristics that may activate these representations.

The adapted ATGR scale is scored in two ways; the first regards the way the (main) character experiences his or her relationship with God (Affect Tone character), the second regards the way the respondent may elaborate on this experience (Affect Tone person). The respondent may emphasize that God is more positive than the character experiences, but also that —although the character is rather content with God— God is less positive about the character. The different levels of the affect tone are coded on a scale from 1 – 5, with lower scores representing more negative feelings (see also Table 1).

Emotional investment in the relationship with God (Investment). The SCORS scale Capacity for emotional investment in relationships is about the capacity to have reciprocal relations that are satisfactory for the sake of the relationship itself, thereby being able to invest in the relationship, even when this asks for endurance in tolerating frustration. On low levels, a narcissistic, need-gratifying attitude prevails, without

much regulation and attuning of the investment; leading to impulsive and intense relational behavior as is known for borderline patients, or to defensive withdrawal, as is known for patients with avoidant and schizoid personality disorders.

This ATGR scale is about the character's motivation for having a relationship with God; from more egocentric to more loving and reciprocal. The different levels of emotional investment are coded on a scale from 1 – 5, with lower scores representing a more egocentric motivation (see also Table 1).

Dealing with religious rules and principles (Religious Rules). The SCORS scale Moral standards is loosely based on Kohlberg's (1983) stages of moral reasoning, with low levels indicating an egocentric perspective, and a mid-level indicating the importance of being approved and accepted, while higher levels represent mature orientations with internalized convictions.

This ATGR scale applies the same principles to the relationship with God. The different levels of this dimension are coded on a scale from 1 – 5, with lower scores representing an infantile attitude of being afraid of punishment and of conforming to rules for approval, and higher scores representing commitment to principles behind rules, or reciprocal love as the ultimate reason for trying to live according to Gods will.

Agency of God (Agency). The SCORS scale *Understanding of social causality* is about perspective-taking and understanding psychological motives (needs and intentions) that lead to specific actions. Of course, the more a person can reflect upon motives of others, the less he or she is subjected to primitive fears.

This ATGR scale was the hardest dimension to apply to the relationship with God, because the original SCORS dimension assumes that logical attributions can be discriminated from illogical assumptions about the intentions of others. On the domain of religion, judging attributions of intentions of God as logical is rather subjective and choices will easily be biased by the religious beliefs and God representations of the researcher. Therefore we tried to base our criteria for a mature understanding of Gods actions not on doctrinal beliefs, but on more pragmatic considerations such as: what types of attributions of Gods actions may be expected to support a person in dealing with various situations? Thereto we added —for higher scores— the notion of God as actively involved in specific individual situations, having specific reasons for his involvement. To facilitate the complexity of the scoring process, the Agency of God scores were determined by combining scores on three subscales: Gods influence on the situation (Agency-s: yes or no), Gods influence on character's reactions; his thoughts, feelings, intentions, actions (Agency-r: not, shared influence, or decisive influence) and attributed reasons for Gods actions (Agency-e: no explanation, general explanation, specific explanation). These scores were then converted to a total score on a scale from 1 – 5. A low score indicates that God has no influence on events. Higher scores indicate that God has influence, and this influence can be understood and trusted. The highest score (5) acknowledges not only general (good) intentions, but

Table 1. *Object-Relation and Social Cognition Theory Informed ATGR Scales*

	Level 1:	Level 2	Level 3:	Level 4:	Level 5:
Complexity of representation of God	Poor differentiation between thoughts / feeling of the character and of God	Poor understanding of God: vague, confused, incoherent, fluctuating or unintegrated representations	Superficial understanding: unidimensional, unelaborated descriptions of God's characteristics, thoughts or feelings	Acknowledgement of God's complexity; detailed descriptions, differentiated, ambiguous. Stability of God's characteristics over time/situations	Understanding of complexity/ ambiguity, relating it to general characteristics of God
Affect tone of relationship with God	Representations of God are malevolent, causing great distress or helplessness	Representations of God as hostile or disengaged, or defensively positive	Affective relationship with God with predominantly negative feelings	Relationship with God is affectively neutral or characterized by mixed feelings	Relationship with God is experienced with predominantly positive feelings
Emotional investment into relationship with God	No relationship with God or selfish relationship, only for own gratification	Superficial relationship, probably enduring, but need gratification prevails	Conventional relationship with God with some emotional investment, driven by wish for acceptance, pleasing God	Dedicated relationship with God, emotional investment based on principles, inner convictions	Deep, dedicated relationship with God for the sake of the relationship itself. Awareness of reciprocity.
Dealing with religious rules and principles	No sense of approval or disapproval from God, or only fear for discovery of bad acts because of negative consequences.	Some sense of approval or disapproval from God, absence of guilt or disproportionally feeling guilty. Problems with acknowledging Gods authority.	Complying because it's Gods will, without inner conviction, emphasizing rules instead of principles or relationship. Emphasis on avoiding punishment or obtaining approval.	Complying/ obeying out of inner conviction, respecting God's authority	Complying/ obeying out of affectively experienced relationship with God; sense of reciprocity, feelings of regret are related to relationship.
Agency of God	God has no influence on situations or on character's reactions	God has influence on situations or joint divine and personal influence on the character's reactions. No explanation for Gods action is given.	God has influence on situations or shared influence on the character's reactions, with general explanations given for it. Or God has absolute influence on reactions, but no explanation is given for it.	God has influence on situations or shared influence on character's reactions, with general explanations given for it. Or God has absolute influence on reactions, but only a general explanation is given for it.	God has total influence on character's reactions, and a specific explanation is given for it.

assumes that God has specific intentions for specific persons. See also Table 1 for a more detailed description of the scales.

Assessment procedure. The assessment of the ATGR, according to protocol, begins with the instruction that the subject should make up fantasized stories about the cards to be shown. These cards are introduced as (translated from Dutch): "You will be shown 15 cards about people relating to God, and/or about God relating to people. Would you make up a story about these cards? Would you tell what happens on the card, what has led up to it, and how the story will end? Will you also address the question what the people on the card think and feel? And what God thinks and feels, what he does and why?" The instruction is repeated at least one time. Assessors should prompt only one time per card for an unaddressed aspect, and only by repeating the general question. The recordings of the assessments are transcribed according to protocol.

Coding procedure. Scoring took place by 27 students in 15 couples in which each student first independently scored protocols, then compared the scores with the other student of the couple, and discussed all different scores to achieve consensus.

Coders followed an intense training program, given by the first author, who is an experienced psychologist with much experience with administering apperceptive and projective tests. For each scale at least 15 hours of training were spent: three joint sessions of three hours and six hours of individual scoring at home.

Explicit aspects of God Representations

The Dutch Questionnaire God Representations (QGR), in earlier publications also referred to as Questionnaire God Image (QGI) is a 33-item self-report questionnaire, a translation and adaptation of Murken's (1998) scales of God relationships. It consists of two dimensions; the dimension "feelings towards God", with three scales: Positive feelings towards God (Positive), Anxiety (Anxiety) and Anger towards God (Anger); and the dimension "God's actions", with three scales: Supportive actions (Support), Ruling and/or Punishing Actions (Ruling/punishing), and Passivity of God (Passivity). All items are scored on a five-point scale, with (1) for not at all applicable, and (5) for completely applicable. The scale has good psychometric properties. The internal consistency of the scales is sufficient, with Cronbach's alpha's ranging from 0.71 to 0.94. Validity was confirmed by more unfavorable scores for mental health patients and by associations with religious saliency, church attendance and religious denomination (Schaap-Jonker & Eurelings-Bontekoe, 2009).

In this study three scales scored excellent in terms of internal consistency, as indicated by Cronbach's alpha: Positive (α = .94), Anxiety (α = .91), and Support (α = .94). Two scales scored good: Anger (α = .83) and Passivity (α = .82), and one scale, Ruling-Punishing, scored fair (α = .70).

Implicit and explicit distress

Global assessment of functioning (GAF). The GAF scale is a very well-known overall measure on a 1-100 scale of the severity of psychiatric symptoms and psychological, social and occupational functioning. It is Axis V of the Diagnostic and Statistical Manual of Mental Disorder, fourth edition (APA, 2000). This measure was added to this study because of its availability, although research suggests some problems with reliability and validity (Aas, 2010, 2011). We only used the GAF score indicating current patient's functioning.

Outcome Questionnaire OQ-45, patient and clinician. The OQ-45, (Lambert et al., 1996) is an American instrument to measure clinical outcomes, translated and adapted for a Dutch population by (De Jong et al., 2007). The Dutch version consists of four scales: Symptom Distress (SD), Interpersonal Relations (IR), Social Role Performance (SR), and Anxiety and Somatic Distress (ASD). The latter scale is a subscale that consists almost exclusively of SD-items, and is added to the Dutch version on the base of the results of factor analysis. Internal consistency of the scales was good for SD (0.89 to 0.91), for ASD (0.70 to 0.84), and for IR (0.74 to 0.80), and moderate for SR (0.53 in a community sample; 0.69 in a clinical sample). Scores on all scales were significantly higher for the clinical than for the normal population. Concurrent validity was sufficient, as shown by significant relations with subscales of the Symptom Checklist 90-items version, SCL-90; (Arrindell & Ettema, 1986), the Depression Anxiety and Stress Scales, DASS; (de Beurs, Van Dyck, Marquenie, Lange, & Blonk, 2001), and the Groningse Vragenlijst Sociaal Gedrag (Groningen Questionnaire of Social Behavior) 45-item version, GVSG-45; (De Jong & Van Der Lubbe, 2001). In the current study, the internal consistencies of two OQ-scales, based on Cronbach's alpha, were excellent: OQ-SD (α = .96), and OQ-ASD (α = .90). The internal consistency of the OQ IR scale was good (α = .84), and of the OQ-SR it was poor (α = .67).

To obtain also an indirect measure of distress, for the clinical sample we let the clinician fill in an adapted version of the OQ-45 Questionnaire, estimating the functioning of the patient on the various domains. This was done within the first three weeks after the start of treatment. The internal consistency of OQcl-SD (α = .89) and of OQcl-ASD (α = .82) were good; the internal consistency of the OQcl-SR scale (α = .74), and of the OQcl-IR scale (α = .73) were fair.

Religious affiliation. Religious affiliation was assessed by means of the sum score of five items with a five-point Likert scale regarding the question how important the participants' faith or life philosophy is in their own life. The items are: I view myself as a religious person; My faith is important to me; My faith plays a big role when making important decisions; Without my faith I could not live; My faith has much influence on my daily life. Cronbach's alpha in this study was 0.86.

Data Analyses

First, characteristics of the two samples were described and analyzed with *t* tests for independent samples and with Chi-square tests to examine significant differences between the non-clinical and clinical group on the potential confounding variables sex, age, level of education, religious affiliation, and religious denomination.

Second, the Intraclass Correlation Coefficient (ICC; Shrout & Fleiss, 1979) was used to calculate the interrater reliability of the scoring of ATGR scales, and internal consistencies of the scales were determined by Cronbach's alphas. Psychometric properties of the various scales (by tests of skewness and kurtosis and by the Kolmogorov-Smirnov and the Shapiro-Wilk test) were inspected to examine potential violations of assumptions for the various tests.

The divergent and convergent validity of the ATGR was examined by comparing the strength of associations of ATGR scales and QGR scales with implicit and explicit measures of distress, to see whether they were in line with the following expectations:

1. Associations of explicit God representation measures with explicit distress measures would be stronger than associations of implicit God representation measures with explicit distress measures
2. Associations of implicit God representation measures with implicit measures of distress would be stronger than associations of explicit God representation measures with implicit distress measures
3. Associations of implicit God representation measures with implicit distress measures would be stronger than associations of implicit God representation measures with explicit distress measures
4. Associations of explicit God representation measures with explicit measures of distress would be stronger than associations of explicit God representation measures with implicit measures of distress.

Comparing the results of the clinical and the non-clinical group:

5. In the non-clinical group, the associations between explicit and implicit attachment to God scales would be stronger than in the clinical group, because we assume that more healthy persons have their implicit and explicit representations more integrated.

Comparing implicit with explicit measures of God representations:

6. Based on differences in the level of implicitness, associations of the implicit God representation scale Affect Tone person would be more strongly associated with the explicit God representation scales than the implicit God representation scale Affect Tone character.
7. Based on conceptual relatedness, the implicit God representation scale Agency would be more strongly associated with the explicit God representation scales Passivity and Anger than the implicit God representation scales Affect Tone

person and character. The latter would be more strongly related to the explicit God representation scales Ruling/punishing and Anxiety.

We examined these associations with the multidimensional scaling method (MDS). This is a statistical technique that uses proximity data (distances between objects) and transforms these into a visual representation. It searches for an optimal positioning of points in which the distances between these points match best with all the proximities between the objects, and provides coordinates and a geometrical representation of these positions. This is done by means of minimalizing the stress, that is the difference between estimated distances and raw proximity data. We applied this method with the SPSS-procedure PROXSCAL as developed by the University of Leiden (Busing, Commandeur, Heiser, Bandilla, & Faulbaum, 1997). We let PROXSCAL assign the locations of the scales in a two-dimensional space, based on the correlation matrix of the observed correlations between all scales as measures of proximity. Thereto we first transformed the values of the correlations into distances (δ) with the following formula:

$$\delta = \sqrt{2 * (1 - |r|)} \qquad (1)$$

This way, specific information about the positioning of each individual scale in relation to all other scales was obtained. There are some rules of thumb to establish the goodness of fit of the found solution, but these, according to Borg, Groenen, and Mair (2012), are not very reliable because there are many aspects that need to be considered when judging stress. In this study we used the Normalized Raw Stress-value (NRS). An NRS value of 0 means absolute fit, but the ideal NRS value is .02, according to McGrady (2011). Because we have a theoretical model to compare the found solution to, we reported the various stress-values but did not reject solutions, based on these subjective criteria for bad fit. We only examined two-dimensional solutions and compared solutions that treated distances as ordinal and as interval with a Torgerson start configuration with those with multiple random starts and 1000 trials. To gain more insight into the stress, we examined the results of decomposing the Normalized Raw Stress, by looking at relatively high stress values of separate scales.

Results were computed separately for the non-clinical and clinical group, to control for the possibility that suffering or not suffering from psychopathology as a third variable would be the potential moderator of the found associations.

Finally, we examined discriminant validity of the TAGR with *t* tests for independent samples and with Mann-Whitney tests to see if the non-clinical and the clinical group differed on scores on the ATGR-scales. We also checked with *t* tests, One-way ANOVA's and Pearson's correlation coefficients whether the potential confounding variables sex, age, level of education, religious affiliation, and religious denomination were significantly associated with the ATGR scales.

Results

Sample Characteristics

Table 2. *Sample Characteristics of the Non-clinical and the Clinical Group*

	Non-clinical		Clinical		Total	
Sample characteristics	n	%	n	%	n	%
Sex						
Male	15	21.1%	9	12.2%	24	16.4%
Female	56	78.9%	65	87.8%	121	83.6%
Age						
17-19	25	35.2%	10	13.5%	35	24.1%
20-22	33	46.5%	16	21.6%	49	33.8%
23-25	9	12.7%	20	27.0%	29	20.0%
>25	4	5.6%	28	23.8%	32	21.1%
Church denomination						
Orthodox	11	15.5%	30	40.0%	41	28.1%
Mainstream	46	68.4%	29	38.7%	75	51.4%
Evangelical/Baptist	14	19.7%	16	21.3%	30	20.5%
Religious affiliation						
10-19	14	19.7%	31	41.9%	45	31.0%
20-22	24	33.8%	22	29.7%	46	31.7%
23-25	33	46.5%	21	28.4%	54	37.2%
Level of education						
1 VMBO	0	0.0%	5	6.8%	5	3.4%
2 HAVO/MBO	15	21.2%	36	48.6%	51	35.2%
3 VWO/HBO	54	76.1%	25	33.8%	79	54.5%
4 WO	2	2.8%	8	10.8%	10	6.9%

NOTE: VMBO = Voorbereidend Middelbaar Beroepsonderwijs (preparatory secondary vocational education); HAVO = Hoger Algemeen Voortgezet Onderwijs (senior general secondary education); MBO = Middelbaar Beroepsonderwijs (senior secondary vocational education and training); VWO = Voorbereidend Wetenschappelijk Onderwijs (pre-university education); HBO = Hoger Beroepsonderwijs (higher professional education); WO = Wetenschappelijk Onderwijs (academic higher education).

In Table 2 we listed sample characteristics of the non-clinical and the clinical sample for the variables sex, age, church denomination, religious affiliation, and education. Church denomination is categorized into three groups as follows: *Orthodox* (Reformed Bond, 4; Reformed Congregations, 22; Old-Reformed Congregations, 2, Restored Reformed Church, 5; Reformed Congregations in the Netherlands, 7; Home reading, 1) *Mainstream (* Protestant Church in the Netherlands,28; Christian Reformed Churches, 11; Reformed Churches in the Netherlands (Liberated), 30; Netherlands Reformed Churches, 6) and *Evangelical/Baptist* (Evangelical/Baptist, 28; Congregation of Believers, 2). For education we categorized the various

educations (highest diploma) into two levels. The lower levels (level 1 and 2) regard lower general secondary education and intermediate vocational education (number of years of education: 4-7), the higher levels (level 3 and 4) regard pre-university education and university (number of years of education: 6-10).

Various tests were conducted to compare the samples on these characteristics. The continuous variables age and affiliation did not meet the assumption of a normal distribution. Therefore Mann-Whitney tests instead of *t* tests for independent samples were conducted. Results indicated that the non-clinical and the clinical sample showed significant differences regarding age, ($U = 1235$, $z = -5.61$, $p < .001$, $r = -.46$), and affiliation, ($U = 1952.5$, $z = -2.80$, $p = .005$, $r = -.23$). Chi-square tests showed that church denomination and level of education were unequally distributed across the non-clinical and the clinical sample, $\chi^2(2) = 12.691$, $p = .002$, and $\chi^2(1) = 18.638$, $p = <.001$ respectively) . However, sex was equally distributed across the two samples ($\chi^2(1) = 2.212$, $p < .137$).

Taken together, participants in the clinical sample were older, more orthodox religious and stronger religiously affiliated and had a lower educational level than participants of the non-clinical sample. Therefore it is important to examine if these variables are also associated with the ATGR scales.

Reliability of ATGR

Interrater reliability. The weighted average interrater reliability (ICC) of the ATGR scales were good for the scales Affect Tone character, Affect Tone person and Agency, fair for the Complexity scale, and poor for Investment and for Religious Rules (Cicchetti, 1994). Because more than half of the protocols were scored poorly for Religious Rules, this scale was left out of our further analyses.

Internal consistency. The internal consistency of the ATGR scales, as indicated by Cronbach's alpha, was good for the Complexity-scale ($\alpha = .88$) and for the Affect Tone person scale ($\alpha = .85$). It was fair for the Agency-scale ($\alpha = .75$), and low for Affect Tone character ($\alpha = .63$) and for Investment ($\alpha = .64$).

Distribution of the ATGR scale scores. Table 3 shows the distribution of the ATGR-scales scores. Scores on the Complexity scale showed a normal distribution in both the non-clinical and the clinical group, scores on the Affect Tone character scale and the Agency scale had normal distributions in the non-clinical group, and scores on the Affect Tone person scale and on the Religious Rules scale had normal distributions in the clinical group. For the remaining combinations of scales/groups, the scores were not normally distributed.

Table 3. *Characteristics of Distribution of Mean Scores of Respondents on ATGR Scales*

Scale	sample	Mean	sd	mdn	Min	Max	skew-ness	*z*-score[a]	kurt.	*z*-score[b]	Kol.	Shap.-Wilk
Complexity	Non-clin.	3.46	0.28	3.47	2.93	4.07	0.33	1.16	-0.58	1.03	ns	ns
	Clinical	3.18	0.42	3.13	2.20	4.00	-0.57	**-2.04**	-0.17	-0.31	ns	ns
Affect Tone character	Non-clin.	3.62	0.30	3.60	2.86	4.47	0.48	1.67	0.44	0.79	ns	ns
	Clinical	3.58	0.28	3.60	2.80	4.33	0.53	0.19	1.27	**2.30**	.01	ns
Affect Tone person	Non-clin.	4.34	0.41	4.40	2.93	5.00	-1.34	**4.69**	2.69	**4.78**	.02	<.01
	Clinical	3.84	0.48	3.80	2.67	4.73	-0.21	-0.75	-0.47	-0.85	ns	ns
Investment	Non-clin.	3.09	0.27	3.07	2.27	3.93	-0.07	0.26	1.10	**1.96**	.03	ns
	Clinical	2.88	0.33	2.93	1.93	3.60	-0.72	-2.58	0.53	0.96	.02	.02
Agency	Non-clin.	2.61	0.55	2.47	1.43	4.36	0.68	**2.38**	0.36	0.63	.01	.01
	Clinical	2.16	0.69	1.93	1.00	3.93	0.57	2.04	-0.57	-1.03	<.01	<.01
Agency-s	Non-clin.	1.67	0.20	1.67	1.25	2.00	-0.13	0.47	-0.63	1.12	ns	ns
	Clinical	1.58	0.28	1.60	1.00	2.00	-0.12	-0.43	-1.19	**-2.16**	.04	<.01
Agency-r	Non-clin.	1.56	0.32	1.50	1.07	2.50	0.88	**3.08**	0.30	0.53	.02	<.01
	Clinical	1.48	0.34	1.38	1.00	2.27	0.57	2.04	-0.74	-1.34	<.01	<.01
Agency-e	Non-clin.	1.67	0.44	1.57	1.07	2.86	0.47	1.65	-0.64	1.14	<.01	<.01
	Clinical	1.41	0.45	1.20	1.00	2.67	0.96	3.44	-0.25	-0.45	<.01	<.01

Note. sd = standard deviation; mdn = median; min = minimum score; max = maximum score; [a] = *z*-score of skew-ness; kurt. = kurtosis; [b] = *z*-score of kurtosis; Kol. = significance/*p*-value of Kolmogorov-Smirnov test; Shap.-Wilk = significance/p-value of Shapiro-Wilk test; ns = not significant.

Intercorrelations between ATGR scales. In the clinical group nine out of the 10 intercorrelations between the five main scales were significant, with eight of them highly significant ($r > .35$). The highest correlation in this group was the correlation between Complexity and Agency, $r = .66$, indicating a shared variance of 44%. All correlations were in the expected direction. In the non-clinical group, only four out of the 10 intercorrelations were highly significant. Yet, none of them had stronger correlations than $r = .40$, which means that scales shared less than 16% of their variance.

Validity of ATGR Scales

Convergent and divergent validity.

Solutions of the multidimensional scaling method. For the clinical group, starting with the classical Torgerson configuration and treating distances as ordinal yielded a two-dimension solution with a stress-value of NRS = .04; treating distances as interval gave a stress-value of .08. Starting with a random figuration and 1000 trials yielded the same NRS stress-value of .04 for a two-dimension solution. Since this solution was theoretically better interpretable, we used this solution for further analysis (see Figure 1). Decomposition of NRS showed that for this solution, the explicit God representation scales Passivity, Anxiety and the implicit God representation scale Affect Tone character had stress-values that were more than .02 greater than the mean NRS-value, respectively .08, .08 and .06.

For the non-clinical group, a Torgerson start configuration using ordinal level yielded a two-dimensional solution of NRS = .04; treating distances as interval yielded an NRS of .08. A random start with 1000 trials (ordinal) yielded a two-dimensional solution with an NRS of .04. Here we also choose the latter (see Figure 1). Decomposition of NRS showed that for this solution, the explicit God representation scale RULP and the explicit OQ-SR scale had stress-values that were more than .02 greater than the mean NRS-value, respectively .11 and .08.

Associations between implicit and explicit God representation scales.

The clinical group. All ATGR scales were positioned at the lower side of the vertical dimension. The three affective ATGR scales (Affect Tone character and person and Investment) were, as expected, positioned most closely to the explicit God representation scales. Against our sixth expectation, Affect Tone character was positioned more closely than Affect Tone person to the explicit scales. We assumed the vertical dimension to represent an implicit-explicit dimension, and the horizontal dimension to represent conceptual differences. On the horizontal dimension, the position of the explicit Ruling/punishing and the Passivity scales did not correspond with the expected positions of the implicit Affect Tone person and Agency scales (see Figure 1).

The non-clinical group. We assumed that the same implicit-explicit and conceptual differences dimensions as for the results of the clinical group also applied for the non-clinical group. All ATGR scales except Affect Tone person were positioned at the lower (implicit) side of the assumed implicit-explicit dimension. Two of the three affective ATGR scales (Affect Tone character and person) were positioned most closely to the explicit God representation scales. In line with our sixth expectation, Affect Tone person was positioned more closely than Affect Tone character to the explicit scales. On the horizontal dimension the affective ATGR scales were positioned more to the left than the more cognitive ATGR scales. In line with our seventh expectation, the position of the explicit Ruling/punishing and the Passivity scales corresponded with the positions of the implicit Affect Tone person and Agency scales (see Figure 1).

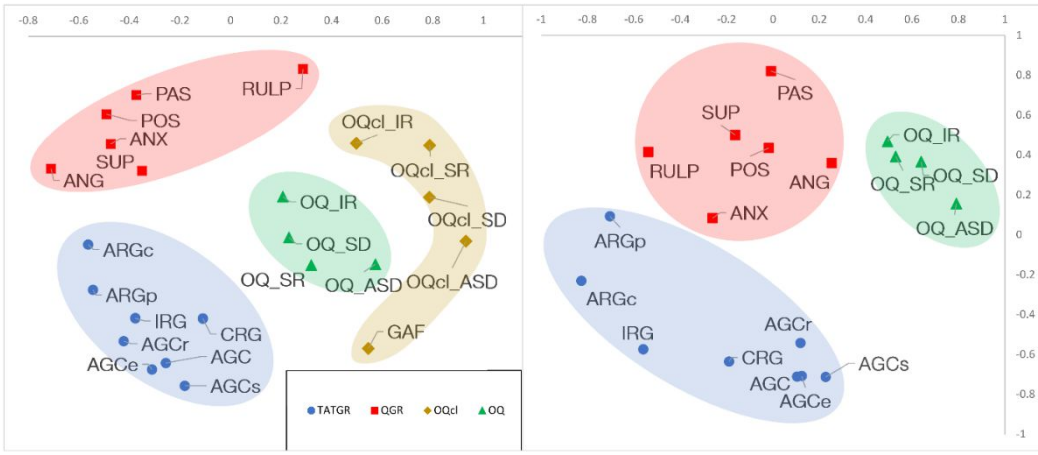

Figure 1. By MDS estimated locations of the scales for the clinical (left) and the non-clinical (right) group.

Implicit God representation scales: CRG= Complexity; ARGc = Affect Tone character; ARGp = Affect one person; IRG = Investment; AGCs = Agency-situation; AGCr = Agency-reaction; AGCe = Agency-explanation; Explicit God representation scales: POS = Positive; ANX = Anxious; ANG = Anger; SUP =Supportive; RULP = Ruling/punishing; PAS = Passivity; OQ= OQ patient; OQcl = OQ clinician; IR =Interpersonal relations; SR = Social Role Performance; SD = Symptom Distress; ASD = Anxiety and Somatic Distress.

Comparing the strength of correlations between the clinical and non-clinical group. In the clinical group, nine out of the 10 intercorrelations between the five main scales were significant, with eight of them highly significant ($r > .35$). The highest correlation in this group was the correlation between Complexity and Agency, $r = .66$,

indicating a shared variance of 44%. All correlations were in the expected direction. In the non-clinical group, only four out of the 10 intercorrelations were highly significant (see Table 4), with none of them stronger than .40, which means that scales shared less than 16% of their variance. Against our fifth expectation, correlations in the clinical group (average correlation: $r = .19$), were not weaker than correlations in the non-clinical group (average correlation: $r = .13$) (see also Table 4).

Associations of implicit versus explicit God representation scales with explicit distress scales.

The clinical group. Results of MDS for the clinical group (see Figure 1) showed that overall the implicit distress scales were at the same vertical level as the explicit distress scales, but positioned further away from the implicit as well as the explicit God representation scales. Assuming that the vertical direction represents an implicit-explicit dimension, this does not confirm the validity of the implicit God representation scales.

We compared the distances from each ATGR scale to each explicit distress scale with the distances from each QGR scale to each explicit distress scale. From the 24 comparisons with the CRG scale, 21 distances were shorter than the distances between QGR scales and explicit distress scales. From Affect Tone character and Investment 16 of the 24 distances were shorter, and from AGC and Affect Tone person half of the distances were shorter (see Table 5). Thus, against our expectations, in the clinical group overall the explicit God representation scales were not associated more strongly than the implicit God representation scales with the explicit distress scales.

The non-clinical group. In the non-clinical group (see Figure 1) overall the group of explicit distress scales was positioned more closely to the group of QGR scales than to the group of ATGR scales. We compared the distances from all ATGR scales to all OQ scales with the distances from all QGR scales to all OQ scales (see Table 5). For only 9 of the 192 comparisons, an ATGR scale was positioned more closely than a QGR scale to an explicit distress scale. Seven of these distances involved the QGR scale Ruling/punishing. Thus, in the non-clinical group, in line with our expectations, overall the explicit God representation scales were more strongly associated with the explicit distress scales than the implicit God representation scales.

Associations of implicit versus explicit God representation scales with implicit distress scales. We compared (only for the clinical group) the distances from each ATGR scale to each implicit distress scale with the distances of the QGR scales to these scales (see Figure 1 and Table 5). Nearly all QGR scales were positioned more closely to all OQcl distress scales than most ATGR scales. An exception was the distances of all ATGR scales to the implicit distress scale GAF: they were all shorter than all distances between QGR scales and the GAF scale. Thus, in line with our expectations, the implicit God representation scales were associated more strongly

Table 4. *Correlations Between Implicit and Explicit God Representation Scales for the Clinical and the Non-clinical group*

God Repr. scales		Implicit God representation scales								Explicit God representation scales					
		Com-plexity	Affect Tone c	Affect Tone p	Invest-ment	Agency	Agency -s	Agency -r	Agency -e	Positive	Anxiety	Anger	Support	Ruling/ Punishing	Passi-vity
Complexity	*r*		.15	**.38****	**.42****	**.66****	**.57****	**.60****	**.67****	.20	-.20	-.20	**.26***	.21	-.18
	p		.203	.001	<.001	<.001	<.001	<.001	<.001	.091	.09	.086	.029	.068	.133
Affect Tone character	*r*	.11		**.54****	**.36****	**.24***	.13	**.32****	.20	**.24***	-.23	**-.30****	**.27***	-.17	-.18
	p	.350		<.001	.002	.037	.29	.005	.09	.044	.052	.008	.022	.152	.135
Affect Tone person	*r*	.16	.23		**.48****	**.48****	**.40****	**.53****	**.48****	**.29***	-.22	**-.31****	**.30****	-.21	-.19
	p	.197	.055		<.001	<.001	<.001	<.001	<.001	.014	.055	.008	.009	.077	.108
Investment	*r*	.22	**.39****	**.32****		**.49****	**.35****	**.53****	**.51****	.08	**-.25***	-.16	**.24***	-.14	-.09
	p	.060	.001	.006		<.001	.003	<.001	<.001	.482	.035	.181	.044	.225	.453
Agency	*r*	**.36****	.15	.10	**.32****		**.90****	**.90****	**1.0****	.04	-.10	-.22	.21	.09	-.06
	p	.002	.225	.402	.008		<.001	<.001	<.001	.73	.416	.06	.069	.451	.592
Agency-s	*r*	**.37****	-.02	-.15	.10	**.64****		**.71****	**.84****						
	p	.002	.881	.200	.424	<.001		<.001	<.001						
Agency-r	*r*	.15	**.24***	.03	**.24***	**.71****	**.38****		**.86****						
	p	.223	.046	.800	.040	<.001	<.001		<.001						
Agency-e	*r*	**.40****	.06	.05	**.29***	**.97****	**.56****	**.64****							
	p	.001	.641	.670	.016	.000	.000	.000							
Positive	*r*	**.24***	-.01	**.25***	.09	.00									
	p	.043	.943	.038	.481	.976									
Anxiety	*r*	-.14	-.14	**-.28***	-.01	.18									
	p	.237	.237	.017	.937	.141									
Anger	*r*	-.13	-.05	.04	.03	.15									
	p	.276	.693	.749	.797	.208									
Support	*r*	.20	-.07	**.31****	.09	.08									
	p	.096	.553	.009	.446	.525									
Ruling	*r*	-.01	**-.26***	**-.25***	-.06	.13									
	p	.910	.031	.032	.639	.275									
Passivity	*r*	-.05	-.02	-.03	-.01	-.09									
	p	.667	.899	.788	.906	.460									

Note. Left-below: non-clinical group; Right-upper: clinical group. *r* = Pearson's correlation coefficient; *p* = significance value of *r;*
*correlation significant at <.05 level (bold); **correlation significant at <.01 level (bold)

Table 5. *MDS-distances Between Scales for the Clinical and the Non-clinical Group*

	CRG	ARG-c	ARG-p	IRG	VHG	VHG-s	VHG-r	VHG-e	POS	ANX	ANG	SUP	RULP	PAS	OQ-cl-IR	OQ-cl-SR	OQ-cl-SD	OQ-cl-ASD	GAF	OQ-IR	OQ-SR	OQ-SD	OQ-ASD
Complexity		0.8	0.9	0.4	0.3	0.4	0.3	0.3	1.1	0.7	1.1	1.1	1.1	1.5						1.3	1.3	1.3	1.3
Affect Tone character	0.6		0.3	0.4	1.0	1.2	1.0	1.1	1.0	0.6	1.2	1.0	0.7	1.3						1.5	1.5	1.6	1.7
Affect tone person	0.5	0.2		0.7	1.1	1.2	1.0	1.2	0.8	0.4	1.0	0.7	0.4	1.0						1.3	1.3	1.4	1.5
Investment	0.3	0.4	0.2		0.7	0.8	0.7	0.7	1.1	0.7	1.2	1.1	1.0	1.5						1.5	1.5	1.5	1.5
Agency	0.3	0.7	0.5	0.3		0.1	0.2	0.0	1.2	0.9	1.1	1.2	1.3	1.5						1.2	1.2	1.2	1.1
Agency-s	0.3	0.8	0.6	0.4	0.1		0.2	0.1	1.2	0.9	1.1	1.3	1.4	1.6						1.2	1.1	1.2	1.0
Agency-r	0.3	0.5	0.3	0.1	0.2	0.3		0.2	1.0	0.7	0.9	1.1	1.2	1.4						1.1	1.0	1.0	1.0
Agency-e	0.3	0.7	0.5	0.3	0.1	0.2	0.2		1.2	0.9	1.1	1.2	1.3	1.5						1.2	1.2	1.2	1.1
POS	1.1	0.7	0.9	1.0	1.3	1.4	1.1	1.3		0.4	0.3	0.2	0.5	0.4						0.5	0.6	0.7	0.9
ANX	0.9	0.5	0.7	0.9	1.1	1.2	1.0	1.1	0.2		0.6	0.4	0.4	0.8						0.8	0.8	0.9	1.1
ANG	1.0	0.4	0.6	0.8	1.1	1.2	0.9	1.1	0.4	0.3		0.4	0.8	0.5						0.3	0.3	0.4	0.6
SUP	0.8	0.4	0.6	0.7	1.0	1.1	0.9	1.0	0.3	0.2	0.4		0.4	0.4						0.7	0.7	0.8	1.0
RULP	1.3	1.2	1.4	1.4	1.6	1.7	1.5	1.6	0.8	0.8	1.1	0.8		0.7						1.0	1.1	1.2	1.4
PAS	1.2	0.8	1.0	1.1	1.3	1.5	1.2	1.4	0.2	0.3	0.5	0.4	0.7							0.6	0.7	0.8	1.0
OQcl_IR	1.1	1.2	1.3	1.2	1.3	1.4	1.4	1.4	1.0	1.0	1.2	0.9	0.4	0.9									
OQcl_SR	1.2	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.3	1.3	1.5	1.1	0.6	1.2	0.3								
OQcl_SD	1.1	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.5	1.1	0.8	1.3	0.4	0.3							
OQcl_ASD	1.1	1.5	1.5	1.4	1.3	1.3	1.4	1.4	1.6	1.5	1.7	1.3	1.1	1.5	0.7	0.5	0.3						
GAF	0.7	1.2	1.1	0.9	0.8	0.8	1.0	0.9	1.6	1.4	1.5	1.3	1.4	1.6	1.0	1.0	0.8	0.7					
OQ_IR	0.7	0.8	0.9	0.8	1.0	1.0	1.0	1.0	0.8	0.7	0.9	0.6	0.6	0.8	0.4	0.6	0.6	0.8	0.8		0.1	0.2	0.4
OQ_SR	0.5	0.9	0.9	0.7	0.8	0.8	0.8	0.8	1.1	1.0	1.1	0.8	1.0	1.1	0.6	0.8	0.6	0.6	0.5	0.4		0.1	0.4
OQ_SD	0.5	0.8	0.8	0.7	0.8	0.8	0.8	0.9	1.0	0.8	1.0	0.7	0.8	0.9	0.5	0.7	0.6	0.7	0.6	0.2	0.2		0.3
OQ_ASD	0.7	1.1	1.1	1.0	1.0	1.0	1.1	1.0	1.3	1.2	1.4	1.0	1.0	1.3	0.6	0.6	0.4	0.4	0.4	0.5	0.3	0.4	

Note. Left-below: clinical group; Right-upper: non-clinical group

with the implicit distress scale GAF than the explicit God representation scales. However, against our expectations, overall the implicit God representation scales were not more strongly associated with the implicit OQ scales than the explicit God representation scales.

Associations of implicit God representation scales with implicit versus explicit distress scales. We compared the distances from the ATGR scales to the implicit distress scales with the distances to the explicit distress scales (see Figure 1 and Table 5). Nearly all explicit distress scales were positioned more closely to the ATGR scales than the implicit distress scales. Thus, against expectations, overall the implicit God representation scales were not associated more strongly with the implicit than with the explicit distress scales.

Associations of explicit God representation scales with implicit versus explicit distress scales. We compared the distances from the QGR scales to the explicit distress scales with the distances to the implicit distress scales (see Figure 1 and Table 5). Nearly all QGR scales were positioned more closely to the explicit than to the implicit distress scales. Thus, in line with our expectations, overall the explicit God representation scales were associated more strongly with the explicit than with the implicit distress scales.

Discriminant Validity

Differences in scores on ATGR scales between the non-clinical and clinical group. To examine if the mean scores of subjects from the clinical group on the ATGR scales differed from those of the non-clinical group, we conducted an independent samples *t* test for Complexity, and Mann-Whitney tests for the other scales because their scores were not normally distributed in the non-clinical and/or in the clinical sample.

Table 6. *T-test and Mann-Whitney tests for differences in ATGR scale scores*

	non-clinical			clinical						
ATGR scales	*N*	*M*	*sd*	*N*	*M*	*sd*	*t*	*df*	*U*	*p*
Complexity	71	3.46	0.28	74	3.18	0.41	**4.693****	128		<.001
Affect Tone character	71	3.62	0.30	74	3.59	0.28			2540	0.745
Affect Tone person	71	4.34	0.41	74	3.84	0.46			**1060****	<.001
Investment	71	3.09	0.27	74	2.88	0.34			**1647****	<.001
Agency	71	2.61	0.55	74	2.16	0.69			**1552****	<.001
Agency-s	71	1.67	0.20	74	1.58	0.28			2168.5	0.069
Agency-r	71	1.56	0.32	74	1.48	0.34			2212.5	0.101
Agency-e	71	1.67	0.44	74	1.42	0.45			**1647****	<.001

Note. ** = significant at <.01 level (bold)

For all ATGR main scales, the clinical group had lower mean scores than the non-clinical group (see Table 6). For Complexity, this difference was significant. For Affect

Tone person, Investment, Agency and its subscale Agency-e, distributions of scores of both groups on these scales differed significantly from each other.

Associations of potential confounding variables with ATGR scales. Because the clinical group differed from the non-clinical group on the variables age, level of education, religious affiliation, and religious denomination, we examined if these control variables were associated with the ATGR scores. For the associations of age and affiliation with the ATGR scores, we computed Pearson's correlation coefficients. For the associations of level of education and church denomination, we conducted one-way ANOVA's, after examining if the assumption of homogeneity of variances was violated.

Age. Age correlated significantly and negatively with Complexity, $r = -.25$, $p = .003$, and with Affect Tone person, $r = -.23$, $p = .006$.

Affiliation. Affiliation correlated significantly and positively with Affect Tone person, $r = .20$, $p = .015$, with Investment, $r = .22$, $p = .009$, and with Agency, $r = .17$, $p = .043$.

Level of education. A one-way ANOVA showed that level of education was significantly associated with Affect Tone person, $F = 4.854$, $p = .003$. Planned contrasts showed that participants with level 3 had significantly higher mean scores than participants with level 2 and significantly lower mean scores than participants with level 4. Level of education also had a significant effect on Investment, $F = 5.464$, $p = .001$. Because Levene's statistic was significant, indicating that variances of the subgroups were not homogeneous, the more robust Welch test was conducted for the association, which was also significant, $p = .024$. Planned contrasts showed that participants with level 2 scored significantly lower on Investment than participants with level 3. Level of education was significantly associated with Agency-e, $F(3) = 3.356$, $p = .021$. Because Levene's statistic was significant, the more robust Welch test was conducted for the association between education and Agency-e. This test was significant ($p = .006$). The group with the lowest level of education ($n = 5$) and the group with the highest level of education ($n = 10$) had significantly lower scores on Agency-e than the group with level 3 education (VWO/HBO).

Church denomination. Denomination had significant effects on Affect Tone person, $F = 11.349$, $p < .001$ and on Investment, $F = 8.761$, $p < .001$. Planned contrasts showed that the group of Orthodox denominations had significantly lower Affect Tone and Investment scores than the mainstream and evangelical/Baptist groups.

Associations within the non-clinical and the clinical group. Within both groups, none of the ATGR scales were significantly associated with age. Affiliation, level of education, and church denomination were only significantly associated with Affect Tone person, and only within the non-clinical group. Correlations between affiliation and Affect Tone person were —contradictory to the direction of the overall correlation— positive in both groups. In the clinical group, level of education and

church denomination were not associated with the ATGR scales, and in the non-clinical group, the only remaining effects were the lower mean scores on Affect Tone person for respondents with the highest level of education and for orthodox respondents. The implications of these findings for the interpretations of our results will be discussed below.

Discussion

Reliability of ATGR Scales

Overall, interrater reliability of four of the six ATGR scales was sufficient. It was good for the scales Affect Tone character, Affect Tone person, and Agency, fair for the Complexity scale, and poor for the Investment scale and for the Religious Rules-scale. Because of poor results, the latter scale was left out of further analyses.

Internal consistencies of the scales, as indicated by Cronbach's alpha, was good for the Complexity and the Affect Tone person scale, fair for the Agency scale. They were poor (< .70) for the Affect Tone character and the Investment scale. This may not necessarily need to be viewed as problematic. It may be the result of person-situation interaction, which (Jenkins, 2017) refers to as 'card pulling'. Because of this phenomenon, classical test theory with its emphasis on internal consistency reliability may not be appropriate for establishing the reliability of instruments as for example the TAT (Cramer, 1999; Jenkins, 2017).

Interrelations of ATGR Scales

In the non-clinical group, the correlations between ATGR scales were weak to moderate, indicating that these scales indeed measure different aspects of God representations. Overall, in the clinical group, the correlations between the ATGR scales were stronger than in the non-clinical group, and more correlations between the scales were significant than in the non-clinical group. This was most notably the case for three correlations between ATGR scales.

First, in the non-clinical group the correlation between Affect Tone character and Affect Tone person —two scales that are conceptually strongly related— was moderate and not significant, whereas in the clinical group this correlation was strong and highly significant. Apparently, whereas in the non-clinical group respondents' feelings about God often were distinguished from the feelings about God they attribute to the characters in their stories, in the clinical group this distinction often was not made. This may be the result of a diminished ability to distinguish between the role of observer versus participant in an interaction or in other words: of a weakened functioning of the "observing ego" for respondents of the clinical group (Glickauf-Hughes, Wells, & Chance, 1996).

Second, in the non-clinical group, the scale Complexity was not significantly associated with Affect Tone person and with Investment, whereas in the clinical group these correlations were highly significant. So for respondents in the non-clinical group, seeing God as unidimensional or complex was unrelated to a positive or negative affective relationship with God, or to the attribution of a selfish or dedicated attitude to the character in his relationship with God, whereas these aspects were more intertwined for respondents in the clinical group.

Third, in the non-clinical group, the scales Affect Tone person and Agency were not significantly correlated, whereas this correlation was highly significant in the clinical group, indicating that less positive feelings of the patients towards God are associated with attributing to God less active involvement with situations in the told stories. Apparently, where respondents in the non-clinical group could distinguish positive and negative aspects of God representations, respondents in the clinical group were more susceptible for global negative evaluations of God and their relationship with him; a phenomenon that may be inherently related to the lower scores on Complexity for this group.

Construct Validity of ATGR Scales

Correlations between ATGR scales and QGR scales.

Validating implicit God representation measures by examining correlations with other instruments is difficult because there is not a good criterion to compare these new measures with. Although it is well-known that implicit and explicit measures of the same construct often hardly correlate (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005; Roisman et al., 2007), nevertheless we examined associations between ATGR and a well-validated explicit instrument for measuring God representations: the QGR. We expected that the ATGR scales would show weak associations with the self-reported aspects of God image. On the other hand, it would attribute to the validity if results demonstrated that conceptually more related aspects of God representations of the ATGR and the QGR were associated more strongly with each other than with less related aspects.

We based our expectations about differences in strength of associations on two dimensions: implicitness/explicitness and conceptual relatedness of the various scales. Results were interpretable using these two dimensions. On the assumed implicit-explicit dimension of the MDS solution, the implicit ATGR scales were clearly discerned from the explicit QGR scales, especially in the non-clinical group. In the non-clinical group, the Affect Tone person scale was the only ATGR scale that deviated from this pattern, being positioned at the same level of this dimension as the explicit QGR Anxiety scale. However, this confirmed our expectation that Affect Tone person would be more strongly associated with explicit God representation measures than Affect Tone character. In the non-clinical group, most expectations based on conceptual

relationship were confirmed. Based on their positions on the assumed conceptual dimension, the affective ATGR scales Affect Tone character and person and Investment and the QGR scales Ruling/punishing and Anxious were conceptually more related to each other than to the other scales. This also held for the ATGR scales Agency and Complexity that were on the same side of this dimension as QGR scales Passivity and Anger. Overall, these results undergird the validity of the ATGR scales.

In the clinical group these patterns did not emerge clearly: the ATGR scales predominantly held their relative positions towards each other, but the QGR scales had different positions; the Anger scale, and —to a lesser extinct— the Passivity scale were more strongly associated with the affective ATGR scales, and the Ruling/punishing scale was conceptually more strongly related to the cognitive than to the affective ATGR scales. Possibly, our assumption that an attribution of God as passive would be especially associated with anger about him (born out of frustration about not having a better life), does not hold clearly for patients; they may also hold God more actively responsible for their misfortune (e.g., being punished by him). This is in line with results of research into religious coping, demonstrating an association between symptoms of psychopathology and negative religious coping/spiritual struggles (McConnell, Pargament, Ellison, & Flannelly, 2006). The different positions of the QGR scales in the clinical group might also be attributed to other associations in this group, particularly with the explicit and implicit distress scales, which also influence the positioning of the scales. In the MDS solution for the clinical group, the implicit and explicit scales —and especially the IR scales— are more strongly associated with the QGR scale Ruling/punishing and less strongly with the Anger scale than in the non-clinical group. This might imply that interpersonal relations in the clinical group are less strongly associated with explicitly experienced anger about God and more strongly with experiencing God as ruling/punishing than in the non-clinical group.

Comparison of correlations in the non-clinical versus the clinical group. As was the case for the correlations between the ATGR scales, correlations of ATGR scales with QGR scales also were stronger and more often significant in the clinical group than in the non-clinical group. This was contradictory to our expectation that for more healthy persons, the implicit and explicit aspects of their God representations would be more integrated (i.e., more strongly correlated). We based this assumption on theoretical grounds (Hall & Fujikawa, 2013), but there is no empirical research to undergird this assumption. If this assumption is true, not finding stronger associations in the non-clinical group might indicate that one or both instruments do not validly measure God representations in this group. Perhaps the social desirability and doctrine effects on the self-report measure in this group were much stronger than in the clinical group, making them less valid. Another explanation could be that the instruction for the apperceptive test to make up stories, has —for non-patients more so than

for patients— led to stories that do not reflect real, but idealized representations of God. This might be in line with the critical discussion of the TAT by Leigh, Westen, Barends, Mendel, and Byers (1992) who wonder if characters in the stories always are projections of the real self, and suggest that they may also be projections of an idealized self.

Yet, there is still another explanation that does not necessarily undermine the validity of the chosen instruments. The stronger associations between implicit and explicit God representation scales in the clinical group could be explained by assuming that for patients implicit aspects of God representations partly infiltrate their explicit God representation measures. Self-report questions about who God represents for the person might activate the attachment system, which may inhibit mentalizing (i.e., the ability to think about others and oneself in terms of mental states) and cause a shift to "pre-mentalistic modes" that "destroy the coherence of self-experience that the narrative provided by normal mentalization generates" (Bateman & Fonagy, 2008, p. 183). Applied to this context: implicit, negative (God) representations distort the potentially available more explicit positive God representations that could otherwise support the person. This might imply that explicit God representation measures, to a greater extent than generally assumed, assess implicit aspects of God representations, especially for patients. This conclusion is in line with Hall et al.'s (2009) notion that self-report measures can actually be seen as indicators of implicit aspects of experience.

Theoretically, we expected implicit and explicit measures to be differently related in the clinical compared to the non-clinical group. To the best of our knowledge, these differences have not yet been investigated. Our findings only indicate that differences exist, but they deviate from what we expected: results suggest a stronger rather than weaker association between both types of instruments among the clinical sample. This finding does not undermine the validity of the ATGR scales, but it does suggest that findings from non-clinical samples should not automatically be generalized to clinical samples. Future research into associations between implicit and explicit measures should be conducted with both groups or should otherwise control for level of psychopathology.

Associations of implicit and explicit God representation scales with measures of implicit and explicit distress. In the non-clinical group, but not in the clinical group, results were in line with our first expectation that the explicit God representation scales would be associated more strongly with the explicit measures of distress than the implicit God representation scales. In the clinical group aspects of the implicit God representation were more strongly related to various aspects of self-reported distress than aspects of the explicit God representation. This unexpected outcome raises the question why these associations were not found in the non-clinical group. One potential explanation might be that negative implicit God representations

in this group invade the conscious experiencing of negative affects to a much lesser extent. Another explanation may be that the level of distress in this group is much lower and does not trigger persons to seek support from God, but lets them rely on more secular coping strategies. This is in accordance with the buffer theory for explaining associations between religiosity and wellbeing/distress, which states that this association is moderated by the level of stress (Ellison & Levin, 1998; Koenig, King, & Carson, 2012) and with the recovery approach in mental health, which states that for psychiatric patients existential/religious coping and existential/religious identity might be much more important than for non-patients (Huguelet et al., 2016; Jong & Schaap-Jonker, 2016; Mohr et al., 2012; Roberts & Wolfson, 2004).

Only for the GAF scale, results were in line with our second expectation that the implicit God representation measures would be associated more strongly than the explicit God representation measures with the implicit measures of distress. (To note, this and the following expectations could only be examined in the clinical group.) Probably the OQcl scales are less sensitive than the GAF in discriminating between patients that —despite various symptoms or problems in psychological, interpersonal or occupational functioning— still have enough strength and patients that miss strength to cope relatively adequately with their life situation.

In general, results were not in line with our third expectation that the implicit God representation scales would be more strongly associated with implicit than with explicit measures of distress. On the contrary, most implicit God representation measures were more strongly associated with the explicit than with the implicit distress measures. This might imply that the ATGR scales do not validly measure implicit God representations, but it might also be attributed to a weak validity of our implicit distress measures and to the already mentioned possibility that the implicit God representations invade the conscious experiencing of negative feelings. Vice versa, effects of depression, stress or anxiety in the clinical group, by triggering more negative God representations, might also have caused the stronger association between explicit distress and implicit God representations in this group.

Results were partly in line with our fourth expectation that explicit God representation measures would be more strongly associated with explicit than with implicit measures of distress. Most explicit God representation scales were indeed associated more strongly with the explicit than with the implicit distress scales, but two explicit God representation scales (Ruling/punishing and Passivity) were associated more strongly with the implicit OQcl scales, especially with the IR scale. This exception underlines that some aspects of the explicit God representations are also associated with implicit measures of distress, again indicating that for patients self-reported God representations may to a greater extent be influenced by implicit psychological processes than generally assumed (Hall & Fujikawa, 2013).

Discriminant Validity of ATGR Scales

Scores on Complexity, Affect Tone person, Investment and Agency differed significantly between the clinical and the non-clinical group, with lower scores for the clinical group. This might demonstrate the ability of these scales to discriminate between groups of subjects with and without psychopathology. However, various biographical variables that significantly differed between the clinical and non-clinical group, were also significantly related to various ATGR-scores. Age was significantly negatively associated with Complexity and Affect Tone person. This contradicts the theoretic assumptions that the SCORS Affect Tone scale is unrelated to age, and that the SCORS Complexity scale is a developmental scale, on which the scores will increase with higher age (Westen, 1985), which is also confirmed in various studies with a wide age range of individuals. The finding that within both groups scores on the ATGR scales were unrelated to age, undergirds our assumption that the lower scores of the clinical group on Complexity and on Affect Tone person are caused by psychopathology. Yet, new research is needed to confirm this.

It also seems illogical or counterintuitive that higher scores on religious affiliation, as is the case in the clinical group, would lead to lower scores on Complexity, Affect Tone person, Investment, and Agency. One might expect higher religious affiliation to be related to more positive God representations, as Jonker, Eurelings-Bontekoe, Zock, and Jonker (2008) found in a sample of 804 respondents, of whom 244 subjects received psychotherapy. Having found positive instead of negative correlations within both groups, and only a significant correlation with Affect Tone person for the non-clinical group, makes it plausible that a third factor is accountable for the overall negative association between religious affiliation and the ATGR scales. Therefore it seems more logical to attribute the lower scores on these ATGR scales exclusively to psychopathology, but new research is needed to clear this point.

On level of education, the clinical group scored lower than the non-clinical group. This variable was also significantly associated with ATGR scales Complexity, Affect Tone person, Investment, and Agency, with lower levels of education being associated with lower scores on these scales. It is thinkable that on higher levels of education subjects have higher verbal intelligence that enables them to express more rich, complex descriptions of God that leads to increased scores on these scales. But research at the association between verbal intelligence (measured with the WAIS-R Vocabulary subtest) and verbal productivity and the related SCORS scale Complexity yielded no significant results (Leigh et al., 1992). Moreover, our finding that these associations were not found within the two groups, suggests that here also a third factor may be accountable for this overall associations. Therefore the lower scores of the clinical group on these ATGR scales might be attributed to psychopathology, but further research should confirm this.

Church denomination might, besides psychopathology, explain the lower scores on Affect Tone person and Investment in the clinical group. The scores of members of orthodox denominations on these scales were significantly lower. It is well known that in many churches of these orthodox denominations the doctrine emphasizes more strongly than in other denominations a ruling/punishing God image. These results would also be in line with Jonker et al. (2008), who found a significant effect of religious denomination on all six scales of the QGR, with orthodox-reformed subjects having less positive and more negative God representations than mainstream Protestants and/or evangelical subjects. Yet the fact that within the two groups these effects were not found (except for the significant lower scores on Affect Tone person for orthodox participants in the non-clinical group), again suggests that these associations might be caused by a third factor, likely psychopathology.

All in all, results seem to confirm the discriminant validity of the SCORS based scales of the ATGR in discriminating between healthy subjects and subjects with personality pathology, but further research is needed to answer raised questions about the associations of biographical variables with various ATGR scales.

Limitations

A first limitation of this study is its specific focus on Christian believers. The ATGR with its scoring system is only applicable for adherents of a monotheistic religion. Not having a self-stated personal relationship with God was an exclusion criterion for the study. We think that this restriction is also a strength, because we wanted to examine specific God representations that were related to believing in God as a person. Yet, this could imply that the validity of our conclusions may be restricted to a specific Dutch group of Protestant Christians. Differences between countries in doctrinal beliefs and personal spirituality may have impact on the associations between God representations and distress.

A second limitation of this study is the significant differences between the non-clinical and the clinical sample on various biographic variables. The data of the non-clinical group were mainly collected in the first two years after the onset of the study. We could not predict the distribution of those control variables over the clinical group, of which the data-collection was dependent on the ongoing treatment assignment, and therefore we were unable to correct for imbalances. Because various biographical variables were also significantly related to various ATGR scales, we could not statistically control for their potential influences. Although often ANCOVA's are conducted for this purpose, the also significant differences between the clinical and the non-clinical group on the biographical variables make it, according to Miller and Chapman (2001), impossible to statistically disentangle associations of biographical variables and of psychopathology with the ATGR scales.

A third limitation is the moderate and strong correlations between ATGR scales in the clinical group. This might indicate that scales overlap too much. But we conclude that this overlap is not inherent to the instrument itself, because these moderate correlations only occurred in the clinical group, suggesting that the overlap may be influenced by psychopathology.

A fourth limitation is the use of the GAF scale in this study. There is some debate about its psychometric qualities, as for example its problems in integrating symptoms and dysfunction (Bøgwald & Dahlbender, 2004). Because we used this measure as an indication for a more intuitive judgment of clinicians about the extent of distress of their patients, we assume these problems do not diminish the validity of our conclusions.

Final Conclusion and Future Research

This study demonstrates preliminary evidence for the reliability and construct and discriminant validity of five of the six scales of the ATGR. Construct validity must be further established by examining associations of the scales with implicit measures that have already been extensively validated, such as for example the SCORS.

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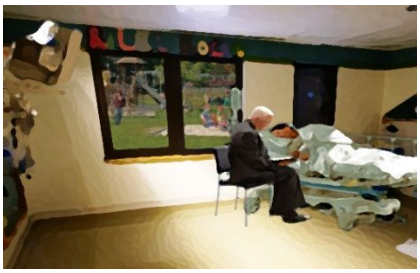
Appendix A: ATGR Cards

Card 1

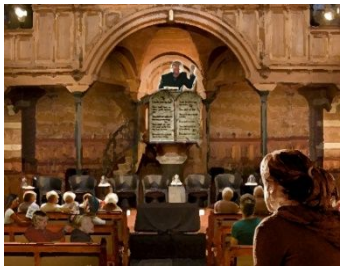
Card 2

Card 3



Card 4

Card 5



Card 6

Card 7

Card 8

Card 9

Card 10

Card 11

Card 12

Card 13

Card 14

Card 15

Appendix B: Correlations between all measures

Correlations between all variables

	ATGR					QGR						OQ				OQcl			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Complexity		.11	.16	.22	.39***	.24*	.15	.13	.20	.01	.05	.00	.00	.01	-.08				
2.Affect Tone character	.15		.23	.39***	.09	-.01	.14	.05	-.07	.26*	.02	.02	.06	-.01	.01				
3.Affect Tone person	.38***	.54***		.32**	.08	.25*	.28*	-.04	.31**	.25*	.03	.03	-.10	-.03	-.07				
4.Investment	.42***	.36**	.48***		.34**	.09	.01	-.03	.09	.06	.01	.03	.04	-.07	-.05				
5.Agency	.66***	.24*	.48***	.49***		.00	-.18	-.15	.08	-.13	.09	.00	-.03	.05	.08				
6.Positive	.20	.24*	.29*	.08	.04		.44***	.46***	.78***	-.17	.22	.32**	.28*	.27*	.12				
7.Anxious (r)	.20	.23	.22	.25*	.10	.50***		.45***	.35**	.28*	.07	.14	-.03	.09	.12				
8.Anger (r)	.20	.30**	.31**	.16	.22	.72***	.39***		.43***	-.14	.36**	.37***	.47***	.46***	.33**				
9.Supportive	.26*	.27*	.30**	.24*	.21	.80***	.44***	.78***		-.27*	.28*	.23	.23	.21	.08				
10.Ruling/punishing (r)	.21	-.17	-.21	-.14	.09	-.08	-.26*	-.03	-.02		-.16	-.17	-.31**	-.10	.00				
11.Passivity (r)	.18	.18	.19	.09	.06	.65***	.34**	.65***	.68***	.08		.25*	.10	.14	-.03				
12.Interpersonal Relationships (r)	.21	.23*	.17	.20	.21	.17	.18	.11	.23	.19	.20		.49***	.67***	.47***				
13.Social Role Performance (r)	.15	.29*	.35**	.16	.12	.12	.10	.05	.11	-.14	.12	.37***		.68***	.46***				
14.Symptomatic Distress (r)	.32**	.29*	.13	.26*	.21	.29*	.41***	.18	.33**	-.10	.12	.54***	.47***		.85***				
15.Anxiety and Somatic distress (r)	.25*	.15	.03	.20	.13	.17	.32**	.06	.21	-.22	.00	.34**	.40***	.88***					
16.Interpersonal Relationships (r)	.17	.22	-.02	.08	.13	.12	.08	.10	.24*	.27*	.27*	.44**	.13	.24*	.12				
17.Social Role Performance	.16	-.07	-.04	.00	.04	.08	-.09	.04	.15	.17	.21	.22	.16	.19	.13	.64***			
18.Symptomatic Distress (r)	.15	.07	-.02	.14	.04	.09	.03	.05	.17	.11	.10	.20	.11	.45***	.43***	.52***	.67***		
19.Anxiety and Somatic Distress (r)	.09	.01	-.10	.06	-.03	.03	.01	-.02	.08	-.02	.02	.17	.14	.45***	.50***	.32**	.48***	.88***	
20.Global Assessment of Functioning	.31*	-.16	.05	.12	.31*	.01	.02	-.06	.07	.08	-.09	.20	.19	.33**	.35**	.13	.19	.31*	.39***

NOTE. Above diagonal: nonpatient group; below diagonal: patient group
(r) = reversed scores
* = p ≤ .05
** = p ≤ .01
*** = p ≤ .001