Chapter 4: Item development and pretesting of the Existential Concerns Questionnaire (ECQ)

Abstract
Existential Anxiety (EA) is the fundamental affective response to what can be seen as general givens of existence, such as death, the contingency of life, and having a fundamentally limited perspective on oneself and the world. Psychotherapists have suggested that existential anxiety may co-exist with and even underlie psychopathology, and that it is important to pay attention to EA in psychotherapeutic treatments. The hypothesis that EA is an important aspect of psychiatric disorders may be answered by using reliable and valid measurement instruments. Such instruments are sparse and for many languages not available. This study describes the translation and adaptation of the Existential Anxiety Questionnaire (Weems et al. 2004) into Dutch, using a procedure of cognitive interviewing: Three Step Test Interviewing (TSTI). A total of 29 respondents completed in three subsequent rounds the questionnaire, and after each round adaptations were made. The first round of interviews showed that a substantial part of the questions was problematic for respondents, because of the use of negations, the double barreled character of some questions and language that was uncommon to most respondents. We decided to design alternative questions, which we tested in the second round of interviews. Because of the far-reaching changes, we renamed the questionnaire “Existential Concerns Questionnaire” (ECQ). After the second round we changed the wording of some still problematic items, changed the response format and extended the introduction. Respondents reported few problems in the third round, and we conclude that the ECQ is ready for further validation.

4.1 Introduction
This chapter describes the development and pretesting of the Existential Concerns Questionnaire (ECQ), and is a supplement to our validation paper that is presented in chapter 5. The ECQ is intended as a broad measure of existential anxiety (EA), that covers the five ultimate concerns that are often mentioned in existential literature: death, meaninglessness, guilt, social isolation and identity. In a systematic review (Van Bruggen, Vos, Westerhof, Bohlmeijer & Glas, 2015), we found promising evidence for the Existential Anxiety Questionnaire (EAQ), which is based on Tillich’s (1952) conceptualization of EA (Weems et al., 2004), and we used this instrument as starting point for the development of our
questionnaire. The different scales of the EAQ resemble three of the existential concerns of our model, namely: death, meaninglessness and guilt. The EAQ was also translated into Chinese, Slovak and Polish (C.F. Weems, personal communication, February 25, 2013). To our information, the use of the EAQ has until now been limited to the USA and Hongkong (To & Chan, 2016). We decided to translate the EAQ into Dutch and extend it with items regarding the two concerns of our conceptual model that were not included in the initial version: Identity and Isolation.

4.2 Method

4.2.1 Translation procedure and expectations

In accordance with the recommendations of Guillemin et al. (1993), we followed a forward backward procedure in this study, using three independent couples of translators. Different versions were discussed in a multi-disciplinary committee. After the translation, 16 additional items were formulated to let the EAQ correspond with all the ultimate concerns mentioned in our introduction, thus adding items related to isolation and identity. We also added items to the domains death and guilt to get a better fit with our conceptual model. These new items were formulated, using the items of the other domains as an example. We formulated a surplus of items, to make it possible to eliminate poor functioning items in the process of development. Table 1 shows our initial version, that consisted of 29 items, like “I often think about fate and it causes me to feel anxious” and “I feel at home in the world” (reversed item). The respondent is asked to indicate whether an item strongly, somewhat or not at all applies to him. The EAQ till then used a true / false answer format. Because EA is not a black and white phenomenon for most people, the intermediate category was added after consultation of the author of the original EAQ. Beforehand we expected that the following problems might occur.

*Item comprehensibility.* Six items are formulated as a negation (items 2, 4, 7, 9, 10 and 12), which might be problematic. Reversed items in general, and especially when a negation is used, may cause response errors (Van Sonderen et al. 2013; Bradburn et al. 2004). Some items (4, 10, 12, 15 and 23) are composed of two different parts, for instance item 10 “I am not anxious about death, because I am prepared for whatever it may bring”. This might make it problematic for respondents to choose a response.
Contextual validity. For some terms it was hard to find a correct translation; For instance condemned (item 6 and 9) and fate (item 2, 11 and 12). For a literal translation we had to choose words that are seldom used in daily language, and might be unknown to most respondents.

Other problems. The initial version has 29 items regarding fundamental negative experiences in life. Respondents might find it too burdensome to complete the test, and skip items, or speed through the end of the list without seriously considering the content.

Table 1
Initial version of the questionnaire: translated items of the EAQ and additional items

<table>
<thead>
<tr>
<th>Translated items of the EAQ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fate</strong></td>
</tr>
<tr>
<td>2R I am not anxious about fate because I am resigned to it. <em>Ik ben niet angstig voor het lot omdat ik me eraan overgeef.</em></td>
</tr>
<tr>
<td>11 I often think about fate and it causes me to feel anxious. <em>Ik denk vaak aan het noodlot en dat maakt me angstig.</em></td>
</tr>
<tr>
<td>12R I am not anxious about fate because I am sure things will work out. <em>Ik maak me geen zorgen over het lot, omdat ik er zeker van ben dat dingen goed komen.</em></td>
</tr>
<tr>
<td><strong>Death</strong></td>
</tr>
<tr>
<td>1 I often think about death and this causes me anxiety. <em>Ik denk vaak na over de dood en dit maakt me bang.</em></td>
</tr>
<tr>
<td>10R I am not anxious about death because I am prepared for whatever it may bring. <em>Ik ben niet bang voor de dood omdat ik voorbereid ben op wat het ook moge brengen.</em></td>
</tr>
<tr>
<td><strong>Guilt</strong></td>
</tr>
<tr>
<td>4R I am not worried about nor think about being guilty. <em>Ik ben niet bezorgd over en denk niet na over schuldig zijn.</em></td>
</tr>
<tr>
<td>5 I often feel anxious because of feelings of guilt. <em>Ik voel me vaak angstig vanwege schuldevoelens.</em></td>
</tr>
<tr>
<td><strong>Condemnation</strong></td>
</tr>
<tr>
<td>6 I often feel anxious because I feel condemned. <em>Ik voel me vaak angstig omdat ik me gedoemd voel.</em></td>
</tr>
<tr>
<td>9R I never feel anxious about being condemned. <em>Ik voel me nooit angstig over gedoemd zijn.</em></td>
</tr>
</tbody>
</table>
# Meaninglessness

<table>
<thead>
<tr>
<th>3</th>
<th>I often feel anxious because I am worried that life might have no meaning. <em>Ik voel me vaak angstig omdat ik me zorgen maak dat het leven misschien geen betekenis heeft.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>13R</td>
<td>I know that life has meaning. <em>Ik weet dat het leven betekenis heeft.</em></td>
</tr>
</tbody>
</table>

# Emptiness

<table>
<thead>
<tr>
<th>7R</th>
<th>I never think about emptiness. <em>Ik denk nooit over leegte na.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>I often think that the things that were once important in life are empty. <em>Ik denk vaak dat de dingen die ooit belangrijk waren in het leven leeg zijn.</em></td>
</tr>
</tbody>
</table>

# Additional domains based on the thinking of Yalom (1980) and Glas (2003)

## Identity

<table>
<thead>
<tr>
<th>14</th>
<th>Often things feel strange to me, as if I cannot make contact with it. <em>Vaak voelen de dingen voor mij vreemd aan, alsof ik er niet echt contact mee kan maken.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>I often loose contact with myself and this makes me anxious. <em>Ik verlies vaak het contact met mezelf en dat maakt me angstig.</em></td>
</tr>
<tr>
<td>16R</td>
<td>My experiences feel as a strong unity, as if everything is in accordance with everything. <em>Mijn ervaringen voelen als een sterke eenheid, alsof alles met elkaar klopt.</em></td>
</tr>
<tr>
<td>17</td>
<td>I sometimes have the feeling that I am living in a movie, and the things that surround me are not real. <em>Ik heb soms het gevoel dat ik in een film leef en de dingen om mij heen niet echt zijn.</em></td>
</tr>
</tbody>
</table>

## Addition to the domain death: Threat

<table>
<thead>
<tr>
<th>18</th>
<th>I experience the whole existence as threatening. <em>Ik ervaar het hele bestaan als dreigend.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>I have the feeling that every moment a disaster can happen to me. <em>Ik heb het gevoel dat mij elk moment een ramp kan overkomen.</em></td>
</tr>
<tr>
<td>20R</td>
<td>I feel at home in this World. <em>Ik voel me thuis in deze wereld.</em></td>
</tr>
<tr>
<td>21R</td>
<td>I am confident that I am able to handle the problems of life. <em>Ik vertrouw er op dat ik de problemen van het leven aan kan.</em></td>
</tr>
</tbody>
</table>

## Isolation

<table>
<thead>
<tr>
<th>22R</th>
<th>I feel strongly connected with other people. <em>Ik voel me sterk verbonden met andere mensen.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>I feel that I am a loner and that makes me anxious. <em>Ik voel me een eenling en dat maakt me angstig.</em></td>
</tr>
<tr>
<td>24</td>
<td>The awareness that other people will never know me at the deepest level frightens me. <em>Het besef dat anderen mij ten diepste nooit helemaal kennen beangstigt mij.</em></td>
</tr>
</tbody>
</table>
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Addition to the domain guilt: Doubt and being unable to choose

25R I feel part of a bigger whole. *Ik voel me onderdeel van een groter geheel.* R

26 It frightens me when I realize how many choice options there are. *Het beangstigt me als ik bedenk hoeveel keuzemogelijkheden er zijn.*

27R When I have made a choice I will not return to it. *Als ik een keuze heb gemaakt kom ik daar niet meer op terug.*

28 It frightens me that once choices are made they never can be turned back. *Het beangstigt me dat eenmaal gemaakte keuzes nooit kunnen worden teruggedraaid.*

29R I think that in life it often does not matter what one chooses. *Ik denk dat het in het leven vaak niet uitmaakt wat je kiest.*

4.2.2 Research design

Three Step Test Interviewing (TSTI) was used for method of data collection (Hak et al., 2004; Van Der Veer et al., 2003; Hak et al., 2006). TSTI is a hybrid form of cognitive interviewing, in which think-aloud and probing are combined. An iterative approach is recommended for cognitive interviewing procedures (Willis, 2005). This means that after a round of interviewing, results are analyzed and necessary accommodations are made to the instrument, followed by one or more additional rounds till results are satisfactory. The research project was approved by the ethical board of the faculty of behavioral sciences of the University of Twente, and, with regard to included patients, the medical ethical board of Ziekenhuisgroep Twente, Hengelo. Respondents received a small financial reward, and were informed at the start of the interview that they were free to stop their participation at any time. Afterwards they were debriefed, and the opportunity was given to make contact with the leading investigators. A total of 29 respondents participated in this study. In the first round of data collection 13 respondents were approached, five were outpatients diagnosed with a cardiovascular disease who were advised by their specialist to visit a hospital psychologist for reason of mild anxiety symptoms. The psychologist asked these patients to participate in our research project. A diagnosis of symptomatology, such as a DSM classification was not available, and the collection of additional information about their physical health status was not deemed relevant for this study. The other eight respondents were selected out of the general population, by inviting people from the personal networks of the interviewers, for example family members or friends. The last also applies for the second
and third round, each consisting of eight respondents. We intended to reach diversity in
gender, age and level of education.

Table 2
*General characteristics of the participants*

<table>
<thead>
<tr>
<th></th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A: Cardiac outpatients with anxiety complaints n=5</td>
<td>B: General population n=8</td>
<td>A: 4/1; B: 5/3</td>
<td>4/4</td>
</tr>
<tr>
<td>Gender male / female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age Mean (SD)</td>
<td>A: 63.00 (12.85) 44-79</td>
<td>B: 43.38 (17.96) 22-78</td>
<td>A: 37.75 (13.53) 25-64</td>
<td>33.00 (5.68) 26-42</td>
</tr>
<tr>
<td>Level of education(a)</td>
<td>1/2: Primary or below / Lower secondary</td>
<td>A: 1; B: 1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3/4: Upper secondary / Post-secondary non-tertiary</td>
<td>A: 3; B: 3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>5/6: Short cycle tertiary / Bachelor or equivalent</td>
<td>B: 2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>7: Master or equivalent</td>
<td>A: 1; B: 2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

\(a\) labels reflect highest completed level of education, and are based on ISCED 2011, using information retrieved from the website of the Dutch central department of statistics (cbs.nl).
Table 2 gives a summary of the characteristics of the respondents. We included more male than female subjects (n=18 versus n=11), included respondents with a lower level of education in each interview round, except in the second round, the lowest level then being upper secondary education / post-secondary non-tertiary education. The mean age of the respondents was 42.90 years (SD = 16.62). To decide how many subjects were necessary for this study, we relied on empirical saturation, i.e. we stopped with inclusion when we didn’t receive any additional information about the usability of the questionnaire. Because in the first round eight respondents from the general population were enough to reach saturation, we relied on this number for the two subsequent rounds.

4.2.3 Procedure

Four interviewers conducted the interviews, and received a short training in the interview technique with different role plays and feedback. The interview started with an explanation of the procedure and information about confidentiality. Our TSTI procedure consisted of the following steps;

-Step one. As a preparation for this step the respondent was given a short exercise in thinking aloud. When it was ascertained that the procedure was clear to the respondent, the questionnaire was administered with the instruction to answer the questions, while simultaneously saying aloud what one was thinking.

-Step two. After completion of the questionnaire, the interviewer asked any questions needed for completion of the data or checking information.

-Step three. a semi-structured interview was administered in which the respondent was asked to reflect on her responses, and questions were asked about her ideas about the conceptual framework in general, and to which extent the completion of the questionnaire was burdensome. We also offered respondents alternatives for some items, and asked to say which one was easier to answer.

The interviews were summarized per item. Parts of the interview that indicated problems with items were worked out verbatim. The first author listened to a selection of the audio tapes to check for validity. The first and third author discussed the results with the interviewers item by item to reach consensus about the interpretation. All problems with questions were scored, regardless their frequency. A differentiation was made between two categories of problems; Firstly, problems that result rather from the formulation of questions or answer format than the content of the items. These problems probably also could have
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appeared within another context. Secondly, problems having to do with the contextual validity, namely respondents being unfamiliar with certain concepts or attaching very different connotations to them.

4.3 Results

4.3.1 Overview over three rounds
Results of the three rounds of interviewing will be discussed subsequently. Each section concludes with a description of the accommodations that were made on the basis of this round. Some topics regard the process of completing the questionnaire in general, like the question how burdensome it is to answer the questions, and these results will be discussed at the end of the results section. The process of adaptation of the questionnaire is summarized in a flow chart (Figure 1), which can be found on the next page.

4.3.2 Results of the first round

Item comprehensibility. We expected that some items would cause problems, because of the use of negations. In reaction to these items, respondents indeed chose wrong responses. One respondent for example said in reaction to item two, “I am not anxious about fate because I am resigned to it”, that fate didn’t make him feel anxious, but gave as response that the item did not apply at all to him. Some of the negative items were even misunderstood by five of the 13 respondents. Selecting the wrong response was observed for all of the items in which a negation was used and one other item (Item 20; “I feel at home in this world”), which is also formulated opposite to the direction of the scale.

The double-barreled items also caused problems, but to a lesser extent. For example in reaction to item 1, “I often think about death and this causes me anxiety”, three respondents said it was difficult to choose the right response, because they would agree with the first, but not with the second part of the sentence.

Contextual validity. As was expected, respondents struggled with the items that had to do with condemnation and fate. Some even didn’t know the word condemnation, and others said they normally wouldn’t use it, and thought it was “epic” or “something that has to do with church or so.” As an alternative almost all respondents preferred “convicted” (veroordeeld), as resulted in the third step of the interview, but they interpreted this mainly as social exclusion, which is not the intention of the underlying construct.
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**First round**
Initial version of 29 items; 13 translated items of the EAQ and 16 additional items. Positive and negative items regarding feelings of existential anxiety.
Response format: applies strongly to me - applies somewhat to me - applies not at all to me.

**Sample:** A: Cardiac outpatients with anxiety complaints n=5. B: General population n=8.

**Problems:**
- Item comprehensibility (n=40\(^a\)): items using negations were misunderstood by several respondents and more or less double barred items showed to be problematic.
- Contextual validity (n=63\(^b\)): The content of different items appeared to be difficult to understand, namely items using fate, guilt, emptiness and condemnation.

\(^a\)First half (1-15) n= 35. Second half (16-29) n=5. \(^b\)First half (1-15): n=47. Second half (16-29): n=16.

**Improvements:** Panel discussion to formulate new items.

**Second round**
New version of 25 items; all items regard the frequency of feelings of anxiety, worrying or avoidance behavior in reaction to existential concerns.
Response format: never 1 2 3 4 5 often

**Sample:** General population n=8.

**Problems:**
- Item comprehensibility (n=36\(^c\)): The essence of the concepts procrastination and anxiety was unclear to some respondents. Also respondents found it difficult to differentiate between the answer choices, and problems occurred with items that were still more or less double barred.
- Contextual validity (n=4): Item 21 and item 9, that was three times labeled as unclear, were problematic for respondents, because they didn’t recognize the intended experience.

\(^c\)First half (1-13): n=17 Second half (14-25): n=19.

**Improvements:** Extension of introduction and adding a textual label to each answer choice. Textual changes to items 4, 8, 9, 20 and 21.

**Third round**
25 items; same items as in second round, except textual changes, with extended introduction.
Response format: never - seldom - sometimes – often – always

**Sample:** General population n=8.

**Problems:**
- Item comprehensibility (n=2): There appeared one typographical error and one respondent took item 21 very literal.
- Contextual validity (n=10): The content of the items 9 (n=7) and 11, 15 and 18 showed to be still difficult to understand.

**Improvements:** Correction of typographical error and textual changes to items 9, 11, 13 and 21.

Figure 1 Flow chart of changes made in different rounds of interviewing
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Other items also turned out to be hard to interpret for respondents. They reported for example problems with emptiness (leegte) that was deemed vague. Also item 14 “Often things feel strange to me, as if I cannot make contact with it” was problematic, as respondents wondered what was mentioned by “things”. Finally, some respondents had problems with item 4 “I am not worried about nor think about being guilty.” They did not know where they should be guilty of, and one respondent thought this matter would only appeal to people who had a religious upbringing. Item 1 “I often think about death and this causes me anxiety” also showed to be not clear enough. Two respondents asked whether death referred also to a possible death of their relatives, and said this caused them anxiety, as opposed to thoughts about their own death, which didn’t provoke anxiety.

Other results. Remarkable was that respondents gave four times more feedback to the first half of the questionnaire. One possible explanation is that the items of the second half were newly developed by the authors, and for this reason were perhaps easier to comprehend for a Dutch population than the items that were translated from the original EAQ. A second explanation is however that respondents during the test taking became more able in the interpretation of the items, or that they got less motivated to comment on items problems, perhaps due to fatigue. The respondents with anxiety symptoms showed no specific problems, nor found it more burdensome than the respondents from the general population to complete the questionnaire.

Development of new version. The conclusion of this first round was that the initial version of the instrument showed serious shortcomings. These problems may have resulted from the formulation of the original EAQ, which seems very literally adopted from the existential literature. They also resulted from the use of negative and double-barreled items. For this reason, we decided to develop a new version of the instrument, using the results of the first round of pretesting. We decided that it was important to make the instrument more unequivocal to make it easier for respondents to answer the questions, and we chose to formulate all items in one direction. As a starting point, 60 items were formulated based on the five domains that are described in the introduction section, which also included the items of the first version that showed no serious problems in the first round of pretesting. These items were independently ranked by the authors of the paper that is presented in chapter 5 with regard to the question to which extend they matched the theoretical domains. We used the items with the highest rankings to compose a new version of the questionnaire, that we subjected to another discussion round between the authors of this paper, resulting in the selection of four items for each of the five domains of our conceptual model. As described in
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our introduction section, the first domain, EA as a result of the confrontation with death, covers at least two different aspects. To do justice to the composed character of this domain, we developed two sets of items for this domain. We also formulated a fifth item for the domain Identity, because of its complexity. This resulted in a scale with a total of 25 items, that is shown in Table 3. For each of the domains at least two items were formulated regarding feelings of anxiety, one for avoidance and one for worrying, as these three can be seen as important aspects of anxiety reactions (Glas, 2013). The respondent is asked to mark on a five point scale how often he in general has such experiences, between never and often. We chose to ask for the frequency of emotional experiences, instead of whether someone did or did not agree with an item, because for other instruments it showed that it is easier for respondents to report frequency (Diener et al., 1991), and that measures of frequency show a stronger relationship with wellbeing (Chamberlain, 1988). As mentioned above, respondents gave less feedback to the second half of the questionnaire, possibly due to method effects. To exclude this possibility, we decided to use two formats of the questionnaire in the next TSTI round, one of them displaying the second half of the questionnaire first and the other displaying the original order.
**Final version of the ECQ and items that were pretested in the second and third round of interviewing**

<table>
<thead>
<tr>
<th>Final version</th>
<th>Former versions of questions, as were used in the second round (SR) and / or third (TR) round of cognitive interviewing.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Death</strong></td>
<td>Answer format: <em>never - seldom – sometimes – often – always</em></td>
</tr>
</tbody>
</table>
| **6**         | It frightens me that at some time I will be dead.  
**Het beangstigt me dat ik ooit dood zal zijn.**                        |
| **12**        | It makes me anxious that my life is passing by.  
**Het maakt me bang dat mijn leven voorbij gaat.**                      |
| **18**        | I try to oppress the thought that life is finite.  
**Ik probeer de gedachte te onderdrukken dat het leven eindig is.** |
| **24**        | I worry about having to let go everything at the moment of my dead.  
**Ik pieker er over dat ik bij mijn dood alles moet loslaten.**       |

**Threat**
5 Existence feels threatening to me, as if at any moment something terrible can happen to me.

*Het bestaan voelt voor mij dreigend, alsof mij elk moment iets ergs kan overkomen.*

11 I avoid thoughts about the dangers of life.

*Ik vermijd gedachten over de gevaren van de wereld.*

17 I worry that, out of the blue, something terrible may happen to me.

*Ik pieker er over dat mij zomaar iets vreselijks kan overkomen.*

23 I become anxious when I realize how vulnerable my body is for the dangers of life.

*Ik word angstig als ik bedenk hoe kwetsbaar mijn lichaam is voor de gevaren van het leven.*

### Meaninglessness

1 The question whether life has meaning makes me anxious.

*De vraag of het leven zin heeft maakt me bang.*

7 I worry about the meaning of life.

*Ik pieker over de zin van het leven.*

13 When the question enters my mind whether life has meaning, I try to think quickly about something else.

*Als de vraag bij mij opkomt of het leven zin heeft, probeer ik snel aan iets anders te denken.*

13 SR + TR: I try to think quickly of something else, when the question enters my mind whether life has meaning.

*Ik probeer snel aan iets anders te denken als de vraag bij mij opkomt of het leven zin heeft.*
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<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Dutch</th>
<th>SR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>It frightens me that things that were once important to me, seem meaningless retrospectively.</td>
<td>Het beangstigt me dat dingen die ooit belangrijk voor mij waren achteraf zinloos lijken.</td>
<td></td>
</tr>
<tr>
<td>19 SR:</td>
<td></td>
<td>Ik probeer te vergeten dat al mijn keuzes gevolgen hebben.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>I am afraid that I do not get out of life what is in it.</td>
<td>Ik ben bang dat ik niet uit het leven haal wat er in zit.</td>
<td></td>
</tr>
<tr>
<td>20 SR:</td>
<td></td>
<td>Ik ben bang dat ik spijt krijg omdat ik niet uit het leven haal wat er in zit.</td>
<td></td>
</tr>
</tbody>
</table>

**Guilt**

2 It frightens me when I realize how many choices life offers.

*Het beangstigt me als ik bedenk hoeveel keuzemogelijkheden het leven biedt.*

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Dutch</th>
<th>SR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>I try to forget that all my choices have consequences.</td>
<td><em>Ik probeer te vergeten dat al mijn keuzes gevolgen hebben.</em></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>I worry about not living the life that I could live.</td>
<td><em>Ik pieker er over dat ik niet het leven leef dat ik zou kunnen leven.</em></td>
<td></td>
</tr>
</tbody>
</table>

**Isolation**

4 I avoid thoughts about loneliness.

*Ik vermijd gedachten over eenzaamheid.*

<table>
<thead>
<tr>
<th></th>
<th>Item</th>
<th>Dutch</th>
<th>SR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>I struggle with the feeling that in the end I am on my own in life.</td>
<td></td>
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16 The awareness that other people will never know me at the deepest level frightens me.

22 I have the anxious feeling that there is a gap between me and other people.

Identity

3 I worry about not being at home in the world, as if I am misplaced.

9 I get anxious as a result of losing contact with myself.

15 I have the frightening feeling that I am living in a movie and that my surroundings are not real.

9 SR: I get anxious as a result of losing contact with myself.

TR: When I am loosing contact with myself, I get anxious.

21 SR: Doubts about who I am at the deepest level, do I try to avoid.

TR: I try to avoid the question who I really am.
21 I try to avoid the question of who I really am.

*De vraag wie ik nu echt ben, probeer ik te vermijden.*

25 I am afraid that I will never know myself at the deepest level.

*Ik ben bang dat ik mezelf ten diepste nooit echt zal kennen.*
4.3.3 Results of the second round

**Item comprehensibility.** In general the revised version of our questionnaire proved to be clearer for the respondents than the former version. The flow chart in Figure 1 shows that the total number of problems decreased, also when taking into account that we used a smaller sample of respondents than in the first round. Nevertheless some items were still problematic. Several respondents struggled with the concept ‘worrying’, because they recognized the topic that was central to the item, and said they sometimes thought about it, but were not certain whether ‘worrying’ had the same meaning as ‘merely thinking about a topic’. Most of these respondents chose a mid-category as a compromise, although it seemed that they didn’t recognize the experience of worrying as intended in the questionnaire. The same applied to a lesser extend to items in which anxiety was used. Some respondents also had difficulty with the word order of items, namely with items 4, 11 and 21.

Furthermore it turned out that items in which the formulations “trying to forget” and “avoiding certain thoughts” were used, were difficult to understand. There also appeared a problem with the answer categories. Only both ends of the five point scale were labelled. Some respondents said they found it unclear what the different numbers of the scale meant, what was most profoundly observed for respondents with a lower level of education. Some labelled a 3 as sometimes, while others thought it meant regularly. Some respondents marked a 2 or 3, while at the same time saying that they didn’t have the intended experience.

**Contextual validity.** Respondents labelled parts of some items as vague or difficult to interpret, namely the word “at the deepest level” (ten diepste) (item 16 and 21) and “choices” (keuzemogelijkheden) (item 2). One of the respondents said she didn’t know what kind of choices she should think of. Most problematic was the content of item 9, since a majority of the respondents said they didn’t know what it meant to lose contact with yourself.

Items regarding physical danger, part of first domain, were broader interpreted than was expected. Most respondents thought firstly of health related threats, and not about natural or industrial disasters, but this doesn’t seem to be in opposition with the intention of the construct, namely the feeling that the world is an unsafe place.

**Other results.** Respondents gave relatively less feedback in comparison with the first round, but the feedback they gave was evenly distributed over the total questionnaire, and we concluded for this reason that the imbalance in feedback in the first round was not caused by method effects.
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Development of new version. The above mentioned lack of clarity of concepts such as worrying and anxiety, could not be resolved by using synonyms, or giving an explanation of these words each time they were used, because this would probably be an annoyance to most respondents. For this reason we chose to extend our introduction to the test, and to give two example items as preparation for the test taking. Items 4, 8, 9, 20 and 21 were reformulated by changing the word order, or choosing synonyms, with the intention to clarify the content. We considered alternative versions for items 2 and 16, but these deviated too much from the intended concept, and we decided to test these items again in the next round, because we expected that the general improvements that we made to the questionnaire, namely the extension of the introduction and clarifying the answer format, would also be supportive of answering these questions.

4.3.4 Results of the third round

Item comprehensibility. The answer categories and the formulation of almost all items showed to be clear enough in this round. Respondents found it easy to choose the right answer category. The new introduction proved to be helpful, since some respondents explicitly referred to it during the process of test taking. All respondents reported in the third step that they were positive about our new introduction and the two example items, and said these had helped them to understand what was expected. Most respondents thought that one example item would be sufficient, and some found the second example somewhat annoying.

Contextual validity. Only one item turned out to be unclear to the respondents; item 9 “When I lose contact with myself, I get anxious” made several respondents wonder what it was to lose contact with yourself. Some respondents said they never had such an experience, and others that they found it hard to imagine how this would be.

Development of new version. Small changes were made to word order in items 9, 11, 13 and 21.

4.3.5 Results regarding all three rounds of interviewing

An important question is how burdensome it would be to answer questions that have a profound and negative content. We asked respondents to indicate on a ten point scale to which extend they experienced filling in this questionnaire as burdensome. A total of 26 of our 29 respondents gave scores between zero and four points, implying that it was not or only
a little burdensome. One respondent chose a six, and two others chose a seven, implying moderate to large burden, but one of them literally said at the same time that he didn’t find it burdensome to complete the questionnaire. One other respondent explicitly said she found completing the questionnaire burdensome, but when she elaborated on this experience she seemed to mean that it was a cognitive burden to her – i.e. cognitively difficult to understand the formulations - and not emotional. Two other respondents said that the questionnaire made them aware of issues they normally didn’t think about. Two respondents showed a mild emotional reaction to the questionnaire, and one of them said that it would be wise to offer some form of personal assistance to respondents. One respondent said he even liked to complete the questionnaire, and one other respondent thought the items were fascinating; “I experienced fascination about the things that people apparently might be afraid of, otherwise these questions wouldn’t exist.” None of the respondents made use of the possibility to communicate with the research leader.

4.4 Discussion

The 25 items of the ECQ are intended as a broad measure of EA, and are based on an existing measure that was recently developed in the USA. In three subsequent rounds respondents gave feedback to items in a questionnaire and, after adaptations were made, a new version was tested in a following round of interviews. We started with a directly translated version of the EAQ (Weems et al., 2004) and an additional set of new items, but decided to make far reaching changes after the first round.

Firstly, most problematic in the initial version were items that were formulated opposite to the direction of the scale, especially when a negation was used. A substantial part of our respondents misunderstood these items, and gave other responses than they intended. This raises questions about the validity of previous studies in which the EAQ was used. However we decided to make some changes to the translated EAQ before pretesting. Most importantly, we changed the response format from a simple true / false, to does not / does strongly apply to me, and added does somewhat apply to me as a mid-category. So it is not certain that the problems we discovered also apply to the original EAQ, although the problematic character of the use negations in questionnaires was recognized before (Van Sonderen et al., 2013).

Secondly, some items of the EAQ, and also some items of our final scale, are more or less double-barreled. That is, respondents are asked to indicate whether they have a certain
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experience, and at the same time to which extent this experience evokes anxiety. We think this problem relates to the concept of EA in general. As we stated elsewhere, some existential givens can be seen as factual givens that can be observed by everyone, like the finiteness of life, but others are more like a personal opinion, for example the question whether life is meaningful or not (Van Bruggen et al., 2015). As an alternative we considered to develop a questionnaire with two answer options: a respondent would first indicate whether he or she recognizes a certain given of existence, and would second rate to which extent this experience makes him or her feel anxious. A disadvantage is that the interpretation of these two scores will be more difficult, and that respondents have to answer all questions twice, which will make the completion of the questionnaire more time-consuming. Especially for the use in clinical practice and intervention studies, this may be a disadvantage.

Thirdly, TSTI also provides insight in the contextual validity of items. Since the questionnaire we started with was developed in the United States, we expected that some items would not provoke the intended associations in a Dutch population. Experiencing EA might for example be related to religious beliefs, as was shown for death anxiety (Neimeyer et al., 2004). Many individuals in Europe seem to feel less connected with traditional religions than in the USA (Geertz and Markússon, 2010), which might result in other interpretations and associations. We found indeed that the content of some items was problematic, especially regarding condemnation, fate and guilt. The condemnation and fate items were deleted from the questionnaire, because we didn’t find good equivalents. With regard to guilt, respondents said they didn’t see themselves as guilty of something, and associated this concept with the church, and thought it was outdated. To diminish the risk of including a concept that most respondents would find hard to interpret, we chose a more articulated definition of guilt in our new version of the questionnaire, namely not fulfilling life’s potentials. In former research projects guilt also showed to be a complex and multi-faceted construct (Caprara et al., 2001).

Although we paid thorough attention to the development of new items before they were pretested, a point of criticism might be that we could have chosen a more systematic procedure for this step in our research project, for example using a Delphi method with a panel of independent experts. The reason that we had to change our strategy after the first round of interviewing, was that the our version of our questionnaire showed more serious problems than we had expected. Although our sample size does resemble other TSTI studies, relying on such a small sample has been criticized by Blair and Conrad (2011). In defense of our relying on a small sample size can be said, that we focused on problems that warranted
question revision, and tried to generalize problems that were found for one item to the total questionnaire. Also the total number of problems strongly decreased over the three rounds of interviewing. We succeeded in including respondents with a lower level of education. Most respondent however had a higher level of education, which might have resulted in a too optimistic impression of the comprehensibility of our questionnaire.

In conclusion, we developed the ECQ as a new instrument measuring EA as a broad phenomenon. TSTI proved to be a valuable aid in finding problems with an initial version, and improving the wordings of the questionnaire.

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