SQP Coding Instructions

2017

Preface

SQP was developed to predict the measurement [quality](#) (i.e. reliability times validity) of survey questions. The quality prediction of survey questions is relevant information because it can be used to: 1) make decisions about the right formulation of questions before the data is collected; 2) to correct for measurement errors the relationships between variables; and 3) for comparing the results of cross-national research.

To predict of the quality of a survey question, SQP uses the information coming from its characteristics, such as its topic, its formulation, its visual design and its mode of administration. The prediction can be obtained by relating these characteristics to the quality of survey questions.

In this line, Saris and colleagues collected the data about the quality of thousands of survey questions that had been administrated as part of different Multitrait-Multimethod (MTMM) experiments since 1980. This data is summarized in Saris and Gallhofer (2014). On the one hand, the estimates of the [reliability and validity](#) of all these survey questions were obtained through the analysis of the MTMM experiments. On the other hand, the characteristics of these survey questions were coded following a detailed coding scheme.

With the collection of these two pieces of information, the authors studied the impact of the questions' characteristics on their quality. However, even if a lot of information had been collected, these would never be enough to provide questionnaire design suggestions that apply to all types of survey questions. Therefore, the software Survey Quality Predictor (SQP) was developed to predict the quality of new survey questions based on the relationships between the questions' design characteristics and their qualities of thousands of experimental questions.

Sequentially, several softwares have been developed: In 2001, the first SQP was developed in Dos (Saris, 2001), based on the information from 87 MTMM experiments conducted in three languages: English, German and Dutch. This software was transformed in 2005 into a Windows version: SQP 1.0 (Saris, Oberski, & Kuipers, 2004). Since the foundation of the European Social Survey ([ESS](#)) in 2001, in each round MTMM experiments were conducted. Based on these new experiments in many different languages, a new version of SQP was developed in 2011 (Saris et al., 2011). This is the software that is currently available online for everybody free of charge. Thus, SQP currently allows predictions of the quality of questions to be made in over 20 European languages.
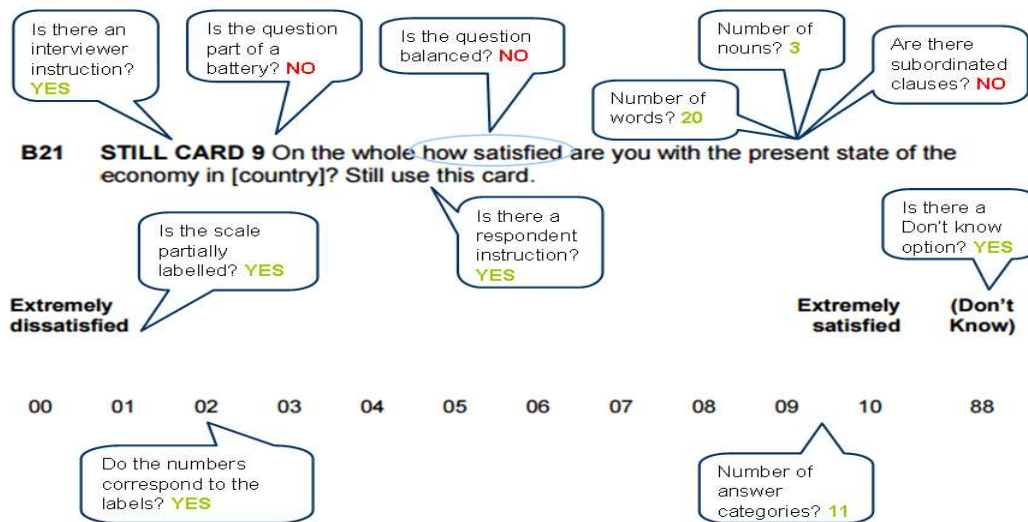
Thus, SQP users can obtain a prediction of the quality of many survey questions by introducing the question into the database and coding its 29 to 60 different characteristics. A guideline on how to code each of these characteristic is provided in this document.

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Introduction to SQP coding

SQP allows predictions to be obtained regarding the measurement quality of survey questions. To obtain the quality prediction of a survey question, users should code its characteristics using the SQP coding scheme. A survey question in SQP may consist at least of a request for an answer[1]. In addition, an introduction and answer options can be used.

First, introductions are often used to indicate the respondent the topic of the question (or set of related questions). Second, requests for an answer provide a sentence (or sentences) that imply the respondent to give an answer. Third, answer options, whatever the form, present the respondent with a set of possible answers. For example:

[Request for an answer]:	Do you think that honesty is important?
[Answer options]:	1. Yes
	2. No

[Introduction]:	Next, I am going to ask you about politics.
[Request for an answer]:	What party are you going to vote for?
[Answer options]:	1. Social democrats
	2. Republicans

[Request for an answer]:

Please, indicate to what extent you agree or disagree with the following: a) Homosexuals should be given the same rights as heterosexuals

[Answer options]:	1. Agree completely
	2. Agree
	3. Disagree
	4. Disagree completely

The primary aim of a request for an answer is to require the respondent for an evaluation, opinion or judgment (the 'Concept') about an object (the 'Domain'). For example:

There can be so many different types of evaluations, opinions and judgments on many different types objects, that they have been classified in different types of concepts and domains, respectively (Saris & Gallhofer, 2007).

Moreover, a survey question can be designed in many ways. For example, Figure 1 illustrates some of the multiple decisions one should make when designing a survey question.

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[1] A sentence is defined as a group of words that, when written down, begins with a capital letter and ends with a full stop, a question mark, or an exclamation mark. […] a sentence can also be classified according to its linguistic meaning where a distinction is made between declarative sentences or assertions, interrogative sentences or requests, imperative sentences or orders, and exclamations. […] the first three linguistic forms of sentences are used to elicit answers from a respondent, and not only in the interrogative form. Therefore, we speak of "requests for answers" and not of questions. The fourth form is not used in survey research (Saris & Gallhofer, 2007).

Figure 1: Set of decisions taken when designing a survey question

These Coding Instructions, will guide users through all the characteristics that should be coded for a survey question in SQP. To provide a useful hands-on guideline, this document includes links to follow the actual SQP coding scheme routing paths. Next, the characteristics and their coding options are presented and explained.

The SQP characteristics

1. DOMAIN

The 'Domain' is the first characteristic to code in SQP. It refers to the general subject of the question, the topic of what is being asked. After selecting a general category for the domain, a more specific domain should be specified. The following classification was proposed by Saris and Gallhofer (2014). Even if an option seems reasonable for the domain of the question, there may be a better one under another heading. The domains proposed are:

o   National Politics: e.g. Political interest, Willingness to join in political actions, Left-right placement, Support of democracy, etc. → Continue in 1.1 National politics

o   European Union politics: e.g. European institutions, European laws, European norms, European prominent persons, etc. → Continue in 1.2 European Union politics

o   International politics: e.g. International institutions, International laws, International norms, International conflicts/ wars, etc. → Continue in 1.3 International politics

o   Family: e.g. Marriage, Children, Unconditional love, Role of women, Transmission of values, etc. → Continue in 1.4 Family

o   Personal relations: e.g. Social networks, Confidence in others, Solidarity, Tolerance, Permissiveness, etc. → Continue in 1.5 Personal relations

o   Work: e.g. Importance, Work qualities, Job satisfaction, Work ethos, Obedience to one's superiors, etc. → Continue in 1.6 Work

o   Consumer behaviour: e.g. Consumer habits, Household expenses, Brand satisfaction, etc. → Continue in 1.7 Consumer behaviour

o   Leisure activities: e.g. Hobbies, Relaxation time, Cultural activities, Holidays, etc. → Continue in 1.8 Leisure activities

o   Health: e.g. Doctor's treatment, Health condition, Use of medicines/ drugs, etc. → Continue in 1.9 Health

o   Living conditions and background variables: e.g. Age, Marital status, Nationality, Income, Gender, Education, etc. → Continue in 1.10 Living conditions and background variables

o   Other beliefs: e.g. Happiness, Religion, Philosophy, Norms, etc. → Continue in 1.11 Other beliefs

1.1. Domain: National Politics

Indicate the specific subject concerning 'National politics' of the question being coded.

o   <u>National government</u>

o   <u>Local government</u>

o   <u>National institutions (ministries, parliament, etc.)</u>

o   <u>Local institutions</u>

o   <u>Political parties</u>

o   <u>Elections</u>

o   <u>Trade unions and employee organizations</u>

o   <u>Employer's organisations</u>

o   <u>Pressure groups</u>

o   <u>National issues</u>

o   <u>Legal matters</u>

o   <u>Economic/ financial matters</u>

o   <u>Defence matters</u>

o   <u>Environmental matters</u>

o   <u>Technological matters</u>

o   <u>Traffic matters</u>

o   <u>Agricultural matters</u>

o   <u>Educational matters</u>

o   <u>Prominent persons (ministers, members of parliament, etc.)</u>

→ Continue in <u>2. Concept</u>

1.2. Domain: European Union Politics

Indicate the specific subject concerning 'European politics' of the question being coded.

- o European Community government
- o European Community institutions
- o European Community issues
- o Political parties
- o Elections
- o Trade unions and employee organisations
- o Employer's organisations
- o Pressure groups
- o Legal matters
- o Economic/ financial matters
- o Defence matters
- o Social matters
- o Environmental matters
- o Technological matters
- o Traffic matters
- o Agricultural matters
- o Educational matters
- o Prominent persons
- o Other

→ Continue in

1.3. Domain: International Politics

Indicate the specific subject concerning 'International politics' of the question being coded.

- o Relations with other European countries (non EC members)
- o Relations with United States/ Canada
- o Relations with Latin America
- o Relations with Asian countries
- o Relations with African countries
- o Relations with United Nations
- o Other international institutions
- o Prominent persons
- o Other

→ Continue in

1.4. Domain: Family

Indicate the specific subject concerning 'Family' of the question being coded.

- o Size/ Composition
- o Relations to members
- o Relations to relatives
- o Household matters
- o Sexual relations
- o Personal life history (childhood, adults, retirement)
- o Personal time budget
- o Accidents
- o Other

→ Continue in 2. Concept

1.5. Domain: Personal relations

Indicate the specific subject concerning 'Personal relations' of the question being coded.

- o Friends
- o Neighbours
- o Workplace
- o Norms of other people
- o Membership of organisations
- o Religion/ Philosophy
- o Other

→ Continue in 2. Concept

1.6. Domain: Work

Indicate the specific subject concerning 'Work' of the question being coded.

- o Place of work
- o Kind of work
- o Working hours
- o Size of the company
- o Occupation
- o Prospects/Career
- o Further education
- o Change in occupation
- o Business conditions
- o Other

→ Continue in 2. Concept

1.7. Domain: Consumer Behaviour

Indicate the specific subject concerning 'Consumer behaviour' of the question being coded.

- o   Kind of housing
- o   Housing expenditures
- o   Housing conditions (furniture, heating, garden, etc.)
- o   Durables (car, tv, computer, etc.)
- o   Food and nutrition expenditures (not in restaurant)
- o   Tobacco, liquor
- o   Clothing
- o   Preferences for shops, brands
- o   Preferences for payment
- o   Household budgeting
- o   Consumer organisations
- o   Saving and investment of money
- o   Loans, mortgages
- o   Banks
- o   Insurances
- o   Other

→ Continue in

1.8. Domain: Leisure activities

Indicate the specific subject concerning 'Leisure activities' of the question being coded.

- o   Cultural activities (theatre, concert, exhibitions, etc.)
- o   Sports
- o   Do-it-yourself
- o   Gambling
- o   Restaurants/ bars
- o   Holidays/ travel
- o   Newspapers/ periodicals
- o   Radio
- o   Television
- o   Internet
- o   Other activities

→ Continue in

1.9. Domain: Health

Indicate the specific subject concerning 'Health' of the question being coded.

- o   Personal physical health condition
- o   Personal mental health condition
- o   Physical illnesses
- o   Mental illnesses
- o   Disabilities
- o   Use of medicine
- o   Use of drugs
- o   Medical institutions and hospitals
- o   Doctor's treatment
- o   Other

→ Continue in 2. Concept

1.10. Domain: Living Conditions and Background Variables

Indicate the specific subject concerning 'Living conditions and background variables' of the question being coded.

- o   Age
- o   Sex
- o   Marital status
- o   Place of birth
- o   Place of residence
- o   Nationality
- o   Ethnicity
- o   Income
- o   Education (schools, degrees, courses)
- o   Religion
- o   Other

→ Continue in 2. Concept

1.11. Domain: Other Beliefs

Indicate the specific subject concerning 'Other beliefs' of the question being coded.

- o <u>Religion</u>
- o <u>Philosophy</u>
- o <u>Sexuality</u>
- o <u>Race</u>
- o <u>Norms</u>
- o <u>Life in general</u>
- o <u>Happiness</u>
- o <u>Yourself</u>
- o <u>Other</u>

→ Continue in <u>2. Concept</u>

2. CONCEPT

In addition to the 'Domain', a request for an answer is characterized by a 'Concept', i.e. what the researcher really wants to know about a subject or domain. However, there are so many concepts used in survey research that Saris and Gallhofer (2007) made a classification in basic concepts. Based on this classification, only some basic concepts are mentioned on the first screen, while the others can be found on the follow-up screens under the options 'All other simple concepts' and 'Complex concepts'. Below, the first screen options are described.

o <u>Evaluative belief:</u> is a concept that seek to obtain an evaluation of the respondent's belief on someone or something, without explicitly using evaluative words such as good/bad, positive/negative, etc. For evaluative beliefs, the evaluation is implicitly suggested in the positive or negative connotation of some words. For example:

"Illegal stone mining has caused irreparable **damage** to the 20th century"

"The budget reform has led to **prosperity** in the United States"

"The war **destroyed** a lot of buildings"

"Immigrants **steal** jobs"

Words expressing an evaluative connotation have been emphasized in each of the above assertions. Typical words expressing evaluative beliefs are: abandoned, diminished, embrace, enrich, harm, success, etc.

→ Continue in <u>3. Social Desirability</u>

o <u>Feelings</u>: is a concept referring to affective evaluations or feelings on someone or something. Assertions expressing feelings can have three basic forms, examples of which are:

"My job is **enjoyable**"

"I **like** my job"

"Politicians make me **angry**"

Words expressing a feeling have been emphasized in each of the assertions above. Typical words expressing feelings are: fear, disgust, anger, satisfaction, surprise, shame, hope, desire, happiness, etc.

→ Continue in <u>3. Social Desirability</u>

o   <u>Importance of something:</u> is a concept which usually include an expression of 'importance'. For example:

"My work is **important**"

"Honesty is very **important** to me"

Words expressing the importance of something have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Expectation of future events:</u> is a concept referring to beliefs regarding what will happen in the future. For example:

"I **am going to** get a new job?"

"NATO **will** leave Afghanistan"

Verbs expressing a future event or action have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Facts, background or behaviour:</u> is a concept referring to objective variables, variables for which information could also be obtained from a source other than the respondent. For instance, age can be obtained from birth records, medical history from hospitals, etc.

Facts are sometimes asked to test the knowledge of the respondent. For example:

"Who was the 35th President of the United States?"

Demographic or background questions are objective variables such as: educational level, age, gender, income, household composition, marital status, etc. For example:

"How old were you when you completed your full-time education?"

Finally, behaviour refers to present or past actions or activities of the respondent. For example:

"How many hours a week do you usually spend watching television?"

→ Continue in 3. Social Desirability

o   <u>All other simple concepts</u>: are concepts that provide the possibility to select among other, equally important, simple concepts used in survey research. These are: judgements, relationships, evaluations, preferences, policies, rights, and action tendencies. By clicking on this option, a detailed description of each will be provided in the next help screen.

→ Continue in 2.1 All other simple concepts

o   <u>Complex concepts:</u> are combinations of two or more simple concepts of the above. Therefore, this option should be used to indicate when the request does not only use a simple concept but rather when it uses a combination of them. The following different types of complex concepts are proposed: Importance of a judgement, certainty of a judgement and others (e.g. agreement with a policy, an opinion, etc.).

→ Continue in 2.2 Complex concepts

2.1. All other simple concepts

Below, the other simple concept options are described.

o   <u>Judgement</u>: is a concept which remarks about someone or something but not in positive or negative terms. For example:

"Do you have a **large** family?"

"To what extent are you **able** to participate in politics?"

Word expressing a judgement have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Relationship</u>: is a concept which relates two people or things. For example:

"Is x the **cause** of y?"

"Are x and y **similar**?"

"Are you strongly **attached** to the Conservative party?"

"Were new laws the **cause** of the change in the position of black people?"

Words expressing the relationship between two objects have been emphasized in each of the assertions above.

→ Continue in 3. Social Desirability

o   <u>Evaluation</u>: is a concept which can easily be identified by evaluative words such as good/bad, positive/negative, perfect/imperfect, superior/inferior, useful/useless, etc. For example:

"Was Clinton a **good** president?"

"Was their work **perfect**?"

Words expressing an evaluation have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Preference</u>: is a concept frequently used in consumer research, election studies and in studies of policies where items are compared from the most to the least preferred. For example:

"How do you **like** to spend your free time?"

"Are you **in favour** of a directly elected President?"

Words expressing a preference have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Norm</u>: is a concept related to actions regarded by a set of persons to be proper or correct (Coleman, 1990). An assertion expressing a norm often contains the words 'should' or 'have to'. For example:

"**Should** a woman be prepared to cut down on her paid work for the sake of the family?"

"Do you **have to** check in at work?"

Words expressing a norm have been emphasized in both assertions above.

→ Continue in 3. Social Desirability

o   <u>Policy:</u> is a concept referring to norms about what the government or people in power should do. Words such as 'should' or 'have to' are used. For example:

"**Should** the **government** not allow more immigrants?"

"**Has** the **government** to resign?"

Words expressing a policy have been emphasized in both assertions above.

→ Continue in <u>3. Social Desirability</u>

o   <u>Right:</u> is a concept which express permission. Uses words such as 'accepted', 'allowed', or 'justified'. For example:

"Is abortion **permitted**?"

"Have immigrants the **right** to social security?"

Words expressing a right have been emphasized in both assertions above.

→ Continue in <u>3. Social Desirability</u>

o   <u>Action tendency:</u> is a concept which refer to what someone intends to do in the future. For example:

"Are you **going** to the doctor?"

"**Will** you **do** your homework soon?"

Words expressing an action tendency have been emphasized in both assertions above.

→ Continue in <u>3. Social Desirability</u>

2.2. Complex concepts

Below, the complex concept options are described.

o   <u>Importance of a judgement:</u> combines the concepts 'Importance of something' and 'Judgement'. For example:

"How **important** is it that basketball players are **tall**?"

"How **important** is it that people are **honest** with you?"

Words expressing importance and judgement have been emphasized in the assertions above.

o   <u>Certainty of a judgement:</u> combines the concepts 'Certainty' and 'Judgement'. For example:

"How **certain** are you that you are **able** to participate in politics?"

"How **certain** are you that politicians are often **honest** with their voters"

Words expressing certainty and judgement have been emphasized in the assertions above.

o   <u>Other:</u> includes other combinations of concepts which are also possible. For example:

"To what extent are you in **favour** of abortion being **permitted**?"

Words expressing a 'Preference' of a 'Right' have been emphasized in the assertion above.

"Do you **prefer** the Social Democratic Party **above** the Christian Democratic Party?"

Words expressing a 'Preference' of a 'Relationship' have been emphasized in the assertion are above.

"To what extent do you **agree or disagree** with the following assertion: I love learning new things"

Words expressing 'Agreement' of a 'Preference' have been emphasized in the assertion above. Agreements can be combined with any simple concept.

3. SOCIAL DESIRABILITY

Socially desirable responses can occur when the respondent thinks that some response categories are more approved of by society than others. Topics where this can occur are: voting behaviour, behaviour related to addiction, crimes, illnesses, racism, sexual behaviour, charity, physical violence, financial matters, being a well-informed and cultivated person, religion, etc. The choice of the category should be based on the specific population under study, and cultural and time references must be considered.

o   Not present: refers to topics where there are no answers seen as more desirable than others. For example: "Do you prefer apples or oranges?", "Have you been to the cinema in the last week?", "How many members are there in your family?", etc.

o   A bit: refers to all personal topics related to a low level of social desirability, although it depends on the cultural and intellectual background of the respondents. Possibly, the social desirability of these requests will be detected by some respondents but not for others. For example: personal income and earnings -some respondents will to some degree tend to raise or lower the true amount-, illnesses, charity, financial matters, being a well-informed and cultivated person, evaluating the performance of the government or other institutions, persons or objects, etc.

o   A lot: refers to not commonly asked topics because of their high degree of social desirability. Most of the respondents feel exposed by such types of questions. For example: racism, physical violence, religion (depending on the cultural background), voting behaviour (depending on the political situation of the country), crimes, sexual relationships, drugs, etc.

4. CENTRALITY

Some topics are more central in the mind of the respondents than others. The choice of the category should be based on the respondents' characteristics, and it should be considered whether the topic is central or not in the mind of the survey respondents, in general.

o   Not at all central/ salient: is a topic with which respondents are rarely familiar. The requests for an answer require a judgement about something or someone not directly related to the respondent. For example:

"Do you think the government should favour the use of solar-powered cars?"

o   A bit central: is a topic with which respondents are slightly more familiar. The requests for an answer require a judgement about something or someone slightly related to the respondent. For example:

"Do employees need strong trade unions to protect their working conditions and wages?"

o   Rather central: is a topic for which respondents do not necessarily have thought about before, but to which they can easily create an answer based on their experience or what they have heard. For example:

"How far do you trust the legal system in your country?"

o   <u>Central</u>: is a topic referring to the respondents' usual activities or thoughts. Although they should be central in the mind of the respondent, the formulation of the requests for an answer require the respondent to think about a specific moment, amount or type to come up with the answer. For example:

"On a weekday, how much time do you spend in total listening to the radio?"

"Mark which types of fruits you have eaten during the last week"

o   <u>Very central/ salient</u>: is a topic referring to the respondents' usual activities or thoughts. The requests for an answer require no further effort from the respondent than looking for the appropriate category for his or her answer. For example:

"How satisfied or dissatisfied are you with your job?"

"What is your highest level of education?"

5. REFERENCE PERIOD

Requests can be asked about a situation or event in the:

o   <u>Future</u>: e.g. whether one will buy some goods in the future, will support some activity or expect any changes.

o   <u>Present</u>: e.g. feelings at the moment, satisfaction with different aspects of life or opinions about policies, norms, or rights.

o   <u>Past</u>: e.g. whether one has bought something during the last week or whether one has been to a physician, dentist or hospital during the last year.

6. FORMULATION OF THE REQUEST FOR AN ANSWER: BASIC CHOICE

Requests for an answer can either be formulated as:

o   <u>Indirect request</u>: is a request which use pre-requests such as:

"Do you think that…?"

"Would you say that…?"

"Could you tell me…?"

"Please tell me what you think about…"

"Please indicate on a scale from 0 to 10 how much…"

"Do you agree or disagree…"

These types of requests are more formal and polite than direct requests. For example:

"**Please indicate** how satisfied you are with the present state of the economy in your country?"

"**Would you say** that cultural life is generally enriched or undermined by people coming to live here from other countries?"

→ Continue in <u>7. WH word used in the request</u>

o   <u>Direct request:</u> is a request which do not contain a pre-request, but use the inversion of the verb and the subject. For example:

"How satisfied **are you** with the present state of the economy in your country?"

"**Is cultural life** generally enriched or undermined by people coming to live here from other countries?"

"On an average weekday, how much time in total, **do you spend** surfing the Internet?"

→ Continue in <u>7. WH word used in the request</u>

o   <u>No request present (e.g. not the first item of battery)</u>: occurs commonly in batteries, where a set of stimulus or statements is given, implying through the context or the response options that an answer is required. In batteries, the request is formulated before the first item and is not repeated after that. In that case, after the first item all following items do not contain any request. Click <u>here</u> to see how batteries are treated in SQP. For example:

[Request for an answer]: "Using this card, please say to what extent you agree or disagree with each of the following statements:

	Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
[Statement 1] The government should take measures to reduce differences in income levels	●	●	●	●	●
[Statement 2] Gay men and lesbians should be free to live their own lives as they wish	●	●	●	●	●
[Statement 3] Political parties that wish to overthrow democracy should be banned"	●	●	●	●	●

In this example, only the first item (consisting of the request for an answer and the first statement) should be coded with request present (specifically as Indirect request). However, statements 2 and 3 should be coded by using the option <u>No request present</u>.

→ Continue in <u>14. Use of stimulus or statement in the request</u>

7. WH WORD USED IN THE REQUEST

Requests are often opened with a word such as 'who', 'which', 'what', 'when', 'where' but also 'how', 'to what extent', 'to what/ which degree' or 'whether'. The common denominator of these words is that they replace the information asked for in the question sentence. These words are called 'WH words' because in English they often start with the letters: 'wh'. SQP uses 'WH words' as a generic name. Therefore, 'combien' (French 'how much'), 'cuál' (Spanish 'which'), 'warum' (German 'why') and 'когда' (Russian 'when') are also considered 'WH words'.

o   <u>WH word used:</u> e.g. "**How** satisfied are you with your job?"

→ Continue in <u>7.1 WH word</u>

o   <u>Request without WH word:</u> e.g. "Are you satisfied with your job?"

→ Continue in <u>8. Request for an answer type</u>

7.1 WH word

Below, examples of each 'WH word' options are presented:

- o <u>Who:</u> e.g. "Who is the president of the European Commission?"

- o <u>Which:</u> e.g. "Which candidate do you prefer?"

- o <u>What:</u> e.g. "What did you buy?"

Note that expressions like "<u>to what extent</u> do you agree with..." should not be coded as 'what' because the meaning is rather 'how much' like the WH words 'How (intensity)' or 'How (extremity)'. The code 'what' refers to the use of the word what in phrases like: "What did you buy yesterday?"

- o <u>When TIME:</u> e.g. "When did you go to school for the first time?"

- o <u>Where PLACE:</u> e.g. "Where did you go by car?"

- o <u>How (procedure):</u> e.g. "How did you pay for the car?"

- o <u>How (relationship):</u> e.g. "How did the position of blacks' change?"

- o <u>How (opinion):</u> e.g. "How do you see the future?"

- o <u>How (quantity):</u> e.g. "How often do you go to church?" or "How many…"

- o <u>How (extremity):</u> e.g. "How interested are you in politics" or "To what extent are you satisfied with your job?"

- o <u>How (intensity):</u> e.g. "How strongly do you believe that you will get a job?" or "To what extent do you agree or disagree with the belief that global warming will harm future generations?"

- o <u>Why:</u> e.g. "Why did you leave school?"

8. REQUEST FOR AN ANSWER TYPE

Requests for an answer are usually formulated in one of the following options:

- o <u>Interrogative:</u> is a request which can be identified with statements, such as:

"Do you agree or disagree that…"

"Would you say that…?"

"Are you satisfied or dissatisfied…?"

"What would you prefer…?"

- o <u>Imperative:</u> is a request which instruct the respondents to do something. These usually include statements like:

"Please indicate on a scale from 0 to 10 how much…"

"Please read each question and tick the box on each line that shows how much time…"

"Tell me to what extent…"

- o <u>Declarative:</u> is a very infrequent request which can be formulated as:

"Now I would like to ask you whether…"

"We are interested in knowing your opinion about…"

- o <u>None of the above:</u> occurs when there is no request present (see 'Formulation of the request for an answer: basic choice'), i.e. when there is only a stimulus or statement of a battery. Click here to see how batteries are treated in SQP. In the example below only the first

statement has the request present and its characteristics should be coded. However, the second statement will be presented to the respondent without repeating the request again and therefore, its characteristics should not be coded again.

[Request for an answer]: "Using this card, please say to what extent you agree or disagree with each of the following statements:

	Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
[Statement 1] The government should take measures to reduce differences in income levels	•	•	•	•	•
[Statement 2] Gay men and lesbians should be free to live their own lives as they wish"	•	•	•	•	•

9. USE OF GRADATION

A request can provide gradation or not.

o **No gradation used:** occurs when the request does not indicate any ordering. For example:

"Do employees need strong trade unions to protect their working conditions and wages?"

"Mark which types of fruits you have eaten during the last week"

o **Gradation used:** occurs when the request indicates that the response scale will allow answers which can be ordered from low to high or from high to low. For example:

"Could you tell me how much…"

"To what extent do you…"

"Please tell me to which degree you…"

10. BALANCE OF THE REQUEST

The use of a bipolar concept does not mean that the request for an answer is formulated using both poles of the concept. 'Balance of the request' captures this characteristic. Depending on how the request is formulated, requests can be balanced or unbalanced.

o **Balanced:** occurs when the possible answer categories in both directions are mentioned in the request. In other words, when the concept used is bipolar and the two possible poles are used in the request. For example:

"Do you **like** or **dislike** foreigners?"

"How **satisfied** or **dissatisfied** would you say you are with your job?"

o **Not applicable:** occurs when there are not two possible directions, i.e. when the concept measured is unipolar. This is true for all questions regarding frequencies, probabilities, likelihood, etc. For example:

"How **often** do you meet foreigners?"

"How **much** time do you spend watching television?"

"How **important** is income for well-being?"

Although unimportant exists it is not considered the negative pole of important but as the zero point.

o   <u>Unbalanced:</u> occurs when only one direction is indicated in the request, while the other direction is possible. In other words, when the concept is bipolar but only one pole is used in the request. This is what is called a leading question, because the one-sided formulation can influence the respondent to answer in this direction. For example:

"Do you **dislike** foreigners?"

"How **satisfied** would you say you are with your job?"

Exceptions:

1) There are concepts that only vary from zero to one end of the scale. For example, in "How guilty is this terrorist?" only two possible options are available: either the terrorist is guilty or is not; in "Do you think that abortion should be legalized?": abortion can only be legalized or not legalized, i.e. prohibited, so there is no opposite pole for legalization, other than the automatic zero point which is prohibition; and the same happens with "How sweet is this drink?". In these cases, the other direction cannot be formulated and so these requests are also considered <u>Not applicable</u>.

2) Be aware that this characteristic is language specific. For example, in Spanish there is no such opposite pole for 'successful' like 'unsuccessful'. In Spanish, the opposite is 'not successful'. This word cannot be considered the opposite. 'Fracaso', the synonym of not successful, would not be considered as an opposite pole either, but rather as the automatic zero point of 'éxito'. So, if they ask in Spanish "How successful is the police?" this request will be considered as <u>Not applicable</u>, because in Spanish the opposite is not 'unsuccessful' as in English but 'not successful', which is the zero point of 'successful' rather than the opposite.

3) Requests can also be formulated like "Do you think that the government is doing a good job or not?" which are also language specific. For these types of questions, and for any language, if the opposite pole 'bad' exists, then the request is <u>Unbalanced</u>, because it exists and it is not used. However, if the opposite pole for 'good' (other than 'not good') does not exist for the language, then the balance of the request is considered <u>Not applicable</u>.

11. PRESENCE OF ENCOURAGEMENT TO ANSWER

A request can provide an encouragement for the respondent to answer or not.

o   <u>No particular encouragement present:</u> occurs when request do not use specific words that stimulate the respondent to answer.

o   <u>Encouragement present:</u> occurs when requests use words to stimulate the respondent to answer. For example:

"Please read this question carefully before **answering**"

"Could you **tell** me…?"

"We would like to **ask you**…"

"Please **tell** me…"

"It is **important for our research to know**…"

12. EMPHASIS ON SUBJECTIVE OPINION IN REQUEST

A request can provide an emphasis on the subjective opinion of the respondent or not.

o   <u>No emphasis on opinion present:</u> occurs when requests do not use specific words that seek to obtain the subjective opinion of the respondent.

o   <u>Emphasis on opinion present:</u> occurs when requests use words that seek to obtain the subjective opinion of the respondent. For example:

"Please, give us **your opinion** about…"

"What do **you think** about…?"

"**According to you** what is the…"

"In **your opinion**…"

"To what extent **would you say** the government is doing a good job?"

13. INFORMATION ABOUT THE OPINION OF OTHER PEOPLE

A request can provide information about the opinions of other people or not.

o   <u>No information about opinions of others:</u> occurs when no information about the opinion of other people is given in the request.

o   <u>Information about opinions of other present:</u> occurs when information about the opinion of other people is given in the request. For example:

"**Some people are** against nuclear energy while **others** favour it…"

"**Most people think** that…"

14. USE OF STIMULUS OR STATEMENT IN THE REQUEST

A request can provide a stimulus or statement or not.

o   <u>No stimulus or statement:</u> occurs when single question, instead of batteries, are used. For example:

"Please indicate how much trust you have in the police."

"To what extent do you agree or disagree that a woman should not have to cut down on her paid work for the sake of her family?"

o   <u>Stimulus or statement is present:</u> occurs when batteries of survey questions are used. In batteries, a set of stimulus or statements is given, implying through the context or the response options that an answer is required. In batteries, the request is formulated before the first item and not repeated after that. Click here to see how batteries are treated in SQP.

A **stimulus** in a battery of questions can be a noun or a combination of nouns such as a party name, a name of an institution or a brand. For example:

"Please indicate how much trust you have in each of the following institutions:

	No trust at all				Complete trust
The police	●	●	●	●	●
The European Parliament	●	●	●	●	●
The Polish Parliament"	●	●	●	●	●

A **statement** is a complete sentence. For example:

"Using this card, please tell me how far you agree or disagree with the following statements:

	Disagree strongly	Disagree	Neither agree not disagree	Agree	Agree strongly
A woman should not have to cut down on her paid work for the sake of her family	●	●	●	●	●
Women should take more responsibility for the home and children than men"	●	●	●	●	●

In SQP the first stimulus or statement of a battery of questions, e.g. The police, is coded together with the request for an answer. However, the following items, e.g. The European parliament and the Polish parliament, are coded separately. The same is done for the statements. Thus, a request for an answer can include a stimulus or statement, this being the first item of the battery of questions, but a stimulus or statement can also appear without a request.

15. ABSOLUTE OR COMPARATIVE JUDGEMENT

Requests can on ask respondents about an absolute or a comparative judgement.
o   An absolute judgement: is a request where respondents are asked to evaluate an event or something else. For example:

"How satisfied are you with your health?"

"Would you say that most people can be trusted?"

o   A comparative judgement: is a request where respondents are asked to compare between two events or things. For example:

"Are you **more or less** satisfied now than in the past?"

"Is Britain made **a better or a worse** place to live by people coming to live here?"

16. RESPONSE SCALE: BASIC CHOICE

A request is usually followed by a response scale to express the answers. There are requests that seek to obtain a defined answer from a closed range of possible answers. These are summarized under the options 'more than 2 categories scales' and 'two-category scales'. Furthermore, there are questions where no answer categories are suggested. These are summarized under the options 'numerical open-ended scales', 'magnitude estimation' and 'line production'.

o   More than 2 categories scales: refers to a response scale with more than two categorical answer options. For example:

"What is the most serious problem in our country?"

1	Terrorism
2	Unemployment
3	Racism
4	Crime
5	Others, namely ___

→ Continue in

    o   <u>Two-category scales:</u> refers to a response scale with two answer options. Usually these scales are: yes/no or true/false scales. For example:

"Did you go to college?"

1	Yes
2	No

→ Continue in <u>17. Don't know option</u>

    o   <u>Numerical open-ended answers:</u> refers to a response scale where no answer options are specified, but instead a numerical input is required. For example:

"What **percentage** of your time do you spend on housework? 0% means none and 100 % means absolutely all of it. Write in percentage: _____"

"How many **years** did you live in New York? Write in: _____years"

"On an average weekday, how much **time**, in total, do you spend watching television?

WRITE IN HOURS _ _ AND MINUTES: _ _"

→ Continue in <u>16.2 Maximum possible value</u>

    o   <u>Magnitude estimation:</u> refers to response scales where subjects are presented with a standard stimulus of a certain magnitude (or value). Subjects are then presented with a series of stimulus, and are asked to assign to each a number relative to the standard. For example:

"If we gave the status of a schoolteacher a score of 100, how would you evaluate the status of a physician? If the status of this occupation is twice as high as that of the schoolteacher, give a number twice as large or 200. If the status of this occupation is half of that of a schoolteacher, divide the number by 2, which gives 50. Your answer: _____"

→ Continue in <u>16.3 Maximum possible value</u>

    o   <u>Line production</u>: refers to response scales where subjects are presented with a standard line of a certain length. Subjects are then presented with a series of stimulus, and are asked to assign to each a line relative to the standard. For example:

"How satisfied are you with your house? Express your opinion in length of lines, where completely dissatisfied is expressed by the following line

_

and completely satisfied by the following line

_____

indicate your opinion by drawing a line here:"

→ Continue in <u>16.3 Maximum possible value</u>

_____

o   More steps procedures: refers to response scales which consist of more than one scale. Click here for an illustration of how to introduce and code a more steps procedure question in SQP. For example:

Q1 "Do you favour or oppose abortion?"

| 1 | Favour | ☐ [Go to Q2] |
| 2 | Oppose | ☐ [Go to Q3] |

Q2 "How far are you in favour of abortion?"

| 1 | I am very much in favour |
| 2 | I am much in favour |

Q3 "How far do you oppose abortion?"

| 1 | I am completely opposed |
| 2 | I am opposed |

→ Continue in 16.1 Number of categories

16.1 Number of categories

Enter the number of answer options in the 'More than 2 categories scale'. For example:

0	No time at all
1	Less than ½ hour
2	½ hour to 1 hour
3	More than 1 hour, up to 1 ½ hours
4	More than 1 ½ hours, up to 2 hours
5	More than 2 hours, up to 2 ½ hours
6	More than 2 ½ hours, up to 3 hours
7	More than 3 hours

SQP will provide a 'Suggested value' for this characteristic. In the example, the total number of categories is 8. The 'don't know' option should never be counted as an answer option.

→ Continue in 16.4 Labels of categories

16.2 Maximum possible value

Enter the maximum possible value respondents can give in the 'Numerical open-ended answer. For example:

"What percentage of your time do you spend on housework? 0 means that you spend 0% of your time and 100 means that you spend 100% of your time. Write in percentage: _____" - Here the maximum number is 101.

"On an average weekday, how much time, in total, do you spend watching television? Write in hours and minutes" - Here the maximum number is 24 hours.

→ Continue in 17. Don't know option

16.3 Maximum possible value

Enter the maximum possible value respondents can give in the 'Magnitude estimation' or 'Line production' scales. If this value is not known, enter the maximum value observed in the data. For example:

"If we gave the status of a schoolteacher a score of 100, how would you evaluate the status of a physician? If the status of this occupation is twice as high as that of the schoolteacher,

give a number twice as large or 200. If the status of this occupation is half of that of a schoolteacher, divide the number by 2, which gives 50"

In this case, the maximum possible value is not defined by the procedure. The maximum value possible should be determined based on the highest value given in the data.

"How satisfied are you with your house? Express your opinion in length of lines, where completely dissatisfied is expressed by the following line

_

and completely satisfied by the following line

_____

indicate your opinion by drawing a line here:"

In this case, the maximum possible value is determined by the length of the line of the highest possible value 'completely satisfied'. The maximum numerical value is the number of times the longest line is larger than the shortest line.

→ Continue in 16.8 Theoretical range of the concept bipolar/unipolar

16.4 Labels of categories

The text related to each answer option, i.e. the verbal labels, can be:

o   No labels: occurs when there are no labels for any of the answer options of the scale. For example:

"Using a scale from 1 to 5, where 1 means strongly disagree and 5 means strongly agree, to what extent do you agree or disagree with the current political situation?"

1	2	3	4	5

→ Continue in 16.8 Theoretical range of the concept bipolar/unipolar

o   Partially labelled: occurs when some of the answer options of the scale, but not all, are verbally labelled. For example:

1	2	3	4	5	6	7
You can't be too careful						Most people can be trusted

→ Continue in 16.5 Labels with short text or complete sentences

o   Fully labelled: occurs when all answer options of the scale are verbally labelled. For example:

00	No access at home or work
01	Never use
02	Less than once a month
03	Once a month
04	Several times a month
05	Once a week
06	Several times a week
07	Every day

→ Continue in 16.5 Labels with short text or complete sentences

16.5 Labels with short text or complete sentences

Verbal labels can be formulated as short labels, i.e. short texts using single words, or complete sentences.

- o   <u>Short text:</u> e.g. "Agree completely", "More than a quarter of the time" or "In favour"

- o   <u>Complete sentences:</u> e.g. "Doctors rarely tell the whole truth to their patients", "I am in favour of the president" or "I am completely satisfied"

16.6 Order of the labels

Verbal labels can be ordered from positive (or active/high) to negative (or passive/low) or vice versa. Is the first mentioned answer category the most negative or the most positive one?

- o   <u>First label negative:</u> occurs when the first label in the answer scale has the most negative formulation. For example:

"How would you rate the quality of fast-food restaurants?"

1	2	3	4
Very bad	Bad	Good	Very good

"How often do you watch TV?"

1	2	3	4	5
Never	Seldom	Occasionally	Regularly	Frequently

- o   <u>Not applicable:</u> occurs in nominal answer scales which do not have an order of labels. For example:

"In which continent do you live?"

1	2	3	4
Europe	Asia	Africa	America

Moreover, there are questions for which the positive or negative connotation is subjective and the order should also be considered as <u>Not applicable</u>. For example:

"Please show how close your opinion is to the statements on this card by choosing a number between 1 and 5."

1	Men should take as much responsibility as women for the home and children
2	
3	
4	
5	Woman should take more responsibility for the home and children than men

o   <u>First label positive</u>: The first category in the answer scale has the most positive formulation. For example:

"Do you agree or disagree with the fact that doctors keep the whole truth from their patients?"

1	**Completely Agree**
2	Neither Agree nor Disagree
3	Completely Disagree

16.7 Correspondence between the labels and the numbers of the scale

Sometimes, both numeric values are attached to the verbal labels in the answer options which are provided to the respondent. The numeric values should be explicitly provided to the respondent; numeric code for data processing should not be considered here. Correspondence measures the level of relation between the numbers and the labels in a response scale. The numeric values which order the scale should be related to the verbal labels of the answer options. Thus, the most negative labels in the answer options should be related to the lowest numbers in the scale, while the most positive labels should be related to the highest numbers. The better the relationship between numbers and verbal labels, the higher the correspondence. The level of correspondence depends on connotation given by the range of the verbal labels in the scale, which can be <u>bipolar or unipolar</u> (see '<u>Range of the used scale bipolar/ unipolar</u>').

o   <u>High correspondence</u>: occurs in scales where the connotation of the verbal labels match perfectly with the number values used. An example for bipolar scales: a positive label 'Completely satisfied' corresponding to the value '+3' and the negative label 'Completely dissatisfied' corresponding to the value '-3'.

-3	-2	-1	0	1	2	3
Completely dissatisfied						Completely satisfied

An example for unipolar scales: a label 'No trust at all', which represents zero trust, corresponding to the value '0', and its positive label 'Complete trust' corresponding to a higher value, e.g. '10'.

0	1	2	3	4	5	6	7	8	9	10
No trust at all										Complete trust

o   <u>Medium correspondence</u>: occurs when both numeric values and verbal labels are ordered in the same way, but do not match perfectly with its connotation. An example for bipolar scales: a negative label 'Complete distrust' corresponding to the value '1', and a positive label 'Complete trust' corresponding to the highest value, '5'. The correspondence is not high because the label 'Complete distrust' does not correspond to the opposite value of 'Complete trust', which would be '-5'.

1	2	3	4	5
Complete distrust		(Neutral point)		Complete trust

An example for unipolar scales: a label 'No trust at all', which represents zero trust, corresponding to the value '1', instead of '0', and its positive label 'Complete trust' corresponding to a higher value, e.g. '5'. The correspondence is not medium because both the numbers and the labels are ordered from the most negative label 'No trust at all', and lowest value, '1', to the most positive label 'Complete trust', and highest value, '5'.

1	2	3	4	5
No trust at all				Complete trust

o   <u>Low correspondence</u>: occurs when verbal labels and numeric values are not ordered in the same direction. An example for bipolar scales: labels ordered from the most positive

'Strongly agree' to the most negative 'Strongly disagree' and the numbers ordered from the lowest '1' to the highest '5'.

1	2	3	4	5
Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree

An example for unipolar scales: labels are ordered from the most positive 'Agree strongly' to the most negative 'Not at all agree' and the numbers ordered from the lowest '0' to the highest '10'.

0	1	2	3	4	5	6	7	8	9	10
Agree strongly										Not at all agree

o   Not applicable: occurs when numbers are not attached to the verbal labels. Instead they can use, for instance, letters or radio buttons. For example:

O	O	O	O	O
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

16.8 Theoretical range of concept bipolar/ unipolar

This characteristic identifies whether the concept measured in the request is theoretically bipolar or unipolar, independently from the formulation used by the researcher in the request.

o   Theoretically unipolar: refers to a theoretical concept for which one cannot formulate an opposite pole. For example, the concept 'frequency of events' typically has requests and response scales that are both unipolar:

"How **often** do you listen to music when doing housework?"

"How **important** is it for you to follow your project timeline?"

Furthermore, the concepts 'likelihood and probability of events' and 'certainty of something' are unipolar even though 'unlikely' and 'uncertain' exist.

"How **likely** are you to hire our company again?"

→ Continue in 16.12 Number of fixed reference points

o   Theoretically bipolar: refers to a theoretical concept containing two opposing poles. For example: the concept 'feelings towards foreigners' is bipolar because one can like and dislike them. Thus, an option would be to use the two poles in the request, like the following:

"Do you **like** or **dislike** foreigners?"

Even if both poles are not explicitly mentioned in the request, but the concept is theoretically bipolar, i.e. theoretically the opposite pole exists, one should continue considering the theoretical range as bipolar. For example:

"Do you **like** foreigners?"

→ Continue in 16.9. Range of the used scale bipolar/unipolar

In the case of questions measuring complex concepts (see: 2.2 Complex concepts), such as the 'agreement with a policy' or the 'certainty of a judgement', the theoretical range of the concept will be led by the main concept in the question, the one on which the answer options are based. For more information on the theoretical of the concept, go to Appendix 3.1.

16.9 Range of the used scale bipolar/ unipolar

This characteristic identifies if the answer scale used is bipolar or unipolar, independently from the formulation used in the request.

When the theoretical range of the concept is unipolar, the answer options are always unipolar. Thus, SQP does not ask to code this characteristic, if previously the concept has been coded as theoretically unipolar. However, if the theoretical range is bipolar, SQP will allow you to code whether the scale is bipolar or unipolar. This can be seen by looking at the end points of the answer scale.

    o   <u>Unipolar</u>: refers to answer scales where there is only one pole. For example:

0	1	2	3	4	5	6	7	8	9	10
Not at all satisfied										Very satisfied

This is a unipolar scale because the opposite pole 'dissatisfied' is ignored, even if it exists in English. Thus, theoretically this scale would be bipolar but the scale specified is unipolar.

→ Continue in

    o   <u>Bipolar</u>: refers to answer scales where the two poles are used. For example:

0	1	2	3	4	5	6	7	8	9	10
Very dissatisfied										Very satisfied

This is a bipolar scale because the two opposite poles of the scale are mentioned.

→ Continue in

16.10 Symmetry of response scale

Symmetry is a characteristic specific of bipolar scales.

    o   <u>Asymmetric</u>: occurs when the number of answer options at both sides of the scale, or its distance, is different. For example:

0	1	2	3	4
Completely agree	Strongly agree	Agree	Strongly disagree	Completely disagree

In the example above, there are three options in the positive side of the scale 'agree' and two in the negative side 'disagree'. Thus, the scale is asymmetric.

    o   <u>Symmetric</u>: occurs when there is the same amount of answer options on one side and the opposing. For example:

1	2	3	4
Very good	Good	Bad	Very bad

In the example above, there are two options in the positive side of the scale 'good' and two in the negative side 'bad'. Nominal scales should also be symmetric.

16.11 Neutral category

    o   <u>Present</u>: a neutral category can be either implicitly placed in the middle of a scale or mentioned explicitly. A typical explicit neutral category would be provided in the middle of a scale and would be explicitly labelled. For example:

-2	-1	0	1	2
Completely dissatisfied		**Neither satisfied nor dissatisfied**		Completely satisfied

Even if a scale is asymmetric and there is no middle point, it can still have an explicit neutral category. For example:

1	2	3	4
Completely disagree	**Neither agree nor disagree**	Agree	Completely agree

Implicit neutral categories can be detected depending on the bipolarity or unipolarity of the scale. When the scale is bipolar and the there is an uneven number of answer options, the middle point should always be considered as a neutral point in the scale. For example:

-2	-1	0	1	2
Completely dissatisfied		**(Implicit)**		Completely satisfied

The middle option, in bipolar and symmetric scales with an uneven number of categories should always be coded as the neutral category, even if it is not labelled.

o   Not present: is commonly a unipolar scale, i.e. which go from zero towards a positive end-point, or a bipolar scale with an even number of answer options, i.e. where there cannot be implicit neutral points. For example:

0	1	2	3	4
Not at all important				Very important

Note that the neutral category is not equal to no answer, no opinion or the option don't know.

16.12 Number of fixed reference points

Enter the number of fixed reference points in the scale. This characteristic refers to the amount of options in an answer scale which are taken as fixed references to give an answer. 'Reference points' are meanings respondents attach to the answer options. 'Fixed' refers to the options which provide no doubt where the point lies on the subjective scale perceived by respondents. Usually fixed reference points use words such as: 'completely', 'extremely', 'totally' and 'not at all'. For example:

1	2	3	4
Completely disagree			Completely agree

Using the scale above, the options '1' and '4' are fixed reference points of the scale because one cannot be more than 'completely' in agreement or in disagreement. Here the total number of fixed reference points is 2.

Both implicit and explicit neutral points (see 16.11 Neutral category) should always be coded as fixed reference points. For example:

0	1	2	3	4	5	6	7	8	9	10
Completely disagree					**(Implicit)**					Completely agree

Using the scale above, the options '0' and '10' are fixed reference points and, in this case, also the '5' option, i.e. the implicit neutral category, is also fixed. Here the total number of fixed reference points is 3.

Not always the endpoints can be considered fixed reference points. If the endpoints had been labelled 'bad' and 'good' these reference points are not fixed because one can be 'worse' than bad and 'better' than good. For example:

1	2	3	4	5
Bad	A bit bad	**Neither good nor bad**	A bit good	Good

The scale above, does not have 3 fixed reference points (1.Bad; 3.Neither good or bad; and 5.Good), it only has 1 fixed reference point, the neutral category (3.Neither good or bad).

Sometimes, frequency scales provide closed-range labels, as in the following example:

0	No time at all
1	Less than ½ hour
2	½ hour to 1 hour
3	More than 1 hour, up to 1 ½ hours
4	More than 1 ½ hours, up to 2 hours
5	More than 2 hours, up to 2 ½ hours
6	More than 2 ½ hours, up to 3 hours
7	More than 3 hours

Using the scale above, the categories 1 to 6 should be considered fixed reference points because the time range is closed, i.e. the category 1 goes from no time to 30 minutes, category 2 from 30 minutes to 1 hour, and so on. Category 0 'No time at all' is also a fixed reference point because one cannot spend less than 'No time at all' doing something. However, the last category 7 'More than 3 hours' is an open category, and not a fixed reference point, because the maximum number is not defined.

Frequency scales can also provide vague labels, as in the following example:

0	1	2	3	4
Never	Seldom	Occasionally	Frequently	**Always**

Using the scale above, only extremes will be considered as fixed reference points because one cannot go beyond 'never' or 'always'.

17. DON'T KNOW OPTION

The 'Don't know' (DK) option will often not appear as an answer option in the question text provided in SQP, but this does not mean that this option is not in the questionnaire. To check if the question being coded uses a DK option as a possible answer, look at the original questionnaire. The following DK options should be considered:

o   <u>DK option present</u>: is explicitly mentioned to the respondent as one of the possible response options. For example:

"In an average weekday, how often do you access social media?"

0	1	2	3	4	5
Never	Almost never	Now and then	Often	Very often	**Don't know**

o   <u>DK option only registered</u>: is not explicitly given to the respondent. In the questionnaire, it is indicated that the interviewer should not read it. However, in case the respondent says that he does not know the answer, such response can be registered by the interviewer. For example:

"How interested would you say you are in politics?"

1	2	3	4	8
Very interested	Quite interested	Hardly interested	Not at all interested	**(Don't know)**

o   <u>DK option not present</u>: is not present as a response option and not registered by the interviewer.

18. INTERVIEWER INSTRUCTION

These instructions are usually differentiated from the main text of the request i.e. by using bold letters, underlined letters, etc. But this kind of instructions will not usually appear in the SQP request text as they are not mentioned to the respondent when asking the question. Check this question's characteristic in the questionnaire.

  o   <u>Absent</u>: refers to requests which do not incorporate instructions for the interviewer.

  o   <u>Present</u>: refers to requests which incorporate instructions for the interviewer. For example:

"Read out"

"If unclear, repeat the instructions"

"Card 1"

19. RESPONDENT INSTRUCTION

Researchers can give instructions to the respondent, which are linguistically characterized by using the imperative mode or polite versions of it. A respondent's instruction should appear in the SQP request text as it they are mentioned to the respondent when asking the question.

  o   <u>Absent</u>: refers to requests which do not incorporate instructions for the respondent.

  o   <u>Present</u>: refers to requests which incorporate instructions for the respondent. For example:

"Answer the question with this card"

"Please imagine a scale from 1 to 5"

"Using this card, please tell me…"

"Give a number between 0 and 100"

20. EXTRA INFORMATION OR DEFINITION

An extra information or definition regarding the concept or the scale measured is sometimes provided in the survey question. It is considered extra because the question could also be asked without it.

  o   <u>Absent</u>: refers to requests which do not incorporate extra information or definition.

→ Continue in <u>21. Introduction available</u>

  o   <u>Present</u>: refers to requests which incorporate extra information or definition. For example:

"We´d now like to ask you about housework. **By housework we mean things done around the home, such as cooking, washing, cleaning, care of clothes, shopping, maintenance of property, but not childcare, looking after other people and leisure activities.** On a typical weekday, approximately how many hours in total do people in your household spend on housework for your home?"

→ Continue in <u>20.1 Knowledge provided</u>

20.1 Knowledge provided

In survey questions, extra information or definitions can be provided such as information regarding the topic, or definition of terms or both.

o   <u>No extra information provided</u>: refers to requests where no extra information or definition is provided.

o   <u>Definitions only</u>: provide an explanation of the meaning of the terms used in the question. For example:

"Please tell me on a score of 0 to 10, where 0 **means** that you are completely dissatisfied and 10 **means** that you are completely satisfied"

"By housework we **mean** things done around the home, such as cooking, washing, cleaning, care of clothes, shopping, maintenance of property, but not childcare or leisure activities"

o   <u>Other explanations</u>: do not intend to define the terms of the question, but rather they intend to give further information about them. For example:

"**The EU suggests austerity measures to reduce the Greek deficit.** Are you in favour of applying austerity measures in Greece?"

"Please say on a scale of 0 to 10 how far you personally trust the police. If you have no trust at all give a score of 0. **If you have complete trust, give a score of 10**"

o   <u>Both definitions and other explanations</u>: refers to the combination of both.

21. INTRODUCTION AVAILABLE?

Introductions mainly serve to initiate the topic of the request for an answer to the respondent. Introductions will usually be found in SQP as a text set apart from the request. The text will appear clearly identified as an Introduction text.

o   <u>Available</u>: refers to questions with an introduction. For example:

"Now, a couple of questions follow about your health"

"The next few questions deal with your work"

"I'd like to know your feelings towards some of our political leaders"

→ Continue in <u>21.1 Request present in the introduction</u>

o   <u>Not available</u>: refers to questions without an introduction.

→ Continue in <u>22. Number of sentences in request</u>

21.1 Request present in the introduction

In the introduction, an interrogative form can be used.

- o <u>Request not present</u>: refers to introductions not provided in an interrogative form.

- o <u>Request present</u>: refers to introductions provided in an interrogative form. For example:

Introduction Text:

"Would you mind telling me your race or ethnic origin?"

Request for Answer Text

"What is your race?"

21.2 Number of sentences in the introduction

Enter the number of sentences found in the introduction text. SQP will often provide a 'Suggested Value' for this characteristic. However, it should be verified. For example:

"The following set of questions will be about your household **[SENTENCE 1]**. Firstly, I would like to ask you about housework **[SENTENCE 2]**" - The total number of sentences in this example is 2.

21.3 Number of words in the introduction

Enter the number of words in the introduction text. SQP will often provide a 'Suggested Value' for this characteristic. However, it should be verified. For example:

"The following set of questions will be about your household. Firstly, I would like to ask you about housework" - The total number of words is 19.

21.4 Number of subordinate clauses in the introduction

Enter the number of subordinate clauses in the introduction text. A subordinate clause, also called a dependent clause, will begin with a subordinate conjunction (i.e. although, because, if, that, when, etc.) or a relative pronoun (i.e. which, who, whose, etc.) and will contain both a subject and a verb. Subordinated clauses appear because some sentences cannot be expressed by a simple independent main clause. SQP will not provide a 'Suggested Value' for this characteristic. Therefore, it should be counted. For example:

"The following set of questions will be about your household. Firstly, I would like to ask you about housework" - Here there are no subordinate clauses in this request.

"Some people are in favour of gun legalization **[MAIN 1]** while others are against it **[SUBORDINATED 1]**" - Here the total number of subordinated clauses is 1.

22. NUMBER OF SENTENCES IN THE REQUEST

Enter the number of sentences in the request for an answer text. SQP will often provide a 'Suggested Value' for this characteristic. However, it should be verified. For example:

"Please indicate how far you agree or disagree with each of the following statements concerning doctors in general **[SENTENCE 1]**. Doctors rarely keep the whole truth from their patients **[SENTENCE 2]**" - The total number of sentences in the request is 2.

23. NUMBER OF WORDS IN THE REQUEST

Enter the number of words in the request for an answer text. SQP will often provide a 'Suggested Value' for this characteristic. However, it should be verified. For example:

"Please indicate how far you agree or disagree with each of the following statements concerning doctors in general. Doctors rarely keep the whole truth from their patients" - The total number of words in the request is 27.

24. TOTAL NUMBER OF NOUNS IN THE REQUEST FOR AN ANSWER

Enter the number of nouns in the request for an answer text. A noun is a word used to name a person, animal, place, thing or abstract idea. Note that a number is not a noun. Also, words such as 'he', 'she', 'I', 'you', etc. are personal pronouns not nouns. SQP will parse the sentence, denoting the nouns as NN, and will often provide a 'Suggested Value' for this characteristic, i.e. the number of times the code NN occurs. However, it should be verified. For example:

"Was **Maria Callas** an **opera singer?**" - Here the total number of nouns is 4.

"Did the **bus inspector** look at all the **passengers' passes**?" - Here the total number of nouns is 4.

"Was the **library** at **Alexandria** destroyed in 48 B.C?" - Here the total number of nouns is 2.

"Please indicate how far you agree or disagree with each of the following **statements** concerning **doctors** in **general**. **Doctors** rarely keep the whole **truth** from their **patients**" - Here the total number of nouns is 6.

25. Total number of abstract nouns in the request for an answer

Enter the number of abstract nouns in the request for an answer text. Abstract nouns indicate objects that one cannot, in principle, perceive through physical senses: touch, sight, taste, hearing, or smell. SQP will not provide a 'Suggested Value' for this characteristic. Therefore, it should be verified.

Abstract nouns	Concrete nouns
Government	The king
Justice	A judge
Schizophrenia	A schizophrenic
Childhood	A child
France (the country)	A Frenchman
Police (institution)	A policeman
Parliament	A politician
Party	People
Weekday	Television
Hour	A watch
Humans	Immigrants
Democracy	Radio
Work	Newspaper

For example:

"Please indicate how far you agree or disagree with each of the following **statements** concerning doctors in general. Doctors rarely keep the whole **truth** from their patients." - The total number of abstract nouns in the request is 2.

26. TOTAL NUMBER OF SYLLABLES IN REQUEST

Enter the number of syllables in the request for an answer text. SQP will often provide a 'Suggested Value' for this characteristic based on the hyphenation (i.e. an algorithm doing automatic syllabification) of the words. However, it should be verified. If the software is not providing it, one would have to count them. For example:

"Please in-di-cate how much you a-gree or dis-a-gree with each of the fo-llow-ing state-ments a-bout doc-tors in gen-er-al. Doc-tors rare-ly keep the whole truth from their pa-tients." - The total number of syllables in the request is 42.

27. NUMBER OF SUBORDINATE CLAUSES IN REQUEST

Enter the number of subordinate clauses in the request for an answer text. A subordinate clause, also called a dependent clause, will begin with a subordinate conjunction (i.e. although, because, if, that, when, etc.) or a relative pronoun (i.e. which, who, whose, etc.) and will contain both a subject and a verb. Present participles such as 'using this card' or 'now thinking about' can be links between main and subordinated clauses. Subordinated clauses appear because some sentences cannot be expressed by a simple independent main clause. SQP will not provide a 'Suggested Value' for this characteristic. Therefore, it should be counted. For example:

"Please answer on a scale from 0 to 10 **[MAIN 1]**, where 0 means strongly disagree **[SUBORDINATE 1]** and 10 means strongly agree **[SUBORDINATE 2]**" - Here the total number of subordinated clauses is 2.

"Using this card **[SUBORDINATE 1]** tell me **[MAIN 1]** which measures you take **[SUBORDINATE 2]** to improve your financial situation **[SUBORDINATE 3]**?" - Here the total number of subordinated clauses is 3.

"Using this card **[SUBORDINATE 1]**, generally speaking **[SUBORDINATE 2]**, would you say **[MAIN 1]** that most people can be trusted **[SUBORDINATE 3]**, or that you can't be too careful **[SUBORDINATE 4]** in dealing with people **[SUBORDINATE 5]**?" - Here the total number of subordinated clauses is 5.

28. NUMBER OF SYLLABLES IN ANSWER SCALE

Enter the number of syllables in the answer options text. SQP will often provide a 'Suggested Value' for this characteristic based on the hyphenation (i.e. an algorithm doing automatic syllabification) of words. However, it should be verified. This characteristic refers to the total number of syllables for all words in the response options. For example:

1	Dis-a-gree strong-ly
2	Dis-a-gree
3	Nei-ther a-gree nor dis-agree
4	A-gree
5	A-gree strong-ly

The total number of syllables in the answer scale is 22. However, SQP would suggest 27 as it also includes the numbers before the verbal labels. If that is the case, it should be corrected by the number of categories (e.g. 27-5).

29. TOTAL NUMBER OF NOUNS IN ANSWER SCALE

Enter the number of nouns in the answer options text. A noun is a word used to name a person, animal, place, thing or abstract idea. SQP will often provide a 'Suggested Value' for this characteristic. However, it should be verified. For example:

1	Disagree strongly
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Agree strongly

The total number of nouns is 0.

1	A **woman** should be prepared to cut down on her paid **work** for the **sake** of her **family**
2	
3	
4	
5	A **woman** should not have to cut down on her paid **work** for the **sake** of her **family**

The total number of nouns is 8.

30. TOTAL NUMBER OF ABSTRACT NOUNS IN ANSWER SCALE

Enter the number of abstract nouns in the request for an answer text. Abstract nouns indicate objects that one cannot, in principle, perceive through physical senses: touch, sight, taste, hearing, or smell. SQP will not provide a 'Suggested Value' for this characteristic. Therefore, it should be counted.

Abstract nouns	Concrete nouns
Government	The king
Justice	A judge
Schizophrenia	A schizophrenic
Childhood	A child
France (the country)	A Frenchman
Police (institution)	A policeman
Parliament	A politician
Party	People
Weekday	Television
Hour	A watch
Humans	Immigrants
Democracy	Radio
Work	Newspaper

For example:

1	A woman should be prepared to cut down on her paid **work** for the **sake** of her family
2	
3	
4	
5	A woman should not have to cut down on her paid **work** for the **sake** of her family

The total number of abstract nouns in the answer scale is 4.

31. SHOWCARD OR OTHER VISUAL AIDS USED

This characteristic refers to the use of a showcard or any other visual aid, like the screen in web surveys, used when asking the survey question. Showcards are often used during face-to-face interviews to show the response options or to explain the question. Although in some cases it is specified in the SQP request for an answer text whether a showcard has to be used or not (e.g. "Use Card J"), check it on the questionnaire.

o   <u>Not used</u>: refers to questions where no showcard or other visual aids are provided. For example:

"How interested would you say you are in politics – are you … **READ OUT** …"

→ Continue in

o   <u>Used</u>: refers to questions where a showcard or other visual aids are provided. Self-completed questionnaires always use a visual aid, and face-to-face interviews can provide showcards. For example:

 A5 CARD 4 "Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves? Please use this card to answer"

→ Continue in

31.1 Horizontal or vertical scale

The response scale options can be presented on the visual aid as horizontal or vertical. Select one of the options depending on the layout of the scale presented in the visual aid, not on the layout presented in the SQP answer options text.

o   <u>Horizontal</u>: is the layout presented in the visual aid seen by the respondent. For example:

1	2	3	4	5
Disagree strongly	Disagree	Neither agree not disagree	Agree	Agree strongly

o   <u>Vertical</u>: is the layout presented in the visual aid seen by the respondent. For example:

1 Disagree strongly
2 Disagree
3 Neither Agree nor Disagree
4 Agree
5 Agree strongly

31.2 Overlap of scale labels and categories

Overlap happens when the label meant to mark one category overlaps with another in the visual aid. Select one of the options depending on the format of the scale presented in the visual aid, not on the format presented in the SQP answer options text.

o   <u>Overlap present</u>: the scale's labels overlap with more than one category. For example:

0	1	2	3	4	5	6	7	8	9	10
Unification has already gone too far								Unification should go further		

In this scale, the labels belong to categories 0 and 10. However, the labels are overlapping with the other categories in the scale.

o   <u>Text clearly connected to the category</u>: the scale's labels do not overlap with the categories. For example:

0	1	2	3	4	5	6	7	8	9	10
Unification has already gone too far										Unification should go further

31.3 Numbers or letters before answer categories

Numbers or letters usually order the answer options next to the verbal labels. Select one of the options depending on the format of the scale presented in the visual aid, not on the format presented in the SQP answer options text.

o   <u>Numbers</u>: are used to order the answer options. For example:

1	Disagree strongly
2	Neither Agree nor Disagree
3	Agree strongly

→ Continue in <u>31.4 Scale with only numbers or numbers in boxes</u>

o   <u>Letters</u>: are used to order the answer options. For example:

A	Parliament
B	Government
C	Police

→ Continue in <u>31.4 Scale with only numbers or numbers in boxes</u>

o   <u>Neither</u>: numbers nor letters are used to order the answer options. For example:

o	Never
o	Less than once a month
o	Once a month
o	Several times a month
o	Once a week
o	Several times a week
o	Every day

→ Continue in <u>31.5 Start of the response sentence on the show card</u>

31.4 Scale with only numbers or numbers in boxes

Sometimes the numbers or letters before the categories are in boxes to provide a clearer separation between the options.

o   <u>Only numbers</u>: are provided for the scale in the visual aid, with no clear separation between them. For example:

0	1	2	3	4	5	6	7	8	9	10
Agree strongly										Not at all agree

o   <u>Numbers in boxes</u>: are provided for the scale in the visual aid. For example:

0	1	2	3	4	5	6	7	8	9	10
Agree strongly										Not at all agree

31.5 Start of the response sentence on the visual aid

Visual aids can provide the start of the response sentence.

o   <u>Yes:</u> the start of the response sentence is provided in the visual aid. For example:

Spain's policy should be to…
Allow many to come and live here
Allow some
Allow a few
Allow none

o   <u>No:</u> the start of the response sentence is not provided in the visual aid.

31.6 Request on the visual aid

Visual aids can provide the whole request for an answer before the answer categories.

o   <u>Yes:</u> the request is provided in the visual aid. For example:

How much do you like oranges?
Very much
Quite a lot
A little
Not at all

o   <u>No:</u> the request is not provided in the visual aid.

31.7 Picture provided?

Sometimes there are pictures which provide extra information for the respondent, related to the request for an answer.

o   <u>Picture provided:</u> in the visual aid. For example:

o   <u>No picture provided:</u> in the visual aid.

32. COMPUTER ASSISTED

This characteristic refers to the mode the answers are registered. The answers can be registered by a computer or manually on a paper questionnaire. The only mode of data

collection that would not be considered computer assisted would be the paper and pencil interview, which can be either face-to-face, self-completion or by telephone.

- o <u>Yes:</u> the answers from the respondent are registered by a computer.

- o <u>No:</u> the answered from the respondent are not registered by a computer.

33. INTERVIEWER

This characteristic refers to the mode the questions are provided. The questions can be read to the respondent by the interviewer (i.e. in a face-to-face or telephone interview) or can be self-completed by the respondent.

- o <u>Yes:</u> the questions are read by an interviewer.

- o <u>No:</u> the questions are not read by an interviewer, but self-completed by the respondent.

34. VISUAL OR ORAL PRESENTATION

This characteristic refers to the way the question is provided to the respondent. Consider the previous code 'Interviewer' to know if the question is provided in an oral or visual way.

- o <u>Visual:</u> occurs when an interviewer does not administer the questionnaire because it is self-completed by the respondent either in paper or computer. Moreover, when the respondent should fill in some questions him or herself, especially sensitive questions, even if the interviewer is present.

- o <u>Oral:</u> occurs when the interviewer administers the questionnaire, i.e. the interviewer will read the questions to the respondent.
.

35. POSITION

Enter the position of the question in the questionnaire. For this characteristic, it is necessary to count the number of questions before the specific question.

APPENDIX 1: DEFINITION OF RELIABILITY, VALIDITY AND QUALITY

The purpose of SQP is to provide information regarding the quality of survey questions. The quality of a survey question is defined as the strength between the latent concept of interest and the observed response to the measure or survey question. To determine the quality of survey questions, the sources of measurement errors should first be determined. A first source of measurement error is 'Random error'. Random measurement errors are due to unintended and unpredictable mistakes by either the respondents when choosing the right answer, the interviewers when reporting the answer given by the respondent or the data coders when coding the responses into the database. Thus, if one could ask the same question several times, people would not give the same answer and the coders would not code the answers in the same way. So, the responses of respondents contain random measurement errors.

A second source of measurement error is the way people react to the different ways of formulating a survey question, for example the response may be different for a question depending on whether a categorical scale with 5 points or an 11-point scale is used, because people may react differently to the different formulations. Some respondents usually give extreme answers to an 11-point scale while others do not use the most extreme responses. On the other hand, both groups of respondents may use the 5-point scale in the same way (Saris & Gallhofer, 2014). This source of measurement errors is named 'Method effect' or 'Systematic error'.

Finally, the third source of measurement error appears when a question does not perfectly cover the concept of interest that is intended to be measured. Imagine the situation in which we want the complex concept "Job satisfaction" to be measured and for that the following survey question: "Would you choose the same job if you could choose again?" is used. Although the question used is probably a good reflection of the complex concept that it intends to evaluate, namely the satisfaction with the respondent's current job, he could for instance, consider in his response not only the satisfaction with his current job but also the satisfaction he may have had with other possible jobs. This suggests that there is a difference, which is called a 'Unique component', between the complex concept to be measured and the simple concept measured by the question. Figure 1 indicates where these different errors can play a role.
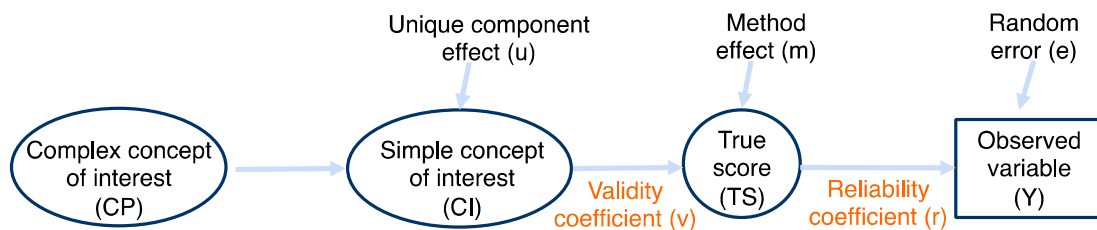

Figure 1: The true score model with measurement errors

The observed variable (Y) contains the responses to a specific survey question. As illustrated in Figure 1, this observed variable also contains random errors (e). Therefore, the latent true score for this observed variable (TS) can be defined as the observed variables minus the random errors. The strength between the true score and the observed variable is the reliability (r^2) of the question. The larger the contribution of the true score to the observed score, the higher the reliability of the question. 'Reliability' can thus be formulated as:

Reliability (r^2) = 1 – proportion random error in the observed variance

Because all survey questions are formulated in a specific way, the true score is partially affected by the variable the question is supposed to measure (i.e. the simple concept of interest) and partially by the reaction of the respondents to the method used (i.e. the method effect). In other words, the latent simple concept of interest can be defined as the latent true score minus the method effect, simply called 'Method error variance'. The strength between the simple concept of interest and the true score is the validity (v^2) of the question. 'Validity' can be formulated as:

Validity (v^2) = 1 – proportion method error variance in the true score variance

Up to this point it could be said that by removing the method effects from the true scores, the scores obtained would represent the concept that the question was supposed to measure. However, as said before, this simple concept may not perfectly represent the complex concept the researcher intends

to measure. It may be that these two differ due to unique components. This last part of the measurement process is not considered by the SQP quality prediction. The quality prediction given by SQP only refers to simple concepts. The evaluation of the quality of complex concepts requires more research and analysis (DeCastellarnau & Saris, 2014; Saris & Gallhofer, 2014; Saris & Revilla, 2016).

The above definition of 'Reliability' is the same as in the literature in general, but the definition of the validity is different because some authors call 'Construct validity' the product of the SQP definitions of validity and the reliability (Andrews, 1984). Others define the 'Validity' as the relationship between the complex concept of interest and the observed variable. SQP prefers using the concepts 'Reliability' and 'Validity' as defined above and call the product of these two the 'Quality' of a survey question.

$$\text{Quality } (q^2) = \text{reliability } (r^2) \times \text{validity } (v^2)$$

The quality indicators of survey questions, reliability and validity, are estimated by the so-called Multitrait-Multimethod (MTMM) experiments, where different traits (i.e. simple concepts) are measured with different methods (i.e. different formulations of survey questions). The basic model used for the estimation of the relationships between the simple concept of interest, the true score and the observed variable is presented in Figure 1, where the effects between these variables are represented by the 'Reliability coefficient' (r) and the 'Validity coefficient' (v), which squared provide respectively the estimates of the 'Reliability' and the 'Validity'. For details of the procedures, go to Saris and Gallhofer (2014).

In the quality output of SQP, two different values are given for each measure. The squared values (r^2, v^2 and q^2) represent the predictions of the 'Reliability', 'Validity' and 'Quality'; while 'r', 'v' and 'q' represent the 'Reliability coefficient', the 'Validity coefficient' and the 'Quality coefficient'.

In this general definition, it is assumed that the variables of interest are continuous, while often the observed variables are measured in a limited number of categories. If that is the case, the 'Reliability' is also affected by the so-called 'Categorization errors' (Saris, van Wijk, & Scherpenzeel, 1998). In such a case, the 'Reliability' will be not only affected by 'Random error' but also by 'Categorization error'.

$$\text{Reliability } (r^2) = 1 - \text{variance of random and categorization errors}$$

Besides being measures of the strength of a survey question, reliability and validity can also be used to correct for measurement errors (DeCastellarnau & Saris, 2014; Saris & Gallhofer, 2014; Saris & Revilla, 2016).

APPENDIX 2: PRESENTATION OF BATTERIES OF QUESTIONS IN SQP

SQP has a special way of treating batteries of questions. A battery of questions consists of a set of stimulus or statements with a common request for an answer and answer options that should be evaluated by the respondents. In batteries, the request for an answer, and if applicable, the introduction, will be placed just before the first stimulus or statement. SQP refers to a stimulus or statement as each sentence in the battery that should be evaluated by the respondent. A stimulus in a question can be a noun or a combination of nouns, e.g. a party name, a name of an institution or a brand, while a statement consists of a complete sentence. The coder must reflect on how the text in a battery of questions is read to the respondent, and code the item in that form.

Below is an example of a battery from the ESS Round 6. In this questionnaire, items E17 to E19 asked about the democracy in the country using the following battery of questions:

"Now some questions on the same topics, but this time about how you think democracy is working in [country] today. Again, there are no right or wrong answers, so please just tell me what you think.

Using this card, please tell me to what extent you think each of the following statements applies in [country]. 0 means you think the statement does not apply at all and 10 means you think it applies completely.

	Does not apply at all										Applies completely
E17 National elections in [country] are free and fair	0	1	2	3	4	5	6	7	8	9	10
E18 Voters in [country] discuss with people they know before deciding how to vote	0	1	2	3	4	5	6	7	8	9	10
E19 Different political parties in [country] offer clear alternatives to one another"	0	1	2	3	4	5	6	7	8	9	10

This battery will be introduced in SQP in the way the interviewer will read the battery to the respondent i.e. first, the introduction, secondly the request for an answer, thirdly the first statement will be read. These texts together form the first question and an answer will be given by the respondent. Next, the second statement will be read, the respondent will have to give an answer for this second statement and so on. For the next questions, the introduction and the request for an answer will not be repeated so these questions only consist of the stimulus or statement.

The batteries should be added in SQP as indicated, even when it is self-completed (i.e. an interviewer is not reading the questions).

Thus, the text in SQP for the questions presented in the battery above will be as follows:

E17 ESS Round 6 SOURCE - English

Introduction Text:
Now some questions about the same topics, but this time about how you think democracy is working in [country] today. Again, there are no right or wrong answers, so please just tell me what you think.

Request for Answer Text:
Using this card, please tell me to what extent you think each of the following statements applies in [country]. 0 means you think the statement does not apply at all and 10 means you think it applies completely. National elections in [country] are free and fair.

Answer options:
- 0 Does not apply at all
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Applies completely

E18 ESS Round 6 SOURCE - English

Request for Answer Text:
Voters in [country] discuss politics with people they know before deciding how to vote.

Answer options:
- 0 Does not apply at all
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Applies completely

E19 ESS Round 6 SOURCE - English

Request for Answer Text:
Different political parties in [country] offer clear alternatives to one another.

Answer options:
- 0 Does not apply at all
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 Applies completely

This layout will matter for the coding of the characteristics 'Formulation of the request for an answer' and 'Use of stimulus or statement in the request'.

Following the example, it should be indicated that question E17 is formulated as an indirect request ("Using this card, please tell me to what extent you think each of the following statements applies in [country]…") with a stimulus or statement present ("National elections in [country] are free and fair")

preceded by an introduction. However, questions E18 and E19 will be coded as having 'No request present' (in the characteristic 'Formulation of the request for an answer') and with a stimulus or statement present (i.e. for E18 the statement is "Voters in [country] discuss politics with people they know before deciding how to vote" and for E19 it is "Different political parties in [country] offer clear alternatives in one another").

APPENDIX 3: DEFINITION OF BIPOLARITY AND UNIPOLARITY

Appendix 3.1: What are theoretically Bipolar and Unipolar concepts?

The concept (i.e. the variable of interest) to be measured can be either bipolar or unipolar. Bipolar concepts have two theoretical opposite poles (e.g. positive/negative or active/passive), while unipolar concepts have only one theoretical pole. Below are examples of bipolar and unipolar concepts in English.

Bipolar concepts		
Concept	**Negative pole**	**Positive pole**
Agreement	Disagree ←	→ Agree
Evaluation	Bad ←	→ Good
Satisfaction	Dissatisfied ←	→ Satisfied
Happiness	Sad ←	→ Happy

Unipolar concepts		
Concept	**Zero point**	**Positive pole**
Frequency	Never	→ Always
Likelihood	Not at all likely	→ Very likely
Importance	Unimportant*	→ Important

*Note: Unimportant means not important, lacking in significance or value (cf: Wordreference). Thus unimportant is not considered as a negative point but as a zero point.

The bipolarity or unipolarity of a concept is language specific. The same concepts can be expressed in the different languages either as bipolar or unipolar concepts. Thus, bipolar concepts in one language may not be translatable as such in other languages.

The polarity of a concept should be coded in SQP using the characteristic 'Theoretical range of the scale bipolar/ unipolar'.

To transform theoretically bipolar or unipolar concepts into survey questions, a request for an answer and a response scale should be developed. In theory, bipolar concepts can be measured by both bipolar and unipolar requests and scales, while theoretically unipolar concepts can only be measured by unipolar requests and scales.

Often survey questions are measured using complex concepts which combine two basic concepts. Examples of these are:

1. "To what extent do you **agree or disagree** with the statement: **The government should** take measures to reduce differences in income levels".

2. "How far do you **agree or disagree** with the statement: I generally **feel** that what I do in my life is valuable and worthwhile".

3. "How **likely** is it that you become **unemployed** in the next 12 months?"

The words in bold in the examples highlight the complex concept, respectively: an agreement regarding a policy, an agreement regarding a feeling and the likelihood regarding a future expectation.

The first example is composed of the concepts 'Agreement' and 'Policy'. While agreements are theoretically bipolar concepts, the norm regarding what the government should or should not do is theoretically unipolar. Similarly, in the second example the request is composed of an agreement regarding a feeling. In such cases where the concept 'Agreement' has the main role in the request, users should indicate in SQP that the concept is theoretically bipolar.

Complex concepts can also be composed as in the third example. In that case, both concepts of 'Likelihood' and the 'Future expectation' of employment status are theoretically unipolar. Similarly, because the main role in the question comes from the concept 'Likelihood', users should identify in SQP that the concept is theoretically unipolar.

Appendix 3.2: What are Bipolar and Unipolar requests?

The differentiation between bipolar and unipolar requests will matter for the SQP coding of the characteristic 'Balance of the request'. A theoretically bipolar concept is characterized by the existence of two opposite poles. Thus, if a bipolar concept is formulated in a request for an answer using the two opposite poles of the concept, the range used in the request for an answer is also considered bipolar. For example:

- Bipolar concept: satisfaction
- Bipolar request: "How **satisfied** or **dissatisfied** are you with the present state of the economy in your country?"

Because the concept "satisfaction" is bipolar and the request also used both possible poles, this request will be considered 'Balanced'.

However, theoretically bipolar concepts can also be formulated as unipolar requests, if only one of the poles is used in the request for an answer.

- Unipolar request: "How **satisfied** are you with the present state of the economy in your country?"

In this case, because the request will lead the answer to one of the poles when both are available, it should be considered as 'Unbalanced'.

A theoretically unipolar concept is characterized by the existence of only one pole. Thus, as a unipolar concept can only be formulated in a request for an answer using the unique theoretical pole of the concept, the range used in the request for an answer (i.e. the balance of the request) is also considered unipolar. For example:

- Unipolar concept: importance
- Unipolar request: "How **important** do you think being able to speak English should be in deciding whether someone born, brought up and living outside Great Britain should be able to come and live here?

When the concept measured is unipolar, the balance of the request does not apply, and thus it should be considered as 'Not applicable'.

Appendix 3.3: What are Bipolar and Unipolar scales?

Scales in agreement with bipolar requests and bipolar concepts should measure two poles: positive to negative or active to passive. For example:

- Bipolar concept: satisfaction
- Bipolar request: "How **satisfied** or **dissatisfied** are you with the present state of the economy in your country?"
- Bipolar scale:
    1. Extremely dissatisfied
    2. Dissatisfied
    3. Neither satisfied nor dissatisfied
    4. Satisfied
    5. Extremely satisfied

However, theoretically bipolar concepts and requests can also be formulated using unipolar scales,

if only one of the poles is used in the response scale.

- Unipolar request: "How **satisfied** are you with the present state of the economy in your country?"
- Unipolar scale:

    1. Not at all satisfied

    2. Fairly satisfied

    3. Very satisfied

    4. Extremely satisfied

Besides, theoretically unipolar concepts have just one pole and the scales go from zero to positive or from zero to negative.

- Unipolar concept: importance
- Unipolar request: "How **important** do you think being able to speak English should be in deciding whether someone born, brought up and living outside Great Britain should be able to come and live here?
- Unipolar scale:

    1. Not at all important   2.   3.   4. Extremely important

APPENDIX 4: CODING A QUESTION WITH SEVERAL STEPS

Response scales with several steps are usually measurement procedures consisting of two or more requests and answer scales. For example, take the following set of questions:

Q1   "Do you favour or oppose abortion?
        1. Favour   **go to Q2**
        2. Oppose"   **go to Q3**

Q2   "How far do you favour abortion?
        1. I am completely in favour
        2. I am in favour"

Q3   "How far do you oppose abortion?
        1. I am completely opposed
        2. I am opposed"

Following this example, the variable to be measured is a combination of Q2 and Q3, Q1 being a filter question. In SQP, these questions will need to be coded as one, as they intend to measure a unique variable of interest "attitudes towards abortion" and cannot be analysed separately. In order to group the three questions into a unique question, Q1 has to be considered an introduction and Q2 and Q3, the two requests for an answer. However, to code the formal and linguistic characteristics of the request for an answer as 'Bipolarity or Unipolarity', 'Emphasis', 'Encouragement', 'Number of words', one of the two requests, which usually has similar characteristics, needs to be chosen to be presented in the SQP text. Thus, the text to be entered in SQP will be as follows:

Introduction box: Do you favour or oppose abortion?

Request for an answer text box: 1. How far do you favour abortion?

(Because people will only get Q2 or Q3, just one of them needs to be put into the text box)

Answer options box:

    1. I am completely in favour

    2. I am in favour

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3. I am opposed

4. I am completely opposed

The formal characteristics of the request for an answer will be coded as usual. However, to code the answer options' characteristics, it should be indicated in the characteristic 'Response scale: basic choice' the option: 'More step procedures'. In the following characteristics regarding the response scale, the total number of categories, the order of the labels, the correspondence and other characteristics of the scale should be indicated.

To consider the fact that Q1, a question which is indicated as an introduction, should be coded as a 'Request is present' in the characteristics regarding the introduction.

Furthermore, the linguistic characteristics of the request for an answer should not be the total of the 2 requests but rather only one should be used or an average of the two, if they are different. In the example, both statements have 6 words, 9 syllables, etc.

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