



GESIS Leibniz Institute
for the Social Sciences

Coding Instructions for SQP 3.0



*Edited by Lydia Repke
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GESIS

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Preface

The Survey Quality Predictor (SQP) is a software developed to predict the measurement **quality** of survey questions for **continuous latent variables** based on the characteristics of the questions (such as the topic, the properties of the answer scale, and the mode of administration). Formally, the measurement quality of a survey question is the product of reliability and validity. The resulting quality prediction can be used: 1) to make informed decisions about the proper formulation of a survey question before data collection takes place; 2) to compare results across countries in cross-national research; and 3) to correct for measurement error in substantive analyzes of the relationships between variables.

In 1980, Saris and colleagues started conducting a series of multitrait-multimethod (MTMM) experiments to obtain information on the quality of thousands of survey questions. Though this is an ongoing endeavor, the early parts are summarized in Saris and Gallhofer (2014). By analyzing these experiments, Saris and colleagues could calculate the **reliability and validity** of all these survey questions. Following a detailed coding scheme, they coded the characteristics of these questions regarding their topic, formulation, scale, visual design, and administration mode. Based on this information, they studied the impact of the questions' characteristics on their quality. To provide the scientific community with a practical hands-on tool that could be easily applied, they developed an open-access program called Survey Quality Predictor (SQP). This software predicts the quality of new survey questions based on the relationship between the questions' design characteristics and the qualities of thousands of experimental questions. That is, information about the characteristics of the new questions is related to empirical quality information available for those characteristics.

In 2001, the first SQP software was developed for the computer operating system DOS (Saris, 2001). It included information from 87 MTMM experiments conducted in English, German, and Dutch. The software was adapted to Windows a few years later and given Version 1.0 (Saris, Oberski, & Kuipers, 2004). Over the years, more and more MTMM experiments have been conducted. An important source of MTMM experiments has been the European Social Survey (**ESS**). Since its inception in 2001, experiments have been conducted in various countries and languages in each round. Based on these new experiments, a new version of SQP (i.e., SQP 2.0) was released in 2011 (Saris et al., 2011). In 2015, the software received a usability makeover, improving the user experience. It was published as SQP 2.1. In 2022, more experiments were included to enhance the prediction algorithm of SQP, and new functions were introduced, resulting in the release of SQP 3.0 (Felderer et al., in press).

SQP currently allows predictions of the quality of questions to be made in 28 languages and 33 countries. Thus, SQP users can predict the quality of many survey questions by introducing the question into the database and coding up to 70 different characteristics. A guideline on how to code each of these characteristics is provided in this document.



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Introduction to SQP Coding

SQP can be used to make predictions about the measurement quality of survey questions. To obtain the quality prediction of a survey question, users must code the characteristics of the question according to the SQP coding scheme. A survey question in SQP consists of at least a **request for an answer** (i.e., the prompt to respond). Still, it may also have an **introduction** and **answer options**.

Introductions are often used to inform the respondent about the topic of the question or a set of related questions. *Requests for an answer* contain a sentence (or sentences) prompting the respondent to answer. *Answer options* present the respondent with a set of possible answers.

Consider the following three examples:

Example 1

[Request for an answer]: Do you think that honesty is important?

[Answer options]:

1. Yes
2. No

Example 2

[Introduction]: Next, I am going to ask you about politics.

[Request for an answer]: How interested are you in political issues?

[Answer options]:

1. Not at all
2. A bit
3. Much
4. Very much

Example 3

[Request for an answer]: Please indicate to what extent you agree or disagree with the following: Homosexuals should be given the same rights as heterosexuals.

[Answer options]:

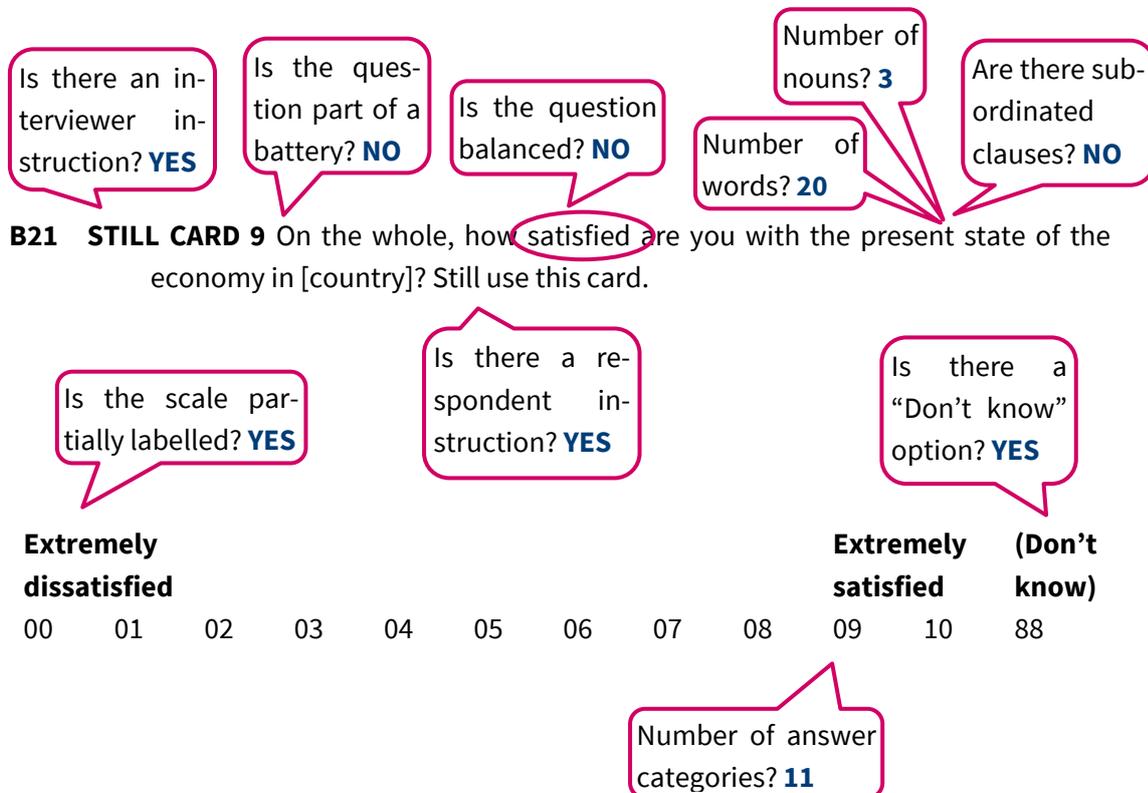
1. Agree completely
2. Agree
3. Disagree
4. Disagree completely



The main objective of a request for an answer is to get a respondent’s evaluation, opinion, or judgment (referred to as “concept”) about an object (referred to as “domain”). For example:

“How satisfied are you with the government?”
 concept domain

There are many evaluations, opinions, and judgments on various objects. Consequently, concepts and domains can be classified into different types (Saris & Gallhofer, 2007). However, concept and domain are not the only sources of variation in survey questions. In fact, a survey question can be designed in many ways. Figure 1 illustrates the multiple decisions one has to make when designing a survey question.



SQP’s coding scheme captures these and more design decisions. It guides users through all the characteristics that should be coded for a survey question when applying SQP. This document is a practical guide on the SQP coding scheme routing paths. The following sections present and explain the characteristics and their coding options.



The SQP Characteristics

1 Domain

The characteristic **domain** refers to the general subject of the question, the topic of what is being asked. A more specific domain should be specified after selecting a general category for the domain. 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:

- 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](#)
- European Union politics: e.g., European institutions, European laws, European norms, prominent European persons, etc. → Continue in [1.2 European Union Politics](#)
- International politics: e.g., international institutions, international laws, international norms, international conflicts/wars, etc. → Continue in [1.3 International Politics](#)
- Family: e.g., marriage, children, unconditional love, the role of women, the transmission of values, etc. → Continue in [1.4 Family](#)
- Personal relations: e.g., social networks, confidence in others, solidarity, tolerance, permissiveness, etc. → Continue in [1.5 Personal Relations](#)
- Work: e.g., importance, work qualities, job satisfaction, work ethos, obedience to one's superiors, etc. → Continue in [1.6 Work](#)
- Consumer behavior: e.g., consumer habits, household expenses, brand satisfaction, etc. → Continue in [1.7 Consumer Behavior](#)
- Leisure activities: e.g., hobbies, relaxation time, cultural activities, holidays, etc. → Continue in [1.8 Leisure Activities](#)
- Health: e.g., doctor's treatment, health condition, use of medicines/drugs, etc. → Continue in [1.9 Health](#)
- Living conditions and background variables: e.g., age, marital status, nationality, income, gender, education, etc. → Continue in [1.10 Living Conditions and Background Variables](#)
- Other domains: e.g., Happiness, Religion, Philosophy, Norms, etc. → Continue in [1.11 Other Domains](#)



1.1 Domain: National Politics

Indicate the specific subject concerning the **national politics** of the question being coded.

- National government
- Local government
- National institutions (ministries, parliament, etc.)
- Local institutions
- Political parties
- Elections
- Trade unions and employee organizations
- Employer's organizations
- Pressure groups
- National issues
- Legal matters
- Economic/financial matters
- Defense matters
- Environmental matters
- Technological matters
- Traffic matters
- Agricultural matters
- Educational matters
- Prominent persons (ministers, members of parliament, etc.)
- Other

→ Continue in [2 Concept](#)

1.2 Domain: European Union Politics

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

- European Community Government
- European Community institutions



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

→ Continue in [2 Concept](#)

1.3 Domain: International Politics

Indicate the specific subject concerning **international politics** of the question being coded.

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



- Other

→ Continue in [2 Concept](#)

1.4 Domain: Family

Indicate the specific subject concerning the **family** of the question being coded.

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

→ Continue in [2 Concept](#)

1.5 Domain: Personal Relations

Indicate the specific subject concerning **personal relations** of the question being coded.

- Friends
- Neighbors
- Workplace
- Norms of other people
- Membership of organizations
- Religion/philosophy
- Other

→ Continue in [2 Concept](#)



1.6 Domain: Work

Indicate the specific subject concerning the **work** of the question being coded.

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

→ Continue in [2 Concept](#)

1.7 Domain: Consumer Behavior

Indicate the specific subject concerning **consumer behavior** of the question being coded.

- Kind of housing
- Housing expenditures
- Housing conditions (furniture, heating, garden, etc.)
- Durables (car, tv, computer, etc.)
- Food and nutrition expenditures (not in restaurants)
- Tobacco, liquor
- Clothing
- Preferences for shops, brands
- Preferences for payment
- Household budgeting
- Consumer organizations



- Saving and investment of money
- Loans, mortgages
- Banks
- Insurances
- Other

→ Continue in [2 Concept](#)

1.8 Domain: Leisure Activities

Indicate the specific subject concerning **leisure activities** of the question being coded.

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

→ Continue in [2 Concept](#)

1.9 Domain: Health

Indicate the specific subject concerning **health** of the question being coded.

- Personal physical health condition
- Personal mental health condition
- Physical illnesses
- Mental illnesses
- Disabilities



- Use of medicine
- Use of drugs
- Medical institutions and hospitals
- Doctor's treatment
- 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.

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

→ Continue in [2 Concept](#)

1.11 Domain: Other Domains

Indicate the specific subject concerning **other domains** of the question being coded.

- Religion
- Philosophy
- Sexuality
- Race



- Norms
- Life in general
- Happiness
- Yourself
- Other

→ Continue in [2 Concept](#)

2 Concept

A request for an answer is also characterized by its **concept** (i.e., what the researcher wants to know about a subject or domain). However, so many concepts are used in survey research that Saris and Gallhofer (2007) classified them into basic concepts. Based on this classification, only the most common simple concepts are mentioned here. If your concept is not listed below, you can also select **all other simple concepts** or **complex concepts** for which you can provide more details in the follow-up question. **Note that you should code questions with agree-disagree scales as complex concepts.**

- Evaluative belief: is a concept that aims to obtain an evaluation of the respondent's belief about someone or something without using explicitly 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 the assertions above. Typical words expressing evaluative beliefs are: abandon, diminish, embrace, enrich, harm, success, etc.

→ Continue in [3 Social Desirability](#)

- Feeling: is a concept that refers to affective evaluations or feelings toward someone or something. For example:

*“My job is **enjoyable**.”*

*“I **like** my job.”*

*“Politicians make me **angry**.”*



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

→ Continue in [3 Social Desirability](#)

- Importance of something: a concept usually includes 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 the assertions above.

→ Continue in [3 Social Desirability](#)

- Expectation of future events: is a concept that refers 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 the assertions above.

→ Continue in [3 Social Desirability](#)

- Facts, background, or behavior: is a concept that refers to objective variables, that is variables for which information could, theoretically, also be obtained from a source other than the respondent. For instance, age can be obtained from birth records, hospital medical history, etc.

BEWARE

SQP is not designed to evaluate the quality of factual questions for which the answers are right or wrong. Instead, SQP is designed for subjective variables that vary from very low to very high, and the answers can be expressed more or less precisely on a scale with more or fewer answer categories.

You can continue coding but will not receive a quality prediction for this question.

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

“Who was the 35th President of the United States?”



Background or demographic 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, behavior refers to the respondent's past or present actions or activities. For example:

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

→ Continue in [3 Social Desirability](#)

- All other simple concepts: include simple concepts that have not been mentioned above but are equally important in survey research. These are judgments, relationships, evaluations, preferences, policies, rights, and action tendencies.

→ Continue in [2.1 All Other Simple Concepts](#)

- Complex concepts: 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 one simple concept but when it uses a combination of them. The following types of complex concepts are proposed: the importance of a judgment, the certainty of a judgment, 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.

- Judgment: a concept that makes a statement about someone or something but that is neither positive nor negative. For example:

*“Do you have a **large** family?”*

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

The word expressing a judgment has been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

- Relationship: a concept that 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?”*



The word expressing the relationship between two objects has been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

- **Evaluation:** a concept that can easily be identified by evaluative words such as good/bad, positive/negative, perfect/imperfect, superior/inferior, helpful/useless, etc. For example:

*“Was Clinton a **good** president?”*

*“Was their work **perfect**?”*

The word expressing an evaluation has been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

- **Preference:** a concept frequently used in consumer research, election studies, and policy studies in which items are compared in order of greatest or least preference. For example:

*“How do you **like** to spend your free time?”*

*“Are you **in favor** of a directly elected President?”*

*“Do you **prefer** the Social Democratic Party **above** the Christian Democratic Party?”*

The word expressing a preference has been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

- **Norm:** a concept that refers to actions considered appropriate or correct by a group of people (Coleman, 1990). An assertion expressing a norm often contains normative verbs or phrases such as “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** work hard at your job?”*

The word expressing a norm has been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

- **Policy:** 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?”*

*“**Does** the **government have** to resign?”*

The words expressing a policy have been emphasized in the assertions above.



→ Continue in [3 Social Desirability](#)

- Right: a concept that expresses permission (i.e., assigns a right to someone). Typical words are accepted, allowed, or justified. For example:

*“Is abortion **permitted**?”*

*“Have immigrants the **right** to social security?”*

The word expressing a right has been emphasized in both assertions above.

→ Continue in [3 Social Desirability](#)

- Action tendency: a concept that refers to what someone intends to do in the future. For example:

*“Are you **going to** see a doctor?”*

*“**Will** you **do** your homework soon?”*

The words expressing an action tendency have been emphasized in the assertions above.

→ Continue in [3 Social Desirability](#)

2.2 Complex Concepts

Below, the **complex concept** options are described.

- Importance of judgment: combines the concepts “importance of something” and “judgment.” For example:

*“How **important** is it that basketball players are **tall**?”*

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

The words expressing importance and judgment have been emphasized in the assertions above.

- Certainty of a judgment: combines the concept of “judgment” with the idea of “certainty.” 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?”*

The words expressing certainty and judgment have been emphasized in the assertions above.

- Other: includes further possible combinations of two concepts. For example:

*“To what extent are you in **favor** of abortion being **permitted**?”*



The emphasized words in the assertion express a preference for a right.

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

The emphasized words in the assertion agree with a feeling. Agreements can be combined with any simple concept.

“How **often** did you **feel** happy during the last week?”

The emphasized words in the assertion express the frequency of a feeling.

3 Social Desirability

Socially desirable responses may occur when the respondent believes that certain response categories are more likely to be accepted by society than others. This can occur in topics like voting behavior, addiction, crimes, illnesses, racism, sexual behavior, charity, physical violence, financial matters, being a well-informed and cultivated person, religion, etc. When coding this characteristic, consider the specific population being studied and the cultural and temporal references.

- **Not present:** refers to topics with 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?”

- **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 is recognized by some respondents but not by others. For example, when asking about personal income and earnings, some respondents tend to raise or lower the true amount. Similar effects may appear when asking about illnesses, charity, financial matters, being a well-informed and cultivated person, evaluating the governments or other institutions' performances, persons, or objects, etc.
- **A lot:** refers to topics that are not commonly asked because of their high degree of social desirability. Most respondents feel exposed by these types of questions. For example, questions on racism, physical violence, religion (depending on the cultural background), voting behavior (depending on the country's political situation), crimes, sexual relationships, drugs, etc.



4 Centrality

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

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

“Do you think the government should favor the use of solar-powered cars?”

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

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

- **Rather central:** is a topic that respondents may not have thought about beforehand but can easily find an answer to based on their experiences or what they have heard. For example:

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

- **Central:** is a topic referring to the respondents' usual activities or thoughts. Although they should be central in the respondent's mind, the formulation of the requests for an answer requires 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 listening to the radio in total?”

“Mark which types of fruits you have eaten during the last week.”

- **Very central/salient:** a topic referring to the respondents' usual activities or thoughts. The requests for an answer require no effort from the respondents other than finding the appropriate category for their 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

- Future: e.g., whether one will buy some goods in the future, support some activity, or expect any changes.
- Present: e.g., feelings at the moment, satisfaction with different aspects of life, or opinions about policies, norms, or rights.
- Past: e.g., whether one has bought something during the last week or 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:

- Indirect request: is a request which uses 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 [7 WH Word Used in the Request](#)

- Direct request: a request which does not contain a pre-request but that uses 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 **do you spend** surfing the Internet?”

→ Continue in [7 WH Word Used in the Request](#)

- No request present (e.g., not the first item of battery): commonly occurs in batteries where a set of stimuli or statements is given, implying by 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. In that case, all items after the first do not contain any request. Click [here](#) 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) would be coded with the request present (specifically as an indirect request). However, statements 2 and 3 should be coded as no request present.

→ Continue in [14 Use of Stimulus or Statement in the Request](#)

7 WH Word Used in the Request

Requests often use words 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 letter ‘wh.’ However, 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**.

- WH word used: e.g., “**How** satisfied are you with your job?”
- Request without WH word: e.g., “Are you satisfied with your job?”

→ Continue in [8 Request for an Answer Type](#)



7.1 WH Word

Below, examples of each of the **WH word** options are presented:

- Who: e.g., “*Who is the president of the European Commission?*”
- Which: e.g., “*Which candidate do you prefer?*”
- What: e.g., “*What did you buy?*”

Note that expressions like “*to what extent 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?*”

- When (time): e.g., “*When did you go to school for the first time?*”
- Where (place): e.g., “*Where did you go by car?*”
- How (procedure): e.g., “*How did you pay for the car?*”
- How (relationship): e.g., “*How did the position of blacks change?*”
- Why: e.g., “*Why did you leave school?*”

Note that the examples above are questions that ask for factual information. SQP cannot evaluate the quality of these questions.

- How (opinion): e.g., “*How do you see the future, more positive or more negative?*”
- How (quantity): e.g., “*How often do you go to church?*” or “*How many...*”
- How (extremity): e.g., “*How interested are you in politics?*” or “*To what extent are you satisfied with your job?*”
- How (intensity): 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?*”

8 Request for an Answer Type

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

- Interrogative: a request which asks respondents about something and 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...?”

- **Imperative:** a request that instructs the respondents to do something and usually includes 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...”

- **Declarative:** a request that works by declaring an interviewer’s or a survey’s intention/interest. It 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...”

- **None of the above:** occurs when there is no request present (see **formulation of the request of an answer: basic choice**), for example, 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 the characteristics of the request must be coded. However, the second statement is presented to the respondent without repeating the request again. Therefore, the characteristics of the request are not 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**.

- **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 many fruits...”

“To what extent do you...”

“Please tell me to which degree you...”

- **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?”

“Did you eat fruits during the last week?”

10 Balance of the Request

The use of a theoretically **bipolar** concept does not mean that the actual request for an answer is also formulated as such (i.e., that both poles of the concept are actually mentioned). Depending on how the request is formulated, requests can be balanced or unbalanced.

- **Balanced:** occurs when the possible answer categories of both directions are mentioned in the request. In other words, that is the case when the used concept 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?”*

- **Unbalanced:** occurs when only one direction of the concept is indicated in the request, although the other direction would also be possible. In other words, that is the case when the concept is bipolar, but only one pole is used in the request. This is also known as a leading question because the one-sided formulation may influence the respondent to answer in this direction. For example:

*“Do you **dislike** foreigners?”*

*“How **satisfied** would you say you are with your job?”*

- **Not applicable:** occurs when there are not two possible directions, that is, when the concept measured is **unipolar**. This is true for all questions regarding frequencies, probabilities, likelihoods, 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.

Exceptions

- (1) Some concepts only vary from zero to one end of the scale. For example, in “*Is this terrorist guilty?*” only two possible options are available: either the terrorist is guilty or not. Similarly, in “*Do you think that abortion should be legalized?*” there are only two options: abortion can only be legalized or not legalized (i.e., prohibited). There is no opposite pole for legalization other than the automatic zero point, which is prohibition. The same is true for “*How sweet is your drink?*” In these cases, the other direction cannot be formulated, and so these requests are also considered [not applicable](#).
- (2) Be aware that this characteristic is language-specific. For example, in Spanish, there is no opposite pole for “successful” as in English with “unsuccessful.” In Spanish, the opposite is “not successful.” This 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 you ask in Spanish, “*How successful is the police?*,” this request will be considered as [not applicable](#) concerning balance.
- (3) Requests can also be formulated as “*Do you think that the government is doing a good job or not?*”, which is also language-specific. If the opposite pole of “good” (i.e., “bad”) exists in the given language, the request is [unbalanced](#) because the opposite pole is not used even though it exists. In contrast, if the opposite pole for “good” (other than “not good”) does not exist in the given language, then the balance of the request is considered [not applicable](#).

11 Presence of Encouragement to Answer

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

- [Encouragement present](#): 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...”

- No particular encouragement present: occurs when requests do not use specific words that stimulate the respondent to answer.

12 Emphasis on Subjective Opinion in Request

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

- Emphasis on opinion present: 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?”*

- No emphasis on opinion: occurs when requests do not use specific words that seek to obtain the subjective opinion of the respondent.

13 Information About the Opinion of Other People

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

- Information about opinions of other present: occurs when information about the opinion of other people is given in the request. For example:

*“**Some people are** against nuclear energy while **others** favor it...”*

“Most people think that...”

- No information about opinions of others: occurs when no information about the opinion of other people is given in the request.



14 Use of Stimulus or Statement in the Request

A request may or may not provide a stimulus or statement.

- **No stimulus or statement:** 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?”

- **Stimulus or statement is present:** occurs when batteries of survey questions are used. In batteries, a set of stimuli 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. That is because usually, the interviewer will not repeat the question. Also, the respondent will probably not read the question again after having answered the first question in the battery. Therefore, we suggest only the first item in the battery includes a stimulus or statement in the request. In contrast, the other items in the battery consist only of the stimulus or statement. 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 nor 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, the Polish Parliament) are coded without the request. In sum, a request for an answer can include a stimulus or statement when it is the first item of a battery of questions. But keep in mind that a stimulus or statement can also appear without a request when it is not the first item of a battery.

15 Absolute Or Comparative Judgement

Requests may ask respondents about an absolute or a comparative judgement.

- 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?”

- A comparative judgement: is a request where respondents are asked to compare 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 procedure to register the respondents' opinions. One possibility is to ask the respondents to express their answers in prespecified response categories. This approach can make use of different kinds of category scales. We make a distinction between **more than two-category scales**, **two-category scales**, and **more-step procedures**.

Moreover, there are questions where no answer categories are suggested. These are grouped under the options **numerical open-ended scales**, **magnitude estimation**, and **line production**.

- **More than two-category scales**: refer to response scales with more than two categorical answer options. For example:

“How serious is the crime ‘stealing a bike’?”



- | | |
|---|-------------------|
| 1 | Not serious |
| 2 | A bit serious |
| 3 | Quite serious |
| 4 | Extremely serious |

Another example is rating scales. Here, only the endpoints of a scale are labelled. For all the possible answers in between the endpoints of the scale, only the numbers of the categories are mentioned. For example:

“How serious a crime would you evaluate ‘stealing a bike?’”

1	2	3	4	5	6	7	8	9	10
Not at all serious								Extremely serious	

- **Two-category scales:** refer to response scales with two answer options. For example:

“Is ‘stealing a bike’ a serious crime?”

- | | |
|---|-------------|
| 1 | Not serious |
| 2 | Serious |

- **Numerical open-ended scales:** refer to response scales 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 absolutely none and 100% means absolutely all. Write in percentage: _____.”

“On an average weekday, how much time, in total, do you spend watching television? Write in hours and minutes: _____.”

“How many people work in your company? Write in: _____ people”

“How much do you earn per month? Write in: _____ euro

- **Magnitude estimation:** may exist with one or two reference points.

Magnitude estimation with one reference point: refers to a response procedure where respondents are presented with a standard stimulus of a certain characteristic and an evaluative number on this characteristic. Then, respondents are presented with other stimuli, and they are asked to assign to each stimulus an evaluative number relative to the evaluative number of 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?”



Your answer: _____”

Magnitude estimation with two reference points: is similar to magnitude estimation with one reference point, just that here a second reference point is given. For example:

“Please evaluate the seriousness of the following crimes on a scale from 0 to 100, where 0 means not at all serious and 100 means the most serious crime possible.

Stealing a bike _____

Breaking into a house and stealing jewels _____”

The maximum value can vary from topic to topic; numbers like 10, 100, or even 1000 are used, but other numbers are also possible.

- **Line production:** refers to a measurement procedure where respondents express their evaluations in the length of lines.

There is line production with one reference point, where respondents are presented with a stimulus and an evaluation of that stimulus in a length of a line. After that, they are presented with other stimuli and are asked to express their judgement in the length of a line. For example:

“If we express the status of a schoolteacher by the following line

how would you evaluate the status of a physician? Draw a line with the arrow keys, which can be moved in both directions.”

There is also line production with two reference points, meaning two reference lines are provided. For example:

“How satisfied are you with your house? Express your opinion in the 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:

Draw a line with the arrow keys which can be moved in both directions.”

- **More-step procedures:** refer to response scales consisting of more than one scale. Click here for an illustration of how to introduce and code a more-step procedure question in SQP. For example:



Q1 “Do you favor or oppose abortion?”

- | | | |
|---|--------|--------------|
| 1 | Favor | → [Go to Q2] |
| 2 | Oppose | → [Go to Q3] |

Q2 “How far are you in favor of abortion?”

- | | |
|---|-------------------------|
| 1 | I am very much in favor |
| 2 | I am much in favor |

Q3 “How far do you oppose abortion?”

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

16.1 Number of Categories

For scales that have been coded as **more than two-category scales**, just count the number of answer options. 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 |

Here, the total number of categories is 8. SQP already provides a suggested value for this characteristic. Note that the ‘don't know’ category does not count as an answer option.

For scales that have been coded as **more-step procedures** (e.g., first, a filter question that is followed by two questions though only one of the two is shown to each respondent), all the answer options of the follow-up questions need to be counted. For example:

Q1 “Do you favor or oppose abortion?”

- | | | |
|---|--------|--------------|
| 1 | Favor | → [Go to Q2] |
| 2 | Oppose | → [Go to Q3] |

Q2 “How far are you in favor of abortion?”



1 I am very much in favor

2 I am much in favor

Q3 “How far do you oppose abortion?”

1 I am completely opposed

2 I am opposed

Q1 is the filter question which is either followed by Q2 or Q3. Both (Q2 and Q3) measure the same concept and cannot be analyzed separately. Thus, their answer options are counted together and are equal to 4.

→ Continue in [16.3 Labels of Categories](#)

16.2 Maximum Possible Value

For **numerical open-ended scales**, enter the maximum possible value respondents can give. For example:

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

Here the maximum number is 100.

“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.

There are also questions for which the maximum possible value is undetermined. For example:

“How many people work in your company? Write in: _____ people”

“How much do you earn per month? Write in: _____ euro”

Here, you should enter the maximum value observed in the data.

→ Continue in [17 Don't Know Option](#)

For **magnitude estimation** and **line production** scales, enter the maximum possible value respondents can give. 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 (i.e., 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 Range of the Used Scale Bipolar/Unipolar](#)

16.3 Labels Of Categories

The text related to each category (i.e., the verbal labels) can be:

- **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 [16.4 Labels with Short Text or Complete Sentences](#)

- **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 [16.4 Labels with Short Text or Complete Sentences](#)



- **No labels:** occurs in line production or magnitude estimation 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 Range of the Used Scale: Bipolar/Unipolar](#)

16.4 Labels With Short Text or Complete Sentences

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

- Short text:

“agree completely”

“more than a quarter of the time”

“in favor”

- Complete sentences:

“Doctors rarely tell the whole truth to their patients”

“I am in favor of the President”

“I am completely satisfied”

16.5 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 answer category listed the most negative or the most positive?

- **First label negative:** 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



- **Not applicable:** applies to nominal answer scales. Labels in these scales are only meant to assign events, objects, or people to discrete categories, which cannot be ordered from high to low or vice versa. 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 **not applicable**. 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	Women should take more responsibility for the home and children than men

- **First label positive:** occurs when the first label 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

16.6 Correspondence Between the Labels and the Numbers of the Scale

Sometimes, numeric values are attached to the verbal labels in the answer options. Specifically, these are the numerical values explicitly communicated to the respondent (numerical codes for data processing are not meant here).

Correspondence measures the relationship between the numbers and the verbal labels in a response scale. The numeric values ordering the scale should be related to the verbal labels of the answer options. For instance, 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 bipolar or unipolar (see the characteristic [range of the used scale bipolar/unipolar](#)).

- **High correspondence:** occurs in scales where the connotation of the verbal labels perfectly matches the numerical values used. An example for **bipolar** scales:

The following bipolar scale has a **high correspondence** because one label is the opposite of the other. Therefore, it makes sense that one label has the opposite value of the other label. Thus, if the label ‘completely satisfied’ corresponds to the value +3, the opposite label ‘completely dissatisfied’ should correspond to the value -3.

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

An example for **unipolar** scales:

The label ‘no trust at all’ represents zero trust and corresponds to the value 0, while the positive label ‘complete trust’ corresponds to a higher value (e.g., 10).

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

- **Medium correspondence:** occurs when the numeric values and verbal labels are ordered following the same logic from low to high (or vice versa) but do not perfectly match their connotation. An example for **bipolar** scales:

The negative label ‘complete distrust’ corresponds to the lowest value (i.e., 1), and the positive label ‘complete trust’ corresponds to the highest value (i.e., 5). The correspondence is only medium (and 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:

The label ‘no trust at all’ represents zero trust and corresponds to a value of 1, not 0. The positive label ‘complete trust’ corresponds to a higher value (i.e., 5). The correspondence is medium because both the numbers and the verbal labels are ordered from low to high (from 1 to 5 and from ‘no trust at all’ to ‘complete trust’), but the numbers do not map the exact meaning of the verbal labels.



1	2	3	4	5
No trust at all				Complete trust

- **Low correspondence:** occurs when verbal labels and numeric values are not ordered in the same direction. An example for **bipolar** scales:

The labels are ordered from the most positive label ‘strongly agree’ to the most negative label ‘strongly disagree.’ In contrast, the numbers are ordered from the lowest (i.e., 1) to the highest value (i.e., 5).

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

An example for **unipolar** scales:

The labels are ordered from the most positive ‘strongly agree’ to the most negative ‘strongly disagree’. In contrast, the numbers are ordered from the lowest (i.e., 0) to the highest (i.e., 10).

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

- **Not applicable:** occurs when numbers are not attached to the verbal labels. Sometimes, letters or radio buttons are used instead. For example:

o	o	o	o	o
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

16.7 Theoretical Range of Concept: Bipolar/Unipolar

This characteristic identifies whether the concept measured in the request is theoretically bipolar or unipolar, regardless of which formulation the researcher uses in the question.

- **Theoretically bipolar:** refers to a theoretical concept that contains two opposing poles. For example, the concept ‘feelings towards foreigners’ is bipolar because one can like and dislike them. Thus, one possibility would be to use the two poles in the request:

“Do you **like** or **dislike** foreigners?”



If both poles exist, but only one is explicitly mentioned in the request, the theoretical range should still be coded as bipolar. For example:

“Do you **like** foreigners?”

→ Continue in [16.8 Range of the Used Scale: Bipolar/Unipolar](#)

- **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?”

Another example is importance:

“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, improbable, and uncertain exist:

“How likely are you to hire our company again?”

→ Continue in [16.11 Number of Fixed Reference Points](#)

In the case of questions measuring complex concepts (see the characteristic [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 range of the concept, go to [Appendix 3.1](#).

16.8 Range Of the Used Scale: Bipolar/Unipolar

This characteristic indicates whether the answer scale used is bipolar or unipolar, regardless of the formulation in the request.

If the theoretical range of the concept is **unipolar**, the answer options are always unipolar. Thus, SQP does not ask to code this characteristic if the concept was previously coded as theoretically unipolar. However, if the theoretical range is **bipolar**, one needs to code whether the scale used is also bipolar or only unipolar. This can be seen in the endpoints of the answer scale.

- **Bipolar:** refers to answer scales using both poles. For example:

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

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

→ Continue in [16.9 Symmetry of Response Scale](#)



- **Unipolar:** refers to answer scales with only one pole. For example:

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

This is a unipolar scale since the opposite pole ‘dissatisfied’ is ignored, although it exists in English. Thus, theoretically, this scale would be bipolar, but the scale specified is unipolar.

→ Continue in [16.10 Neutral Category](#)

16.9 Symmetry Of Response Scale

Symmetry is a characteristic specific of bipolar scales.

- **Asymmetric:** occurs when the number of answer options on either side of the scale or the distance between response options is different. For example:

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

Here, there are three categories on the positive side of the scale ‘agree’ and two categories on the negative side ‘disagree’. Thus, the scale is asymmetric.

- **Symmetric:** occurs when the number of answer categories is the same on one side and on the other. Also, there is a correspondence between all terms (i.e., their relationship is reversible). For example:

1	2	3	4
Very good	Good	Bad	Very bad

16.10 Neutral Category

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

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

An asymmetric scale without a middle point can also have an explicit neutral category. For example:



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

Implicitly neutral categories can be recognized depending on the polarity of the scale. If the scale is bipolar and there is an odd number of response options, the middle point should always be considered the neutral point of the scale. For example:

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

For bipolar and symmetrical scales with an odd number of categories, the middle point should always be coded as a neutral category, even if it is not labelled.

- **Not present:** applies commonly to unipolar scale (e.g., scales that go from 0 to a positive endpoint) or bipolar scales with an even number of answer options (i.e., scales for which there cannot be implicit neutral points). For example:

0	1	2	3	4
Not at all important				Very important

Note, the neutral category is not equal to ‘no answer’, ‘no opinion’, or ‘don’t know’ answer options.

16.11 Number of Fixed Reference Points

The characteristic **fixed reference points** refers to the number of categories in an answer scale that are taken as fixed reference points for a response. ‘Reference points’ are the meanings that respondents attach to the answer choices. ‘Fixed’ refers to the options that leave no doubt as to where the point lies on the respondent’s perceived subjective scale. 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

In the above scale, the options 1 and 4 are fixed reference points of the scale, since you cannot be agree or in disagree more than completely. Hence, the total number of fixed reference points here is 2.

Both implicit and explicit neutral points (see **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

In the above scale, the options 0 and 10 are fixed reference points as well as 5 (as it is the implicit neutral category). Here, the total number of fixed reference points is 3.

The endpoints cannot automatically be considered fixed reference points. If the endpoints were labelled 'bad' and 'good,' these reference points would not be fixed because one could 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 above scale does not have three fixed reference points, as one might mistakenly assume (i.e., bad, neither good nor bad, and good). In fact, it has only one fixed reference point, which is the neutral category (i.e., neither good nor bad).

Sometimes frequency scales provide labels for closed ranges. 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

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. For example:

0	1	2	3	4
Never	Seldom	Occasionally	Frequently	Always

In the scale above, only the extreme values are considered fixed reference points, as one cannot go beyond 'never' or 'always'.



17 Don't Know Option

The **don't know** (DK) option often does not appear as an answer option in the question text provided in SQP, but this does not mean that this option is not included in the questionnaire. To verify that the question being coded uses a DK option as a possible answer, view the original questionnaire. The following DK options should be considered:

- **DK option present:** is explicitly mentioned to the respondent as one of the possible response options. For example:

“On 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

- **DK option only registered:** is not explicitly communicated to the respondent. The questionnaire states that the interviewer should not read it. However, if the respondent says that he or she does not know the answer, the interviewer may register that answer. 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)

- **DK option not present:** is not available as a response option and is not registered by the interviewer.

18 Interviewer Instruction

Interviewer instructions are usually visually distinguished from the main text of the request (e.g., by using boldface, underlining, etc.). However, this type of instruction does not appear in the SQP request text because the interviewer instructions are not communicated to the respondent when answering the question. Check the characteristic of this question in the original questionnaire.

- **Present:** refers to requests that contain instructions for the interviewer. For example:

“Read out.”

“If unclear, repeat the instructions.”

“Card 1”

- **Absent:** refers to requests that do not include instructions for the interviewer.



19 Respondent Instruction

Researchers may give instructions to the respondent that are linguistically characterized by using the imperative or polite versions thereof. The respondent instructions should appear in the text of the SQP request as they are given to the respondent when the question is asked.

- Present: refers to requests that contain 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.”

- Absent: refers to requests that do not include instructions for the respondent.

20 Extra Information or Definition

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

- Present: refers to requests that contain extra information or definitions.

“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 [20.1 Knowledge Provided](#)

- Absent: refers to requests that do not contain extra information or definitions.

→ Continue in [21 Introduction Available](#)



20.1 Knowledge Provided

In survey questions, relevant information can be provided regarding the topic, the definition of terms, or both.

- Definitions only: explain 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.”*

- Other explanations: do not intend to define the terms of the question but rather to provide more information about them. For example:

*“**The EU suggests austerity measures to reduce the Greek deficit.** Are you in favor 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.”

- Both definitions and other explanations: refer to a combination of both.

21 Introduction Available

Introductions mainly serve to introduce the topic of a question to the respondent. In SQP, introductions are usually set apart from the request. They appear clearly identified as an introduction text.

- Available: 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 [21.1 Request Present in the Introduction](#)

- Not available: refers to questions without an introduction.

→ Continue in [21.2 Number of Sentences in the Introduction](#)



21.1 Request Present in the Introduction

In the introduction, an interrogative form may be used.

- **Request not present:** refers to introductions not formulated in interrogative form.
- **Request present:** refers to introductions in interrogative form. For example:

[Introduction]

“Would you mind telling me your race or ethnic origin?”

[Request for Answer]

“What is your race?”

21.2 Number of Sentences in the Introduction

Enter the **number of sentences in the introduction**. SQP will provide a ‘suggested value’ for this characteristic. However, coders should verify it. 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**. SQP will provide a ‘suggested value’ for this characteristic. However, coders should verify it. 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 Subordinated Clauses in Introduction

Enter the **number of subordinate clauses in the introduction**. A subordinate clause – also called a dependent clause – begins with a subordinating conjunction (e.g., although, because, if, that, when, etc.) or a relative pronoun (e.g., which, who, whose, etc.) and contains both a subject and a verb. Subordinated clauses appear because some sentences cannot be expressed by a simple independent main clause. For example:

“The following set of questions will be about your household. Firstly, I would like to ask you about housework.”



In the above request, there are no subordinate clauses.

“Some people are in favor of gun legalization [MAIN 1] while others are against it [SUBORDINATED 1].”

In the above request, 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 provides a ‘suggested value’ for this characteristic. However, coders should verify it. 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 provides a ‘suggested value’ for this characteristic. However, coders should verify it. 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 Number of Nouns in 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 analyzes the sentences, marks the nouns as NN, and provides a ‘suggested value’ for this characteristic (i.e., the number of times the code NN occurs). However, coders should verify it. The highlighted words in the following requests are all nouns:

“Was Maria Callas an opera singer?”

In the sentence above, the total number of nouns is 4.

“Did the bus inspector look at all the passengers’ passes?”



In the sentence above, the total number of nouns is 4.

*“Was the **library** at **Alexandria** destroyed in 48 B.C.?”*

In the sentence above, 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**.”*

In the sentence above, the total number of nouns is 6.

25 Number of Abstract Nouns in 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. 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**.”*

In the request above, the total number of abstract nouns is 2.

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



26 Number of Syllables in Request

Enter the **number of syllables in the request** for an answer text. SQP often provides a ‘suggested value’ for this characteristic based on the hyphenation (i.e., an algorithm doing automatic syllabification) of the words. However, coders should verify it. If the software does not provide a number, the coder must count the syllables. For example:

“Please in-di-cate how much you a-gree or dis-a-gree with each of the fo-l-low-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 Subordinated Clauses in Request

Enter the **number of subordinate clauses in the request**. A subordinate clause – also called a dependent clause – begins with a subordinating conjunction (e.g., although, because, if, that, when, etc.) or a relative pronoun (e.g., which, who, whose, etc.) and contains both a subject and a verb. Subordinated clauses appear because some sentences cannot be expressed by a simple independent main clause. Present participles, such as ‘using this card’ or ‘now thinking about,’ can be links between main and subordinated clauses. 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]**.”*

In the request above, 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]**?”*

In the request above, 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]**?”*

In the request above, the total number of subordinated clauses is 5.



28 Number of Syllables in Answer Scale

Enter the **number of syllables in the answer scale**. SQP often provides a ‘suggested value’ for this characteristic based on the hyphenation (i.e., an algorithm doing automatic syllabification) of the words. However, coders should verify it. If the software does not provide a number, the coder must count the syllables. For example:

- 1 Dis-a-gree strong-ly
- 2 Dis-a-gree
- 3 Nei-ther a-gree nor dis-a-gree
- 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, the suggested value should be corrected by the number of categories (e.g., 27-5).

29 Number of Nouns in Answer Scale

Enter the **number of nouns in the answer scale**. 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 and not nouns. SQP analyzes the sentences, marks the nouns as NN, and provides a ‘suggested value’ for this characteristic (i.e., the number of times the code NN occurs). However, coders should verify it. The highlighted words in the following answer scales are all nouns:

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

In the answer scale above, 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

In the answer scale above, the total number of nouns is 8.

30 Number of Abstract Nouns in Answer Scale

Enter **the number of abstract nouns in the request for an answer scale**. Abstract nouns indicate objects that one cannot, in principle, perceive through physical senses: touch, sight, taste, hearing, or smell.

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

In the answer scale above, the total number of abstract nouns is 4.

31 Showcard or Other Visual Aid Used

This characteristic refers to using a **showcard or other visual aid**, such as the screen in web surveys used when asking a survey question. Showcards are often used in face-to-face surveys to show the answer categories or explain the question. Although, in some cases, the SQP request for an answer text may specify whether a showcard must be used (e.g., "Use Card J"), this must be checked in the original questionnaire.

- **Not used:** 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 [32 Computer-Assisted](#)

- **Used:** refers to questions where a showcard or other visual aids are provided. Self-completed questionnaires always use a visual aid. 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](#)

31.1 Horizontal or Vertical Scale

The answer scale options can be displayed **horizontally** or **vertically** in the visual aid. Select the correct option depending on how the scale is displayed on the visual aid, not how it is displayed in the SQP answer scale text.



- **Horizontal:** the layout of the scale on the visual aid is presented in a line from left to right. For example:

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

- **Vertical:** the layout of the scale on the visual aid is presented in a line from top to bottom. 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

An **overlap** occurs when the **scale label** of one **category** overlaps with another category in the visual aid. Select the correct option based on the format of the scale as shown in the visual aid, not based on how the text is displayed under SQP's answer options.

- **Overlap present:** 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 overlap with other categories of the scale.

- **Text clearly connected to category:** 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 categories** next to the verbal labels. Choose one of the options depending on the format of the scale presented in the visual aid, not according to the format in the text of the SQP answer options.



- **Numbers:** are used to order the answer categories. For example:

1	Disagree strongly
2	Neither agree nor disagree
3	Agree strongly

→ Continue in [31.4 Scale with Only Numbers or Numbers in Boxes](#)

- **Letters:** are used to order the answer categories. For example:

A	Parliament
B	Government
C	Police

→ Continue in [31.4 Scale with Only Numbers or Numbers in Boxes](#)

- **Neither:** numbers nor letters are used to order the answer categories. For example:

<input type="radio"/>	Never
<input type="radio"/>	Less than once a month
<input type="radio"/>	Once a month
<input type="radio"/>	Several times a month
<input type="radio"/>	Once a week
<input type="radio"/>	Several times a week
<input type="radio"/>	Every day

→ Continue in [31.5 Start of the Response Sentence on the Visual Aid](#)

31.4 Scale with only Numbers or Numbers in Boxes

Sometimes the **numbers** before the categories are in **boxes** to provide a clear separation between the options.

- **Only numbers:** 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

- **Numbers in boxes:** 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 may provide the start of the response sentence.

- Yes: 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

- No: the start of the response sentence is not provided in the visual aid.

31.6 Request on the Visual Aid

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

- Yes: the request is provided in the visual aid. For example:

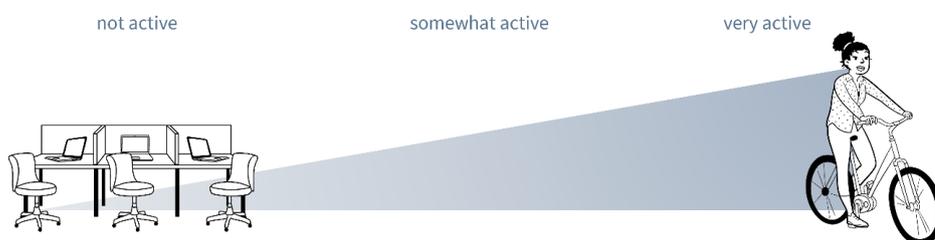
How much do you like oranges?
 Very much
 Quite a lot
 A little
 Not at all

- No: the request is not provided in the visual aid.

31.7 Picture Provided

Sometimes, surveys include **pictures** to provide additional information for the respondent.

- Yes: picture is provided in the visual aid. For example:



- No: picture is provided in the visual aid.



32 Computer-Assisted

The characteristic **computer-assisted** refers to the mode the answers are registered. Answers can be collected with a computer or manually on a paper questionnaire. The only data collection mode that cannot be considered computer-assisted is the paper and pencil interview, which can be done face-to-face, by self-completion, or by telephone.

- Yes: respondents' answers are registered by a computer.
- No: respondents' answers are not registered by a computer.

33 Interviewer

The characteristic **interviewer** refers to the mode in which the questions were asked. The questions can be read out by an interviewer (e.g., in a face-to-face or telephone interview) or completed by the respondent.

- Yes: questions are read out by an interviewer.
- No: questions are not read out by an interviewer but self-completed by the respondent.

34 Visual or Oral Presentation

This characteristic refers to whether the question was **presented visually or orally** to the respondent.

- Visual: occurs when an interviewer does not administer the questionnaire because it is completed by the respondent, either on paper or on the computer. The presentation mode also counts as visual if the respondents are asked to fill in some questions themselves (e.g., sensitive questions), even though an interviewer is present.
- Oral: occurs when the interviewer fills out the questionnaire (i.e., the interviewer reads the questions to the respondent).

35 Position

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



Appendix

Appendix 1: Definition of Reliability, Validity, and Quality

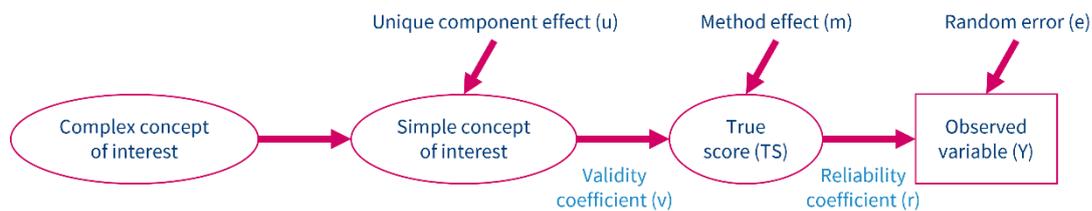
SQP provides information about the quality of survey questions. The quality of a survey question is defined as the strength of the relationship between (a) the latent concept of interest and (b) the observed response to the measure or survey question. There are at least three sources of measurement error affecting the quality of survey questions. The first source 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 the same way. Therefore, the responses of respondents contain random measurement errors.

The second source of measurement error is the **method effect**, or **systematic error**, that is, the way people react to the different ways of formulating a survey question. For example, the response may differ 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 on an 11-point scale, while others do not use the most extreme response categories. Still, both groups of respondents may use the 5-point scale similarly (Saris & Gallhofer, 2014).

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 measuring the complex concept of “job satisfaction” using the following survey question: “Would you choose the same job if you could choose again?” Although the question probably reflects reasonably well the complex concept it intends to assess (namely, respondents’ satisfaction with the current job), respondents could, for instance, consider in their response not only satisfaction with their current job but also satisfaction with other possible jobs in the past. This indicates a difference, called a **unique component**, between the complex concept to be measured and the simple concept measured by the question. Figure A.1 indicates where these different errors can play a role.



Figure A.1. The True Score Model with Measurement Errors



The observed variable (Y) contains the responses to a specific survey question. As illustrated in Figure A.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 variable minus the random errors. The strength of the relationship 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 follows:

$$\text{Reliability } (r^2) = 1 - \text{proportion of random error in the observed variance}$$

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, which is simply called method error variance. The strength of the relationship between the simple concept of interest and the true score is the validity (v^2) of the question. Validity can be formulated as follows:

$$\text{Validity } (v^2) = 1 - \text{proportion of method error variance in the true score variance}$$

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 noted 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. SQP's quality prediction does not consider this last part of the measurement process. The quality prediction given by SQP only refers to **simple concepts**. Evaluating 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 validity is different, because some authors call construct validity the product of SQP's definitions of validity and reliability (Andrews, 1984). Others define validity as the relationship between the complex concept of interest and the observed variable. In SQP, the terms reliability and validity are used as defined above, and the product of these two is defined as 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 (i.e., reliability and validity) are estimated based on Multitrait-Multimethod (MTMM) experiments. In these experiments, different traits (i.e., simple concepts) are measured with different methods (i.e., different formulations of survey questions). The basic model used to estimate the relationships between the simple concept of interest, the true score, and the observed variable is presented in Figure A.1. The effects between these variables are represented by the reliability coefficient (r) and the validity coefficient (v). When squared, they provide estimates of reliability and validity. For procedural details, see 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, validity coefficient, and quality coefficient, respectively.

In this general definition, the variables of interest are assumed to be continuous. However, the observed variables are often measured in a limited number of categories. If that is the case, reliability is also affected by the so-called categorization errors (Saris, van Wijk, & Scherpenzeel, 1998). In such cases, reliability is affected by random error and 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 measurement errors (DeCastellarnau & Saris, 2014; Saris & Gallhofer, 2014; Saris & Revilla, 2016).



Appendix 2: Presentation of Item Batteries in SQP

SQP has a specific way of treating item batteries. An item battery consists of a set of stimuli or statements that must be evaluated by the respondent and that share a common request for an answer and the same answer options. In SQP, the request for an answer and, if applicable, the introduction are placed before the first stimulus or statement in the battery. A *stimulus* can be a noun or a combination of nouns (e.g., a party name, the name of an institution, or a brand), while a *statement* consists of a complete sentence. The coder must reflect on how the text of an item battery is presented to or read by the respondent and code each item accordingly.

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

“Now, some questions are on the same topics, but this time, it is about how you think democracy is working in [country] today. Again, there are no right or wrong answers, so please 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 the statement does not apply at all, and 10 means 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 is introduced in SQP in the same way the interviewer reads the battery to the respondent. That is, it consists of (1) the introduction, (2) the request for an answer, and (3) the first statement. These texts together form the first item the respondent has to answer. Next, the second statement is read to the respondent, who then answers. Finally, the third statement is read out. For all the statements following the first one, the introduction and the request for an answer are not repeated. Consequently, these questions only consist only of the stimulus or statement.



Thus, the battery should be added to SQP as indicated below, even if it is self-completed (i.e., an interviewer is not reading the questions).

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

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



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 way of introducing the survey items into SQP matters for coding the characteristics of **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”) and preceded by an introduction. However, items E18 and E19 are coded as having ‘no request present’ (for the characteristic ‘formulation of the request for an answer’), but with a stimulus or statement present (i.e., E18 = “Voters in [country] discuss politics with people they know before deciding how to vote”; E19 = “Different political parties in [country] offer clear alternatives to 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 bipolar or unipolar. Bipolar concepts have two theoretically 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. 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.

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 likely at all	Very likely
Importance	Unimportant	Important

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

The polarity of a concept should be coded in SQP using the characteristic **theoretical range of concept: bipolar/unipolar**.

To transform theoretically bipolar or unipolar concepts into survey items, 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 items are measured using complex concepts that 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 of “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. Accordingly, because the main role in the survey item is played by the concept of 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 both 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 uses 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 directs the respondent toward only one pole while both poles are theoretically 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 its unique theoretical pole, 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 should therefore be coded as ‘not applicable.’

Appendix 3.3: What Are Bipolar and Unipolar Scales?

Scales that are consistent with bipolar requests and bipolar concepts should measure two poles, such as 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 represented 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

By contrast, theoretically unipolar concepts have just one pole, and the corresponding scales range 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, consider the following set of questions:

Q1 “Do you favor or oppose abortion?”

1. Favor → go to Q2
2. Oppose → go to Q3

Q2 “How far do you favor abortion?”

1. I am completely in favor
2. I am in favor

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, with Q1 being a filter question. In SQP, these questions need to be coded as a single question, as they intend to measure a unique variable of interest, namely “attitudes towards abortion,” and cannot be analyzed separately. To group the three questions into a single question, Q1 has to be considered an introduction, and Q2 and Q3 are the two requests for an answer.

However, to code the formal and linguistic characteristics of the request for an answer—such as **theoretical range of concept: bipolar/unipolar**, **emphasis on subjective opinion in request**, **presence of encouragement to answer**, or **number of words in the request**—one of the two requests, which usually has similar characteristics, needs to be chosen and entered in the SQP request for an answer text box. Thus, the text to be entered in SQP will be as follows:

- **Introduction:** *Do you favor or oppose abortion?*
- **Request for an answer:** *1. How far do you favor abortion?*
(Because people will only get Q2 or Q3, just one of them needs to be put into the text box.)
- **Answer options:** *I am completely in favor*
I am in favor
I am opposed
I am completely opposed



The formal characteristics of the request for an answer will be coded as usual. However, to code the characteristics of the answer options, it should be indicated under the characteristic **response scale: basic choice** that the option ‘more-step procedures’ applies. In the subsequent characteristics regarding the response scale, the number of categories, the order of the labels, the correspondence between the labels and the numbers of the scale, and other characteristics of the scale should be indicated.

To account for the fact that Q1 is treated as an introduction, it should nevertheless be coded as a request is present in the introduction.

Furthermore, the linguistic characteristics of the request for an answer should not be based on the sum of both requests, but rather on one request only, or an average of the two if they differ. In the example, both statements have six words, nine syllables, etc.



References

- Andrews, F. M. (1984). Construct validity and error components of survey measures: a structural modelling approach. *Public Opinion Quarterly*, 48(2), 409–442. <https://doi.org/10.1086/268840>
- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, Massachusetts, and London, England: Belknap Press of Harvard University Press.
- DeCastellarnau, A., & Saris, W. E. (2014). A simple way to correct for measurement errors in survey research. Retrieved from <http://essedunet.nsd.uib.no/cms/topics/measurement/>
- Felderer, B., Repke, L., Weber, W., Schweisthal, J., & Bothmann, L. (in press). Predicting the Validity and Reliability of Survey Questions: An Update of the Prediction Algorithm in the Survey Quality Predictor. *Survey Research Methods*.
- Saris, W. E. (2001). SQP: survey quality predictor. DOS application program.
- Saris, W. E., & Gallhofer, I. N. (2007). *Design, Evaluation, and Analysis of Questionnaires for Survey Research*. Hoboken, NJ, US: John Wiley and Sons, Inc.
- Saris, W. E., & Gallhofer, I. N. (2014). *Design, Evaluation, and Analysis of Questionnaires for Survey Research (Second Ed.)*. Hoboken, NJ, US: John Wiley and Sons, Inc.
- Saris, W. E., Oberski, D. L., & Kuipers, S. (2004). SQP: survey quality predictor. Windows application program.
- Saris, W. E., Oberski, D. L., Revilla, M., Zavala-Rojas, D., Lilleoja, L., Gallhofer, I. N., & Gruner, T. (2011). The development of the program SQP 2.0 for the prediction of the quality of survey questions (RECSM Working Paper No. 24). Barcelona, Spain. Available at: https://www.upf.edu/documents/3966940/3986764/RECSM_wp024.pdf
- Saris, W. E., & Revilla, M. (2016). Correction for measurement errors in survey research: necessary and possible. *Social Indicators Research*, 127(3), 1005–1020. <https://doi.org/10.1007/s11205-015-1002-x>
- Saris, W. E., van Wijk, T., & Scherpenzeel, A. C. (1998). Validity and Reliability of Subjective Social Indicators. *Social Indicators Research*, 45, 173–199. <https://doi.org/10.1023/A:1006993730546>

