Coding Text and PDF Files

6

How do I code my data or parts of my data, for example, text passages or parts of images? This chapter deals with the basics of coding. Working with categories (codes) and coding parts of your material is not only one of the oldest qualitative data analysis techniques; it is probably still the most widely used. In the past, this was done by laboriously cutting out clippings of text with scissors and pasting them onto index cards and adding a keyword. QDA software lets you do all this far more quickly and efficiently. The specific coding procedure will vary considerably between the different methods and research styles. So, for example, you would proceed rather differently in the context of a grounded theory approach than you would in that of a qualitative content analysis or discourse analysis. QDA software does not restrict you to a certain method—in fact it facilitates a wide range of coding processes.

In This Chapter

- Understanding the coding process
- Creating codes in MAXQDA and defining code properties
- Organizing and sorting your codes
- Exploring coding techniques in MAXQDA
- Writing a comment on a coded segment
- Working with the Overview of Coded Segments
- Learning how to work with MAXQDA's overviews in general
- Exploring a variety of options for automatic coding

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About Codes and Categories

Working with categories in the context of qualitative data analysis fulfills numerous functions, ranging from naming, describing, and explaining data to systematizing, organizing, and summarizing them. Hence, in the qualitative content analysis tradition, for example, the categories are used for structuring the content, for generating types, and for the assessment (evaluation) of statements (Kuckartz, 2014). In research projects following a grounded theory approach, categories take on an important role in the development of theories (Charmaz, 2014; Corbin & Strauss, 2015). Categories often consist of a simple word ("Recycling") or a combination of a few words ("Individual environmental behavior in the area of mobility"). Longer word combinations or statements are much rarer.

As the two examples above suggest, categories can be defined and differentiated according to a multitude of characteristics, including their breadth of content, their level of abstraction, and how closely they are based on the empirical material. Moreover, the context of their development and theoretical framing, as well as their applicability and organizational effectiveness regarding the analyzed data, are all important criteria for differentiating categories. The characteristics and functions of categories can be used to differentiate between several prominent types of categories, including:

- *Factual categories* denote easily identifiable facts in the data, for example, if someone is a member of a given political party or not.
- *Content-based or thematic categories* usually serve to structure the content. You can imagine them as a "road sign," which points out a thematic area or topic in a text.
- *Analytical categories* are the result of an intensive examination of the data and reflect a higher degree of abstraction than "in vivo categories," which are formed using original terms present in the data (e.g., words used by research participants).
- *Evaluative categories* primarily assume an evaluative function. They often form an ordinal scale. For example, a low, medium, or high sense of responsibility.
- Categories in the form of *emoticons and symbols* play a special role. In fact, they were first made systematically applicable for the analysis of qualitative data by MAXQDA. They can be used to work with symbol-like categories without using textual language, that is, as we know it from communicating via SMS and WhatsApp, where symbols can express text-free sentiments, emotions, or objects of everyday life.

Until now we have only mentioned "categories," but very often the terms "codes" and "concepts" can also be found in literature on category-based analysis of qualitative data. This can easily lead to confusion, as these terms are sometimes used to mean different things and sometimes used synonymously. For example, in research projects that follow the grounded theory approach, so-called "concepts" (sometimes used synonymously with "codes") are used at the beginning of the analysis process, while the development of categories—and, above all, a "main category"—represents the primary objective of this analysis (Corbin & Strauss, 2015). In his textbook on coding qualitative data, Saldaña (2015, p. 12) draws a different conceptual path, at least linguistically: in his introductory chart, codes develop across categories to concepts and theories.

In MAXQDA itself, you will not encounter the confusion regarding the terms mentioned above, since the interface almost exclusively uses the word "code." This does not mean, however, that MAXQDA locks researchers into using one particular meaning—the opposite is the case. Whether researchers treat a MAXQDA code as a code in the narrow sense or rather as a concept is entirely up to them. It therefore remains an important task for researchers to use their categories in an analytically thought-out manner. This is all the more important given that the use of QDA software like MAXQDA makes coding so fast and simple that it can be tempting to see the coding process merely as a technical chore and not as an analytical process. To ensure a good research process, however, it is essential to be clear about the function and interpretation of each specific MAXQDA code within your analysis methodology. (To avoid confusion, we will use the terms "code" and "category" synonymously in this book.)

What Does "Coding" Actually Mean?

In simple terms, "coding" means that a selected part of the data is assigned to a code—or vice versa: a code is assigned to a data segment. Hence, when responses to an interview question about the world's biggest problems are assigned with the thematic code "world problems," this process is called "coding." It is important to know that the coded part of the data is called a *coded segment* in MAXQDA; coded video segments are also referred to as *clips*.

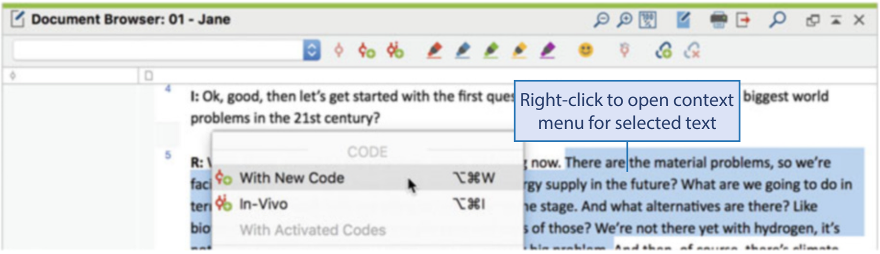
Generally, there are two different coding procedures. *Following a deductive, concept-driven approach*, codes can be developed before viewing the data, and the phenomena discovered there can then be classified and assigned accordingly. This is also referred to as "tagging." *Following an inductive, data-driven approach*, codes can be regarded as condensed descriptions of the phenomena discovered in the data. In the context of coding data, a distinction should always be made between two basic activities: the *creation of categories* and the *application of categories*.

Saldaña (2015, pp. 6–7) refers to "coding filters" and an "analytic lens" when working with codes in order to illustrate that, in category-based analysis, researchers essentially look at their data through the "lens" of codes. Indeed, the formation and selection of categories along with the totality of all categories in the shape of a coherent category system is of vital importance to the analysis process, which is why we will address this topic in detail in Chap. 8.

Creating New Codes and Building a Coding Frame

Open Coding of Texts

Open coding is a data-driven coding procedure in which, as a rule, no categories have been defined in advance of analyzing the available data and discovered phenomena and facts are coded with new codes that are closely related to the material. This approach can be implemented very easily in MAXQDA: open a text in the "Document Browser," select a section of text to be coded, and then choose the function ***Code with New Code*** in the context menu (Fig. 6.1). A dialog box for defining new codes will open, in the topline of which you can enter a code name (Fig. 6.2). The newly created code is inserted at the top of your "Code System" window, and a corresponding stripe will appear along the edge of the text to indicate the coded section.

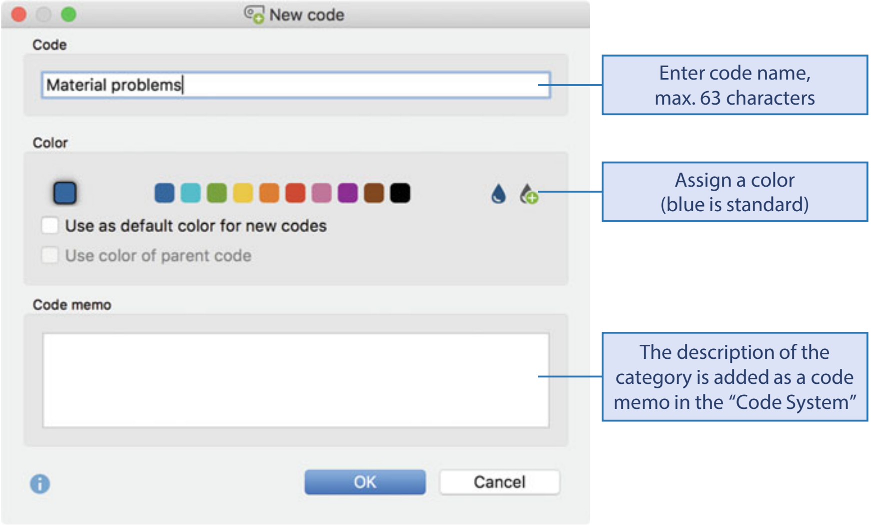


I: Ok, good, then let's get started with the first ques… biggest world problems in the 21st century?

R: … now. There are the material problems, so we're faci… …gy supply in the future? What are we going to do in ter… …e stage. And what alternatives are there? Like bio… …of those? We're not there yet with hydrogen, it's

Right-click to open context menu for selected text

Fig. 6.1 Open coding in the "Document Browser": create a new code and assign it to the selected segment



Code: Material problems

☐ Use as default color for new codes

☐ Use color of parent code

Enter code name, max. 63 characters

Assign a color (blue is standard)

The description of the category is added as a code memo in the "Code System"

Fig. 6.2 New code dialog box

Adding a New Code Directly to the "Code System"

New codes can be added to the "Code System" directly at any time, without being immediately assigned to a text passage as they are when following the open coding approach. In the "Code System" window, you can manage a hierarchical code system with codes and subcodes on several sublevels. Right-click on the topline containing the word "Code System," and select the option ***New Code*** from the context menu to create new categories at the top level. If you follow the same procedure after clicking on an existing code, a subcategory will be added to this code, called a *subcode* in MAXQDA. In both cases, the same dialog box will appear for defining new codes (Fig. 6.2).

When you create a new code, you can also assign it with a color of your choice. This color has analytical value in several respects and should be considered carefully. On the one hand, it serves to differentiate between different categories (or types of categories), which in turn allows for the use of many of MAXQDA's visual analysis tools. On the other hand, it makes it easier to recognize where different codes have been assigned to texts in the "Document Browser," since each individual code assignment can be made visible, in color, both next to the text and within the text itself.

Once you have created a new code, you can add a description of the category, if required. This description can contain a definition and rules for its use or give information about the background of the code's development. The description is stored as a so-called *code memo* in the "Code System," as a yellow memo icon directly next to the code, and can be accessed and changed at any time by double-clicking on it. Of course, both the code name and its color can also be modified at any time throughout the analysis.

Adjusting the Order and Sorting of Codes

Especially in the initial stages of the research process, adjusting the sequence and hierarchical structure of codes is part of the daily routine of working with a coding frame. Individual codes need to be moved and sorted, others need to be given a new parent code. Technically, MAXQDA allows you to build a code system with up to ten hierarchical levels and any number of codes. As far as the content of the data is concerned, however, it very rarely makes sense, in practice, to exhaust all the available levels and define several hundred codes.

In MAXQDA, codes on the highest level are called *top-level codes* and sometimes *main codes*. A given code, e.g., "Sense of responsibility," with three subcategories "low," "medium," and "high" can also be referred to as a *parent code* according to its hierarchical position, while its subcategories are referred to as *subcodes*. If you move a code with the mouse and drop it on another code, the moved code will become a subcode of the target code, but if you drop it just below another code, the moved code will be placed at the same level as the code above (sometimes called a "sibling" of the target code). In this way you can move whole groups of codes to a different position in your code system.

Sorting codes within a hierarchy level can also be done by moving individual codes with the mouse. By right-clicking on a parent code and selecting ***Sort***

Subcodes, you can find functions to automatically sort its subcodes alphabetically or by their number of coded segments.

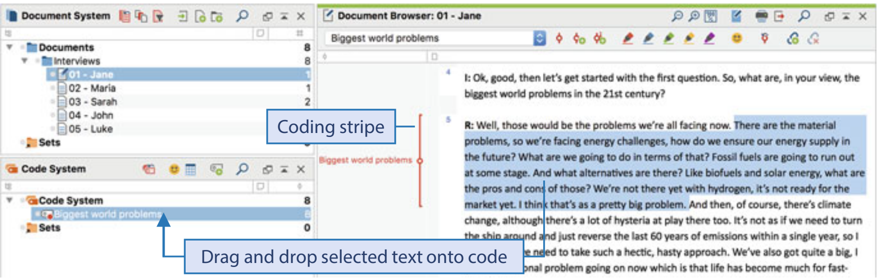
Coding Text

If you want to code a text with codes that have already been created in MAXQDA, the typical coding process is always carried out in two simple steps. For the first step, the segment to be coded is selected with the mouse. Technically speaking, the smallest unit for assigning a code to a text is a character, but in most cases, you will probably choose at least one word as the smallest unit for coding. For the second step, there are two possibilities: either you drag the selected segment onto a code with the mouse and drop it there or you drag a code onto the selected segment. You can see the coding process in Fig. 6.3: a text passage at the beginning of paragraph 5 has been selected and then dragged onto the code "Biggest world problems." To the right of the code, the number representing how many times the code has been assigned will have increased by one. Next to the text, exactly at the same level as the coded segment, a coding stripe with the code name visually indicates that the text has been coded with a specific code.

▶ **Tip** To code an entire paragraph without selecting it first, you can drag a code onto a paragraph number next to the text.

Figure 6.3 shows a comfortable setting of the MAXQDA interface for coding: the space for the "Document Browser" was enlarged by switching off the "Retrieved Segments" window. The width of the column for coding stripes can be adjusted by clicking between the column headers and moving your mouse, so that even long code names are easier to read. If you prefer to see your coding stripes to the right of the text, you can click on the column header with the mouse and place it on the right side.

When it comes to coding, you will sooner or later be faced with the question of which document to start with. In many cases, it makes sense to avoid a text that is already known to be a special case, such as a particularly detailed interview or a very



I: Ok, good, then let's get started with the first question. So, what are, in your view, the biggest world problems in the 21st century?

R: Well, those would be the problems we're all facing now. There are the material problems, so we're facing energy challenges, how do we ensure our energy supply in the future? What are we going to do in terms of that? Fossil fuels are going to run out at some stage. And what alternatives are there? Like biofuels and solar energy, what are the pros and cons of those? We're not there yet with hydrogen, it's not ready for the market yet. I think that's as a pretty big problem. And then, of course, there's climate change, although there's a lot of hysteria at play there too. It's not as if we need to turn the ship around and just reverse the last 60 years of emissions within a single year, so I e need to take such a hectic, hasty approach. We've also got quite a big, I onal problem going on now which is that life has become much for fast-

Fig 6.3 Coding text by dragging and dropping with the mouse

short interview with a noncooperative interview partner. Instead, it is better to start with the less conspicuous and easy-to-understand texts in order to be able to test and sharpen the code system on the basis of this data. However, once your code system has proven itself for some of these "simple" texts and has been further developed based on this material, it is recommended that you add some of the more "divergent" texts as soon as possible in order to increase the variance of the data. If this only happens after three quarters of the coding work has been completed and it only then turns out that the coding frame should have been fundamentally changed in several places, this would be very annoying since all the previous material would have to be looked through yet again.

Very often you will not have divided the text into coding units prior to coding it; instead, you will work with the text as it is or as it was written. For this reason, the question automatically arises how much to code, i.e., how large each of the individual coded segments should be. This can vary depending on the approach of research chosen and the category type in question. In language analyses that focus on the use of verbs or the use of metaphors, for example, the coded segments will naturally be smaller than for thematic analyses, which initially work with broad thematic categories. In thematic analyses, "broad-brush coding" is often used at the beginning, during which all text passages are first assigned to broad categories, e.g., all passages in which an interviewee has spoken about his or her purchase decisions. The second step then involves coding individual sections of these large segments more precisely, for example, by using subcodes developed empirically based on the material. Alternatively, it is also possible to consistently code everything that seems pertinent to the research question with a single code. As distinct from large-scale "macro-coding," which is often used to code interviews for the first time with the interview questions as the guide, there is also "micro-coding" approach. This is done line by line or word by word with great attention to detail.

No matter how you proceed, it has proven itself worthwhile to set up coding rules. A very common coding rule, for example, is that units of meaning—at least one sentence—are coded so that coded segments are still understandable outside of their context. The interviewer's question should only be coded if it is necessary to understand the answer.

More Techniques for Coding

In addition to the coding options we have already outlined, MAXQDA offers you numerous other ways to assign text passages to categories and vice versa.

Coding with the Coding Toolbar in "Document Browser"

The coding toolbar in the "Document Browser" is particularly useful for the coding process. Its individual coding functions are explained in Fig. 6.4.

You can find the so-called *Quick List* for codes at the left of the toolbar. It is updated with every coding step you make, always displaying the code last used or last clicked, and it can be expanded to select a recently used code. Coding with the

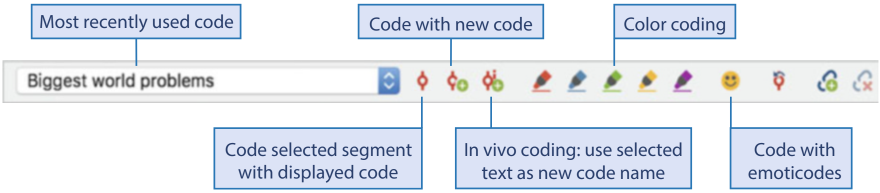


Fig. 6.4 The coding toolbar in the "Document Browser"

help of the Quick List is particularly suited to cases in which a text needs to be worked through with respect to one selected code, e.g., to define your coding units or to identify all the parts relevant to a particular research question. The text passages of interest can be selected and coded one after the other with a click on the icon to the right of the Quick List. There are several locations in MAXQDA where the Quick List with the most recent codes can be used to select a code.

The ***Code with New Code*** option corresponds to the coding technique described above in the context of open coding. A new code is created for and directly assigned to a selected text passage. *In vivo codes* are usually codes whose names are taken directly from the original material, terms usually mentioned by the interviewees themselves (Corbin & Strauss, 2015). To create this kind of code in MAXQDA, select a particularly salient word that is suitable as a code name (it can also be several words), and click on the ***Code in vivo*** icon in the toolbar. The selected text is then inserted as a new code at the very top of the "Code System," and the text passage is assigned to the new code.

MAXQDA enables you to work with emoticons and symbols, the idea behind it being the trans-verbal coding of data material. Instead of assigning a language-based, textual code to a phenomenon or piece of information, it is coded with a so-called *emoticode*. For example, smileys can be used to code emotional expressions in interviews or the auto-ethnographic perceptions of researchers when reviewing data; ghost symbols serve as reminders for sections that allow interviewees to be identified and must later be rendered anonymous for reports and publications; references to nature can be symbolized by trees and city references through high-rise buildings. To work with emoticodes, you must first open the emoticode window (Fig. 6.5) by clicking on the smiley icon in the coding bar. To code a text, simply select a text passage and click on the emoticode of your choice. The emoticode icon will then appear in the "Code System" for this newly created code, instead of the normal code symbol. Each symbol is additionally assigned a predefined yet customizable code description. Once an emoticode is listed in the "Code System" window, you can continue working with the code even when the emoticode window is closed, because you can now use it just like any other code.

The coding toolbar in the "Document Browser" also contains the five icons already introduced in Chap. 5 for color coding texts—especially for explorative purposes—as if with a highlighter (Fig. 6.4). When one of the highlighters is used for the first time, a new color code with its own symbol is created in the "Code System," and each selection counts as a coded segment.

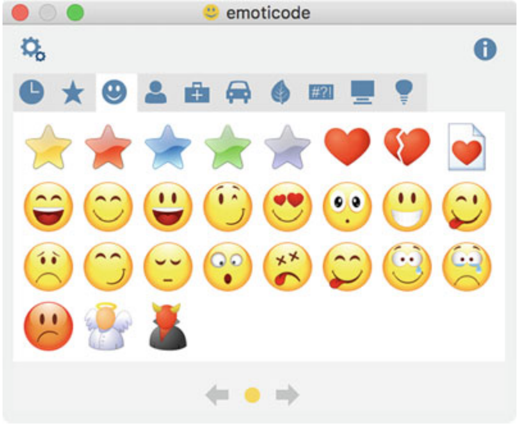


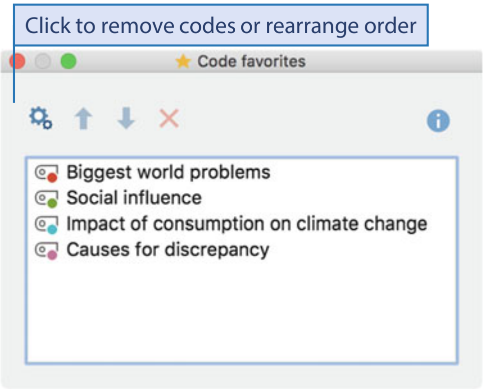
Fig. 6.5 The emoticode window

Coding with the Code Favorites Window

Code Favorites are particularly useful if you want to work through data material with respect to fewer selected codes, often in the context of a "macro or broad-brush coding" approach described above. You can open the Code Favorites window via ***Codes*** > ***Code Favorites*** and then proceed to drag and drop codes from the "Code System" into the window (Fig. 6.6). Alternatively, the ***Add Code to Code Favorites*** option is also available in each code's context menu. Once you have selected the codes you want to work with, you can start working on the text: select relevant passages and code them by clicking on one of your Code Favorites. Alternatively, you can drag and drop passages onto these or vice versa, that is, drag and drop the codes onto the relevant passage.

Coding with User-Defined Shortcuts

For many of the coding techniques described above, MAXQDA provides fixed keyboard shortcuts that you can see both in the context menus and when hovering your cursor over an icon in the coding toolbar in the "Document Browser." You can



- Biggest world problems
- Social influence
- Impact of consumption on climate change
- Causes for discrepancy

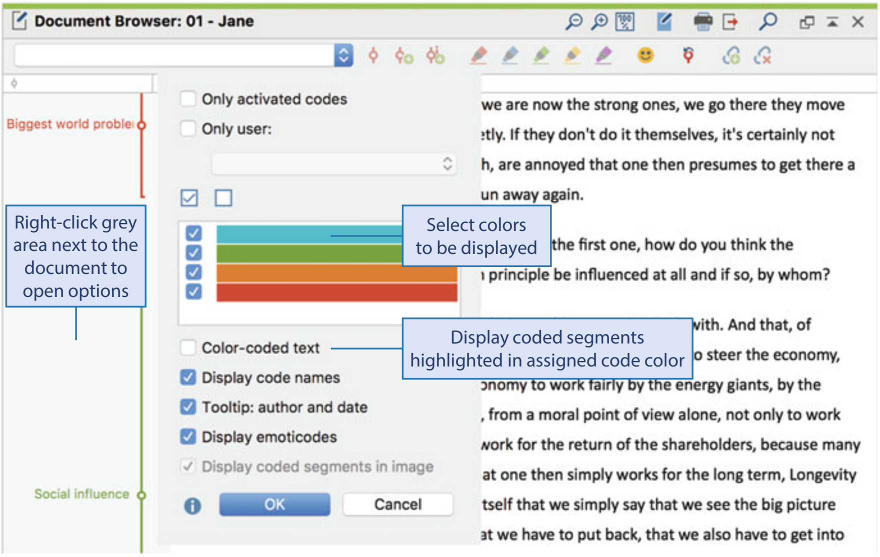
Fig. 6.6 The list of code favorites

also freely define shortcuts for up to nine individual codes. The ***Codes*** > ***Keyboard Shortcuts for Codes*** function opens a window in which you can drag and drop individual codes onto one of several keyboard shortcuts—from ***Ctrl+1*** to ***Ctrl+9*** (Windows) or ⌘ ***+ 1*** to ⌘ ***+ 9*** (Mac)—and thereby assign them. For example, you could assign a shortcut to the code "Interesting passages" and then quickly code any text segment that seems significant but does not directly concern the research question at hand, or for which there is no specific code yet, without having to first search for the "Interesting passages" code in the potentially quite long code system. If you code with keyboard shortcuts, you can even hide all the MAXQDA windows except the "Document Browser" and view the document in full screen size.

The Display of Codes in the "Document Browser"

No matter which coding technique you choose, each code is displayed in the "Document Browser" next to the text as a coding stripe, with the color of the stripe corresponding to the respective code color. As soon as a segment contains many codes assigned to it in a dense space, you may want to hide individual coding information and limit the display of the coding stripes to only selected ones. For this, MAXQDA has an options dialog box, which appears when you right-click in the grey area where the coding stripes are displayed (Fig. 6.7).

In the window you can restrict the display of the coding stripes by their color or their author, which can be helpful, for example, if you want to concentrate on a certain topic. In addition, the option ***Color-coded text*** lets you display all your coded


Document Browser: 01 - Jane
Biggest world proble
Social influence
Right-click grey area next to the document to open options
Select colors to be displayed
Display coded segments highlighted in assigned code color

☐ Only activated codes
☐ Only user:

☑ ☐

☑ 🟦
☑ 🟩
☑ 🟧
☑ 🟥

☐ Color-coded text
☑ Display code names
☑ Tooltip: author and date
☑ Display emoticodes
✓ Display coded segments in image

OK Cancel

we are now the strong ones, we go there they move
›tly. If they don't do it themselves, it's certainly not
h, are annoyed that one then presumes to get there a
un away again.

the first one, how do you think the
ı principle be influenced at all and if so, by whom?

vith. And that, of
o steer the economy,
›nomy to work fairly by the energy giants, by the
, from a moral point of view alone, not only to work
work for the return of the shareholders, because many
at one then simply works for the long term, Longevity
tself that we simply say that we see the big picture
at we have to put back, that we also have to get into

Fig. 6.7 Options dialog box for setting the display of encodings

text passages as highlighted in their respective code color, which is useful for making these coded passages visible within the text. Only the codes currently visible as coding stripes are taken into account, and a mixed color is displayed for overlapping codes.

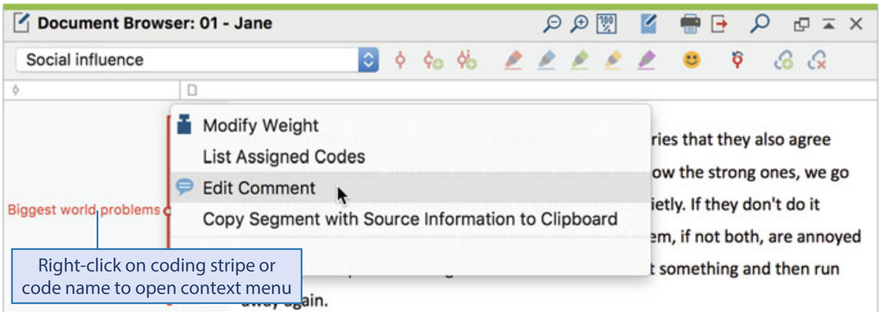
Working with Coded Segments: Comment, Weight, and Delete

The coding functions in MAXQDA are very flexible and allow you to make changes to code assignments you have made already in a variety of ways. For example, a coded segment can be made shorter or longer by marking the text passage with new segment boundaries and reassigning the same code to the passage. MAXQDA will then automatically adapt the boundaries of the existing coded segment, since MAXQDA works according to the rule "the same code may only be assigned once per segment" (of course any number of different codes can be assigned per segment, and the coded segments of different codes can overlap as desired).

Further editing functions for coded segments are available in the context menu for a coding stripe. The menu appears once you right-click on the coding stripe and contains options for commenting, weighting, and deleting the selected coded segment (Fig. 6.8).

Adding Comments to Coded Segments

Unlike memos within a document, comments for coded segments are not only attached to a specific text segment but are also permanently linked to that specific assignment of a code. Code comments can take on a variety of tasks in the research process: they are the ideal place for short summaries of the coded content, and they can reference themselves ("uncertain code assignment, check again later") or can be used to make notes for team members ("I wouldn't assign this code here"). To write a comment, select ***Edit comment*** from the context menu of a coding stripe (Fig. 6.8). In the comment dialog box, you can then enter up to 255 characters, which corresponds to approximately three to four lines of text in this book.



Document Browser: 01 - Jane
Social influence
Modify Weight
List Assigned Codes
Edit Comment
Copy Segment with Source Information to Clipboard
Biggest world problems
Right-click on coding stripe or code name to open context menu

ries that they also agree
ow the strong ones, we go
ietly. If they don't do it
em, if not both, are annoyed
t something and then run
away again.

Fig. 6.8 The context menu for the coding stripe

As soon as you enter your comment, the coding stripe will show the following: the circle in the middle of the stripe is now filled in with the coding stripe's color. If you hover your cursor over the coding stripe, the comment will be displayed in the tooltip that appears.

▶ **Tip** You can edit a comment quickly by double-clicking on the coding stripe or code name in the "Document Browser."

Weight Scores

MAXQDA allows you to assign a weight score—a relevance score—to each coded segment. Supposing an analysis is about finding specific text passages that are typical of a certain way of reasoning or of a certain theoretical concept, then codes are generally used as "sign posts." In other words, they are sign posts that point out relevant text passages for a particular category.

MAXQDA's weighting function can then be used to determine the degree to which a coded segment expresses what is meant by the category. MAXQDA offers the option of assigning a weight score on a scale from 0 to 100. These weight scores can also be described as "fuzzy variables," because they allow for uncertainty and are not intended to be assigned using exact values with a corresponding reliability—in some cases and for some analysis techniques, however, this may well be necessary. Code weights can also be used to perform numerous other analysis tasks:

- Team members can record the status of a code assignment in the terms of this weight, e.g., a 50 can be defined for the status "Only coded by one person, not yet double-checked" and a 100 for "Checked by project leaders."
- Code assignments that you are unsure of can be assigned a special weight so that you can easily find and check them later.
- In the case of multiple mentions of the same information in the text, the first occurrence can be assigned a different weight than those that follow.

Each newly coded segment is assigned the currently set default weight, which is between 0 and 100. The default value is 0 and can be changed at any time using MAXQDA's main preferences or by clicking on the weight icon in the status bar at the bottom of the screen.

Deleting a Code Assignment

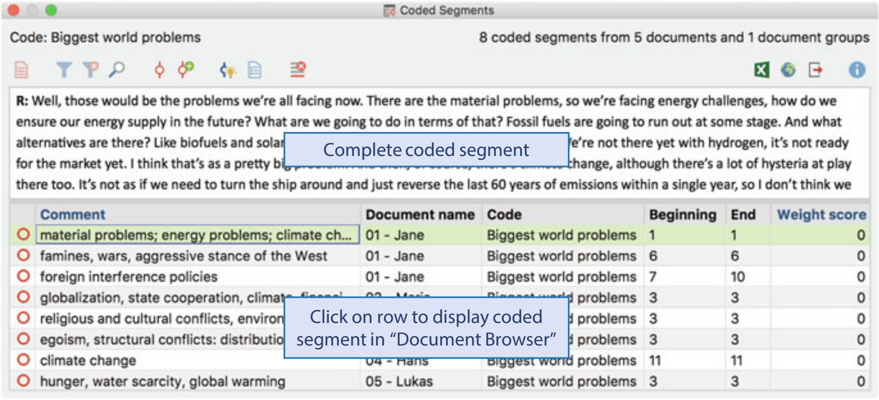
As already described, any assignments of code you have made can be undone using the ***Undo code*** symbol in the coding toolbar. This is particularly useful for the most recent code assignments, but it is often more practical to be able to delete one of these assignments in their actual location. To do this, right-click on the coding stripe: the context menu then gives you the option of deleting this code assignment (Fig. 6.8).

Overview of Coded Segments: Keeping Track of Your Coding

During the coding process, you will undoubtedly want to keep track of your coded segments. For example, you may want to check back on which text passages have been assigned a particular code or you may want to compile the coded segments within a selected text and go through them again. The coding stripes at the edge of the text provide a continuous overview of how a document has been coded. To work with these coding stripes, it is helpful to widen the coding stripe column next to the text so that even long code names are clearly visible. If you hover your cursor over a coding stripe, the full name of a code will be displayed. Clicking on the stripe automatically also selects the corresponding code in the code system so that you can easily open the code memo and read its description.

MAXQDA provides numerous table overviews of the data generated during the course of a project, including an overview of your coded segments. Double-clicking on a code opens the so-called Overview of Coded Segments, which contains all the segments to which this code was assigned (Fig. 6.9). If the code clicked on has subcategories and these were collapsed, these are also integrated into the overview.

The Overview of Coded Segments is divided into two parts. In the lower part of the window, you will see as many rows as there are coded segments for this code. The coded segment clicked on is displayed in the upper window area. Like all MAXQDA overviews, this table is interactive. Clicking on a coded segment here (i.e., a row in the table) highlights the source document and the assigned code in blue in their respective system windows and also jumps to the coded text in the "Document Browser" where you can see it in context. The window header lists the total number of coded segments and the numbers of documents and document groups, respectively, within which they are contained. The toolbar also provides functions for filtering, searching, further processing, and exporting. The various columns of the overview provide further information on the details of the individual coded segments: *Document group* and *Document name* indicate the origin of the coded



Code: Biggest world problems

8 coded segments from 5 documents and 1 document groups

R: Well, those would be the problems we're all facing now. There are the material problems, so we're facing energy challenges, how do we ensure our energy supply in the future? What are we going to do in terms of that? Fossil fuels are going to run out at some stage. And what alternatives are there? Like biofuels and solar /e're not there yet with hydrogen, it's not ready for the market yet. I think that's as a pretty bi change, although there's a lot of hysteria at play there too. It's not as if we need to turn the ship around and just reverse the last 60 years of emissions within a single year, so I don't think we

Complete coded segment

	Comment	Document name	Code	Beginning	End	Weight score
○	material problems; energy problems; climate ch...	01 - Jane	Biggest world problems	1	1	0
○	famines, wars, aggressive stance of the West	01 - Jane	Biggest world problems	6	6	0
○	foreign interference policies	01 - Jane	Biggest world problems	7	10	0
○	globalization, state cooperation, climat	02 - Maria	Biggest world problems	3	3	0
○	religious and cultural conflicts, environ		problems	3	3	0
○	egoism, structural conflicts: distributio		problems	3	3	0
○	climate change	04 - Hans	Biggest world problems	11	11	0
○	hunger, water scarcity, global warming	05 - Lukas	Biggest world problems	3	3	0

Click on row to display coded segment in "Document Browser"

Fig. 6.9 All the coded segments in the table view of the Overview of Coded Segments

segment, and *Beginning* and *End* contain the paragraph numbers where the coded segment begins and ends. How you can manage and adjust table overviews in MAXQDA is described in detail in Box 6.1.

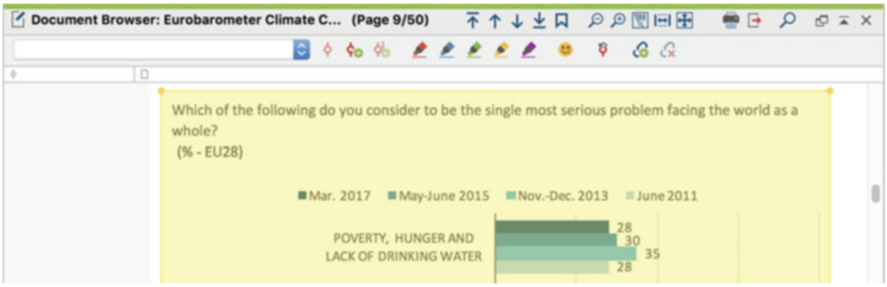
The contents of any column with a blue heading can be changed in MAXQDA's overviews. For example, you can enter a weight score for a coded segment directly into the *Weight score* column of the Overview of Coded Segments. In the *Comment* column, you can enter a short text, which can be used very effectively for defining or differentiating categories: for each coded segment, a comment in the form of a summary or abstract of the text material can be entered—existing formulations can be reused and adapted—which is supported by the auto-complete function in MAXQDA overview tables. In this way, you can formulate potential subcategories next to the material and gain a good overview of the contents of a category.

You can open the Overview of Coded Segments in many places and contexts in MAXQDA, including from the context menu of a document in the "Document System." From here, the overview will list all the coded segments within the selected document.

Box 6.1: Managing Table Overviews in MAXQDA

In MAXQDA, table overviews are available in many places, in which you can compile coded segments, memos, and other data. These overviews can all be managed very similarly:

- *Sort columns:* Click on a column header to sort the table according to this column; another click reverses the sort order.
- *Arrange columns:* The individual columns can be arranged horizontally as you like by clicking and dragging the column header.
- *Show/hide columns:* Right-click on a column header, and choose the ***Select Columns*** option to determine which individual columns to hide or show.
- *Filter rows:* If you select the ***Set Filter*** function in the context menu of a column header, a dialog box will open in which you can set filter conditions. The filter icons in the header of the overview allow you to switch filters on or off as well as delete them.
- *Adjust the height of the preview window:* If a preview window is displayed in the upper area of the overview, you can change its height by clicking and moving the horizontal divider between each area of the dialog box.
- *Export overview*: The content of the table can be exported using the icons in the upper right-hand corner of the dialog box. Click on the Excel or HTML icons to create a temporary file, and open it directly in your device's standard programs for displaying Excel files or web pages. If no rows are selected in green, all rows will be exported, otherwise only the selected rows. The export icon provides additional export formats for individual overviews, such as the RTF format for Word, and you can also specify the name and location of the exported file here.



Document Browser: Eurobarometer Climate C... (Page 9/50)

Which of the following do you consider to be the single most serious problem facing the world as a whole?
(% - EU28)

Mar. 2017
May-June 2015
Nov.-Dec. 2013
June 2011
POVERTY, HUNGER AND LACK OF DRINKING WATER
28
30
35
28

Fig. 6.10 Selected area in a PDF document

Coding PDF Documents

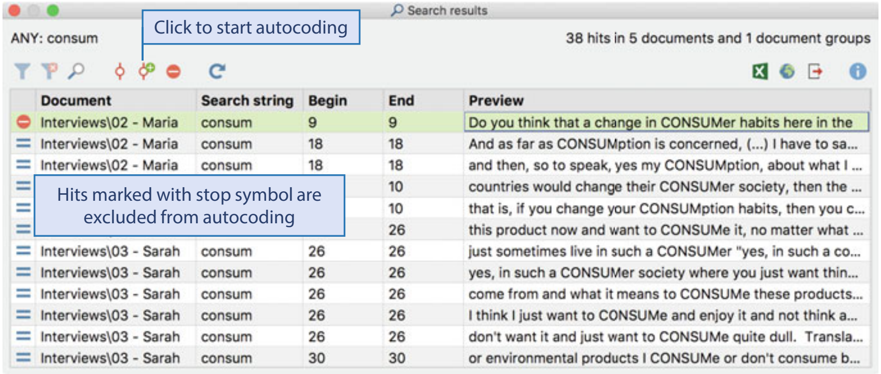
Coding PDF documents involves the same procedure as coding text documents: select a text passage then drag and drop it onto a code. All other coding techniques described above can also be applied to texts in PDF documents. Since PDF files were originally designed for a uniform print layout on different output devices, they do not contain any information about paragraphs or line numbers. In the Overview of Coded Segments, the PDF page number and character position are therefore displayed as the beginning and end of a coded segment instead of the paragraph number.

Often it is not only the pure text that is of interest in PDF documents but also the graphics and images contained in the PDF or even the areas of a web page that can be imported as a PDF file. Even in documents where the content has not been converted to text by automatic character recognition, as described in Chap. 3, you may want to code selected areas within the text. To code by area in this way, first draw a frame in the PDF document with your mouse (Fig. 6.10), and then drag the selected area onto a code. The Overview of Coded Segments will list the PDF page number and the coordinates of the frame points in the coded segment's area column.

Autocoding Search Results

In Chap. 5, we described how the lexical search functions of MAXQDA can be used effectively to explore qualitative data material. The result of this search process is a table list of search hits as shown in Fig. 6.11.

This exploration of your data material can be linked effectively with the coding process, as MAXQDA enables you to automatically code search hits and thereby record your explorative results in the form of codes and store them for further analysis later. Automatic coding allows several hundreds of code assignments to be generated in one go, which is why this technology is also suitable where qualitative data has been collected in large quantities. But even with more manageable data volumes, automatic coding can still be useful since



Click to start autocoding

Hits marked with stop symbol are excluded from autocoding

ANY: consum

38 hits in 5 documents and 1 document groups

	Document	Search string	Begin	End	Preview
⊖	Interviews\02 - Maria	consum	9	9	Do you think that a change in CONSUMer habits here in the
=	Interviews\02 - Maria	consum	18	18	And as far as CONSUMption is concerned, (...) I have to sa...
=	Interviews\02 - Maria	consum	18	18	and then, so to speak, yes my CONSUMption, about what I ...
=				10	countries would change their CONSUMer society, then the ...
=				10	that is, if you change your CONSUMption habits, then you c...
=				26	this product now and want to CONSUMe it, no matter what ...
=	Interviews\03 - Sarah	consum	26	26	just sometimes live in such a CONSUMer "yes, in such a co...
=	Interviews\03 - Sarah	consum	26	26	yes, in such a CONSUMer society where you just want thin...
=	Interviews\03 - Sarah	consum	26	26	come from and what it means to CONSUMe these products...
=	Interviews\03 - Sarah	consum	26	26	I think I just want to CONSUMe and enjoy it and not think a...
=	Interviews\03 - Sarah	consum	26	26	don't want it and just want to CONSUMe quite dull. Transla...
=	Interviews\03 - Sarah	consum	30	30	or environmental products I CONSUMe or don't consume b...

Fig. 6.11 Automatically code search hits with a new code

the usual procedure consists of searching for words of interest in the data and then looking up the contexts in which they occur. For example, when analyzing interviews with students at a statistics seminar, Kuckartz, Dresing, Rädiker, & Stefer (2008) searched for the word "nervous" in the statements of the interviewees, autocoded the references, and analyzed them in their context. This example is also a good illustration of the problems of the automated process: both "very nervous about the exam" and "not nervous at all about the exam" were found and coded following this procedure, which is why it is necessary to check the individual coded segments with respect to their actual meaning and content. Furthermore, no synonyms were found for the word nervous, only those that were explicitly searched for.

How do you carry out automatic coding in practice? First, conduct a simple or complex lexical search in all or selected documents via the ***Analysis*** ribbon tab. To automatically assign the resulting search hits to a code, two alternative icons are available at the top of the search hit window: one for autocoding these hits with an existing code and one for autocoding them with a new code. When you select the function ***Autocode search results with new code***, a window for defining a new code will appear, followed by an options dialog box for determining the extent of the search hit's context you want to code. As a rule, it is best to set the context to "sentence," because coding the search term alone is usually only analytically useful if you are interested in the frequency of words in selected documents, and the MAXDictio extension module provides significantly more convenient functions for this.

You can also restrict the autocoding to selected search hits by excluding any uninteresting or irrelevant hits. To do this, you need to go through each hit one after the other and double-click in the first column of each row containing a hit you don't want to include so that a stop symbol appears there. Alternatively, you can select one or more rows and then click the stop icon in the toolbar.

► **Please Note** Automatic coding with the same code does not change any existing code assignments, where these are found, in order to avoid overwriting previous, potentially time-intensive manual coding work. However, since it usually makes sense to code your search hits with a new code, from which they then can be distributed to other codes, this problem rarely arises.

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