You're essentially grouping your respondents according to one or more variables of interest, and then seeing how each separate group construed the topic in question. This means that you have to label, code, or otherwise identify each interviewee's constructs as you elicit them, so that you can identify which subgroup they belong to during the content analysis. It also means that you need to think through how you intend to analyse the information in the grids as you put the individual grids together, and this needs *doing in advance* – before you start on the interviews, and not after!

We'll look at how to do a generic content analysis in Section 7.2, and then see how subgroups can be handled.

Finally, the systematic use of a supplied, 'overall assessment' construct with the full sample of respondents lies at the heart of the procedure presented in Section 7.3. It is this matching of ratings on this supplied construct with all the elicited constructs which makes it possible to make use of a substantial proportion of the personal information in each of the grids being content-analysed.

7.2 GENERIC APPROACHES TO CONTENT ANALYSIS

Content analysis is a technique in which the constructs of all the interviewees are pooled, and categorised according to the meanings they express. The categories are derived either from the constructs themselves, by looking at them systematically and identifying the various themes they express ('bootstrapping'), or from a standard category system which you have encountered in the literature, or which stems from some theory with which you're working.

7.2.1 Bootstrapping Techniques

By this is meant any approach in which a category system is developed on the hoof, in the course of categorising the items being dealt with. Holsti's original account (Holsti, 1968) is definitive and should be referred to for background information about content analysis in general social research; Neuendorf's work (2002) looks set to replace Holsti in due course. The following core procedure summarises the basics in as much detail as you require.

Firstly, a decision is taken on what constitutes the *content unit*, or basic unit of analysis. What's the basic unit being categorised: how large or small should the basic idea be? And less obviously but equally important, the *context unit*: where should the basic idea be located: should we scan the phrase, the sentence, and the paragraph in a search for it? Should we stick to the same

context unit, such as the sentence, throughout, or can we use the sentence at times, and a whole paragraph at other times ('This sentence is basically about X'; 'These next few sentences are basically padding, but I can see that the whole paragraph is about Y')?

You'll be relieved to hear that when you content-analyse a repertory grid, these questions have already been resolved for you during construct elicitation. Each construct is your basic unit of analysis and, in Holsti's terms, the construct is both the content unit and the context unit. In other words, each and every construct is regarded as expressing a single unit of meaning. Of course!

The Core-Categorisation Procedure

Each item being categorised is compared with the others, and then:

(1) **If an item is in some way like the first item, the two are placed together under a single category created for them at that very moment.**

(2) **If an item is different to the first item, they're put into separate categories.**

(3) **The remaining items are compared with each of the categories and allocated to the appropriate one if an appropriate category exists.**

(4) **A new category is created if required; when a new category is created, the possibility that existing categories need to be redefined (combined or broken up, with their items reallocated accordingly) is considered and effected as necessary.**

(5) **This process continues until all the items have been classified.**

(6) However, a small number are usually unclassifiable without creating categories of just one item, which would be pointless, so **all unclassifiable items are placed in a single category labelled 'miscellaneous'.**

(7) If more than 5% of the total are classified as miscellaneous, consider redefining one or more existing categories so that, at the end, **no more than 5% of the total are categorised as 'miscellaneous'.**

Now, with one proviso, this caters for our first need. By recognising similarities and dissimilarities in the interviewees' items as they specified them, we've aggregated the meanings in the whole sample while classifying some individual meanings as similar, and others as different. We've accommodated differences in meaning and intention on the part of individual interviewees. (We have, however, lost a lot of information, for none of the *ratings* have been taken into account. We'll see that Section 7.3 deals with this difficulty.)

The proviso is obvious. The categories we have devised are simply our own opinion. But your category system is simply your own way of construing your interviewees' constructs: other people might not see the same kinds of meaning in the constructs, and might disagree! Yet the whole point of this chapter, you'll recall, is to make statements which communicate meanings effectively to other people. Something's wrong if we can't agree on the category to which a particular construct belongs.

To guard against this problem, every content analysis needs to incorporate a reliability check. This is a procedure which ensures that (though one has every right to a private interpretation – remember Section 5.3?) the category system shouldn't be wildly idiosyncratic, if it is to make sense to other people. There's more on this later, in the section on reliability.

> Don't forget that there are several different forms of reliability. Hill (1995: 105–106) reminds us that in content-analysis terms, three kinds exist. Firstly, there is *stability*, the extent to which the results of a content analysis are invariant over time. Are your category definitions robust enough that, if you were to repeat the core procedure all over again, you would end up with the same categories, and within the same constructs under each category? After all, you're supposed to be recognising similarities in meaning in a set of constructs. So long as you're working with that particular set, the meaning you recognise should be the same on both occasions.

> Secondly, there is *reproducibility*, the extent to which other people make the same sense of the constructs as you do. If meaning is socially defined, if you are to avoid laying your own idiosyncracies onto the data, your content analysis needs to be reproducible.

> Finally, there is sheer *accuracy*. How consistently are you applying your category definitions, once you have fixed them as a standard to aim at?

> In practice, it is sometimes difficult to distinguish between these three sources of unreliability; however, you will notice as you use the procedures outlined below that all three confront you as you make decisions about category definitions, and about the allocation of constructs to categories. The procedures described have been devised to reduce unreliability under all three headings.

This is all a little abstract. Let's pin it all down. Firstly, what *are* the items we're talking about? In fact, the generic procedure can be applied to either elements or constructs, though usually it's the latter. Thus, a discussion of the *elements* provided by all the interviewees in a group, getting the group members to categorise them themselves by means of the procedure outlined above, is often a good way of getting people to examine, debate, and challenge their ideas about the topic, particularly in a training setting (see Section 9.2.1, step 2 of the partnering procedure outlined there, for an example of this activity in a personal change setting).

For general research purposes, though, it's the *constructs* which are the items being categorised, and the remainder of this chapter will deal with construct content analysis only. First, let's look at the generic procedure, and then deal with the matter of reliability.

The Generic Content-Analysis Procedure

(1) Identify the categories.

(2) Allocate the constructs to the categories following the core procedural steps 1 to 7 above. You'll notice that this results in a set of categories which are mutually exclusive, and completely exhaustive: all your constructs are accounted for. A convenient way of doing this is to transcribe each construct from all the grids onto its own file card, coding the card to identify which interviewee provided the individual construct, and which of his/her constructs it is, in order of appearance in that interviewee's grid. (Thus, the code 5.3 would indicate that the construct in question was the third construct in the fifth interviewee's grid.)

Now go through steps 1 to 7 above, placing the cards into heaps, each heap constituting a different category. If you lay all the cards out on a large table, you can see what you're doing, and shuffle cards around as you identify categories, allocate cards to them, change your mind and create new categories, and so on.

(3) Tabulate the result. In other words, record which constructs have been allocated to which categories. On a large sheet of paper (flip-chart paper, especially if it has been ruled as graph paper, is ideal), create a set of rows, one for each category. Create a column on the left, and in it, label each row with its category name. Now create a new column and use it to record a short definition of that category. In a third column, record the code numbers of all the constructs that you allocated to that category.

(4) Establish the reliability of the category system (ignore this for the moment; see the discussion below).

(5) Summarise the table; first, the meaning of the category headings. What kinds of categories are these? What sorts of constructs have we here? Use the column 2 information to report on the distinct meanings available in the whole set of constructs.

(6) Summarise the table: next, find examples of each category heading. Are there constructs under each category which stand for or exemplify that category particularly well? Are there perhaps several such constructs, each summarising a different aspect of the category? Highlight the code numbers of these constructs among the list in column 3. You'll want to remember these