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Key to knowledge

Accumulation of knowledge by cumulative interviews in professional communication

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1. Introduction

This paper introduces a new species of discourse: the cumulative interview. This species (genre) of discourse is used regularly in professional communication. These interviews are used in organisations as a method to collect data on a specific problem. In a series of interviews, employees clarify their individual professional knowledge and experiences with the aim of enhancing the effectiveness of their organisation.

Within the framework of the functional pragmatic approach of text and discourse (Ehlich and Rehbein 1986, Rehbein 2002, Ehlich 2007), this kind of organised knowledge transfer in consecutive interviews is referred to as discursive knowledge accumulation. This means that discourse between the same interviewer and different interviewees in subsequent interviews depicts a repetitive process of knowledge accumulation. From their interactive contributions the underlying mental processes of the interactants are reconstructed. This method of reconstruction not only offers access to the discourse structure, but also provides insight into the knowledge accumulation of the interviewer throughout the discourse of cumulative interviews (Koole and ten Thije (1997). This paper states that key words contribute to discursive knowledge accumulation substantially.

Cumulative interviews resemble different other interview species. Spradley (1979) described the ethnographic interview using ethno-semantics. Based on fieldwork his steps of selecting a problem, formulating hypotheses, collecting data, analyzing data, and writing occur simultaneously and are time-consuming. The cumulative interview (Vierbergen 2005), as presented in this paper, follows a more focussed strategy. The process of gathering data resembles a more deductive type of social research in which the steps occur consecutively and in direct relevance to the institutional aim. Questions asked by the interviewer, however, are not standardised eliciting pre-

structured answer options as, for instance, in survey interviews (Maynard and Houtkoop 2002). Nor are the questions structured as in news interviews or job interviews. The questions in the cumulative interview resemble the linguistic recourses used in an open or semi-open interview (Houtkoop 2000), since they bring experts' experiences, opinions and knowledge to the forefront.

The linguistic recourses of questioning in cumulative interviews are determined by the fact that they build on insights and knowledge acquired in earlier interviews. This accumulative process is the main characteristic to be considered when classifying this interview species as an independent activity type (Levinson 1992; Sarangi and Roberts 1999). Both interactants know that their discourse is part of a series and that the purpose of this series is to collect, expand, control and comment on institutional knowledge that is available to functionaries in order to fulfil and optimise their organisational tasks.

This paper focuses on one main aspect of the cumulative interview, namely the reconstruction of knowledge transfer in this discourse species by means of key words. In section 2 we explain what is meant with qualitative knowledge multiplication or accumulation in the cumulative interview. In this context, we discuss the functional pragmatic approach to discourse and text (Ehlich and Rehbein 1977; Rehbein 2005). Furthermore, the notion of institutional key words is clarified (Koole and ten Thije, 1997, 2004; Roelands / ten Thije 2006; Ribbert / ten Thije 2007). In addition, key words are related to the notion of concept maps (Novak and Gowin 1984). In section 3 we illustrate the process of discursive knowledge accumulation by presenting the analysis of a case study in which the genesis of a key word from subsequent interviews with five different interviewees is reconstructed. Section 4 contains conclusions.

2. Accumulation in the cumulative interview

2.1 Cumulative interview

Organisations need to collect information constantly in order to enhance their effectiveness. Both statistical and non-statistical data are gathered and distributed periodically in order to increase the insight into recurrent trends and new developments in the context of marketing prognoses, client contacts, financial profits or internal management measurements. An official from within or from outside of the organisation is commissioned to gather as much data as possible on a specific issue in a limited amount of time. The official carries out this sort of assignment by reading

documents and by interviewing functionaries involved. Mostly, interviewers try to acquire a sufficient amount of new information as quickly as possible. The purpose of these interviews is to multiply the knowledge concerning organisational problems in order to recommend organisational improvements. As team workers may belong to different social categories belonging to common social systems, cumulative interviews are used to study distinct business and institutional settings.

The cumulative interview is an interview between experts within the same field of work in which the organisational setting is also taken into account. The expert interviewer is in search of new information in his interaction with other experts: the interviewees. By this deductive method of social research the interviewer attempts to gather as much information as quickly as possible or to reconstruct certain events in referring to a certain institutional aim. By using a limited list of relevant topics (T1 to T4) and by elaborating on the organisational problem, the interviewer collects and structures the knowledge that is explicitly and implicitly present within an organisation. In a series of interviews (I1-I5), the interviewer introduces all the relevant topics. In mutual agreement, the participants only elicit relevant topics to this interviewee, building on knowledge (K) the interviewer acquired in earlier interviews.

The knowledge accumulation based on key words in the subsequent interviews can be shown in figure 1. On the horizontal axis the figure shows the chronological development of topics (T) during one interview. Each topic can be characterised by one or more key words (K). On the vertical axis the figure shows the sequence of more interviews (I) referring to the same problem. In subsequent interviews the same topics are thematised and, consequently, the same key words are addressed whereby the knowledge actualised by the key words can be increased (K^{1+n}).

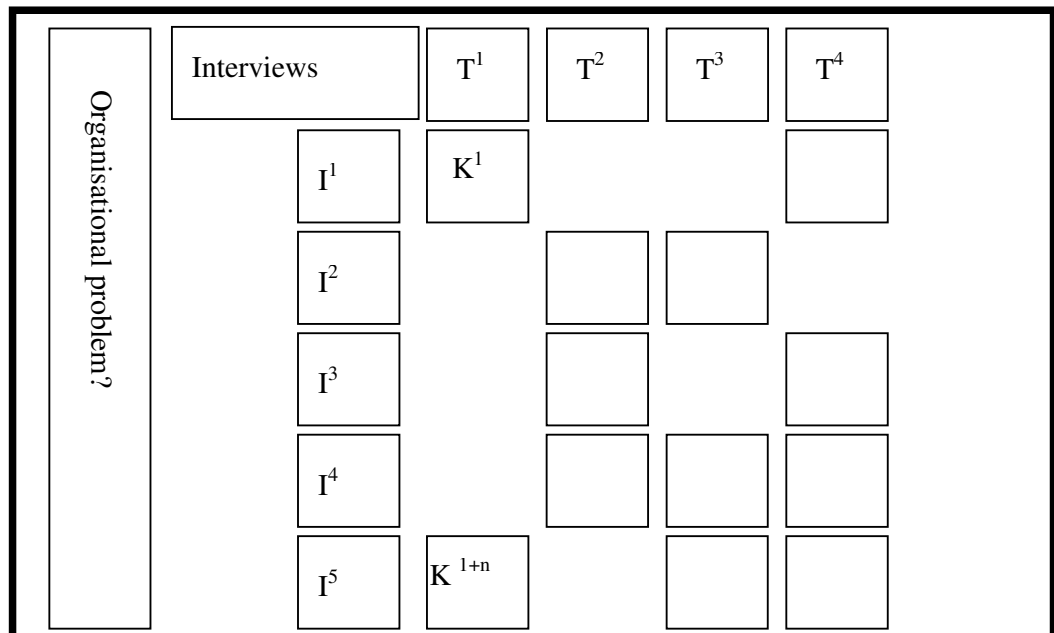


Figure 1: Knowledge accumulation based on key words (K) referring to specific topics (T) in subsequent interviews (I).

2.2 Knowledge accumulation and institutions

Knowledge can be considered to include both action knowledge (based on the question of ‘know how’) and propositional knowledge (based on the question of ‘know what’). According to Gumperz (1982), propositional knowledge can be set out in frames. These frames are made up out of facts, verbal knowledge, perceptions, imagination, motorial development and everything else, and other things which are registered during a person’s everyday actions (Ensink and Sauer 2003). Frames are used for the interpretation of new perceptions, for making plans and for predicting future operations and events.

The study of the relationship between the linguistic activities of the interactants, their knowledge, the institutional purposes and societal constellations has been developed in functional pragmatics by Ehlich and Rehbein (1977; Rehbein 2002, Ehlich 2007). In their approach, institutions are said to play an important role in the analysis. They

form the connection between the linguistic actions of the interactants and the social purposes institutions have to attain. Institutions are considered as societal apparatus which process societal purposes, mediating between societal reproduction and the concreteness of societal action (Althusser 1976).

The discourse species of cumulative interviews can be related to the needs of the present-day knowledge society in which knowledge accumulation is regarded as being very important and therefore has to be facilitated. This is also expressed in the organisation of the discourse itself. Since the interactants bring along their own expertise on a common field, one is confronted with interaction between experts. Interactants begin discourse on the one hand with expectations referring to the linguistic activities which are part of the type of interaction, and on the other hand with (shared and undivided) knowledge about the topic being discussed.

Both the interviewer and the interviewee have advanced knowledge concerning the institution in which they are professionally involved. Ehlich & Rehbein (1993) denote the action knowledge of the interactants within an institution as actant knowledge or institutional knowledge of *the first order*. The latter notion refers to the (self-evident) knowledge which clients of an institution - like e.g. students in school or patients in a hospital - have at their disposal in order to act properly in the respective institutions. For example, students know that the class interaction mainly consists of question and answer patterns. The functionaries (i.e. agents) of institutions also dispose of first order institutional knowledge. This common knowledge enables students and teachers to interact in school.

Next to first order knowledge, agents of an institution also dispose of so-called *second order* institutional knowledge (ibid, 127). Second order knowledge systematises, rationalises and generalises first order knowledge especially for agents (e.g. functionaries of an institution). For instance, didactic models systematise teachers' knowledge on the question of how to distribute the subject matters over a year curriculum. Teachers know which component of the curriculum they will schedule for a particular lesson. Moreover, specific knowledge exists amongst the teachers concerning groups of students. Second order knowledge is produced in specific institutions that reflect about and study an institution like - in case of the institution school - training or educational centres.

As *third order* knowledge Ehlich and Rehbein (ibid.) refer to scientific knowledge concerning institutions. Scientific knowledge arises from the analysis of the consistency between institutional knowledge and institutional actions. This knowledge is necessary in order to be able to analyse problems in an institution and to depict the often intrinsic contradictions that characterise institutions in our present-

day society. Ehlich and Rehbein (1993, 128) conclude that, for a scientific analysis of institutional discourse, one can not rely only on second order knowledge, i.e. the researcher should also include the primary interaction between client and agents and first order knowledge in his analysis. Second order knowledge may even complicate an analysis of institutional discourse, since it may distract the attention from the interaction that is actually taking place between clients and agents in institutions.

A cumulative interview aims to overcome this complicity by contrasting and comparing the second order knowledge of different functionaries in various positions in the same organisation. During cumulative interviews, the interviewers acquire institutional knowledge of the second order concerning the institute by critically analysing the connection between institutional knowledge and institutional actions described by the colleagues in each session. Institutional knowledge is made explicit in the linguistic interaction by the interactants.

2.3 The analysis of institutional key words

Institutional knowledge is embedded in and actualised by institutional key words (Koole and ten Thije 1994). Key words are terms which are known to group employees within an organisation. These institutional key words contain shared institutional knowledge and actualise institutional-specific knowledge for the team members and employees within the organisation. For an outsider or a staff member of another department key words stand out quickly. The meaning of these key words is self-evident for the professionals from one department, whereas people from other departments would not always know what is meant specifically by the key words. Newly acquired knowledge about institutions is added to existing frames of institutional key words. Additional key words are defined by their mutual connections to other existing institutional key words. Consequently, key words represent concentrated shared knowledge. Key words are generally well-recognizable and, therefore, provide access to institutional knowledge. For an organisation it is important that the knowledge stored in key words used by different departments is available and accessible to the whole organisation.

The use of institutional key words as a means to rapidly recall shared knowledge or transfer knowledge is a characteristic of institutional communication. These characteristics are the basis for Koole and ten Thije (1994) to develop an analytical device to reconstruct the changes of meaning of institutional key words in intercultural discourse. Koole and Li (1998) analyse cultural key words in negotiations, whereas Roelands and ten Thije (2006) and Ribbert and ten Thije (2007)

ascertain by means of key words how receptive multilingualism functions in a Dutch-German team discussion.

The method of reconstructing institutional key words enables us to analyse discursive knowledge accumulation in a series of interviews. According to Rehbein, this method can be described as: “An analytic approach which starts from concrete instances of spoken or written language and aims at gaining insight into the regularities of social life which express themselves in such occurrences of speaking and writing.” (1984a: 50). The regularities that express themselves in the cumulative interviews are discourse structures that can be regarded from the surface structure of the sequence of utterances as from a deep structure of related action underlying the verbal utterances. From the point of view of the actors involved, these same structures – and especially the key words - can be regarded as action knowledge ('know how') that enables the interviewer and the interviewee to act and to interpret each other's utterances. Koole and ten Thije (1994) discuss the analyses of the relationship between underlying and surface structure: “The reconstruction method we apply is, therefore, not a bottom-up movement from utterances to social structures, nor is it a top-down movement from social structures to the interpretation of utterances. Reconstruction follows the circular interpretative movement that is known as hermeneutic research. The aim of the hermeneutic tradition is the reconstruction of knowledge of reality by relating discourse as a part of reality to the whole” (Koole and ten Thije 1994, 47).

The mental processes which result in an increase of knowledge of the interviewer's knowledge are not directly perceptible for the researcher. By reconstructing the interaction, however, access can be obtained to the underlying complex cognitive structure and mental activities. From the surface realisation of the utterances in the interaction it is possible to make the discourse structure more transparent. From this structure it is possible to determine the propositional content of the key words. The knowledge elements, which are actualised by a key word, can be reconstructed from their propositional content. Throughout the discourse on key words interactants address the abstract frame entirely or at least partly. During the discourse the interactants are able to fill slots in these frames with new propositions. The interactants clarify the relations between the linguistic elements within the propositional contents. By appointing key words and their propositional contents interactants indicate each other what is true or not, or how the propositional contents are valued. The analysis of the propositional contents of the key words can provide insight into the modality of certain knowledge elements.

In order to conceptualise the relationship between the propositional content of a key word and the modality of the incorporated knowledge, we refer to the knowledge

model presented by Ehlich and Rehbein (1986). This model is in part adapted by Rehbein (2001) as illustrated in Figure 2.

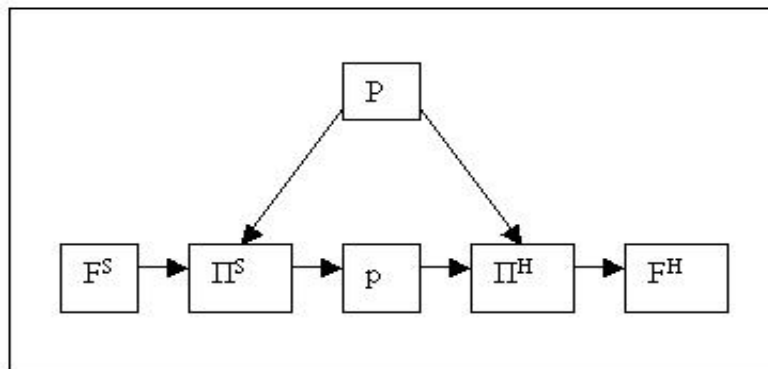


Figure 2: Knowledge model according to Rehbein (2001, 936)

The propositional content is represented in this figure by ‘p’ positioned between the knowledge of the speaker ‘ Π^S ’ and the knowledge of the hearer ‘ Π^H ’. The notions of ‘F’ indicate the speech action process between the speaker (F^S) and the hearer (F^H), respectively, in which the propositional content (p) is embedded. The notion of ‘P’ indicates the reality in which the interaction of speaker and hearer is taking place and that is constituted by the speech action. The hearer tries to understand the propositional content included in a speech action by orientating himself towards the reality that is referred to and actualised by the speech action, and, on the other hand, that is shared with the speaker.

Ehlich and Rehbein (1986) elaborate on the relationship between the knowledge of the speaker and the hearer by stating that knowledge structures consist of three components. These components are summarised in the following formula:

“S knows Γ about H”

In this formula, S symbolises the subject of knowledge, the so-called knower, while H (theta) symbolises the theme of the knowledge: of which S knows something; Γ (gamma) symbolises what is known of this theme: the rheme of the knowledge. Koole and ten Thije (1994) have expanded on this formula by formulating:

“ S_1 knows that/whether S_2 knows Γ about H.”

With this adaptation they express that S_1 's knowledge Γ about H includes the knowledge, of whether or not he shares it with other knower. This refers to the self-assessment of the knower about the mutuality of the knowledge between speaker and hearer (i.e. their common ground). This adaptation also takes into account the self-assessment of the knower with respect to the modality of his own knowledge. The self assessment can be symbolised with this formula in case S_1 and S_2 refer to the same knower ($S_1 = S_2$). The modality of knowledge refers to the scale between certainty and uncertainty respecting the relationship between the knower and his knowledge.

Rehbein (2001, 936) considers also the modality of knowledge by stating that knowledge structures not only exist of three components (knower, theme of knowledge and known knowledge structures), but are also determined by an operation of assessment by the knower. This operation of assessment ('Bewerten') refers to the fact that a certain S knows the relationship between the theme of knowledge (H) and the known (Γ). He suggests that knowledge is a three digit relationship. This operation of assessment is comparable to Koole and ten Thije's (idem) expansion of the functional pragmatic knowledge model.

On the basis of this theoretical knowledge model we focus on key words and consider the question of how knowledge modality rates the relation between the key word and the proposition. With the help of the discourse strategies with which the interviewer marks the key words, the knowledge modality of the interviewer can be reconstructed.

By reconstructing the institutional key words, links can be made between the realisations of the same key words in the subsequent discourses. Through the propositional content of the key words and the marking of the knowledge modality, the knowledge increase of the interviewer can be made transparent in consecutive interviews. This method of reconstruction of the knowledge increase of institutional key words provides insight into both the discourse structure and the knowledge accumulation. This complete process is reflected in the name of this discourse species 'cumulative interview' (Vierbergen 2005).

The relationships between the concepts in the cumulative interviews are not all semantic relationships, as suggested by Verkuyl or Spradley. The relationships are not all linguistically expressed i.e. in the surface realisation in the interaction. In the underlying mental structure the speech action process (F^S) (see Rehbein 2001, p. 936) relates the propositional content 'p' to the reality 'P' in various connections. In an attempt to find a basis for the various relationships between the concepts that occur in the data, one could state that they are based on the so-called 'fuzzy set theory'. The 'Fuzzy set theory' or 'fuzzy logic' was introduced by Zadeh in 1964 in order to deal

with uncertainties that occur in natural language and to be able to incorporate these uncertainties in formal means such as search-engines (Kerre, 1993).

Our proposal to reconstruct propositional knowledge with the help of Concept Maps (Novak and Gowin 1984: 24-35). adds an important element to the knowledge structures as they are reconstructed within the functional pragmatic model. The notion of the concept maps provides the possibility of denoting the various relationships between the knowledge elements that are known by the speaker and hearer. However, we have to stress that, in contrast to the approach by Verkuyl (ibid), we don't consider the concept maps as being independent of the knower. On the contrary, in the analysis of the accumulation we illustrate how the knowledge is dependent on the participants of the interviews. The representation of propositional knowledge by means of concept maps is comparable to the presentation of action knowledge in flow charts as has been elaborated for speech action patterns (Ehlich & Rehbein 1986).

3. Knowledge accumulation in cumulative interviews: an example

Vierbergen (2005) analysed a case study of a series of five interviews by one interviewer. The central question Vierbergen wished to answer concerned the question of how the process of knowledge accumulation could be described in the interaction during cumulative interviews.

The company involved in this case study offers consultation and services in the field of information management. The company dispatches people who advise companies and organisations on the forming of dossiers and archives and digitalising archives. Mara is a consultant in Information Management and was assigned by the office manager to optimise her own organisation. The assignment was to select new software to replace the current back-office system. The system consisted of procedures and electronic support of the processes in the supporting offices such as project planning, human resource management and finance. The offices all used different software to support their respective processes. The aim of her assignment was to replace the various software systems by one integrated system. This issue was the discourse topic during the interviews. The research material shows Mara first introducing all the systems assigned to be replaced by the new back-office software. Depending on the organisational position and the work tasks of the interviewee, she discussed the relevant systems in detail. The functionalities of the system and the problems that occurred were discussed. She gained insight into the way the back-office procedures worked and the specific demands of the users toward the new back-office software.

3.1 The institutional keywords

The proper names given to the applicationsⁱ represent potential institutional key words for this research. All institutional key words are suitable for reconstructing the interviewer's knowledge increase. These combinations of appellative procedures (Ehlich 1986) actualise the knowledge structures which in turn actualise the meaning of the concepts. By addressing a key word, such as the 'document registration system' or 'Archie'ⁱⁱ, the frame of the existing speaker's knowledge (' Π^S ') and the hearer's knowledge (' Π^H ') is triggered.

The key word 'document registration system' contains nouns. The frame of the 'every day meaning' as described in Van Dale's Dictionary (Geert en den Boon, 1999, pages 2634 and 2786-87) is triggered. These lemmas provide "een instrument waarmee de verzonden of gebrachte brieven ingeschreven worden in een voortdurend bijgehouden lijst of register".¹ This knowledge structure is considered as being commonly known by most Dutch mother tongue speakers. They can derive a limited meaning from each of the nouns of which the phrase consists: 'document', 'registration' and 'system'. The colleagues in the company will easily agree on the 'common ground' relating to this key word. The analysis shows that the employees, in addition to this general meaning, have constructed more specific knowledge referring to this key word. The abstract frame of the interviewer is far more elaborated at the end of the series of

¹ Translation by KV and JTT based on the Concise Oxford English Dictionary (2004): 'the systems in which the action or process of registering or of being registered of a piece of written, printed or electronic matter that provides information or evidence is being conducted'

interviews. The slot containing knowledge on functionalities of registering data on sent and received letters is filled up, along with the knowledge element 'letters', which is further filled up enhanced by listing relevant types of letters. New elements (e.g. propositional content) of the document registration system are added by filling up the slots with system names and knowledge on the poor interaction between this document registration system and other electronic support systems. By sharing second order institutional knowledge (Ehlich & Rehbein 1993), the others agents of the institutions helped Mara to expand her action-knowledge on the institution. This enables her to analyse the problems existent in the institution. (see for an extensive analysis Vierbergen, 2005).

Proper nouns actualise complex knowledge structures in specific institutional contexts (Ten Thijs, to appear, 8). Only when both interactants share the 'common ground' can they make adequate use of these proper nouns. Key words which are proper nouns like 'Archie' actualise the institutional specific knowledge. The interviewer cannot rely on the 'common ground' and subsequently has to adjust when communicating with the other interactants. Remarkable in this research on cumulative interviews is that, even though the institutional key word 'Archie' is discussed in every interview, none of the interaction partners actually ever addressed the meaning of the phrase 'Archie' as an issue. The proper noun 'Archie' clearly is part of the common ground of all interactants in the company. Over the succession of the interviews new slots are formed and existing slots of 'Archie' are filled. In this paper the key word 'Archie' is discussed.

3.2 The key word 'Archie'

In this analysis we will contrast the key word of a generic name (e.g. document registration) with the key word of a proper name ('Archie'). When institutional key words are proper nouns they have acquired a specific institutional knowledge (cf. ten Thijs, to appear). In the case of a proper name, the interviewer Mara cannot rely on 'common ground' knowledge, since proper names only have the function of identifying the object and person in reality, but do not have general characteristics that are documented in dictionaries. The interviewer has to acquire new knowledge in the subsequent interviews from her interaction with other interactants. The analysis presented below is not a reconstruction of the meaning of the proper name 'Archie', but rather of the characteristics and slots of the key word 'Archie' as it is used by the agent in the institutions. In the interviews, the slots of the key word 'Archie' are filled up for the interviewer by the subsequent interviewees.

The analysis of the propositional structure of the interaction shows the discourse strategies used by the interviewer to address the institutional key word ‘Archie’. At the same time the modality with which the interviewer marks the knowledge is displayed. Out of the propositional structure a graphic representation is reconstructed in order to show the different stages in the knowledge accumulation of the interviewer. These are presented as a concept map.

The knowledge elements for the propositional content ‘Archie’ (K1) are actualised in the first interview by the interviewer’s colleague Gerard for the first time. It is not possible within the framework of this paper to present all the relevant discourse fragments (see Vierbergen (2005) for the complete discourse analysis). Therefore, we focus on the knowledge accumulation. In her introduction, the interviewer, Mara, introduces ‘Archie’ as the ‘customer relationship management system’, one of the four parts of the back-office system. Gerard emphasises the necessity of a ‘good working CRM-system’ (K2) for the organisation. He argues to have minimal use for the HRM-module with the personnel data (K3) that is also a part of ‘Archie’.

The analysis of the knowledge accumulation in this first interview shows that the interviewer and interviewee both thematise the key word ‘Archie’ (K1) and the modules ‘customer relationship (system) CRM’ (K2) and ‘personnel data’ (K3). The actual state of common knowledge can be displayed as a concept map as shown in Figure 7.

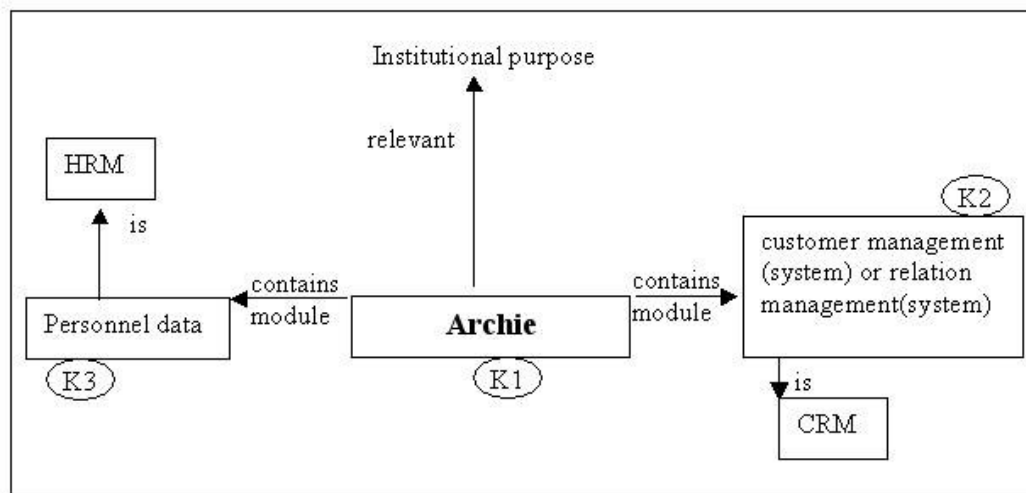


Figure 3: Reconstruction of the meaning of the key word ‘Archie’ in stage 1, after the interview with Gerard. (‘K’ stands for ‘key word’)

In this representation as an ‘abstract frame’ the connection is made between the knowledge element (K1) Archie and (K2) customer management (system) or relation management (system) and (K3) personnel data/HRM. These mutual relationships can be characterised as Spatial (X is a part of Y) (Spradley 1979: 100).

The relevance to the institutional purpose, however, cannot be defined as a rational semantic relation (X is a reason for doing Y). The institutional purpose is not verbalised in at the surface of the interaction. The action process (F^S) (see Rehbein 2001, 936) of the interviewer’s assignment, including the relevance of ‘p’, is not thematized and remains presupposed to the interaction between the interviewer and interviewee.

In the second interview, the interviewer brings up her knowledge about the knowledge element ‘software’ (K4) in her interview with another colleague, Ronald, during the introduction. She formulates this knowledge element as a fact ‘that it is all part of it...’. Ronald joins in by providing more information on ‘Archie’. During the interview, Ronald repeatedly states his opinion on the way the organisation deals with the system ‘Archie’. Ronald verbalises that, over the years, no upgrades have been purchased, which has led to the fact that the supplier no longer supports the outdated version that is still in use. He evaluates these actions of the organisation (K5-8) explicitly and implicitly as negative. In one assertion in this fragment the interviewee verbalises that ‘Archie is also used by Shell’. We conclude that his assertion presupposes that ‘Archie’ is a good product.

In his statements Ronald compares the use of the automated system ‘Archie’ (K1) to the use of the old-fashioned systems (K6) Card-tray and (K7) Rolodex. His statements imply a negative connotation to the use of these systems that can be considered as key words themselves. In other words, his statement categorises - within the functional semantic relationships (X is used for Y) - between the knowledge elements ‘Archie’ (K1), ‘Card-tray’ (K6) and ‘Rolodex’ (K7). Added is the negative connotation (≈).

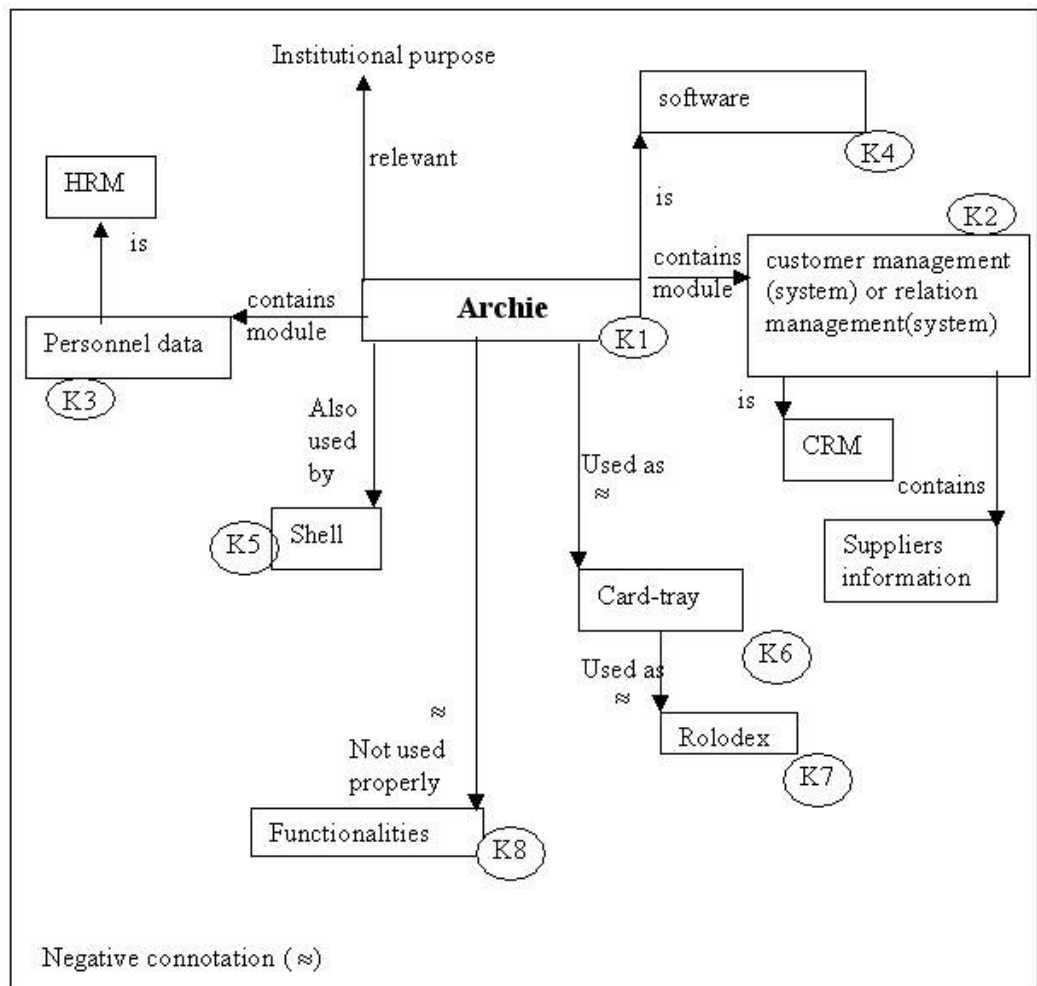


Figure 4: Reconstruction of the meaning of the key word 'Archie' in stage 4, after the fourth interview.

The concept map in Figure 4 represents the abstract frame of the connections made between the knowledge element (K1) Archie and (K2) customer relations management (system) or relation management (system)/CRM, (K3) Personnel data/HRM, (K4) Software, (K5) Shell, (K6) Card-tray, (K7) Rolodex and (K8) Functionalities.

The interviewer then conducts a third interview with her colleague Britt and a fourth interview with Sandra. Britt explains that she uses the HRM-module and the CRM-module to register data on suppliers. Sandra brings up the fact that the data in ‘Archie’ are not interoperable with data in PI (K9) or data in the document registration system (K10). Hence, Sandra often has to register the same data in different applications.

In the fifth interview (see the discourse fragment below) Peter explains that he uses ‘Archie’ as a customer relationship management system. Peter, too, knows the limited possibilities of interchanging the data with PI (K9). He also states that the software is incomplete as the company did not invest in the latest licenses and upgrades (K11). With respect to this key word, Peter states that the supplier does not support this version of the software anymore, since it is an outdated version of the application.

5th Interview: Mara-Peter, 09-01-03, 12:55-13:30

Fragment Pe4/[1-20]

[1]	1	
Peter [v]	Ga maar eens met eh met de leverancier praten eh'(.) die doet er ook	
Peter [v]	Go and talk to the er supplier er'(.) They er no longer	
[2]	2	3
Peter [v]	helemaal niks meer aan, da's zo'n verouderd systeem'	°Volgens mij wel°
Mara [v]		ja?
Peter [v]	support it, it's such an outdated system'	°I think so°
Mara [v]		Is it?

[3]	3	4	
Peter[v]	°Als ik lieg leg ik hier mijn commissie neer°		
Mara [v]	>jajaja< Ik heb anderen		
Peter[v]	°Call me a liar and I'll put in my commission°		
Mara [v]	>yesyesyes< other people		
[4]	4		
Mara[v]	hier horen zeggen dat we volgens hun dat WIJ↑ het niet goed		
Mara[v]	told me that we according to them that WE↑ are not properly		
[5]	4		
Mara[v]	gebruiken, maar dat het op zich (.) een bekend' en goed systeem↑ is en		
Mara[v]	using it, but on the whole it is (.) a known' and good system↑ and		
[6]	4	5	
Peter [v]	ja ik praat dan ook over		
Mara [v]	dat er ook veel nieuwere versies van zijn↓		
Peter [v]	Yes I am talking about		
Mara [v]	it has several newer versions		
[7]	5	6	7
Peter[v]	het geen dat we nu hebben,	dat daar niets aan gebeurt↓	
Mara [v]	ja	ja ja	ja NEE
Peter[v]	the one we have now,	that they no longer support that	
Mara [v]	Yes	yes yes	yes NO

[8]	8	9	10
Peter[v]		Ja	en uiteraard wij zullen het verkeerd
Mara [v]	dat klopt geloof ik eh	°dat klopt°	
Peter[v]		Yes	And of course we are not using
Mara [v]	that's right I believe	°that's right°	

[9]	10
Peter [v]	gebruiken, maar dat komt gewoon (.)eh omdat het incompleet' is(.)
Peter [v]	it properly, but that is just because (.)er because it is incomplete(.)

[10]	11
Peter [v]	ik gebruik het waarschijnlijk ook verkeerd,.
Peter [v]	I'm most likely not using it properly either,.

The analysis of the development of the propositional contents in the fragment can be paraphrased as follows: the interviewee states in segments 1 and 2 that the supplier 'does no longer support' 'such an outdated application'. The interviewer doubts that this is an outdated version of the application by questioning it in segment 3 'Yes? Subsequently, she reports on her information from previous interviews in segment 4 by saying 'Other people told me that it is a known and good application as it is and that we are not properly using it, but on the whole it is a known and good system and it has several newer versions'. The interviewer confronts the proposition brought on by interviewee in segment 1 and 2 by relating these knowledge elements to her knowledge from earlier interviews.

In reaction, in segment 5, the interviewee restricts his negative evaluation of the software programme to 'the one we have now'. In segments 7 and 8 the interviewer hesitantly agrees, by saying 'Yes no, I believe that's right'. The interviewee agrees with the interviewer in segment 10 by commenting 'of course we are not using it properly'. Finally the interviewee defends his proposition by stating in segment 11 that he is most likely not using the software in the proper way.

The interviewee accepts and relates his own 'improper use' to the 'incomplete application'. Alongside the statement that the application is incomplete, he addresses 'I'm most likely not using it properly either.' In this self-assessment the interviewee (knower) states the modality of his own knowledge with respect to the collective knowledge actualised by the key word 'Archie'. (Compare the general formula S_1 knows that/whether S_2 knows Γ about H) (Koole and ten Thije 1994).

The illustration of the expanded 'concept map' after this fragment looks as follows:

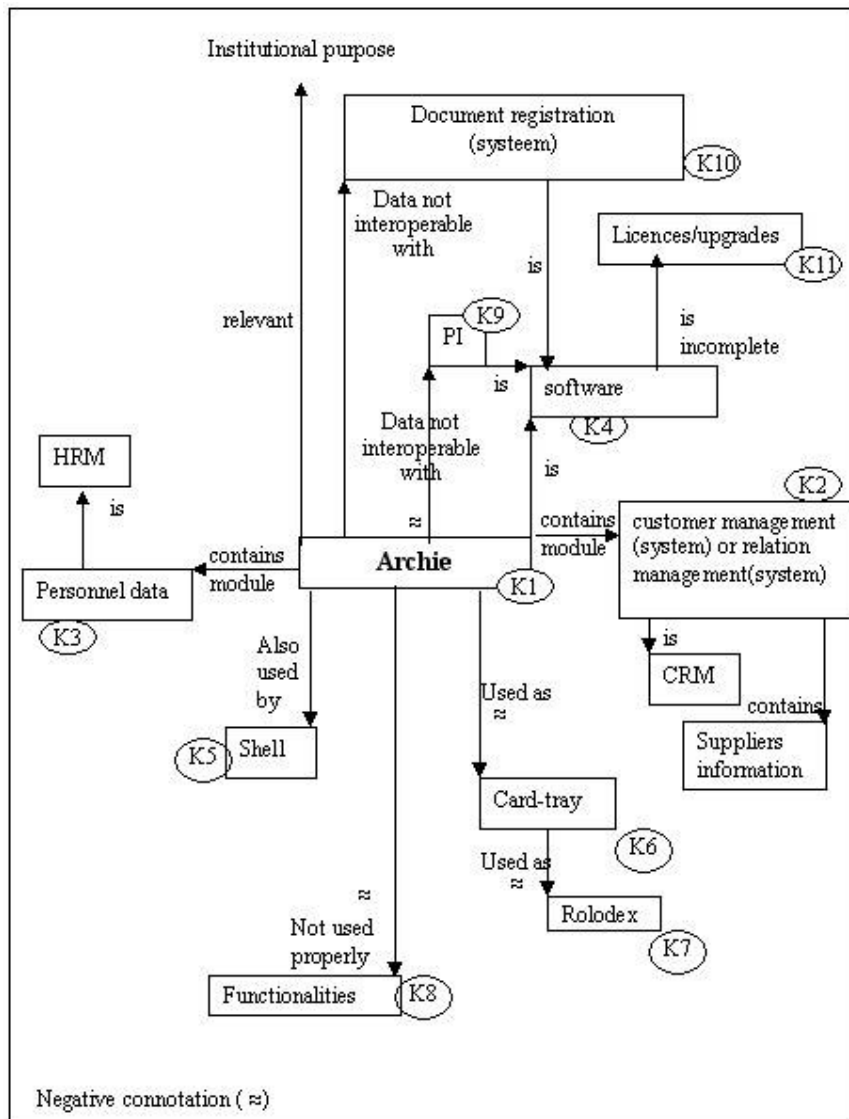


Figure 5: Reconstruction of the meaning of the key word 'Archie' in stage 6, the final stage after the interview with Peter.

The representation in Figure 5 of the connected key words in the 'abstract frame' displays the direct and indirect connections between the knowledge element (K1) Archie and ten other knowledge elements: (K2) customer management (system) or

relation management (system), (K3) Personnel data, (K4) Software, (K5) Shell, (K6) Card-tray, (K7) Rolodex, (K8) Functionalities, (K9) PI, (K10) Document registration and (K11) Licences/upgrades.

The abstract frame the interviewer has been able to collect referring to the key word 'Archie' contains not only (verifiable) facts on the software programme, but also opinions of the interviewees and of Mara herself. On the basis of the constructed 'abstract frame' from previous interviews, the interviewer is able to judge upon and react to new experiences of the interviewee in the fifth interview. This has become clear in the last fragment. The query in segment 3 'Yes?' indicates a different element in the 'abstract frame' as apparently Peter is indicating. Her intonation is interrogative and she refers to earlier interviews to test her already constructed frame. As can be seen in the discourse fragment it appears that the interviewer does not adjust her frame since Peter restricts his comments in segments 5, 10 and 11. In fact, she rejects the proposition referring to the incomplete application as well. In sum, the accumulated knowledge referring to the key word 'Archie' facilitates the interviewer to be not only the one who asks the questions, but also someone who is able to contradict the interviewees when their statements do not correspond to the organisational standards she has already collected.

We can conclude that we were able to document the knowledge accumulation by reconstructing the filling up of knowledge elements in a network of related key words. Moreover, it appears to be possible to trace back knowledge elements and their modality for the interactants involved from the realisation of different key words at the discourse surface.

The analysis reveals the specific characteristics of a cumulative interview. The purpose of this interview species is not only to collect information, but also to control collective organisational knowledge. Moreover, this analysis reveals that key words can be realised both by generic and by proper nouns. In this case study the proper noun 'Archie' turns out to be 'common ground' since none of the interactants question its use.

4. Conclusion

The argument in this paper can be summarised in that the meaning of a key word can be reconstructed from the discourse between interviewer and interviewee in the interaction. The discourse structure provides insight into the subsequent verbalisation of propositional contents by key words in speech actions. The propositional structure displays the manner in which the content of the statements in subsequent interviews is interconnected by means of key words. The relationships between these knowledge

elements connected to the key words concepts are not all semantic relationships, as Verkuyl (2000) or Spradley (1979) presuppose. The relationships are not always verbalised at the surface realisation in discourse. In the underlying action and mental structures of the speech action process indicated by Rehbein (2001, 936) as ($F^S - \Pi^S - P - p - \Pi^H - F^H$) also contributes to the interrelatedness of the key words.

The analysis reveals that if the interviewer refers to a proposition that was added to the mental frame in an earlier interview, she clearly indicates that this knowledge element is not hers. The interviewer states that the knowledge is ‘hearsay’ and checks this knowledge with one of the following interactants. In the last interview the interviewer applies this discourse strategy twice.

Moreover, the analysis shows one discourse strategy that appears to be specific for the species of cumulative interviews: the interviewer directly or indirectly refers to the outcome of an earlier interview. The institutional purpose determines which connections are made between the elements within the proposition. Only ‘slots’ which are relevant to the institutional purpose are thematised. When the interviewer has gained a sufficient amount of new knowledge from the interviewee, she closes the discussion relating to this key word and introduces the next theme with its corresponding key words.

The knowledge accumulation appears to occur in phases. During each interview the interviewer learns more on the subjects at hand. We were able to depict this learning process graphically by presenting different stages of one concept map. The propositional content of the discourse could be linked to an abstract frame represented in this context by concept maps. Subsequently, the acquired knowledge was connected to the existing knowledge within the ‘abstract frame’.

Interestingly, the analyses of separate case studies share two of the same institutional key words, namely K (document registration) and K (PI) (Vierbergen, 2005). On the basis of the two analyses, we are able to combine the results in one concept map. Figure 6 presents the connection between the two concept maps. The concept map of the key word K (document registration), ‘is an’ K (access database) ‘like’ K (PI) (presented in bold lines) is connected to the concept map of the key word K (Archie) by relation R (is) and the key word K (software) (‘document registration’ is ‘software’). The concept map belonging to the key word K (Archie) (marked by double lines) contains connections to the key word K (PI) and K (document registration), with the same interrelation R (data not interoperable with). K (Archie) also has a relationship R (is) to K (software). (‘Archie’ is ‘software’)

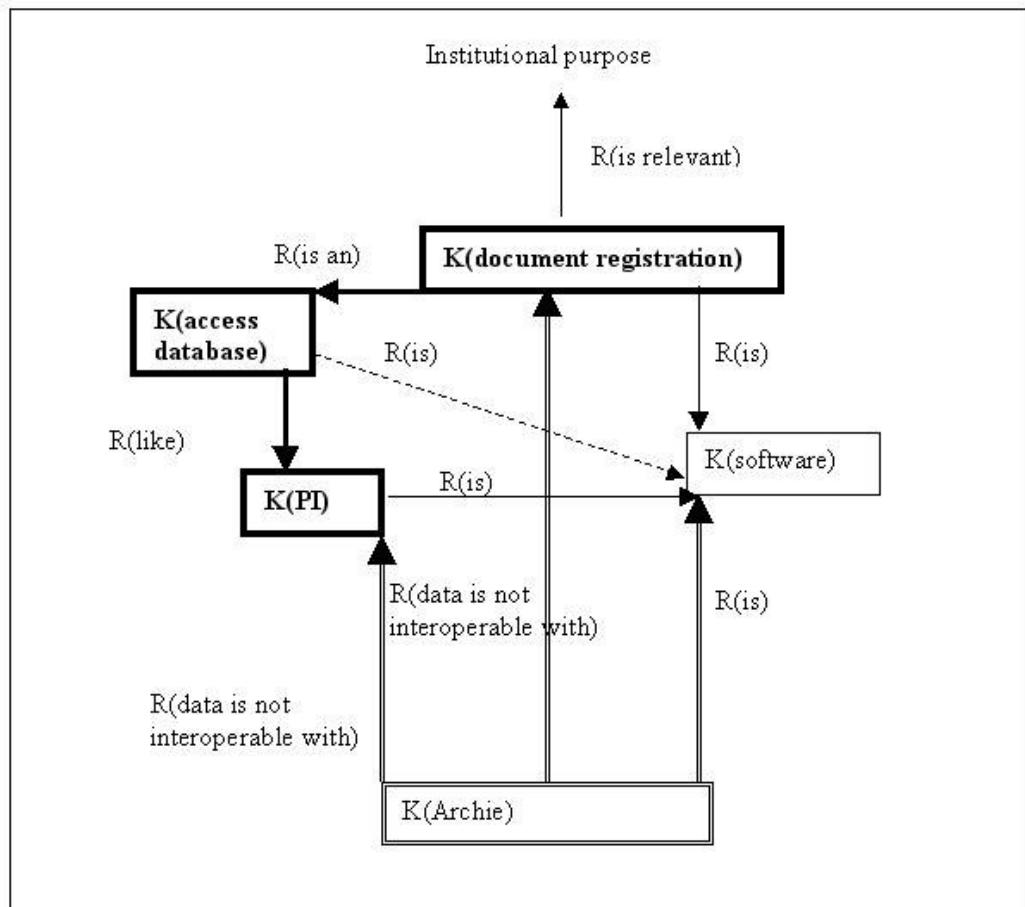


Figure 6: Connection between the two concept maps of K (Document Registration (see Vierbergen 2005)) and K (Archie/PI).

With respect to the realisation of the discourse no relation R (is) between K (access database) and K (software) can be found in our data. This is marked by a dotted line. K (document registration) and K (PI) are equated to K (access database) and K (PI) through R (is an) and R (like), here represented by a bold line. K (document registration) and K (PI) share the same relation R (is) to K (software), which is represented by a single line. ('PI' is 'software')

According to the semantic model by Verkuyl (2000), the concept has to fulfil a necessary clause (inclusion) and, moreover, clauses are connected to each other in a semantic network. Therefore, we assume that in the overall cognitive map of both key words a connection between R(is) and K(access database) and K(software) can be expected: if K(document registration) and K(PI) R(are) K(software), then K(access database) R(is) K(software), too (marked by the dotted line).

The knowledge accumulation does not occur for isolated institutional key words as has become clear from the two case studies (Vierbergen, 2005). Key words are mutually interrelated. By interconnecting the concepts, the ‘abstract frames’ of the different institutional key words are interconnected. We state that the complete mental model is a widespread network, in which the interrelational aspect is an important element of the knowledge. In Figure 7 we present a model in which several key words are interrelated. This model can be used as an illustration of the knowledge accumulation by various key words.

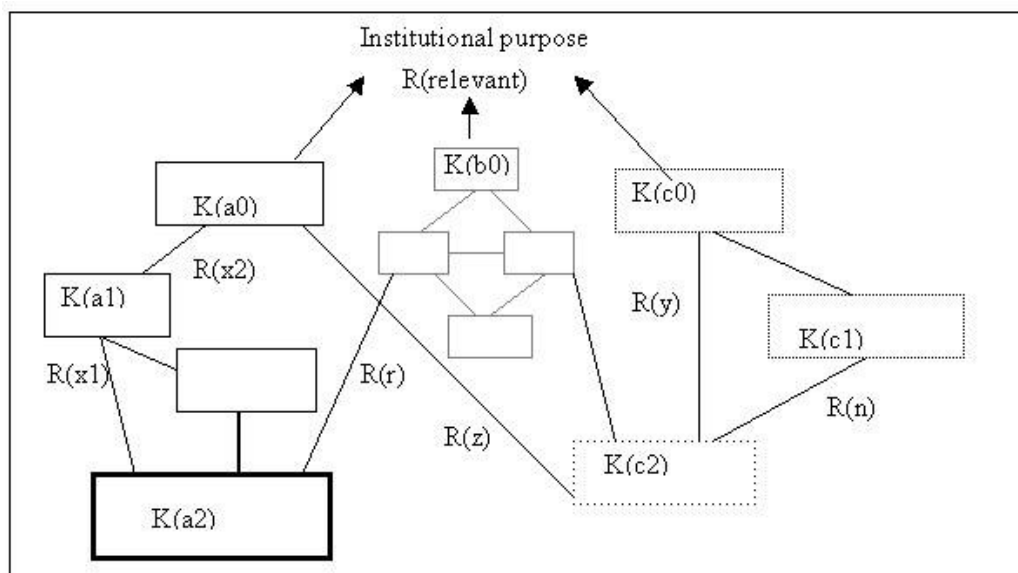


Figure 7: The “abstract frames” of different institutional key words (for instance (Ka), (Kb) and (Kc)) are interconnected by the different relations (R).

Professional communication in organisations has to cope with the consequences of complexity regarding the knowledge society. That is their everyday practice. To grasp

the everyday practices of business organisations, managers are looking for different ways of studying and understanding business methods, organisational set-ups, social structures and consumer lifestyles. We propose that cumulative interviews can be used as a methodological tool in the professional study of business organisations.

The discourse species of the cumulative interview is a means to deal with the question of how knowledge accumulation is structured in interaction. In cumulative interviews knowledge accumulation can be systematically prepared and planned for various institutional purposes. By elaborating on the organisational problem, the interviewer gathers and structures the knowledge that is explicitly and implicitly present within the organisation. Only by eliciting relevant topics from the individual interviewees and by building on knowledge acquired in earlier interviews does the interviewer manage to succeed in rapidly uncovering the core of the problem. Systematic planning of the interviews allows the interviewer to use the discourse strategy of checking earlier acquired knowledge.

Moreover, we state that the use of concept maps is not only a method to visualise the abstract frames that can be reconstructed from the discourse as has become clear from the two cases studies; the methods of concept mapping can also be used as a practical method for the interviewer for to make notes during the interviews. The concept maps enable the interviewer to connect acquired knowledge to existing knowledge, identifying the relationships between the concepts and exposing the blank slots. This method of reconstruction of the knowledge increase of institutional key words provides insight into both the discourse structure and the knowledge accumulation. Knowledge accumulation becomes visible as plural knowledge, adding an important element to the knowledge structures as they are reconstructed within the functional pragmatic model.

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ⁱ Applications are computer programmes designed to fulfil a particular purpose

ⁱⁱ Archie of archie: (artsjie) the software application used for customer relation management information. A related module of this application is used for personnel management.