IN YOUR FACE

INTERPRETING FACIAL EXPRESSIONS:
A CONTRIBUTION TO THE BIOGRAPHIC-
NARRATIVE INTERPRETIVE METHOD

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Prologue

During a half year of traineeship at the ‘humanist broadcast organization’ (HUMAN) I was intensively involved in moving images. My main activity was interviewing people for the website: www.durftedenken.nl. Besides being the interviewer I was also the editor of the interviews. I learned to watch closely how people behave in interviews and how movements can be interpreted in interaction with what is said.

It was during this traineeship that I followed a class at the University for Humanistics called ‘empirical narrative research’ taught by Anneke Sools. We got an introduction to the ‘Biographic-Narrative Interpretive Method’ (BNIM). I found this method very interesting and enjoyed searching the/a meaning of what is said in the interviews. But what I missed in the BNIM was the visual aspect of people telling stories. We used audiotapes of the interviews and their transcripts, but no visual recordings of the respondents telling their stories.

Another aspect in my life story that lead up to this research is my interest in interviewing. I have done interviews in various ways. Besides doing the interviews for HUMAN I worked as an interviewer for a company doing research in home care and nursing homes, for a research company in public transportation and I got interview training as a student at the University for Humanistics. It is my experience that the stories of the respondents cannot be solely expressed in words. Very often I looked at the outcome of the interview on paper and thought, this is not what happened, there were so many more and other things going on. In my thesis I would like to develop a way to say something about the nonverbal story telling in addition to the already existing BNIM.
Chapter 1 Introduction

The purpose of my research is to develop a method to integrate nonverbal aspects of storytelling in the BNIM to be able to make a more accurate and complete interpretation of narratives than has been done till now. I do this by exploring literature on facial expressions and by applying this literature on an analysis of a video registration of a qualitative interview. This presumption that a more accurate analysis is possible is the starting point of this thesis.

Wengraf (the designer of the BNIM) advises in the Guide to BNIM (2008, p. 380) not to use video material and voice recordings, but only the verbatim transcript because of two reasons. First of all the amount of required work would raise exponentially. Second analytic distance is hard to maintain because ‘voice’ and ‘visuals’ are seductive. I hope that with this research the BNIM is provided with tools for analyzing video material without creating massive amounts of work and maintaining the required analytic distance.

1.1 What is investigated

This thesis investigates the methodological consequences of implementing visual data into the BNIM. To support this investigation I develop a conceptual framework for analyzing facial expressions in the BNIM.

The research is split up in two parts. I begin with a theoretical framework in which I describe what the BNIM analyzing method contains and which theories about facial expressions already exist and can be linked to the BNIM. This literature sensitizes the researcher for the second part in which I perform a BNIM analysis on the verbal transcript followed with and compared by an analysis on the visual data.

I focus on facial expressions as a specification of the broader term nonverbal behaviour because I found interesting literature and software that are particularly relevant for a narrative approach.

1.2 Why is this thesis written

1.2.1 Theoretical relevance

Former paragraphs already reveal part of the theoretic relevance, namely a shortcoming in the existing narrative analyzing methods. This shortcoming consists of the experienced based argument that respondents’ stories cannot be solely expressed in words.
The argument of Mehrabian (1971) supports this argument. Mehrabian is an American psychologist known for his 3V’s: Visual, Vocal and Verbal. He argues that human communication of feelings and attitude consist of 55% body language, 38% tone of voice and 7% is verbal. By developing a conceptual framework to incorporate the analysis of the facial expressions of a respondent during a qualitative interview, parts of this shortcoming can be overcome.

Furthermore this research contributes to theoretical insights in nonverbal communication in qualitative interviews and most of all to narrative analysis. Narrative methods are often used in social sciences. The significance of the development of narrative research methods for humanization and meaning lies first in the knowledge basis it provides to study social reality. The narrative research method is of importance for human sciences, because by learning about narratives we do not only learn about experiences of the subject, the narrative also represents the social, political, economic and cultural effects of social influences on the individual. Andrews defines narrative research as a way ‘[…] to investigate not just how stories are structured and the ways in which they work, but also who produces them and by what means; the mechanisms by which they are consumed; and how narratives are silences, contested or accepted’ (Andrews, 2008, p. 2). Learning about narratives can help us describe, understand and even explain important aspects of the world. This knowledge can provide a base for acting and advising people on an organizational level or on a more personal level.

1.2.2 Practical relevance

The results of this thesis can provide scholars with a scientific base for justifying their analysis of the visual. Due to technological developments the field of narrative research can be broadened with a method for analysis so that the possibilities for social scientists in executing empirical research expand. One certain technological achievement that opened doors for social scientists is the launch of the first portable video camera by Sony in 1965 (D. Boyle, 1992). Further developments like digitalization, camera features on mobile phones and easy ways of publishing moving images on the Internet made creating and watching video material even more accessible. The stream of moving images creates a richness of research material. Technological progress will inevitably have an impact on scientific analysis methods as shown in this research.

The specific field of practical relevance is the BNIM. With the development of a conceptual framework for interpreting facial expressions, the BNIM is further specified.

1.2.3 Personal relevance

As I am planning to work in the interview industry, mainly for film documentaries, it will be of great aid to have tools that enable me to interpret more than the words of the respondent. In their life people develop social skills for reacting to nonverbal behaviour of others. By adding academic skills the
interpretation of nonverbal behaviour (as I am trying in this research), ‘natural social skills’ can become more solidly anchored. When analyzing interviews or maybe even during an interview these new scientific tools can reveal a new dimension in peoples’ stories.
Chapter 2 Different attempts at reading the face

“L’émotion est une certaine manière d’apprêhender le monde,” (p.30) “elle se pose comme une certaine relation de notre être psychique avec le monde; et cette relation, - ou plutôt la conscience que nous prendons d’elle – n’est pas un lien chaotique entre le moi et L’univers: c’est une structure organisée et descriptible” (p.16).

J.P. Sartre (1935)

“This apprehension, this relation, is the one appearing in the facial configuration” (p.326).

N.H. Frijda (1953)

Beginning this chapter the first thing to do is give a short insight in the history of facial research this far. Then I shall take a closer look at methods of facial recognition, measuring and interpreting and the corresponding computational methods. Though computational techniques are rapidly developing, it will become clear that humans are still the best observers and measurers when it comes to facial expressions. This is one of the reasons to choose Frijda as guiding author in this thesis. He is one of the main researchers relying on human capabilities when it comes to interpreting expressions. I will explore Frijda’s theoretical framework about the interpretive process of facial expressions, which is quite significant for this research, because it seems particularly apt to connect facial expression to narrative.

I will conclude this chapter reflecting on the methodological consequences of the literature findings for the case study I will perform.

2.1 A condensed history of reading the face

Expressive movements have a long history as research objects. They are understood as leftovers of a preverbal gestural language. Though there are many different theories about facial expressions and emotions, one thing they agree on is that facial patterns or expressions evolved to communicate information (Russell, 1997, p. viii, p. 71). Many researchers are involved in the face and its displays. In the following section I will briefly cover the debate and appoint its main authors and their research efforts.

The first author on facial expressions who still has influence on scientific work is Charles Darwin. He was the first to make the claim of universality of facial expressions. Later on in the field
of experimental psychology, due to research by the psychologists Allport (1924) and Fernberger (1928),
the question arose: When an observer sees a facial expression, what is the role of the context in which
the face is embedded? Even today this is a relevant question as will be pointed out later in this chapter.
In the period surrounding World War II three schools in psychology arose. The first one includes
Woodworth (1938) and his student Klineberg (1938, 1940). They investigated facial expression
and the role of culture. The second school started with experimental psychologist Osgood (1955).
He emphasized the meaning of a facial display in terms of the observer’s response to it. Frijda (1953,
1969) represented the third school. He provided a psychological model, which linked facial expressions
and emotions that stressed action preparation in both emotion and face. In psychology Tomkins was
the next to contribute, followed by Izard (1977) and Ekman (1972). Their Facial Expression Program
has dominated research since the eighties. ‘It [the Program] is centered on a list of “basic” emotions
as the cause of and the signal received from facial expressions’ (Russell p. 10). Later ethologists like
Hinde (1985) and Smith (1977) focused on the consequences of facial displays on interaction.
They also explored the interpretative context in which communicative behavior is shaped (Russell,
1997, Chapter 1).
Besides psychology and ethology, computational studies are involved in facial expressions. The value
of facial expressions becomes more widely acknowledged as humans and computers get increasingly
interconnected. An example of this interconnection is ‘Kobian’. On the 24th of June 2009 Japan has
unveiled the humanoid robot ‘Kobian’, which is seemingly capable of expressing emotions. According
to Kobian’s developers, the robot’s expressiveness makes it better equipped to interact with humans
and assist with daily activities. The designers of Kobian claim that in the future, the robot may seek
work in the field of nursing.¹ The feature of facial expression is understood as a step forward in the
communication between human and robots, though many people do consider it creepy.²

2.2 Labeling facial expressions supported by computational techniques

One of the leading authors on facial expressions today is Paul Ekman. He has developed a
categorization of facial expressions based on muscular movements. This categorization is called the
Facial Action Coding System (FACS Ekman et al.). FACS is one of the most frequently used systems
in vision-based research. One of the main features of this system is that it does not concern emotion

¹ Under this link Kobian is presented to the audience. http://pinthentacle.com/2009/05/emotional-robot-kobian-pics-video/
labeling. Ekman argues that labeling emotions on facial actions/expressions follows subjective criteria, which elicits problems in interpreting the expressions. For example in emotion labeling the problematic assumption is made that emotion and facial expression have an exact correspondence, which appears not to be the case. Oster et al (1992) have found different emotion labels for the same facial displays in different emotion labeling systems such as MAX, AFFEX and EMFACS. To overcome this error Ekman has created a more objective categorization (Ekman, 2005, p. 372). The labels in FACS, called Action Units (AU), do not infer meaning to facial expressions. The AU’s are no more than a description of muscular movements (Figure 1.). This makes it applicable in a broad range of research fields (Cohn in Ekman 1997, p.372). Thanks to the work of Ekman a new objective nomenclature concerning the muscles movements in the face has emerged in the field of facial expressions. This nomenclature of Ekman is a great tool for researchers, as it provides a shared basis for communicating knowledge.

![Upper Face Action Units Table](image)

**Figure 1.** Facial displays of the upper face labeled with Action Units.

Pantic (2001) is one of the researchers who has put great effort in creating an automated system for recognizing Ekman’s AU’s. The development of automated systems for face recognition; face tracking and face interpretation are recently taking a big leap. Ekman’s non-automated system for analyzing facial displays takes ten hours of coding per minute of visual material (Ekman, 2005, p. 372).

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3 Picture derived from *What the face reveals* by Ekman and Rosenberg (2005, p.376).
Besides the aim of Pantic to cut down the time of analysis by human observers in research, she also aims at contributing to the development of informational technology in which human communicative behavior is essential for developing user interfaces (Pantic, 2001, p. 382). Interfaces are systems that enable man and machine, machine and machine or even man and man, to communicate with each other (an example of an interface is the remote control of your television). In the research Pantic performed she came as far as an automated recognition of thirty-two of the forty-four AU’s in still shots of images of people without beards and glasses. In this project called ISFER (Integrated System for Facial Expression Recognition) Pantic brings together two fundamentally diverse technologies, namely the psychologically and anatomically based FACS and Computational Intelligence (CI) (p. 378). The progress she made in this field was huge but not sufficient to implement in the experiment to be executed in this thesis. This will be illustrated in the next paragraph.

An example of a field in which automated face recognition/interpretation is used is in controlling the reign of terror. In Rotterdam (the Netherlands) for example, are up to three thousand surveillance cameras installed all over the city. Intelligence services as well as secret services have the resources to invest in research concerning automated face recognition, though not all the progress of this research will be announced in the public domain⁴ (Hooge, 2009). Bakers⁵, a fellow researcher, shared an article with me on the progress of face recognition in surveillance cameras⁶. These cameras recognize the six basis emotions (happiness, sadness, surprise, fear, anger and disgust) by zooming into faces and ‘listening’ to voices. These so-called ‘smart’ cameras developed by Datcu⁷ (2009) are not yet applicable for surveillance and have trouble with beards, glasses and headscarves. But when they are ready for use they should be able to see whether someone is in need of help and contact the local authorities without any interference of human observers in control rooms.

### 2.2.1 Obstacles in automated face recognition

Now I will discuss some problems inherent in the automated approaches developed by Pantic and Ekman. The first problem is that most of the automated systems work only with the six/seven emotions earlier described by Ekman and Friesen (1975): happiness, sadness, surprise, fear, anger and disgust

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⁴ Information derived from a conversation with Dr. Ignace Hooge university of Utrecht, department of experimental psychology specialized in Eyetracking autumn 2009.
⁵ Japie Bakers is finishing his Master theses in Human Movement Sciences.
⁶ Djoke Hendriks, (29 October 2009). Straatcamera ziet of je boos kijkt of bang; NS wil er agressie mee in de trein herkennen. NRCnext.
⁷ Dragos Datcu (2009) wrote his thesis eight years after Pantic (both were a PhD student of Delft University). He has developed a system for affect recognition (the six basic emotions) of moving faces, although not yet practically applicable.
and contempt. Though this classification is often used in research on vision-based facial expression analysis, it is not complete. Not every facial expression fits in these six categories (Pantic, 2001, p. 14). When we look at the anatomy of the face there are more than seven thousand possible combinations of muscular contractions that expose different displays in the face. These of course do not all correspond with an emotion. In her thesis Pantic (2001) describes we should recognize that a total automation of facial action coding lies in the distant future. The main reason why her system is not yet suitable for use in this thesis is because it is not applicable on moving images and an even more important reason is that ISFER treats facial expressions as context-free autobiographical events.

Pantic is striving for improvement of ISFER as she recognizes that context and the dynamics of facial expressions are essential in the interpretation process (p. 379). In a later article she argues (Zeng et al, 2009) a fifth obstacle in affect recognition. So far most experiments done with automated systems are able to recognize deliberate expressions, which differ in various ways with spontaneous expressions (p.40). One of the main differences is that the speed and amplitude are greater in deliberate expressions and the duration is shorter (Schmidt, 2008).

Besides the obstacles in Pantic’s project to automate FACS I encounter a few problems in FACS itself. To begin with the problem that Ekman’s FACS does not provide a solution for the interpretation problem. He simply avoids this problem by focusing on muscular movements rather than their interpretations. Ekman himself and Friesen recognized this problem and developed the Affect Interpretation Dictionary ⁸ (FACSAID) for AU’s in the 1980s. As argued before labeling facial movements with AU’s is first of all very time consuming (as long as it is not automated) and second, to be able to label a facial movement with an Action Unit (AU) one has to know thousands of combinations of muscular movements by heart. Once the expressions are labeled they can be interpreted by FACSAID. This interpretation dictionary anticipates the need for meaning for researchers using FACS. However FACSAID is not nearly as developed as FACS itself. This digital database is an interpretive tool with several weaknesses recognized and described on the website itself of ‘Face and Emotion’ ⁹. The rules of interpreting are not explicit and the only basis for confidence in the accuracy of this tool is the authority of experts (who we do not know). The procedure for obtaining interpretations should therefore be improved (Hager, 2003). An illustration of the difficulties encountered in trying to get more grip on how interpretation of AU’s are made, is shown in the following example:

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⁸ FACSAID is a digital database in which Action Unit (AU) numbers that are manually ‘discovered’ in a face can be entered whereupon an interpretation rolls out the computer. The interpretations enlisted in this automated system, are made by experts and they are based on the seven basic emotions: happiness, sadness, surprise, fear, anger and disgust and the later added contempt.

⁹ http://face-and-emotion.com/dataface/facsaida/history.jsp
When I asked a member of the Paul Ekman group how they interpret facial expressions he could not give me an answer straight away, instead I was supposed to buy software that would make interpretations of AU’s for me. The process of interpretation I am interested in is for some reason not very clear and transparent in the Ekman-group.

‘You may need to purchase the FACS training manual, which is all the Au’s of facial expressions. We do not sell this - so you need to contact the person at "face and emotion" website where FACS is sold,
Yours truly, Lee’

Another answer came from Joseph Hagar, also specialized in face and emotion a la Ekman:

‘The interpretation of FACS scores remains largely a research endeavor. Individual researchers are responsible for the interpretations. There are several tools that help interpreting the scores, which are known to researchers, including FACSAID, which is not running at present. There is no standard tool or dictionary of interpretations. I discuss these issues on the web site. I am sure more and better tools will be developed that will assist a wider variety of interested parties in the future.’

These described weaknesses make FACS (AID) too complex and elaborate to use in a master thesis. To be able to do an analysis according to FACS one has to learn the thousands combinations of muscular movements by heart or hire one of the three hundred specialists who have embodied them already. These options are beyond the scope of this thesis, though it would be quite interesting for future research to add FACS to the analysis of facial expressions in the BNIM. Especially as FACS will be fully automated in the future and one of the biggest barriers will be overcome, namely time. Besides being too elaborate and complex on the one hand FACSAID also has its restrictions. Interpretations of expressions can only be made within the margins of the six basic emotions and most of the time only on deliberate expressions. An automated system for interpretation is not (yet) suitable for this thesis, because the biographic research model I try to contribute to is only concerned with spontaneous expressions and takes also into consideration cultural aspects and contexts. For these reasons I choose not to use the FACS (AID) in this research.

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10 Email sent on the 11th of September 2009.
11 Quote from an email sent on the 19th of October 2009.
2.3 An interpretative approach to facial expressions

2.3.1 Universality and context in recognizing facial expressions

Pantic appoints a key issue in the differences between researchers on the face. On the one hand we have Darwin, Tomkins, Ekman et al. who claim the possibility of interpreting faces in all cultures in the same fashion. They see an inert understanding of facial expressions all over the world, which they have proved with tests run by Ekman in 1971 within a tribe in New Guinea. The seven basic emotions were to be recognized and linked to a story by members of this Stone Age culture. It appeared that this tribe performed consistent with other western and non-western cultures\(^\text{12}\). It is quite remarkable that Ekman et al. developed a method as objective as possible to measure the face (FACS), to be satisfied with non-objective interpretations of emotions in faces without a scientifically based argumentation why these certain expressions carry the meaning of these specific emotions. That people recognize emotions in faces does not mean that certain expressions correspond with specific emotions at all times.

On the other hand we have a group of researchers who question this inferring of emotions on faces as done by Ekman. Russell, Fernandes-Dols and Frijda are authors in this group\(^\text{13}\). As Pantic pointed out one of the issues desiring further development is the context and dynamic of facial expressions. According to Pantic these issues especially play an important role in the interpretation process (Pantic, 2001, p. 379). Frijda represents this group of researchers, whose emphasis lies on the interpretation process of facial expressions. This makes Frijda preeminently the author to address for the Biographic Narrative Interpretive Method. He is a Dutch psychologist and emeritus professor of the University of Amsterdam. The next paragraphs will be dedicated to a fragment of his body of thought on facial expressions and emotions and the use of it for this thesis.

Another distinction that can be made between researchers focusing on facial expressions concerns the relation that is attributed to emotion and expression. For a long time (1859-1905) researchers in the field of facial expressions clung to the dogma that expressions manifest inner feelings. Tomkins validated this traditional view in 1962. He began a project, which concluded that someone’s emotional state is always visible on ones face and ready to read (unless hidden or masked). Ones emotional state is detectable and always one of the seven basic emotions or a derivative of one or more basic emotions (Russell, 1997, p. 297).

\(^{12}\) On www.paulekman.com an interview with Ekman is embedded on this subject. 
\(^{13}\) One of their cooperative works in which also the ‘Ekman-group’ is represented (but not Ekman himself because he ‘unfortunately could not participate’ p. xii): Russell, James A. & José Miguel Fernández-Dols (ed.) (1997). The psychology of facial expression. Cambridge: Cambridge University Press.
Just when this dogma was abandoned the possibility came to mind that facial expressions could be defined as a category of impression (Frijda in Russell, 1997, p. 79). This change implies a change in interpreting facial expressions. An experiment by the Russian director Kuleshov and the students Einstein and Pudovkin (1917) pointed out that emotions detected in a face could be illusions. He showed an audience three different silent movies, all ending with the same shot of the face of an actor. Though the face in the three films was exactly the same it was interpreted in different ways, deep sorrow, heavy pensiveness and a light happy smile where all seen (Russell p. 295). They came to the conclusion that the context in which a face is shown determines the impression it leaves on its observers.

2.3.2 The correlation of expressions and emotions according to Frijda

Frijda and Tcherkassof (1997) made an effort to make a nuance in the strict distinction made above between detection (Tomkins) and illusion (Kuleshov) of facial expressions. According to them the answer to ‘what does facial expression express’, stems from three basic facts of facial expression. First they acknowledge what Darwin has discovered on his Beagle trip (1872) and Ekman on his trip to New Guinea (1971), namely that there is a clear and distinct affinity between particular facial expressions and particular categories of emotion. This affinity exists cross-cultural and probably universally. Different from Darwin and Ekman is that according to Frijda and Tcherkassof emotion categories and facial expressions do not possess more than an affinity (Russell, 1997, p.80). And a given kind of emotion may give rise to different facial expressions or to no facial expression at all, the second basic fact of facial expression. The third one is that a given facial expression may be commonto different kinds of emotion as well as to psychological processes that are not distinctly emotional (Russell 1997, p. 80). These three facts define the relativity of ‘reading’ faces. Therefore there is on the one hand evidence of a correlation between particular emotions and particular expressions. On the other hand there are doubts about the strict correlation as shown in the work of Ekman (2005).

An experiment executed by Frijda, published in 1953 in Acta Psychologica, investigates the process of assessing information from facial expressions. This research points out that assessing information from facial expressions does not follow strict rules of attributing emotions. The subjects in his research were asked to respond freely to what they thought was going on in the person shown on photos and film or what might have happened to that person (Russell, p. 83). The responses differ in an important way from most expression recognition experiments in which the subjects are asked to label the emotion they observe, as seen in Ekman et al. This free responding evoked small stories from the observers in the process of interpretation. An example (p.84): ‘one of the slides showed a person thinking
of her work (painting). It was given the interpretation: “she looks the way you look at a small child playing”.

Instead of finding a pattern in facial expressions and emotions the research of Frijda points towards a different plane of analysis namely the relational activity, the way the individual relates to the environment at that moment in time (p. 87). In his magnum opus ‘The Emotions’ (1986) Frijda pursues and develops the concept of relational activity and action readiness. But first of all he postulates that expressions are par excellence fit as starting point for researching emotions (Frijda 1988, p.20). The relationship between emotions and expressions is shown in the four principles of expressions (p. 67). The first principle is that certain forms of expressive behavior can be understood as relational activity: an activity of the subject that creates, weakens or undoes the physical and cognitive relations with his environment by means of movement and changes in the physical or sensory receptivity of the subject. The second principle is that of interactive effectiveness. Some forms of expressive behavior can be understood as actions aimed at changing the relation of the subject with the environment through influencing the behavior of other individuals. The third is that of activation. Some forms of expressive behavior can be understood as the manifestation of behavioral activation as such, or as decreased behavioral activation. What is meant by activation is the intentional orientation – readiness to attention, effort and reaction. The fourth and last principle described by Frijda is that of inhibition. Some forms of behavioral expressions can be understood as the result of behavioral inhibition. In some cases the inhibition concerns a form of expressive behavior mentioned in the former principles.

Emotion is the motive of relational activity and expression is an element of this activity. The relation between emotion and expression is intrinsic, comparable with the relation between a plan and its’ execution. For example when we take a closer look at the emotion sorrow and the apathy that follows, we see in the expression that the loss of goals leads to action loss and hypotony (a diminished tension of muscles). Though Frijda means that an intrinsic relation between emotion and expression exists he recognizes that this relation is relative as described above (three basic facts of facial expressions).

2.3.3 The body as music

Now that we know about the affinity of expressions with emotions I would like to engage with some aspects of expressions that are leading for the impressions they leave. Frijda employs several terms for this that I like to adopt. Let’s start with the term ‘expression melody’. Reading this term brings me in high spirits. Imagining the body as music, how exciting. What Frijda means by this term is the sequence of expressions, the totality of their change going on uninterruptedly in time (Frijda, 1953, p. 308). In the expression melody four features can be defined.
First the articulation. The articulation is the structure or continuity of the expression melody. Each expression evolves from or is superimposed on the preceding one. Articulations between expressions can be fluent or quite distinct. An example of a fluent articulation: Someone is told something unpleasant; the smile slowly dies in her face. To be able to apprehend the expression melody, one has to integrate the articulation with that of the objective events of the situation (p.312). The articulation of an expression as used by Frijda cannot be found in Ekman’s theory. When expressions are labeled with Action Units and entered in FACSAID there is no account of the possibility that a former expression might influence the impression of the current one.

Then we have the configuration. This is the expression proper. Action Units are good examples of static configurations: mouth closed, eyes squeezed, right brow lifted, etc., or dynamic configurations as we see in film: backward movement of the upper part of the body, turning the head on its horizontal axis, etc., these are very clean and objective descriptions of muscular movements.

The third feature of the expression melody is evolvement. This can only be seen in time, hence only in film. It is the development of the configuration in time. The dynamic configuration of a backward movement of the upper body can take place quickly, slowly, fluently or in spurts. These differences in speed of the evolvement may all leave different impressions on observers (p.322).

The last feature of the expression melody is the amplitude. This one is also recorded in the FACS of Ekman. It is the intensity of the configuration. The amount of muscular movement involved. In a state of anger, brows can be lowered slightly or in a very outspoken manner.

2.4 Summary of reading faces

In this chapter I described and compared the most important theories on facial expressions regarding this research. I came to the conclusion that the Facial Action Coding System is not ready for use at this moment, because the interpretation procedures are not clear, it is again beyond the scope of this research. Nevertheless once FACS is automated and a clear interpretation tool is developed it certainly is worth the effort to try it on a BNIM analysis. Further on in this chapter I treated the expression theory of Frijda. The notions he works with differ in great extend from Ekman. The main differences are the specific and elaborate developed terms Frijda uses to understand and interpret expressions. Especially his experiment in 1953 dealing with the interpretation process of facial expressions is of great use in this research. In the next chapter the nomenclature of Frijda is linked to the interpretation process of stories in the BNIM. But first the BNIM itself is explained in more detail.

One note about the main article of Frijda I refer to needs to be made though. Frijda’s publication
In *Acta Psychologica* dates from the fifties of the last century. In Russell (1997) the publication of Frijda is treated as a sole line of research in the field of facial expressions. Since 1997 there has been no follow up research that questions or criticises the experiment of Frijda. An exception is the work of Tcherkassof (1999) who has ‘tested’ the notion of ‘action readiness’. This particular article is only available in French and therefore not used in this thesis. I conclude that the experiment executed by Frijda is not very popular among facial expression theorists because in the last fifty years it has been cited just thirty-seven times in other academic writings\(^{14}\), which is not very often. Popular writings (of Ekman for example) are cited more than hundred times in the last fifteen years. Nevertheless I think the way Frijda uses expression melodies to apprehend facial expressions can add to the current line of research as it differs in great extend from the ideas of Ekman who is the current day leader in the debate of facial expressions.

\(^{14}\) Information found in the Social Sciences Citation Index, March 2010.
Chapter 3 The BNIM in more detail and compared with expression theories of Frijda

“Your judgment may be flawed if your imagination is not in focus.” Mark Twain (Wengraf, 2009, p. 79).

The Biographic Narrative Interpretive Method is a research method particularly apt for exploring how the relation and interaction between individuals on the one hand and the constraints, processes and roles of organizations on the other hand, are experienced. This method describes the lived experiences of practicing and is therefore called a practice-near research method. These lived experiences come to expression in the stories/narratives the respondents tell about themselves. A narrative is specific way of giving an account: namely, an account that is oriented towards a temporal sequence of events following one after another (Wengraf, 2009, p.34). Most studies that make use of a biographical research method deal with applied issues. Meaning that researchers explore how professionals do or do not intervene effectively with people in difficult situations and how policy and practice of managers and frontline workers should be developed regarding the people that make use of their services (Wengraf, 2009, p.43). The central focus of the BNIM is on understanding the subject who is situated historically and socially while he/she is narrating in respond to the research question. We try to understand the respondent who is telling as a desiring, exploring but also as a defended person (Wengraf, 2009, p.50). Being a defended person in the words of Wengraf means that a subject rarely has a commitment to tell the truth, the whole truth and nothing but the truth, and even if someone has this commitment a person is not conscious of all the things he/she does not want to talk about (p. 231). The next paragraph defines the terms and procedures used in the BNIM. Where Wengraf uses over five hundred pages to explain the BNIM procedure I here try to do it in no more than four pages.
3.1 The BNIM procedures

3.1.1 Data collection

The research material in the BNIM is collected through a very specific interview method. There are just a few criteria for choosing the respondent to do this specific interview. First the respondent should be able to tell a story, or should be able to do an attempt in telling a story. This excludes people with dementia or those similarly impaired (Wengraf 2009, p. 49). It also appeared in a research by Froggett (2007) that too young children may not able to produce or perform a life story and are therefore not fit for BNIM interviews, these too young children couldn’t easily achieve a coherent identity narrative.

The BNIM interview consists of three sub sessions with a total time of ninety to hundred twenty minutes. In the first sub session the central research question is introduced by the interviewer, this question is called the SQUIN (the single question aimed at inducing narrative). This question is carefully designed to start the interviewee off in telling their story (Wengraf 2009, p.81). It is the task of the interviewer to interfere as less as possible in the interview to let the interviewee speak as free as possible, the interview has an open narrative structure. The BNIM interview is destroyed when you try to co-steer the interviewee, because then the Gestalt is lost. This means that it is no longer the ‘Whole Story’ of the respondent, as he/she desires to tell it. In this first session the only thing the interviewer does (besides attentive listening) is making notes of the ‘key phrases’ literally used by the interviewee.

These key phrases are used in the second sub session to lead the interviewee back to parts of the Whole Story in order to clarify these parts in Particular Incident Narratives (PIN: A close-up story of something that happened at a particular time and place [p. 573]). The first sub session ends when the interviewee insists to have finished his/her story.

Before starting sub session two the interviewer takes some time to choose which items from the written down key phrases will be brought up again and marks them with one magic word. This selection must include the first item in the interview and the last one and a selection in between (p.81). In sub session two these magic words are entered in the formula: “You said [key phrase]. Can you remember a particular [magic word]...how it all happened?” Key point in this session is that you are pushing for Particular Incident Narratives. Meaning that you do not ask “tell me about…” but you ask for stories induced by the formula above. Wengraf has several more formulas when the above does not apply (p. 571). It can happen that the interviewer has to push seven or eight times for a PIN before getting one or getting a refusal (p.160). It is important to keep the Gestalt alive, this means that items cannot be mixed up or combined. Sub session two ends when the last PIN (or its refusal) in relation to the last item is raised.
Then after the interview the interviewer writes free associative debriefing field notes. This should be done quickly after the interview and will take about an hour. These notes are for supplementing the tape recording for later analysis. The third sub session is optional and takes place at least a week after the interview and after interpreting the material of sub session one and two when there are still questions left to ask or new questions arising. The third session, if necessary, takes the form of a conventional semi-structured depth interview.

3.1.2 Analysis

A BNIM analysis is preferably done on a BNIM interview because the expression of the interviewee’s situated subjectivity not-interfered-with is rarely found in other open interviews than the BNIM. Subjectivity not-interfered-with means that there is free expression of the interviewee in both content and form, which adds a significant extra source of insight into the ‘situated subjectivity’ in question (Wengraf 2009, p. 57, 58). Often an interview is a co-production of interviewer and interviewee and this is as much as possible avoided in the BNIM. A BNIM interview will also prosper the process of analyzing the footage with the BNIM analysis and incorporating the research findings in the BNIM.

The BNIM allows us to use all the information revealed in an interview for analysis. Variations in voice and gestures are besides the spoken word of the told story relevant for the interpretation. Yet this is not systematically done. It is the freedom of the researcher to use the extra information besides the transcript as desired (in the form of field notes). The contextual and cultural information of the story of the respondent is also considered important during the interpretation process. Let me describe the procedure for interpreting the interview material according the BNIM.

Wengraf names this interpretation of the interview a two-track future-blind interpretation procedure. When starting the interpretation process after the BNIM interview is done, the first thing the researcher does is writing a verbatim transcript of the interview, this includes writing field notes. For the interpretation procedure two tracks in the verbatim transcript are distinguished: The living of the lived life track and the telling of the told story track. The first track consists of the objective events of the lived life and the second of the recalling and interpreting of the events by the interviewee at the moment of the interview. It is then the task of the researcher to create overviews of these two tracks.

These overviews of the tracks are split up in small chunks of data and presented to a research panels to start off the interpretation process. First the chunks of the living of the lived live track are presented, called the Biographic Data Chronology (BDC) existing of all the objective events of the interviewee’s life (p. 83). These biographical data chunks are distilled from the verbatim transcript and can exist
of: date and place of birth of the respondent, the family arrangement of the respondent, the years of attending school or work, the year of marriage, etc., every chunk is linked to date. A panel does a ‘kick-start’ in analyzing this track. The purpose of this kick-start by a panel is to deliberate the researcher of his/her own biases concerning the interpretation of the interview. The panel members fulfil this function by expressing their own hotspots and blind spots as hypothesis about the data that is presented to them. These hypotheses are based on the next questions: How did the interviewee experience this event at the moment it occurred? And expecting that this experience is true, what can we expect to occur later in the series of life event chunks? And what can we expect not to happen? This specific panel meeting concerning the BDC is called a Biographical Data Analysis (BDA). Also called the initial chunk-by-chunk future-blind procedure using a panel. The researcher presents the chunks or sequences of the interview in chronological order to the panel without them knowing which chunk will follow. By doing this the situation of the interviewee is simulated as nobody knows what the future will bring, though we are always future planning (p. 83). Hypotheses for each chunk are written up on flipchart paper and the whole meeting (taking no longer than three hours) is voice recorded to enable the researcher to proceed the analysis on her/his own.

Then the second track undergoes the same sort of interpretation procedure. This track is chunked up in a Text Structure Sequentialisation (TSS). A new sequence starts when; ‘the speaker changes; the topic changes; or there is a change in the way in which a topic is being spoken about’ (Wengraf, 2009, p.84). This track is interpreted on a different day then the BDC. The analysis of the TSS is called a Thematic Field Analysis (TFA). The procedure is the same as the BDA but with a slightly different question “At this point in their life, why, in this interview, did the subject improvise their telling of the story in the way they did?” (p. 84). Then the same hypothesising is set in motion. In both meetings the panel is asked in to consider how an event might have been experienced /interpreted at the time – called an ‘experiential hypothesis’ --, and, if that experiential hypothesis were true, what might be expected to occur next or later (‘following hypothesis’) in this series of life-event chunks and what not (counter hypothesis),

The arrangement of the panels can differ per gathering. Wengraf advises a heterogenic group existing out of four or five people including the researcher. Differences in age, gender and background are elements that should provide diversity in the hypothesizing, which will prosper the interpreting process. When working in a research team this team should be part of the panel. Also a member similar to the interviewee is recommended to join the panel to prevent wrong assumptions by a ‘life world’ different panel (p. 245). 'The focus of the panels is always on the inferring and re-inferring ‘historical-subjectivity-in-situation’ supposed to be ‘behind’ (or ‘in’) the manifest data’ (p.70).
After each panel meeting the researcher proceeds interpreting alone in the same fashion the panel did. Ending with combining the interpretation of the two tracks with the question “Why did the person who lived their life in the pattern suggested in the interpretation process of the lived life track, come to tell their story now in the pattern suggested by the interpretation of the told story track?” (Wengraf, 2009, p.84). Some parts of the interview may stay unclear and need closer reading: a microanalysis. This can be done with the aid of a third panel meeting, taking no longer than sixty to ninety minutes (Wengraf 2001, p. 294 a record of a microanalysis). One of the final parts of the BNIM analysis is developing a theoretical model out of the provisional history of the case evolution but it can also be done the other way around (Wengraf, 2009 p. 341). Attention needs to be paid to continue shifting between the original data, the descriptive history and the theoretical model you have developed.

The very last part of the BNIM analysis is comparing cases, and theorizing from the comparisons. In Chapter four where I describe the performed case study some more detail about certain features of the BNIM will be added, but for now this summarized description of the BNIM procedures will suffice.

### 3.2 Why use the BNIM

Now that some insight in the procedures of the BNIM as research method has been created I will unfold the argumentation for choosing this specific method for further development with facial expressions. The reason why the BNIM is chosen and not the more common used ‘open interview’ with a broader supporting area is because of the narrative structure of the BNIM. This structure is very specific and therefore I first describe the term narrative.

#### 3.2.1 The meaning of narrative

In the BNIM the biographic narrative of the subject is tried to understand. This is done with mainly the verbal expression of the respondent. As Wengraf says: ‘Biographic-narrative’ means the individual generating a ‘story’ about themselves. ‘Narrative’ is a specific way of giving an account: namely, an account that is oriented towards a temporal sequence of events following one after another (Wengraf, 2009, p. 34). Polkinghorne\(^{15}\) (the author of: *Narrative knowing and the human sciences*) makes an additional note about narratives. Polkinghorne (1988, p. 14) refers to Barthes who says that ‘there does not exist and never has existed, a people without narratives. Any material is suitable for the

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\(^{15}\) Donald E. Polkinghorne is a Professor of Counseling Psychology and the current holder of the Attallah Chair in Humanistic Psychology at the Rossier School of Education at the University of Southern California in Los Angeles, California.
composition of the narrative. Examples are language, pictures and gestures. The number of forms this narrative material can have is infinite. From stained glass windows to cinema, conversation, myth, [etc.]. This means that facial expressions as being some sort of gestures are also suitable for interpretation as a form that composes a narrative. But why is it important to understand biographic narratives of people at all? Well, for this instance I would like to refer once more to Polkinghorne. When he concludes his book (1988, p. 183) he recounts what narratives can do for human beings. First of all human beings exist in three realms: the material realm, the organic realm and the realm of meaning. Narratives are found in the realm of meaning. One of the most important ways to create meaning in human existence is the narrative. ‘The narrative attends to the temporal dimension of human existence and configures events into a unity. The events become meaningful in relation to the theme or point of the narrative. Narratives organize events into wholes that have beginnings, middles and ends (p. 183). Thus the strength of narratives is that they can join together separate human actions into interrelated aspects of an understandable composite. Polkinghorne examines the linguistic form of narratives through which meaning is expressed. Facial expressions on the other hand are not linguistic, but they are inferred with linguistic meaning, I examine the form through which facial expressions/narratives express meaning in biographic narrative research. Now that facial expressions have been located in the realm of meaning I choose to use the BNIM to further develop the interpretation of these expressions. Since the BNIM is a research method in the realm of meaning.

3.3 Nico Frijda and Tom Wengraf shaking hands

This paragraph is an attempt to link the emotion/expression theories of Frijda with the narrative research method of Wengraf. This is done by linking their jargon with the purpose to create a basis for the conceptual methodological framework developed in this research. The terms busied by Frijda can be transferred to the BNIM. For example the ‘expression melody’ can be compared with what Wengraf calls a ‘chunk’ in the BNIM. Thought this is not without difficulties. Also the mode of interpreting facial expressions can be compared between Frijda and Wengraf. This will be shown in the next paragraphs.

3.3.1 Expression melodies compared with chunks

In Frijda’s research (1953) an expression melody is situated and evolving in time. Expression melodies can be found in film, not in stills/photos. They are a sequence of expressions and ‘the totality of their
change going on uninterrupted in time’ (Frijda, 1953, p. 308). Frijda is not clear about what he understands by ‘the totality of their change’. At a certain point he compares an expression melody with the Bolero of Ravel. This would mean that an expression melody could take a whole piece of music (in the case of the Bolero maybe as long as twenty minutes). The other moment Frijda uses a length of film varying from 2 to 15 seconds in his experiment (p. 299). This length is based upon the length of a pose. A new fragment of film starts as the subject displays a new pose. However a pose does not give insight in the ‘totality of change’. So I carefully conclude that Frijda does not use expression melodies in his experiment, but fragments of melodies. The only problem I meet with is that on page 311 of his experiment he refers to a fragment of film as ‘an expression melody’ though that particular example concerns a fragment of two different poses. For now I shall conclude that an expression melody has to consist of a minimum of two different poses and that it has no maximum.

The term ‘chunk’ in the BNIM is seen as a moment in a part-by-part-to-whole act of thinking, feeling and doing (Wengraf, 2009, p. 70). They exist of small bits of information of the interview. Chunks are in the different stadia of the research different phenomena. First the chunks in the BDC, they exist of objective biographical data. In the TSS chunks exist of condensed parts of the transcript of the interview. And in the optional third microanalysis chunks exist of very tiny bits of the verbatim transcript, may be even of one word.

So when an interview is being filmed, how can an expression melody be translated into BNIM-terms? If a whole piece of music can be understood as an expression melody it is also possible to understand the visual data of a whole interview as an expression melody. When zoomed into greater detail the chunks in the microanalysis are the only datum bits that can be compared with an expression melody. Because these chunks are evolving in time, have an articulation a configuration and have an amplitude other than the BDC and TSS chunks that are not evolving in time because they are (artificial) constructed chunks by the researcher, and do not correspond with the visual data. I here introduce a new term that links together expression melodies and the microanalysis of Wengraf, namely: Expression Melody Micro Analysis (EMMA).

3.3.2 Free description compared with panel hypothesising

In the experiment of Frijda the persons making the interpretations of facial expressions (the observers) are non-experts in the field of facial expressions. One of the conditions the observers had to fulfill was that they were able to express themselves clearly in words (Frijda, 1953, p. 299). Further the observers consisted of a group of people as heterogeneous as possible. They were asked separately to give a
reaction to the images and films they saw and to relate to what went on in the subject’s mind. They were allowed to do this in their own words and if they liked by describing the situation (p.300).

Frijda calls this method free description: ‘The observers state in their own words their impressions and opinions as extensively as possible’ (p. 301). Frijda has proven that his way of interpreting leads to highly significant figures and he concludes that denying the possibility of correct interpretation of facial expressions is clearly not justified (Frijda, 1953, p. 306).

Comparing this free describing with the panel work of Wengraf a great similarity can be noticed. The non-expert condition for the observers/panel members and the condition of heterogeneity are examples of this similarity. Also comparable is the free describing mode of interpreting. This can be clarified in Wengraf (2009, p. 411), he poses the questions for the panel members: ‘what do you see going on? At this point, who might be experiencing what?’ ‘Give some gut reactions e.g. on what kind of person this appears to you to be’ (p.412). One of the main differences is the use of a panel by Wengraf and the separate individuals by Frijda. What Wengraf tries to do with a panel is a sort of brainstorm session, creating a laboratory where personal and collective stereotypes, projections, biases against and passionate supports for are made to open up the researcher’s mind (p. 243). Frijda on the other hand uses a statistic model for the judgments of the observers to scientifically ground his experiment.

### 3.3.3 Facial expressions compared with narratives

Though Frijda does not use the concept ‘narrative’ in his books and articles let alone ‘narrative interpretation’¹⁶, I see a strong relation to the work of Wengraf and his interpretation of narratives. Until this moment in time narratives are mainly seen as verbally told stories or written ones. The idea that facial expressions can also be understood as narratives is supported by Polkinghorne’s (1988) suggestion that gestures could also be understood as narratives. The way Frijda interprets facial expressions and the way Wengraf interprets narrative expression have a lot in common.

For example let us compare a notion of Frijda with one of Wengraf. Frijda understands the apprehension of expressive movements as an apprehension of a complex structure of intertwining expressive events. This structure can be understood as a strong ensemble or as a weak ensemble depending on whether the structural parts determine each other or are independent of each other (remember the ‘articulation’ introduced in a former paragraph).

The contexts in which the expressive movements are perceived support the apprehension of the expression and should therefore be integrated. His conclusion is that the apprehension of expressive

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¹⁶ To be sure of this statement I have send Frijda an email asking whether he had written about ‘facial expressions and narratives’ in which he reacted on the 4th of November 2009: ‘I do not know what you mean by narrative interpretation of facial expressions, but I expect that you mean something different than emotion labeling’.
movements is not a matter of perception of isolated expressions, but it is a matter of a living apprehension (Frijda, 1953, p.312).

The notion of Wengraf about ‘biographic narrative expression’: a narrative expression is an expression of conscious and unconscious concerns. Cultural, societal and individual presuppositions and processes construct the last. ‘Biographic narrative expressions’ concern the complexities of the lived experience of individuals and collectives. By trying to apprehend these narrative expressions an understanding is created of the ‘inner’ and the ‘outer’ worlds of persons and the dynamic (interactivity) between these inner and outer worlds. Persons are always embedded in time and in evolving situations (Wengraf, 2009, p. 34).

We now see that in both notions on expressions there is an emphasis on the person and the ever changing complex context she/he is in and the influence this has on our understanding of the impression that person leaves or our understanding of how that person expresses himself, both non-verbally and verbally. The complex structures of expressions make them not ready to read at once. To be able to make an interpretation one connects with oneself and the possibilities known within ones own ‘structure’.

3.3.4 Artificial expressions compared with spontaneous expressions

The final comparison I would like to make here concerns the context in which the research material is received. In the case of Frijda all the expressions were triggered by an act of the experimenter. This triggering was executed in different ways. A few examples: the subject had to pull a cord, the subject was offered a box of candy, a dirty smelling substance was presented, an explosion occurred, etc., (Frijda, 1953, p. 299). Although stimuli were used to provoke expressions this does not mean that the expressions were artificial. It would be the case if the subjects were told to display a ‘happy face’ or an ‘angry face’ and so on (as done in most experimental settings). However in this case the subjects were free to react the way they wanted to react. Maybe they were partly inhibited by the presence of the camera, but this inhibited expression could also be recognized by the observers and did not distort the results of the experiment.

In the BNIM the subject is asked to tell a story (concerning a specific topic as formulated in the research question). There are no restrictions or obligations the subject has to reckon with. The subject is free to respond the way he/she wants. So all reactions are as spontaneous as they can be within an interview setting. Also here the subject will probably experience some inhibition, as the interview is taped/video recorded or due to other personal reasons. Nevertheless also in the BNIM this does not matter, because this inhibition is also part of the research material.
There exists a distinct difference between artificial and spontaneous facial expressions. Earlier in this thesis I mentioned that spontaneous expressions have smaller amplitude but have a longer duration than artificial expressions. It is important to take this difference in consideration when comparing Wengraf and Frijda.
Chapter 4 The case study

In the former chapter we have gained some insight in the terminologies of Frijda en Wengraf and their relation. Now I shall continue with incorporating the ideas of Frijda in the Biographic Narrative Interpretive Method. To find out how the conceptual framework of incorporating visual data in the BNIM can be developed, I performed a case study. The case study consists of one research cycle performed by myself against the background of the BNIM analysis. To be able to develop an existing research method it is useful to work with the method itself as basic principle in the design of the case study. Here I start reflecting on the observations, experiences and choices made before and in the case study, then I follow the entire BNIM procedure - as outlined in the former chapter - and start describing the details of the case study as it was performed.

4.1 Deliberations on the design of the case study

The only way to collect moving visual data of the interview is by placing a camera near the interviewee. This may lead to inhibition/or influence not at all/or may lead to exaggeration of the interviewee’s reactions, but as shown earlier this is not problematic as long as this is taken into account during the analysis of the data.

Another question that arises is where in the design of the case study the visual data should be implemented for interpretation. Before I performed the case study I thought it to be possible to implement the visual data in the Thematic Field Analysis (TFA) in which the panel works with the interview itself (other than the first panel that works with the biographic data distilled from the interview). Although on second thoughts and with the knowledge gained in the literature research on facial expressions I decided that the best place for incorporating facial expressions is the (optional) microanalysis in the BNIM. One of the reasons being that visual data cannot be sequentialized and paraphrased as is needed for the TFA. The visual data would always show what is literally said. Implementing visuals in this stadium is not fit and would be corrupting the method. Moreover I do not see any reason to change the BNIM at this point as it has proven itself as a proper research method. In the microanalysis every word and every silence is weighed and measured carefully. Only this close analysis can be compared with a facial expression analysis. Working with video footage is like working with the verbatim transcript in close up. Another reason is that the amount of information that can be ‘discovered’ in visuals is so numerous that it would not do
justice to the visual data if it were stuffed in the TFA. The paraphrased segments of the TSS in itself contain already such an amount of material that the panel has to work hard to interpret even a few segments of the TSS in three hours.

Now I figured out where in the BNIM procedure the visual analysis should take place I need to explore how it should be performed. Also in the design itself of implementing the visual data I follow the BNIM procedure. That means that in the microanalysis I pose the same questions as done by Wengraf. But instead of showing segments of the transcript it will be segments of the video taped interview.

In the original BNIM procedure it is possible to read and reread the interview segments. This differs from the procedure of Frijda (1953, p. 300) in which the segments of film where just shown once, and the segments had an average duration of ten seconds. I delay the moment of making a choice between repeating the material or just show it once, until the moment the microanalysis takes place. My decision will be based on the experiences and on the arguments and wishes of the panel members and on my own insights at that moment.

In the BNIM a panel starts interpreting chunks created by the researcher. Thereby as we reasoned expression melodies can also be presented to a panel. One of the methodological questions that rise is whether this should be done in combination with audio. To understand the articulation of the expression or to be able to interpret it, it is necessary to have knowledge of the situation the subject is in. If in daily life we see a face changing expressions without having any knowledge why (because we could not hear what was said), we are surprised and wonder: ‘why is he suddenly crying?’ So because I am trying to create a more accurate understanding of narratives it would be awkward to do this by creating more non-understanding. One of the main arguments of Frijda is that the structure or articulation of expression melodies is important for the apprehension of expressive movements. The continuity of the expression and the articulation of the situation the subject is in makes that we understand expressions. Isolated expressions are incomplete for apprehension. In Frijda’s words: ‘it [the apprehension of expressive movements] is a living apprehension of expressive events, possessing their own articulation, being a strong or a weak Gestalt in the sense of mutual determination or of independence of the structural parts’ (Frijda, 1953, p.312). This is an argument not to interpret solely visuals but do it in combination with audio.

To be able to answer the question what the analysis looks like when these expressions melodies are inserted, I now track down the steps to be followed in the BNIM analysis. In following this procedure I encountered a few difficulties in the standard procedure, without the addition of any new material yet. For me it was the first time to follow the whole procedure and of course one learns by trial and error. One of the great features of the BNIM is that it works with an active mailing list where I was able
to discuss the difficulties I encountered. An example of one of the challenges I met was not to raise any new questions during the interview. In everyday life this is not what I am used to do and I did drop a new question before the end of the first sub session. This distorts the content flow of the interview. Nevertheless, as it took place near the end of sub session 1 - and I am not planning to draw conclusions from the content of the case study but from the processing of the results - it has not distorted this research.

4.2 Choices, dilemma’s and considerations in collecting the research data

4.2.1 Filming the respondent

The first dilemma I came across in collecting data by filming the respondent is whether I should tell that my research concerns the interpretation of facial expressions or not. The fallacy of interfering with the outcome of the research by informing the respondent is real. When the subject is aware of the researcher’s interest in facial expressions I think it would be inevitable that he/she pays extra attention to his/her own face. I do not want to take this risk and hope to get as less interference as possible by not telling the respondent my specific interest in facial expressions. This means that I will ask for permission to film the interview and ask for permission to use the material for research purposes, but I will not accentuate the focus on facial expressions.

In the former paragraph I already mentioned the use of moving images. One of the reasons to choose film instead of photo stills is that earlier research showed that the interpretation of film has a 50% higher accuracy than photo slides (Russell, 1997, p. 84). Elements that play a role in this accuracy of judgements are ‘evolvement’ and ‘articulation’. These are two features of an expression melody that are vital for the interpretation of expressions and they can only be seen in film. Another important selection criterion is the quality of the recording. The audio as well as the visual data needs to meet certain requirements. The visual data needs to be in full colour, as I expect that colouring in the face is also a part of facial expressions. Second concerning the visual, the respondent needs to be filmed frontally. Especially the face needs to be framed well; this can be done by zooming in or by placing the camera near the interviewee. Concerning the audio, noise needs to be minimized and as much as possible parts of the spoken words should be audible. Most cameras these days have a good enough microphone for recording audio indoors.

4.2.2 Selecting the respondent

As noted earlier according the BNIM there are two requirements the respondent should meet. One has to have a good enough memory to be able to tell stories of particular incidents, or do an attempt and
even half succeed. Second one has to be able to express oneself in a coherent identity narrative (however provisional). Besides these two requirements I have some more considerations to take into account.

The first choice concerning the respondent is which cultural background he/she should have. This is important because cultural differences in facial expressions are already recognized (Elfenbein, 2006, p. 24). I choose for a Dutch respondent because I am most familiar with the Dutch culture and communication with Dutch people.

Gender and age are variables that matter concerning facial expressions. Babies have their own set of facial expressions; Oster & Rosenstein (1988) even developed a coding system for the facial expressions of babies (Ekman, 2005, p. 306) based on Ekman and Friesen’s FACS. Other literature on differences between gender and age seem not to be relevant for the case study I perform, so I will select an adult respondent.

Another concern these days is the use of ‘botulinum toxin’ (better known as botox). People who use this medicine for spasms or cosmetic reasons in their faces are excluded for this case study. Their facial expressions are externally manipulated and do not correspond with what ‘normally’ is expressed. Other phenomena concerning facial expressions I consider is stuttering or having facial spasms. I choose to exclude these respondents because that would add a level of difficulty more plausible for future research.

Then the question arises how many interviews should be done. I have already used the term ‘case study’ several times, meaning that I will do one interview to base my findings. The main focus in this research is the added value of facial expressions to the narrative, the content of the story or the subject telling the story is not of any specific interest. This means that the comparison of a small amount of cases, as usually done in the BNIM, is not necessary in this study. To render an account of using a small amount of interviews or in this case just one I would like to refer to the quoted text below by K. Jones (2001).

This quote expresses clearly the reliability of a small sample group.

‘Because the Biographic-Narrative Interpretive Method chosen for this research required extensive interviews with follow-up sessions as well as intricate and labor-intensive analytical procedures, the sample frame was necessarily small. Richness of data and thorough and meaningful analysis involving the assemblage of these colleagues into reflecting teams to explore and hypothesize themes necessitated the limiting of the number of interviews to be analyzed in full. What may have been lost in not using a method with the potential for larger numbers of subjects, producing large data sets, was more than compensated for by the method’s capacity for deep and meaningful case studies’.

Because I follow the whole BNIM procedure including the reflecting teams (panel meetings) and the after panel work by the researcher I enroll the argumentation of Jones.
4.3 Choices, dilemma’s and considerations in analyzing the research data

4.3.1 Analyzing method
The method of analysis is the BNIM itself combined with literature of Frijda. For more than a year I am subscribed to a mailing list concerning the BNIM. During this time a lot of adaptations, recommendations and contributions have been done online to improve the BNIM. I also like to make use of this mailing list to develop thoughts and practices the best possible way. A dialogical attitude fits an academic researcher.

Wengraf advises to use software called Transana for using visual data in the BNIM. One of the specific features of this software is that it can link text with images. Despite this great feature of Transana and the relatively small amount of money it costs, I decided in the process to use the editing software ‘Final Cut Pro’ I am already familiar with. As I work regularly with this software and it also has the feature of reviewing material over and over again (even frame for frame) this became a more logical choice. The only feature it does not have is the option of linking text fragments to visual fragments. However this will not to be a necessity, because the panel and the researcher can always refer to time codes or text lines of the verbatim transcript when making comments or interpretations. It is also not necessary to use Transana or other software that enables linking text to the visual because the fragments of film shown during the panel meeting will be so short that one does not need to read the transcript at the same time. The few words that are spoken on film can easily be remembered or written down by the members at the same time.

4.3.2 Selecting the panel members
In the BNIM as well as in the experiment of Frijda the panel or judges were nonprofessionals concerning the method and subject of research. It is not a requisite to know the BNIM or have worked with it before to be able to join a panel. Neither in Frijda’s work it is a requisite to be an expert on facial expressions. In the first two panel meetings I will work with non-experts (the BDA and the TFA), as the methods prescribe. Except in the third panel meeting, the microanalysis that will undergo some methodological changes, I will ask people with some sort of expertise on facial expressions or the BNIM to join the panel. The reason for this decision is that a new framework is developed according to the outcome of this last meeting. It is a new field in which many things are yet unknown. By selecting members already sensitive for facial expressions or the BNIM I hope to build in some safety that the analysis will lead to grounded ideas.
Further more the panels will exist out of a heterogeneous group of people as possible, in which is tried to incorporate a member similar to the interviewee. These are prescriptions of the BNIM method I follow. Heterogeneity is also an element used in the experiment of Frijda. This ensures me to choose a heterogeneous panel.

4.4 Procedures during the case study

In the above section I described the design for the case study as far as I could before I performed the actual case study. Now that the case study has been done I will outline how it actually has proceeded. Starting with the collecting of the material.

4.4.1 The actual data collection

Because a video recorded BNIM interview meeting the needs of this case study does not exist, I did my own BNIM interview and videotaped it. For my own peace of mind I wanted the interview to be of use besides my own research question. Otherwise I thought it might be awkward to do an interview on a subject and not even have a genuine interest in what the respondent said. For this reason I decided to join the research of my supervisor Anneke Sools (also using the BNIM for her PhD) so that the interview was also of wider use. This meant that I had to add the criteria for the respondent of my supervisors’ research: A low educated older person. So it happened that I found myself in front of a seventy-two year old woman asking her about the story of her healthy life. The first subsection indeed took one hour as predicted in the BNIM. The respondent could not think of anything else important in the story of her healthy live and finished talking. We had a coffee break, I looked at my notes and then we started session two. Using the magic words and key phrases Wengraf prescribes. This session also took about an hour. After that we wrapped up and signed some forms for approval to use the material for research.

When I was setting up the camera the interviewee did not question it or make other comments, it was like doing an ordinary thing. She did not seem to get uncomfortable with it and I did not make any fuss about placing the camera. Also in the visual analysis the panel members did not notice any inconvenience with the interviewee due to the camera. She seemed to be able to respond freely during the interview. I myself did not notice any inhibition either during the interview, at least not caused by the presence of the camera.

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17 The research topic of Sools is, *The meaning of healthy living (and ways of enhancing it)*. Her PhD thesis based on this research will be published in May 2010.
At home I wrote some debriefing notes and watched the material. It is always an exciting moment to hear and watch the material you have shot. I was very pleased that the audio and visual data were recorded well.

After two weeks I did my last phone call to collect the last data I needed. This concerned some questions about dates and years of particular events in the life of the respondent. These were needed to create the BDC. I also asked whether she enjoyed giving the interview. She seemed a little insecure whether the interview was helpful for my research and I tried to reassure her that it really was.

4.4.2 The actual data analysis

After the interview was done I followed the BNIM procedure, meaning that I had to type the verbatim transcript of the interview, chunking it up in a Biographic Data Chronology, again a chunking up of the interview in a Text Structure Sequentialization and creating visual chunks for the expression melody analysis. At the same time I had to create panels to kick-start the analysis of these three ‘documents’.

The panel of the first meeting (the Biographic Data Analysis) existed of four members, two male and two female. With ages between twenty-seven and forty-two. Occupations of the members are, chef the cuisine, junior researcher in health care, a student/teacher and myself also a student. I tried to compose a heterogeneous panel, as the BNIM procedure requires. This first panel lacked a member similar to the life world of the respondent. That did not matter though, because it is even possible in the BNIM to do the whole analysis on your own, but it is not recommended. I was quite content with the panel I had gathered for this meeting as their backgrounds, gender and ages differed. In the BDA we worked on four chunks of biographical data and after that I was capable of creating more than ten possible told stories that the interviewee could tell. In this stage there is not yet a distinct direction in which the analyzing goes. The main purpose at this point is to broaden ideas about possible stories the respondent could tell. All different kinds of possible paths were explored, without knowing yet how the interviewee has told her life story. The results of the BDA and the documents derived from that meeting showed a tiny glimpse of possible underlying themes of the interview. In the phase model I created of the respondents life the main themes were ‘trust’ and ‘relations with men’. We did not have any ideas yet about what kind of person the respondent would be. I found this panel meeting very refreshing in the sense that it really did liberate me from my biases and it opened my mind to possibilities in the life of the respondent I otherwise would not have thought of.

With all these possible ways the respondents could have told her life story in my mind, it was for the TFA (Thematic Flow/Field Analysis) panel time to hypothesize how she could have experienced certain events in her life and how she was presenting herself during the interview. We were able to work on six
chunks of data. This resulted in the next theme statement: ‘In the story of her healthy life having children is a major subject for the respondent’. When working further on the TSS on my own it became clear that this woman was a strong woman who accepted the limitations of the epoch she grew up in. Then becoming older she made decisions in her life that empowered her. There was a particular turning point in her life and that became visible in the text-sort (from a descriptive style to a more detailed narrative style) she spoke in. The narrations after that turning point were told in more detail. During this panel meeting it appeared to be more difficult to create counter hypotheses than in the BDA panel, though we did create several. Different reasons may underlie this phenomenon. First I planned the meeting in the evening and I was quite weary of having done a workshop that day and I noticed that before the end of the three-hour meeting the panel was also exhausted. This became clear in a diminishing of the amount of hypotheses and a total silence after two and a half hours. This was for me the cue to stop the meeting. A last notable outcome of this meeting was that the members thought it was quite remarkable that the respondent did talk a lot in reaction to the research question. Some of them thought the question was quite vague and were surprised by the willingness of the respondent to deliberate on her life. The analysis gave us the impression that the respondent felt space to talk. This second panel existed of five members, two male and three female. The ages varied between twenty-seven to sixty years old. Here I did found an older woman to join in the panel. Their occupations are, information technologist, graphic designer, artist, pensioner and again myself a student.

As described earlier I used one slightly different criterion for the third panel. Here I chose for more expertise on the BNIM and on facial expressions. The reason for this decision is that a visual analysis as taken on by the third panel is unknown territory. To start this cultivation off with a total uninitiated panel ‘could’ mean a needless failure. So the small amount of expertise I have built in here functions as a safety net that I hope is not needed in the ultimate analyzing procedure, because the BNIM does not work with experts in the panels. The members who volunteered to join were again two male and two female, their ages differed between twenty-six and thirty-three years old. One of them was my supervisor with knowledge of the BNIM. Two of the members had a special interest in facial expressions in relation to their work occupation namely a director (in theatre) and a computer animator/3D artist. I was again a member and have earned insights in facial expressions during my literature research. Though Wengraf includes the researcher as a panel member, their main function in the meetings is to guide the hypothesizing process, but they are allowed to join in creating hypotheses. This third panel did a microanalysis on segments of video material. This is the ‘new’ feature of the BNIM I try to lay the foundations for. Let me start describing this panel meeting in detail.
4.4.3 The actual visual data analysis

The preparation for this meeting exists of collecting the data, prepping the panel members and creating the facilities for the meeting. In the BNIM a microanalysis is normally done on puzzling bits of the interview and it can be executed on different moments in the analyzing process, I used the same rules for the visual analysis. I chose fragments of the interview on which I thought, “There is something going on here that I can not grasp but I have a tacit feeling that it is important”; I have let my intuition done this job as there were no rules to engage to. Other than that I can clarify my choices by disposing how I have proceeded: I made the choices by first reading through the verbatim transcript and highlighted any interesting moments. Then I scrolled through the visual data to find these moments and choose different segments that I thought could be ‘potentially revealing’ as Wengraf (2001, p.292) calls it. I also chose those moments that were difficult to grasp in earlier stages of the analysis. The choices were based on the interaction between content and visual.

A difference between the current microanalysis and the EMMA (Expression Melody Micro Analysis) is the duration of the panel meeting. After having done the first two meetings concerning the BDC and TSS, both taking three hours, I had concluded that ninety minutes for the EMMA was too short. So I informed the members of the third panel that the meeting would take three hours. During this meeting it became evident that we indeed needed this amount of time to be able to process a reasonable amount of the visual data.

The fragments had an average length of forty seconds. This length was based upon the flow with which the respondent spoke and thus depending on finishing a sentence, changing a subject, pausing moments, etc. Wengraf does not set a specific length that the data of a microanalysis has to meet. In total I gathered four expression melodies of around forty seconds from the visual data. These four moments were split up in six smaller bits to be able to really zoom in on the material and to create hypotheses after each datum bit, the same as is done in the microanalysis of Wengraf (2001, p. 294).

Before the meeting I send the panel members a manual quite similar to the TFA manual (Appendix section), to prepare themselves and have an idea of what they could expect. The room, in which the EMMA took place, was a classroom. A beamer attached to the ceiling projected the image of the interview on a white wall. The three panel members were seated next to each other in front of the projected image. While showing the images I set in front of the laptop also next to the panel members and when the hypothesizing started I took place on the side of the room near the flip-over to take notes. While posing the ‘standard’ panel questions: ‘what do you see going on? At this point who might be experiencing what? What might the next ‘topic’ or ‘words’ be and what sort of text-sort might be used?’ (Wengraf, 2009, p.411) ‘What kind of person this appears to you to be’? (p. 412)
‘Why does the interviewee, present this experience or topic at this point and uses this specific text-sort to present it?’ (Wengraf 2001, p. 276). While these questions were posed and answered I constantly asked: what in the footage persuades you to believe or assume the things that you do? This was to get a clear image of the influence of the audio, the words and the visual. During the EMMA a voice recorder was placed near the panel members so that the argumentations and hypothesizing could be used in further analyzing.

Another aspect of presenting images is the frequency of showing. Research by Dusenberg & Knower pointed out that when the time of presentation of film was unlimited, more accurate judgments were found, namely 64% correct judgment for a short time of presentation and 81% for unlimited presentation (Frijda, 1953, p. 300). In the panel meetings of the BNIM it is possible to read and reread the chunks that are already analyzed. These seem to be two arguments to give the EMMA members as much time as they need to view the material, but Frijda shows the images in his experiment to the judges only one time so that they have to make a judgment from their memory-image. Why he does this is not clear to me. Maybe to imitate daily life in which you cannot ask someone to repeat exactly what he just did. I cannot come up with another idea besides that. During the EMMA it instantly became clear that the members had a wish to see the material more than once. Because we were not imitating daily life, but we were in a research setting and enough arguments favored for an unlimited showing of the images, I decided to show the images as often as the panel required until saturation in hypothesizing for that particular datum bit was reached. Then I went on to the next one. It even became one of the wishes of the members to view the data frame by frame. This was possible with the software I used (Final Cut Pro). The 3Dartist that suggested this, always worked frame for frame when creating moving images and he thought it might help us see tiny changes in the face. Because we were in an experimental setting (this analysis was never done before) and this could help us in our analysis, I agreed in showing the images frame by frame. This meant that besides that the melodies were presented with the ‘normal speed’ they were also presented with a very, very slow speed.

The fragments that were shown always consisted of a changing pose, as melodies are required to possess at least more than one pose.

The information derived from the face was enormous and from a different order than the other two panel meetings. Notions/hypotheses like arrogance (way of looking, aim of gaze), insight in her own situation (twinkle in eyes), joy over being able to tell (in her eyes), a vital woman (vivid expressions), she has frustrations but is not paralyzed by it, a combative woman (enthusiastic to educate interviewer) woman of the world, some inhibition in telling (pain in face, some bitterness) in every glance of her I see passion, a woman that has lived (from very expressive to very cooled down expressions) a very
solid woman (able to feel/express emotions but does not get carried away by it) no control over marriage (looking away and an upwards movement of shoulders) I see fear or frustration (widening of eyes). All these sort of notions and structural hypotheses were made based on facial expressions in combination with audio. In the other panels we were not able to get this insight in the personality of the interviewee or at a later stage in the meeting but not as convincing as in the EMMA.

Besides the information derived from the face, other information in the film also became subject of judgment. For example my interviewee was seated in her own house in her own chair. This happened to be in front of a bookcase. Notions like ‘she seems to be a well educated woman’, or ‘it is important for her to develop herself, she reads a lot or has a lot of books’ were made. Another remarkable moment in the panel meeting was that one of the members noted that the interviewee was wearing her necklace under her blouse. In the next fragment that was shown she amazingly pulled her necklace over the blouse. As if she had heard it. I found this a quite stunning observation, though no interpretations came out of this. Another panel member noted that she had many copied CD’s/DVD’s in her cabinet, so she must be a modern woman. Another suggestion was that we might be dealing with an alternative woman, as there appeared to be a remarkable lamp on one of her shelves, a crystal of some sort.

This was in detail how the case study took place. In the next chapter the central research question will be answered and the methodological consequences of implementing visual data are discussed concluding it with a discussion.

4.5 Comparing the results of the three panels

In the former paragraph I have outlined the results of the three panel meetings. It would be great if it were possible to compare one specific piece of interview material on the three different levels of analysis performed by each panel. Unfortunately this is not possible because the data analyzed in the different panels does not correspond with each other. Allow me to explain this. It was not the interview material itself that was analyzed in the meetings, instead it were derivative chunks from the interview that were analyzed. Only the third meeting made use of the precise interview data. Besides the reason that the analyzed material does not correspond on a content level, another issue arises, namely that the chunks analyzed in the meetings origin from other moments in the interview. This all together hinders an accurate comparison between the results of the panel meetings based on one specific fragment of the interview. Nevertheless I here try to compare the three different analyses to get an accurate image of the ‘new knowledge’ derived from the face.

The results from the first meeting were formulated at a level of structural understanding of the whole
of the lived life (Wengraf, 2001, p. 267). This resulted in a model of the respondent’s life split up in six phases. Remarkable enough all these phases were based upon turning points in the respondent’s life concerning her relation with men. In relation with the question of the interview this might even be more remarkable (or not), because the question concerned the telling of the story of her healthy life. Apparently her relationship and dependency on men is a major topic in her healthy life story.

In main lines these were the results of the first meeting.

Let us now compare these results with that of the second meeting. The second panel results were formulated at a level of understanding the told story of the life narration as constructed by (and expressing) a gestalt, pattern or structure that has to be detected (Wengraf, 2001, p. 272). The pattern that could be detected during and after this meeting concerned the births of her six children. This was the first subject she talked about and continued talking about for at least fifteen to twenty minutes. The first reaction of the panel was that she did not wanted to talk about herself. Nevertheless after a while she did talk about herself and the choices she made in life. This led to the statement that talking about her children is a part of whom she is in relation to her healthy life. From this field of giving birth and raising children themes emerged like: accepting the limitations of the epoch she lived in, cultural differences between America (where she gave birth to two daughters) and the Netherlands, being decisive and independent. The story she told could be interpreted as a story about mental stamina and strength. Notions like ‘feminist story’ where already raised during the panel meeting. This second meeting adds up to the first one in the sense that a stronger sense is created about how the respondent had told her life story in relation to her healthy life. For example if we were only relying on the first meeting a complete different told story could be formulated like ‘the respondent told a story of total dependency and a loss of self’. So this second meeting and analysis certainly gives more direction in interpreting the respondent’s story.

Now I address the last ‘new’ meeting. A third panel meeting already existed in the form of a (optional) microanalysis. The point of the original microanalysis is quite similar with that of the TFA (the second meeting), namely exploring the relation of lived live to told story (Wengraf, 2001, p. 292). The results of this meeting should illuminate the significance (or the structure behind) of the respondent’s choice to tell the story as she did (p. 293).

I executed the new visual analysis in a similar way as the original microanalysis. Though the type of notions and hypotheses that resulted from this meeting, differed from the other two panels. For instance the panel members came up with more concrete notions about the respondent’s personality. She was for example very expressive in her face from which the hypothesis arose that she probably was a vital woman. After showing an expression melody we were able to tell quite well in what state of mind the respondent was talking from. Now and then she seemed to talk as if she was educating the interviewer, like a woman of the world who knows how things work.
This was visible in a slight arrogance in the face created by lifted eyebrows and a gaze looking off. These hypotheses and the ones shown in the former paragraph leaded to a confirmation of the second analysis and moreover the results were distinguished/more accurate. We were able to see that she had not lived an easy life (we noticed some bitterness), but we could also see that she could handle it and came out strong (we saw a passion in her eyes). Though the panel members had no idea about the life she had lived, they constantly seemed to be on the spot with the hypotheses they created. After this case study was performed it was still hard to grasp exactly how the panel was able to do this. I presume it has to do with something that the face revealed, because this type of ‘on the spot’ hypothesizing was not found in any of the other panels lacking visual data.
Chapter 5 Answer to the research question (and methodological consequences of implementing facial expressions in the BNIM)

One of the most interesting aspects of this research is the question whether the visual image brings in new knowledge apt for application in a narrative research method. In this chapter I will first answer this question followed with recommendations on how the visual can be implemented.

5.1 Arguments for using visual data

5.1.1 Reactions to Wengraf’s suggestions

After following the procedure of the Biographic Narrative Interpretative Method (BNIM), conclusions are drawn. What can I tell about what I have learned? Quite a lot. First I like to react to the suggestion of Wengraf that introducing visuals means an incredible amount of extra work and time needed for the interpretation of the material. I can now partially invalidate this argument. On the one hand my findings suggest that the time needed for a visual panel analysis is double the amount of time than needed for a ‘normal’ microanalysis. Three hours versus one and a half hour. On the other hand one and a half hour extra time is relatively short in comparison with the time needed for a whole BNIM procedure (based on this case study I estimate that a BNIM procedure on one case may take at least three weeks, this includes preparation, collecting data and analyzing data). Furthermore the visual analysis I performed did not take an incredible amount of extra time. It was my experience that after the panel meeting ended I could proceed the analysis by listening to the audio record of the panel meeting in combination with the hypothesizing results on the flipcharts. I followed the same procedure Wengraf proposes for a microanalysis. Though that just one interview was examined in this thesis and I have had no professional training in the BNIM procedure I think the time spend on the analysis of the visual is well in proportion to the results. I had a little lead by my expertise in editing with professional software.

Another note I like to make concerns the joy one can have in panel meetings. If Wengraf thought the Biographic Data Analysis (BDA) and the Thematic Field/Flow Analysis (TFA) were fun I can strongly recommend him an Expression Melody Micro Analysis (EMMA). You automatically start loving your interviewee if this was not already the case. This immediately leads me to the next argument: seduction.
An argument of Wengraf not to use visuals is that it may be too seductive. For this part I must in some degree agree with him. Indeed the first image shown already revealed a strong sense about whom the interviewee might be. It appeared to be very difficult to liberate this sense. This became visible in the unwillingness of the panel (I included) to create counter hypotheses (what is not likely to happen next, what is the interviewee not experiencing, etc.). This may seem like a blunt argumentation and it needs more ground and clarification, which I will elaborate on in the next paragraph, but I do think that seduction played a role in the ‘unwillingness’ to create counterhypotheses. Meanwhile a downfall is quite often also a quality (a common notion in psychology). In a very short time the EMMA panel became in a deeper layer/theme of the interview. I was amazed by the speed of the depth; this was much quicker than the other two panels. And they even came up with themes comparable to those of the first panel, though the data they analyzed were different and included a smaller portion of the interview.

5.1.2 Methodological reflections on the procedure

So, it might be that the interviewee seduced us, but this seduction can actually be put to use and become a rich source of information. By revealing the seduction of the panel, one can reveal a theme in the life history. Thought we were just able to analyze three fragments with a total length of ten seconds I tend to say that we were able to get a very rich, layered interpretation of the visual data (see chapter 4) that would otherwise have been lost without the EMMA. The visual analysis performed in this research seems to enable ‘thick description’ (Geertz, 1977, p.7), which means that more than a description of what is directly seen (called a ‘thin description’, like a wink with the left eyelid) was added to the interpretation. In addition the visual data consolidates earlier made analysis of the case based on the first two sessions. The combination of visual and audio is a form of data triangulation, which is considered an important technique to strengthen the internal validity and reliability of qualitative analysis (Maso & Smaling, 1998, p. 69, 72). I also had several conversations with colleagues outside this research regarding the internal validity, and asked them for advice when I was stuck or curious (consensual validation). Some of these questions are inserted in this thesis (emails in the text-boxes, or in footnotes). In terms of external validation I find this research hard to judge. I have mentioned from the beginning of this thesis that I tried to develop a conceptual framework. This means that the conclusions cannot be generalized or be directly applied in the BNIM. Too many aspects need to be reexamined an executed again before the developed framework can actually be applied in a BNIM research. Thus I think that the external validity in terms of generalizability is not a suitable feature for examining the objectivity in this research. The internal reliability on the other hand is. For example, an argument that made me unexpectedly feel comfortable is that with the use of a panel it was no longer only me as researcher who had seen the interviewee. I was able to verify my own
gut feelings with that of the panel. The visual no longer played a role in just the analysis of the interviewer/researcher but it was now also open for discussion and new insights, observations, hot spots and blind spots of other people. The use of a panel can be perceived as a way to heighten inter-subjectivity and transparency to the internal reliability of the analysis (p. 69). Besides consulting a panel I was frequently able to rely on feedback of my supervisor in order to minimize systematic and unforeseen errors. In terms of external reliability the trackability (p. 69, 70) in my case study was enhanced by detailed descriptions of how the case study was prepared and performed. This elaborate description also enables further research to pick up from where I have left or to repeat the case study (here I mean a virtual repetition, because in qualitative research the subject of investigation often changes in time).

One last note I have to make concerns the earlier mentioned lack of counterhypotheses created. As I have said this might be due to the seduction of the film and to the consequent early narrowing down of generated hypotheses caused by this seduction. Other elements could be that I did not push hard enough for counters while I was leading the panel discussion; I noticed during the meeting that I experienced much fun in trying to create hypotheses in the most plausible direction that is the direction I thought was the ‘good’ direction. Another factor of influence could be my relation to the panel members. But since my relation to the first panel members with whom we were able to create many counterhypotheses was not really different from the third panel members I doubt whether this had anything to do with it. In both meetings I knew the members fairly or quite well. A last factor might be the persons themselves participating in the meetings. The only thing I can say about this is that I noticed that all the members were willing to cooperate. Whether their personality or the specific group dynamic that resulted from that influenced the hypothesizing, I cannot say.

5.1.3 Methodological reflections on the results

Paragraph 4.5 illustrated the differences in the results of the three panel meetings. Summed up, in the first meeting we were able to recognize a structure in the lived life, but nothing was confirmed yet about how this structure was experienced by the respondent. The turning points in her life almost always concerned her relationships with men. In the second meeting we got a better sense of how the respondent experienced her life and how she chose to tell it. One of the notions was that she came across as a ‘feminist’. The third meeting provided more insight on a personal level. We got a sense of how the life she had lived affected her experiences and the telling of her story. Very precise hypothesis were created from just tiny bits of data. And these hypotheses linked the visual data of the telling of the story to data of the lived life. What is new in this third panel analysis is the accuracy with which the data is explained or interpreted. This third analysis makes it easier
to track and link hypothesis to the research data, which I think can enhance the reliability of the BNIM procedure. Though, to be able to track down data and the linked hypotheses, one methodological condition must be met, namely that the panel members have to be able to clarify on what grounds their hypotheses are made, what in de visual data is it that persuades them.

**5.2 Recommendations for implementation**

In this section I would like to make some recommendations based on the results of the case study. These recommendations concern possible alterations in the BNIM and advices for future research and further research.

**5.2.1 Interview**

Hereby I present a few suggestions concerning the ethics and technicalities of the interview. With implementing visual data it appeared that no modifications needed to be made to the content of the interview and the interview questions themselves. One thing I learned the researcher should do before he interview is to inform the respondent that the interview is videotaped. The interviewee can be informed by being told that the reason for taping the interview is that it supports the interpretation of the interview. This would not emphasize the special focus on facial expressions and thereby minimize the distortion of the outcome. I have made sure that the respondent was aware that the visual material would be handled with care and that it would only be used for research purposes. The researcher him/herself should be very cautious with the material, because ones anonymity is difficult to guarantee when visual images are shown.

My own experience was that the respondents were willing to give permission for videotaping. One of the reasons might be that in the past few years, visual recordings became part of every day life. No longer is the video camera only grabbed to shoot holidays and family, but also in applications like video chatting and sending moving images via mobile phones moving images are used. More and more people become used to having their image projected on screen. Being in service of science was also an argument for one of the respondents\(^{18}\) to cooperate: “Use the material any way you like, I am glad if I can help science or you with your research project.”

About the interview technicalities I suggest the following. When preparing the interview in situ

\(^{18}\) It might be a bit confusing that I use the plural of respondent, but that is because I first approached another women for the case study who had already done a videotaped BNIM interview. Unfortunately this interview was not fit for use because of technical issues.
I experienced a few things that should be minded of. First there is the amount of light: natural light works best on camera so I situated the respondent near a window. Then I made sure that the image holds the face and some shoulder. To minimize distortion of the image as much as possible I asked my respondent to take off her glasses, because she only used them for reading this was not a problem. The camera standpoint was another important factor. One of the reasons I could not make use of the existing footage of a BNIM interview is that the camera was placed too low (frog perspective) and that it was shot from a very sharp angle, so most of the time the face was shown from the side. I also made sure that the camera was placed near the interviewer because that was the direction the respondent was looking at. Another important issue was the battery of the recording device. The interview took two hours and in that time the battery got drained completely. Fortunately I anticipated this on time and was able to plug the camera in a wall socket. Before the interview I made sure to get a big enough memory card.

5.2.2 The analysis
The analysis of the interview followed next starting with the first two tracks, the Biographic Data Chronology (BDC) and the Text Structure Sequentialization (TSS). Neither of these tracks ‘suffered’ methodological consequences when the visual data was implemented in the BNIM. The segmenting or chunking up of these tracks was done with the verbatim transcript and then the hypothesizing took place according the BNIM procedure (Wengraf, 2001, p. 231-299). The third panel meeting, formerly known as ‘the optional microanalysis’ and now introduced as the ‘Expression Melody Micro Analysis’, did put trough some changes. But I have been quite conservative with implementing the visual data in the microanalysis. No significant adaptations needed to be made in Wengraf’s method. The questions for the panel members stayed the same as in the original microanalysis. One difference I introduced in the role of the panel leader/researcher was that I constantly asked and was alert on what the basis was for the hypotheses that were made.

Was it something in the text, the visual, the audio or a combination of these factors? Thereby instead of presenting very small chunks or ‘datum bits’ as Wengraf calls it (2001, p. 292), Expression Melodies (EM’s) were shown. I have already outlined the length and choices I made in creating these EM’s. To get an even more accurate idea of what I did I demonstrate here the size of the three analysed expression melodies (EM) in text. They are translated from Dutch: ‘and ehm..yes..before you know you are married’, ‘and eh, once you get married then eh’, ‘he, then eh yes, it is just like nowadays with living together’.

These EM’s were created in software called Final Cut Pro, but can also be created in ‘QuickTime’, which is accessible to ‘everyone’ and easy to use or they can be made in Transana, which is more
complicated but also has more possibilities like linking text with visuals. I did not aim for an analysis of sound and intonation of the interviewee, but because the audio was turned on during the interpretation I expected it to be automatically subject of analysis. No specific remarks were made though about the sound or intonation. My advice would nevertheless be to pay attention to sound and intonation, because I still expect them to be of influence. This third panel meeting took three hours, after which saturation is reached for the day. This implied that the interpretation of the EMMA took one and a half hour longer than an ordinary microanalysis. This was the only amount of extra time needed for interpreting the added visual data. All meetings were recorded on audio to enable the researcher to make a precise analysis of the panel meetings. This was needed especially in this thesis because the panel meetings were double layered. First the panels provided this research with empirical data of facial expressions in use of the BNIM and the panels themselves were concerned with the interpretation of the interview itself. After the interpretation of the EM’s the data was processed by comparison with the data of the interpretation of the first two panels.

I shall end this paragraph with a few additional notes for instructing the third panel. Besides the manual for the TFA that can be found in the appendix section, I would also like to refer to Frijda and how he instructed his observers in his experiment. The text below is an adaption of his instruction. It shows how non-expert observers can interpret facial expressions of in this case a BNIM interview. During the EMMA panel these instructions were a reassurance for me and it validated that what we did was grounded. Try to relate to what went on in the mind of the subject. Describe this in your own words. If it helps you can describe the situation. The images are made during an interview in which stories were evoked from the subject. All facial images are spontaneous expressions that came up in the interview. You can observe and interpret the video material in different ways: By simple knowledge of expressions (like laughter) or by linking certain features to certain emotions or by opening up oneself to the subject (empathy). The last one we often use in daily life as we intuitively respond to expressions without making them explicit. A final way to apprehend expressions is to imitate the expression. In the research of Frijda this is found to be the last way out in the interpretation process (Frijda p. 340).

5.2.3 Experimental options for future research

In the course of this thesis I have carefully made some suggestions for what I think can be of value in further research on facial expressions in the BNIM. I here would like to propose some experimental settings that I think are worth investigating. For example I have issued the question whether audio should be turned on during the analysis of the visual data. For this instance I have chosen to turn it on. Though it might be very interesting to execute an experiment in which a comparison is made between:
an analysis with only visual data, and an analysis with only audio, and an analysis with visuals as well as audio.

Another subject for further investigation could be the influence of the room in which the interview takes place. I can image that filming the respondent in front of a neutral wall (white wall, or putting up a white sheet) will diminish the ‘noise’ of surrounding objects during the interpretation procedure, and enable the panel members and researcher to pay attention to facial expressions as precisely as possible without being distracted by books, CD’s etc. as happened in this case study. If the conceptual framework I here developed will be further defined I think the cooperation of a behavioural scientist, as an external expert to check findings and to provide interesting input (maybe as a member in a panel) would be interesting. Also somebody who is educated in sign language and has experience in interpreting facial expressions could add refreshing input. A clinical, cognitive, developmental, or social psychologist with expertise in nonverbal communication can also be of aid. These are just some ideas.

Another idea to consolidate this specific case study would be to investigate the influence of the composition of the panel in the process of hypothesising. For example by maintaining the same members for each meeting.

5.3 Discussion

To end my findings and deliberations of this thesis I would like to discuss the results. First of all it is likely that in the near future computational techniques are able to support the analysis of facial expressions. I use the word ‘support’ because it is not very likely that these are able to take over the whole interpretation procedure. Computational techniques do not make use of the context in intuitions like human can, which is needed for a BNIM analysis. One of the most important issues in interpreting facial expressions is the apprehension of the situation the subject is in, that is the articulation of the expression melody (Frijda, 1953). With the aid of turning on audio and showing at least one change in poses I tried to meet the articulation of the situation Frijda aims at. Besides the method of Frijda I hope that in the future the method of Ekman for interpreting faces will be widely accessible for all who are interested. For now the interpretation of emotions/expressions in the so-called FACSAID is in the hands of a few experts. When Ekman’s interpretation procedure becomes more transparent the meaning of it for this research might be re-examined.

Further on the question was handled how visual data can be implemented in the BNIM. By following the BNIM procedure as much as possible I tried to limit the extra amount of time needed that was needed for the analysis and this was quite successful. It was possible to do this with the theories of
Frijda on emotion and the face. The concepts of working with non-experts and free describing of expression melodies are features apt for implementation in the BNIM. The visual data gave new insight in the disposition of the interviewee. Structural hypotheses were made in a trice. Besides that it was fun to do.

Ending this thesis I hope that the results of implementing visual data will encourage other researchers to criticize and further develop the framework I here carefully introduce.
Chapter 6 References


Hendriks, Djoke (29 October 2009). Straatcamera ziet of je boos kijkt of bang; NS wil er agressie mee in de trein herkennen. *NRCnext*.


Chapter 7 Appendix section

7.1 Dutch Manual for panel 1 BDA

We gaan met een panel bestaand uit vier of vijf mensen, ‘fragmenten’ van het leven van de geïnterviewde interpreteren, dit wordt een biografische data analyse (BDA) genoemd. Dit doen we steeds ‘fragment’ voor ‘fragment’ zonder dat we weten welk fragment volgt, dus zonder dat we weten hoe de toekomst van de respondent eruit ziet.

We gebruiken hierbij onze verbeelding en fantaseren/brainstormen over het volgende:

- Hoe heeft de respondent deze gebeurtenis ervaren op het moment zelf. Dit noemen we een ervaringshypothese.
- En als deze ervaringshypothese waar is, wat kunnen we dan verwachten dat er later gebeurt in de serie van levensgebeurtenissen (follow-up hypothesis).
- Bij deze ervaringshypotheses gaan we ook op zoek naar zo veel mogelijk alternatieve hypotheses en counter hypotheses, wat is bijvoorbeeld onwaarschijnlijk dat de respondent zou doen?

Er wordt steeds een fragment uit het leven van de respondent gepresenteerd. Wanneer we uitgefantaseerd zijn, gaan we naar het volgende ‘fragment’. Eerst kijken we terug vanuit het nieuwe fragment naar het vorige fragment en kijken we of er hypotheses veranderen. Daarna gaan we weer verder met het formuleren van hypotheses voor het nieuwe ‘fragment’. Dit doen we bij tien tot twintig ‘fragmenten’ totdat de tijd erop zit.

We gaan niet op zoek naar de best mogelijke keuzes voor de respondent, maar gaan uiteindelijk op zoek naar mogelijke patronen in de acties van de respondent.

“We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time”

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7.2 Dutch Manual for panel 2 TFA

We gaan met een panel bestaand uit vijf of zes mensen, ‘fragmenten’ van het interview interpreteren, dit wordt een thematische ‘flow’ analyse (TFA) genoemd. Dit doen we steeds ‘fragment’ voor ‘fragment’ zonder dat we weten welk fragment volgt, dus zonder dat we weten hoe de toekomst van het interview eruit ziet. We gaan op zoek naar het/een basis thema van de persoon achter het vertelde geïmproviseerde verhaal, de subjectiviteit in zijn historische context.

Tijdens deze bijeenkomst zijn er steeds twee vragen die we stellen over de subjectieve data.
We gebruiken onze verbeelding en brainstormen over het volgende:

- Wat heeft de respondent ervaren op het moment van het vertellen van de gebeurtenis? (dubbel gelaagd: deels de herinnering aan een eerder gebeurtenis en deels het vertellen van die gebeurtenis in het huidige interview). Wat hieruit volgt noemen we Ervarings Hypothesen (EH).

- Wat suggereert de manier waarop de respondent vertelt op dit moment in de logica van gebeurtenissen, over wat zij vervolgens in het interview zal vertellen en op welke manier en waarom? Dit noemen we Follow-up Hypothesen (FH).

Naast het creëren van ervaringshypothesen en follow-up hypothesen zullen we ook aandacht besteden aan wat niet waarschijnlijk is dat er gebeurt (counter hypothesen). Bij elk nieuw fragment blikken we terug naar vorige hypothesen om te kijken of ze bevestigd, ontkracht of veranderd moeten worden.

In narratieve analyse is hetgeen gezegd word niet het belangrijkste, maar juist hetgeen niet gezegd kan worden. Waar probeert de tekst ons toe te overtuigen? Wat is de betekenis van dit alles? Waar gaat het allemaal over? Wat wordt aan ons gevraagd niet te denken? Wat gebeurt er achter de tekst, zoals uitgedrukt in de beweging van de tekst?
7.3 Dutch Manual for panel 3 EMMA

We gaan met een panel bestaande uit vier of vijf mensen, ‘fragmenten’ van een interview interpreteren dat ik onlangs in het kader van mijn afstudeeronderzoek heb afgenomen. Dit doen we aan de hand van een narratieve analysemethode\textsuperscript{20} afkomstig uit de biografisch-narratief-interpretatieve (onderzoeks)methode (BNIM). Deze onderzoeksmethode maakt gebruik van begrippen en afkortingen die ik hieronder toelicht.

We gaan een zogenaamde micro analyse doen. De procedure is dat we steeds ‘fragment’ voor ‘fragment’, zonder dat we weten welk fragment volgt, te analyseren. Dit betekent dat we niet weten hoe de toekomst van het interview eruit ziet, en ons op die manier inleven in de respondent die ook ‘toekomstblind’ vertelt (future-blind-chunck processing). We gaan op zoek naar het/een basis thema van de persoon achter het vertelde als improviserend tot stand gekomen verhaal. Dit doen we door ons in de ervaring van deze persoon (de subjectiviteit genoemd) in te leven in zijn historische context. Dit klinkt heel ingewikkeld, maar in de praktijk komt het erop neer dat we ons tijdens de bijeenkomst steeds twee vragen stellen over deze subjectiviteit in historische context. We gebruiken onze verbeelding en brainstormen over het volgende:

- Wat heeft de respondent ervaren \textit{op het moment} van het vertellen van de gebeurtenis? (dubbel gelaagd: deels de herinnering aan een eerder gebeurtenis en deels het vertellen van die gebeurtenis in het huidige interview). Wat hieruit volgt noemen we \textit{Ervarings Hypothesen} (EH).

- Wat suggereert de manier waarop de respondent vertelt op dit moment in de logica van gebeurtenissen, over wat zij \textit{vervolgens} in het interview zal vertellen en op welke manier en waarom? Dit noemen we \textit{Follow-up Hypothesen} (FH).

Naast het creëren van ervaringshypothesen en follow-up hypothesen zullen we ook aandacht besteden aan wat \textit{niet} waarschijnlijk is dat er \textit{gebeurt} (\textit{counter hypotheses}). Bij elk nieuw fragment blikken we terug naar vorige hypothesen om te kijken of ze bevestigd, ontkracht of veranderd moeten worden.

In deze panel bijeenkomst zullen we met name aandacht besteden aan de gezichtsuitdrukkingen van de respondent. Welk verhaal wordt er zichtbaar in het gezicht, wat zegt onze intuïtie over het verhaal dat zich ontvouwt in zowel tekst als beeld.

\textsuperscript{20} In narratieve analyse is hetgeen gezegd word niet het belangrijkste, maar juist hetgeen \textit{niet} gezegd kan worden. Waar probeert de tekst ons toe te overtuigen? Wat is de betekenis van dit alles? Waar gaat het allemaal over? Wat wordt aan ons gevraagd niet te denken? Wat gebeurt er achter de tekst, zoals uitgedrukt in de beweging van de tekst?
A method for analyzing nonverbal storytelling implemented in the BNIM

Researchers use storytelling to obtain a deeper understanding of social reality. In human sciences the Biographic-Narrative Interpretive Method (BNIM) is a thoroughly developed method for narrative interviewing and analyzing verbatim transcripts. But stories are more than only words and although the developers of the BNIM recognize this (Wengraf, 2009, p. 227), there is no framework for analyzing the visual data concurrently. This thesis aims at developing a conceptual framework for analyzing nonverbal storytelling and implementing this framework in the BNIM.