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„ASSESSMENT AND REMEDIATION OF APHASIA IN A MULTILINGUAL WORLD“

WITH SPECIAL REFERENCE TO THE ENGLISH, GERMAN AND TURKISH LANGUAGES

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ABSTRACT

Research on the assessment and treatment of aphasia has been long dominated by the publication of numerous standardized tests as well as non-standardized test batteries and language tasks in the English language. Clinicians and researchers working in the international community are confronted with the problem of either adapting available materials or developing their own. In both cases, it is an undertaking at great expense and costly in terms of time. In this endeavor, it is crucial to adhere to language- and culture-specific variables. In this thesis relevant criteria and variables for developing new multilingual assessment and therapy tools and/or for adapting such instruments for specific languages are considered on the basis of three languages which differ in terms of their structure, language family, and cultural background, namely English, German and Turkish. These aspects were taken into account in adapting an English version of the verb and sentence elicitation language material, 'Everyday Life Activities (ELA®) Photo Series' for Turkish. The purpose of this investigation is to provide an overview of the criteria to be adhered to when developing language assessment procedures and therapy materials and methods presently available for bilingual speakers.

ABSTRAKT

Die Forschung von Aphasie Test- und Therapiematerialien wurde sehr lange von Publikationen im englischen Sprachraum dominiert. Therapeuten und Forscher, die in der Internationalen Gesellschaft Tätig sind, werden mit dem Problem konfrontiert, entweder neue Materialien zu entwickeln oder die bereits vorhandenen zu adaptieren. In jedem Fall ist es eine Zeit- und Kostenaufwändige Angelegenheit. In dem Bestreben ist es unabdingbar kulturelle und sprachspezifische Variablen in Betracht zu ziehen. In dieser Arbeit werden die relevanten Kriterien und Variablen, die notwendig sind um die Entwicklung von neuem multilingualem Material für Testung und Therapie und/oder die Adaptation solcher Instrumente betrachtet, basierend auf drei Sprachen, welche in Form ihrer Struktur, Sprachfamilie, und kulturellem Hintergrund unterschiedlich sind. Diese sind Deutsch, Englisch und Türkisch. Diese Aspekte wurden auch beachtet während der Adaptation des „Everyday Life Activities (ELA®)“ Materials, von der Originalsprache Englisch für das Türkische. Das Ziel dieser Fragestellung ist einen Überblick über die Kriterien zu geben, welche beachtet werden müssen, während der Entwicklung neuer und/oder der Adaptation bereits vorhandener Test- und Therapiematerialien für bilinguale Sprecher.

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INTRODUCTION

As a native speaker of German and Turkish and a fluent speaker of English I have personal interest in the development and adaptation of language test- and therapy materials. This interest is not restricted to the isolated development of single tests/tasks, but the multilingual aspect of this endeavor. There are many publications critically evaluating the available standardized and non-standardized language test materials. However, the differentiation between *adaptation* and *simple adoption of* specific materials from one language/cultural setting to another (without apt adjustments) has not been explicitly discussed to date. The question of multilingual material is important, due to the fact that more and more people are becoming multilingual within the course of globalization and a multilingual patient has the right and need to receive multilingual testing and therapy. The choice of these three languages is to be reasoned by the following points;

- English is the most prevalent language for which most tests and therapy materials have been developed. Furthermore, most of the research is done in the English speaking countries and the international publication language is English.
- German has been a leading language in the development of aphasia test materials for several decades and still plays an important role in ongoing neurolinguistic and clinical research.
- Turkish, however, does not provide many data concerning aphasia. So to say, aphasia testing and therapy is new land in Turkey. Hence, the adaptation of materials is very important for the progress of this ongoing development.

For the aforementioned reasons, crucial aspects pertaining to the adaptation of aphasia test and therapy material in a multilingual context are examined in this thesis. These aspects were taken into account whilst adapting the original English version of the verb and sentence elicitation language material '*Everyday Life Activities* (ELA®) *Photo Series*' for Turkish. The purpose of this investigation is to provide an overview of the criteria to be adhered to when developing language assessment procedures and therapy materials and methods presently available for bilingual speakers.

EINLEITUNG

Als Muttersprachlerin des Deutschen und Türkischen und fließend in Wort und Schrift in der englischen Sprache habe ich persönliches Interesse an der Entwicklung und Adaptierung von Sprachtest- und -therapiematerialien. Dieses Interesse ist nicht auf die Entwicklung einzelner Aufgaben beschränkt, sondern betrifft darüber hinaus den multilingualen Aspekt dieses Bestrebens. Bisher wurden mehrere Publikationen veröffentlicht, die vorhandene standardisierte und nicht-standardisierte Sprachtestmaterialien kritisch beurteilen. Worüber aber noch nicht explizit berichtet wurde, ist die Unterscheidung zwischen einer Adaptation und einer Übernahme von spezifischem Material aus einem sprachlich/kulturellem Kontext in den anderen. Die Frage nach multilingualem Material ist wichtig, da die multilinguale Population im Zuge der Globalisierung fortwährend zunimmt. Aus diesem Grund haben multilinguale Patienten auch das Recht, multilingual getestet und behandelt zu werden.

Die Wahl der drei Sprachen Deutsch, Englisch und Türkisch resultiert aus folgenden Gründen,

- Englisch ist die herrschende Sprache, in der die meisten Test- und Therapiematerialien entwickelt worden sind. Außerdem ist die englische Sprache international führend in der Forschung und als Publikationssprache.
- Deutsch hat sehr lange eine leitende Rolle in der Entwicklung von Aphasietest- und Therapiematerialien gespielt. Infolgedessen ist der deutsche Sprachraum in der laufenden neurolinguistischen und klinischen Forschung immer noch wichtig.
- Für das Türkische gibt es leider noch nicht viele Daten in Bezug auf Aphasien. Anders gesagt, steckt die Türkei bezüglich Aphasietestung und -therapie noch in den Kinderschuhen. Daher ist die Adaptation von Materialien sehr wichtig um die fortwährende Entwicklung zu unterstützen.

Aus diesem Grund bezieht sich diese Arbeit in einem multilingualen Kontext auf die wichtigen Aspekte, welche die Adaptation von Aphasietest- und Therapiematerialien ausmachen. Diese Aspekte wurden während der Adaptation des ‘*Everyday Life Activities*

(ELA®) *Photo Series*' Sprachmaterials aus dem Englischen Original für das Türkische berücksichtigt. Das Ziel dieser Untersuchung ist ein Überblick über die Kriterien, die während der Entwicklung und/oder Adaptation von Sprachtest- und Therapiematerialien für bilinguale Sprecher beachtet werden.

Chapter 1
Sociolinguistic aspects of bilingualism

"Sprache ist das Haus des Seins."[1]
(Martin Heidegger, 1977, p.310)

In addition to being the most obvious vehicle of communication and the most powerful tool of interpersonal interaction, language mirrors a human being's personality in its totality.
As Heidegger has emphasized, our language defines the person we are. Further, it demarcates our personality within the society. In today's world the bilingual population has greatly increased. Therefore, bilingualism should be recognized as a very essential issue in our society. First of all, the term bilingual[2] must be clarified. A definition of bilingualism must encompass several variables, since *"…effective communication requires the integration of multiple factors, including linguistic, cultural, cognitive, and neurological variables" (Centeno et al., 2007).* Thus, a bilingual person is not merely a person who can speak multiple languages.
A bilingual speaker is a person who speaks multiple languages, is acquainted with the corresponding cultures and for whom the cognitive functions are differentially initiated in contrast to monolingual speakers. However, bilingual individuals often do not realize their situation as different from monolingual individuals. Paradis (1987, p.6) defines variables that differentiate among the bilinguals including the degree of proficiency, type of grammar organization, and the context of acquisition. The degree of proficiency is defined as the ability to use the language. In this case, a differentiation of the fluency or the use of context is understood. Another variable is the type of the grammar organization. The grammar can be organized coordinately, subordinately or in a compound (bidirectional) nature. The context of acquisition is also a very important aspect of bilingualism. The acquisition of the different languages can take place at the same time, at different times, in different contexts (environments) and/or through formal instruction in each of the aforementioned cases.

[1] Language is the house of being.

[2] Throughout this paper the term bilingual will be used to refer to a person speaking more than one language. Therefore, it will be used as an equivalent to the term multilingual.

Within the scope of the acquisition type, the motivation and the age of acquisition are also fundamental. Moreover, the context of use plays a role in the bilinguals' proficiency, grammar organization, and motivation in a language. The context of use includes the environment in which the language is used, the frequency of use, the relation to the social status associated with the language and the modality of use (auditory, visual, interactive, etc.). The last mentioned point is the structural distance between the languages. It has been demonstrated that the structurally closer languages are more easily learned and applied than languages that differ greatly in structure.

From a historical perspective bilingualism has been an important issue. In earlier times bilingualism was a symbol of social status. It was used to distinguish between the upper and the lower class. However, the languages seem to have been unified to one official language with the widening use of written language among the community. Minorities and, thus, the co-existence of minority languages, have always been of concern to the language policy. This has either lead to an assimilation of the minorities or to a bilingual community. Nowadays a third option has arisen from changing social conditions. This option is that the minorities build their own community within the host nation. In this case, the language and, hence, the identity of the minority is retained, however, integration into the "host" country is ambivalent at best.

The implementation of any of these options depends not only on aspects of the bilingual's respective language proficiencies and needs but also on the flexibility of a nation, which in turn is determined by numerous factors including its social expectations, the culture, the social independence, the power, the conflicts, and status associated with the respective language.

> "*Descriptive sociolinguistics tries to disclose the language usage norms – i.e., the generally accepted and implemented social patterns of language use and of behavior toward language – for particular larger or smaller social networks and communities. Another part of sociolinguistics – dynamic sociology of language – seeks to provide an answer to the question 'what accounts for differential changes in the social organization of language use and behavior toward language?'" (Fishman, J., 1972, p.45)*

Thus, the question regarding how language use and behavior towards a language influences the bilingual speaker can be answered with the help of sociolinguistic theories.

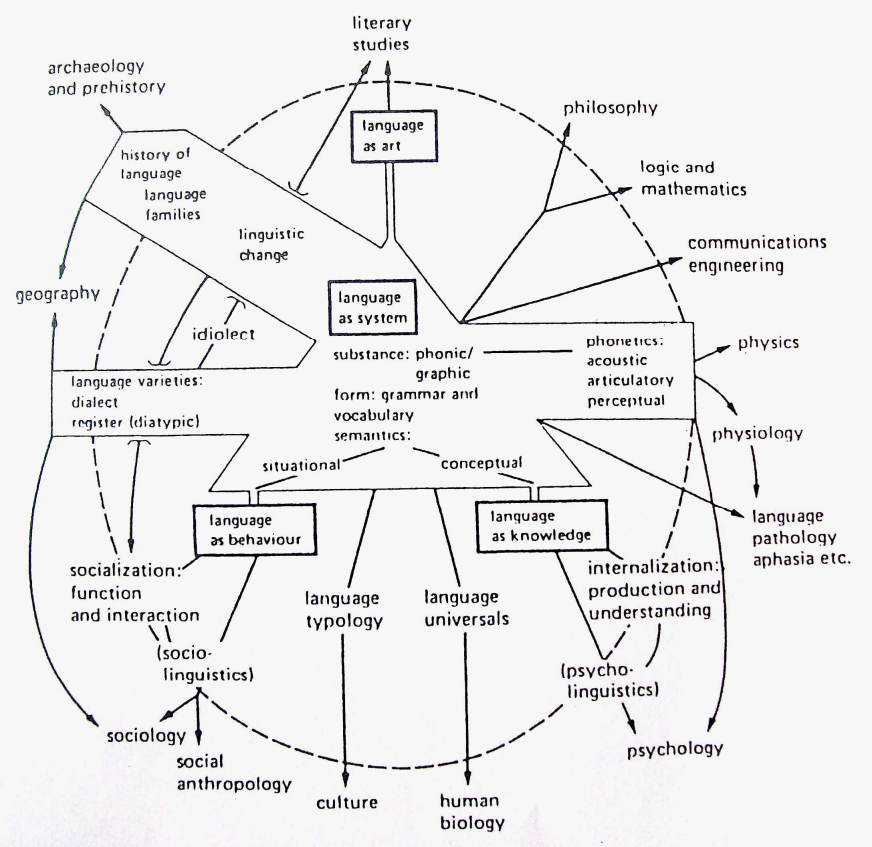

Figure.1 Language as a system (Halliday, M.A.K., 1978. Language and social man (Part 1). In Language as Social Semiotic)

Language as shown in Figure 1 exists as a system, which is a network composed of different complementary disciplines. Halliday (1978) explains this system by three major branches, “language as knowledge”, “language as behavior” and “language as art”. Irrespective of which of these branches is of concern, they all have in common that the individual and the society are in continuous interaction. In all these areas the basic function of language is addressed. According to Halliday (1978), language is instrumental, regulatory, interactional, personal, heuristic, imaginative and informative. Within a functional approach to the use of language this can be applied to social structure. The social structure has a great influence on the development of language behavior. Concomitantly,

changes in the social interaction of the individual take place. Language behavior is, in addition, closely related to the communicative competence of the individual. Chomsky (1969, cited in Habermas, 1971) directed attention to the difference between linguistic competence, referring to the correct use of a number of language specific rules and communicative competence, namely the application of the available language knowledge in an interactive situation. These theories have been defined for language in general and were basically applied to monolingual speakers. However, these basic principles are crucial to the understanding of the bilingual speaker's language behavior. The language behavior of a bilingual is even more influenced by the social environment than that of a monolingual. The attitude of the environment towards the second (3^{rd}, 4^{th}…) language might change the function of the language for the bilingual speaker. The speaker's reaction to the observed attitude, therefore, might interfere with the socialization of the individual. The instable attitude towards bilingualism in general and towards bilingual speakers can be contemplated in several contexts:

(1) Social context: The social context includes the educational and cultural dimensions as well. If the culture of the minority (country A) in a country differs a great deal from the host (country B) country, it is more likely that the discrepancy will lead to conflicting situations. The conflict can make the people from A feel themselves unwanted in B. In addition, the value of language A can be negatively affected. Once the conflict affects the value of the country of origin negatively, different, further aspects connected with the country of origin can be affected negatively as well. The cultural identification can influence a person's connection to the mother tongue(s) (cf. Ardila, 1998) and to the language of the host country. On the other hand, the educational level of the persons from A can affect their social prestige in B.

This can be exemplified by the situation of the second generation Turkish guest-workers in Germany or Austria. Their culture (including their religious beliefs) is very different from the German /Austrian culture. This has always caused conflicts between the guest and host. The Turkish guest-workers mainly emigrated from rural areas and had a background of no formal to minimal level of formal education. After their arrival they did not receive any opportunity to change their educational status. Hence, their social prestige sank among the

host country. On the other hand, the Hungarian people living in Austria have a similar cultural background. This also has its effect on their social level. As no major conflicts were present, their status within the society has not undergone any downturn.

(2) Political context: The language policy of a country has great influence on each individual's perception of society. The recent election campaigns and their foci provide an example in foreigners in the host. In most cases, the candidates have focused on foreigners and foreign language issues. Their arguments have a great impact on the view of the people towards the foreigners in the country. This impact can be positive as well as negative for the native speakers of a foreign language.

Returning to the example with the Turkish guest-workers, the social connotation is influenced by the host's political stance regarding the issue. In this case the election campaigns offer some insight into the situation. The debates between the candidates are often directed at certain aspects. Foreign policy, which includes language policy, is one of those aspects. Whereas some politicians advance the view of language-freedom and corresponding conditions, some are in favor of total integration. That is, if the candidate representing the idea of total integration puts forward good arguments and points out the negative effects of Turkish being coexistent with German, the people will be negatively influenced with respect to Turkish (even if it is only subconsciously). As is the case in the social context, the political view can be reduced to one aspect of the whole situation. In this case, the emphasis fell on the Turkish language although there are as many speakers of the many other foreign languages prevalent here, such as Slovenian, Croatian and Hungarian as there are speakers of Turkish. However, there are different policies followed for each language within various contexts.

(3) Economic context: In several cases, the economic power of the foreign countries in which the language is official defines the respect that is shown to the speakers of that language. In other words, the speaker of a language is perforce for better or worse, ascribed the stereotypes of his/her country of origin. Within the economic context the independence of the origin country also plays a role. This independence is defined by the economic self-sufficiency of the country. A person from a third world country which is trying to develop with the assistance of other countries is treated differently than a person from an autonomous country. Furthermore, the

economical conflicts between two countries can also change the opinion of the people towards each other.

Code-switching known as the change from one language to the other by a bilingual speaker is also affected by these variables. Code-switching can occur situationally or metaphorically. Situational code-switching depends on the conversational partner, the conversational situation, the subject and the environment.

> *"In neither of these cases is there any significant change in definition of participants' mutual rights and obligations. … The choice of either A or (B)… generates meanings which are quite similar to those conveyed by the alternation between ty and vy in the examples from Russian literature cited by Friedrich [1972]. We will use the term metaphorical switching for this phenomenon. „ (Blom & Gumperz, 1972, p.88)*

As Blom and Gumperz describe, the metaphorical code-switching does not rely on the change of situation, but rather on the meaning within the conversational context. Thus, the associated meaning reveals a metaphorical allocation.

For most bilingual speakers code-switching of some kind is part of daily life. Moreover, the subconscious changing of language is a concealed indication regarding the value of the language(s) for the speaker. In general, there is a tendency of bilingual speakers to value one of their languages more highly than the other. Unfortunately, this value is often provided by the society for the given language. Along with the fluctuating opinion of the environment, the speaker himself/herself changes the value of the respective language. Language is a dynamic system and thus adapts to the undertaken changes. Language is considered to give the individual an identity. Furthermore, it has the characteristic of giving a collective identity to all speakers of one language.

Several studies have been undertaken on the issue 'social identity'. Tajfel (1982) and Turner (1987) postulated a social identity theory which is based on the idea that personality stems from the group a person belongs to (cf. Brehm & Kassin, 1996). Thus the personal

and the social identity a person develops depends on the ‘ingroup’. The term ‘ingroup’ defines the group someone belongs to and ‘outgroup’ the group one does not belong to.

> *“Social identity theory poses another interesting question: If self-esteem is influenced by the status of our ingroups relative to our outgroups, how do people cope with ingroups of low status or with weak ingroup members? How do you cope with associations you find embarrassing?”* (Brehm & Kassin, 1996, p.138)

A study of Marques (1990) has shown that strong members of an ingroup are being upgraded in their achievements and weaker members are rather degraded in their actions (Brehm and Kassin, 1996). This also applies to the modern racism which plays an important role in the understanding of the development of the social identity of a person. The modern racism theory assumes that many people are unsure about their racial emotions. Although many people think that they are not prejudiced, there is a certain feeling associated with certain racial groups inside of them. A solution suggestion by Brehm and Kassin is intergroup contact. However, the contact is also subject to ingrained prejudice on both sides, the ingroup and the outgroup.
With reference to bilingual speakers, there is more than one ingroup and outgroup. The social identity can unfold in different ways for each of these. Thus the status of the social norms of one group may not overlap with the norms of the other. This can lead to fluctuations in the personal and social identity and in consequence have an impact on the emotional meaning of the corresponding language.

Chapter 2

Bilingualism

As in all contexts pertaining to bilingual speakers, additional factors that come along with a second or third acquired language which include, the time of acquisition, the type of acquisition, the context of use of the language and the development of the language must be taken into account.

Thus it is crucial to consider these additional factors come into play with a second or third language: When and how is it acquired? How long has it been used? Where is it being used, i.e. in which contexts?

To start with, a basic question must be addressed: How does language processing function in a bilingual speaker's brain? Several attempts to explore this issue have been made (Weinreich, 1974; Kroll & de Groot, 1997; Dijkstra, van Heuven, and Grainger, 1998; Li & Farkas, 2002). Before discussing language processing per se, the memory system, which provides a speaker with the needed storage space, will be discussed.

MEMORY IN BILINGUAL SPEAKERS

Memory has been an intensively discussed topic. Many models have been developed and revised. All of them have three processes in common, namely, encoding, storage and retrieval. Furthermore, most of the researchers agree on the fact that there is a short-term memory (STM) and a long-term memory (LTM) system. Atkinson and Shiffrin (1968) proposed the following multi-store model:

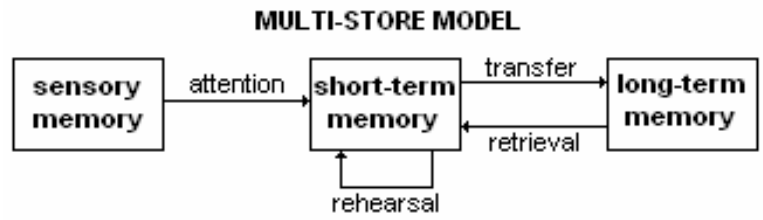

Figure 2 http://en.wikipedia.org/wiki/Memory , last viewed 24.09.2008

Tulving (1972, 1985) investigated various aspects of LTM. Tulving suggested that LTM has two building-blocks, episodic and semantic memory. In episodic memory all the

information about one's experiences is stored. Semantic memory retains general knowledge. In 1985, Tulving added a third component to LTM, namely, procedural memory, which was confirmed by Anderson. Procedural memory provides the necessary knowledge about the automatised activities within our daily lives.

Baddeley and Hitch (1974) revised and specified the functions of STM, which was renamed 'working memory'. They criticized the one unit model and introduced the phonological loop and the visuo-spatial sketchpad as the back-up system. Baddeley (2000) revised the working memory model and added the episodic buffer as the third back-up unit.

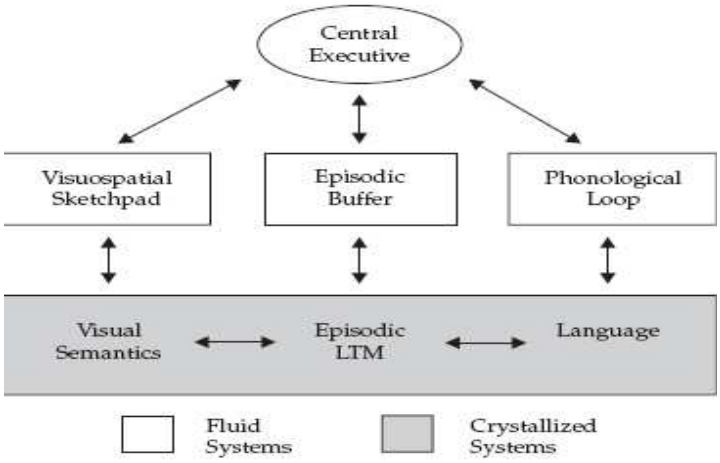

Figure 3 Baddeley A. (2002) The revised model of the working memory

The multi-store model has been found to be the clearest solution for the memory system. Nevertheless, this system does not provide any insight into the bilingual speaker's storage system. Many attempts have been made to explain this phenomenon. The first matter to be dealt with is whether there is one system or several systems (i.e. multiple-storage):

(1) Interdependence memory hypothesis (McCormack, 1977): This hypothesis postulates that a bilingual has a shared memory for all languages. The words stored in the memory are abstract representations with multiple bar codes. For example, the word apple has the following representation;

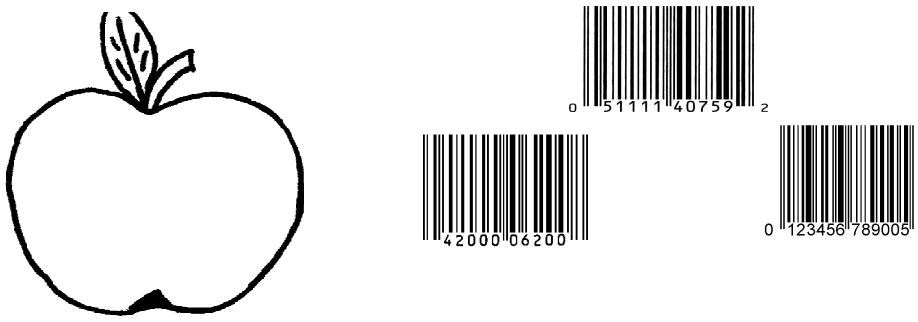

Figure 4. An example for the abstract representation (www.free-window-color.de), last viewed 24.09.2008

Each of the barcodes stands for the same word in a different language. In this case it would be 'apple',' Apfel', 'elma' for English, German and Turkish respectively. This hypothesis enables a spontaneous switch between the tags.

(2) Independence memory hypothesis (Kolers, 1963): The assumption here is that there are separate storages for each language. Referring to the example presented in Figure 4 for 'apple', it would mean that there are three separate apple representations with the corresponding language coding. This hypothesis does not provide for interaction between the different languages.

Analysis of the *interdependence memory hypothesis* and the *independence memory hypothesis* revealed that both hypotheses were indeed correct. Subsequently, other models were introduced, e.g.:

- The compound vs. coordinate bilingualism model (Ervin and Osgood, 1954)
- The bilingual dual coding theory (Paivio and Desrochers, 1980)
- The hierarchical models (Potter, So, Eckardt, & Feldman, 1984; Paradis, 1980; Weinreich, 1953; Kroll and Stewart, 1994; Heredia and Altarriba, 2001; Heredia and Brown, 2004)
- The distributed conceptual feature model (de Groot, 1992, 1993; Groot et al., 1994; Kroll and de Groot, 1997; Van Hell and de Groot, 1998)
- The bilingual interactive model (BIA) (Dijkstra and Van Heuven, 2002)

Regarding the question of the structure of the bilingual memory system, the distributed conceptual feature model provides the clearest solution. This model differentiates between first (L1) and second language (L2) lexicons. The conceptual level is represented as being available to both languages at the same time, as shown in Figure 10.

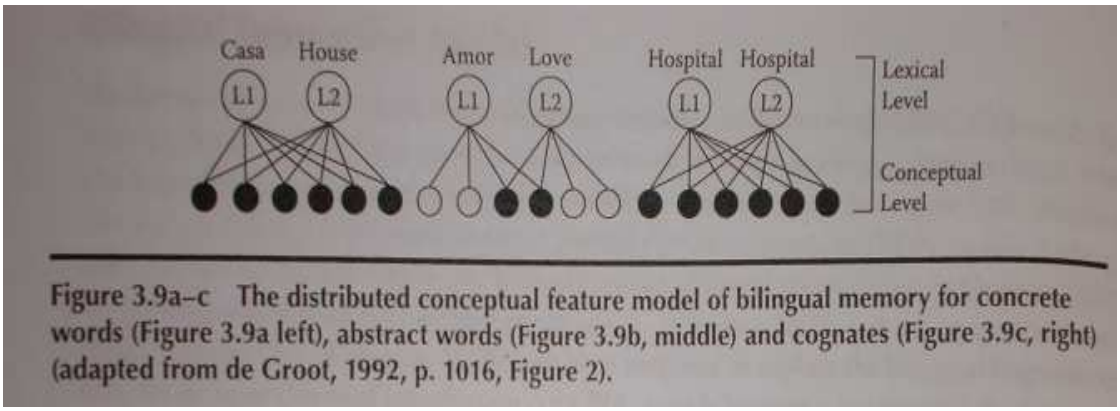

Figure 3.9a–c The distributed conceptual feature model of bilingual memory for concrete words (Figure 3.9a left), abstract words (Figure 3.9b, middle) and cognates (Figure 3.9c, right) (adapted from de Groot, 1992, p. 1016, Figure 2).

Figure 5. Altarriba & Heredia (Eds), 2008, p.58

> *"The number of the conceptual features or elements in these memory structures may determine their activation or translation performance. The more similar two concepts are, the more "meaning elements" they would have in common. It follows then that the more feature or meaning elements overlap between words across languages, the more concepts would be alike."* (Altarriba & Heredia, 2008, p.58)

According to this model, the concreteness effect postulates that the concrete words are processed faster than abstract words, as they encompass a greater number of features and representations. Thus, they are more readily accessible. Cognates are words that are similar in different languages, such as 'hospital' and 'hospital' described in the conceptual feature model. As depicted in Figure 5, the concreteness effect supports the model of de Groot the concrete words have more overlapping conceptual features than abstract words.

LANGUAGE PROCESSING MODELS FOR BILINGUALS

As the memory system must be altered to meet the demands of the bilingual speaker, so must the language processing system also be adapted. Kees de Bot (1992, in Wei 2007) has

described several qualifications to be fulfilled in such a model. First, the model should provide the basis for an entirely separate or mixed use of the language systems according to the situation. The cross-linguistic influences must be considered for all operating procedures. Although there is more work to be performed, the system should not slow down. Since many bilingual speakers master their languages to a different degree, the system should be able to adapt to a situative change in language proficiency. Moreover, an interaction in-between or among the languages should be represented.

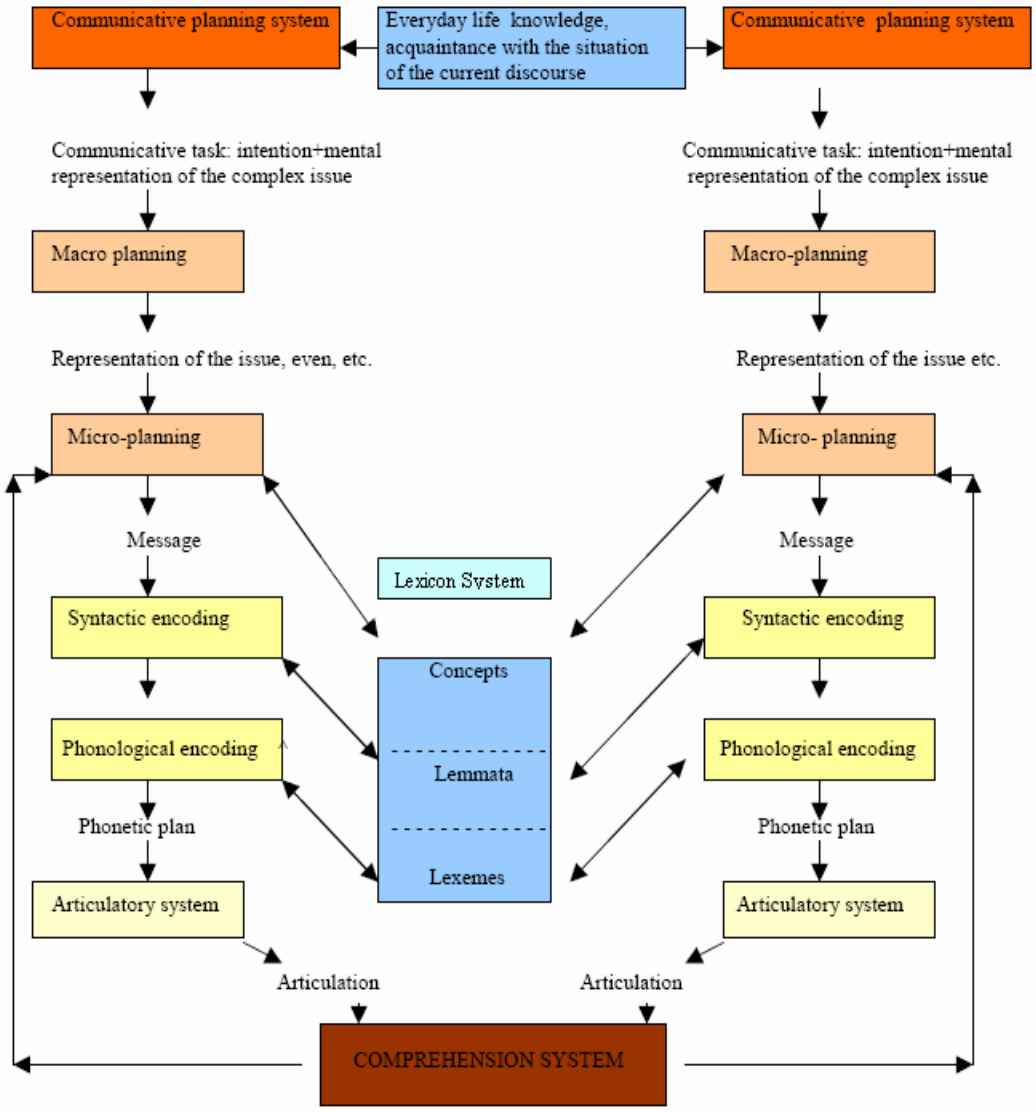

Figure 6. My modification of Levelt's language processing model (1989) adapted for bilingual language processing by Kees de Bot (1992, in Wei 2007)

According to Kerkman (1984), there are two types of models, the active models and the passive models. In the active models, the whole lexicon is searched for the target entry as soon as the preverbal message is received. In contrast, in the passive model the system is continuously alerted. As soon as certain characteristics reach the preverbal message, a target is activated. Morton's (1979) logogen model and Levelt's (1989) language processing model are passive models. The active models are not suitable for further inquiry as they require too much time to complete processing. Departing from Levelt's model - as it is the most frequently used model-, several changes are necessary. First of all, each language has its own processing channel. Second, the languages use the same lexicon system in order to enable code switching. Green (1986) puts forward the idea of parallel production in bilinguals. This idea explains the different processing channels and also the code-switching. Parallel production also requires the three states of activation described by Green (1986) for the languages in use namely, (1) the selected language, (2) the active language and (3) the dormant language. According to the actual state, the representations for each language are activated to a different degree.
Although these two changes seem to be fractional, they presuppose multiple runs with the simultaneous activation of possibly completely different systems, as the model is assumed to be applicable to any bilingual's situation. That is, the number of languages should not affect the structure of the model. However, the hypothesized model has not yet been sufficiently tested empirically.

Chapter one and two dealt with the social and personal identity, memory storage and language processing systems which apply to a bilingual speaker. Although these issues have not been satisfactorily answered to date, the most recent views have been presented. Assuming that the language(s) spoken by an individual give(s) that person his/her identity, the question can be raised as to what happens to a person when an acute neurological incidence, i.e. brain damage causes the loss of his/her language skills?

Chapter 3

Aphasia

DEFINITION AND CAUSES

Aphasia is an acquired language impairment caused by neurological damage to the brain. Although the translated meaning indicates a total loss of the language skills (‘a’=without, phasia’=speech), this is not the case (Huber et al., 2006). Initially, most of the persons with aphasia (PWA) have severe problems with the production and/or comprehension of spoken and/or written language. However, there is a tremendous variety of the symptomatology, i.e. type and severity of the language processing difficulties for each patient. The areas in the brain responsible for language production and comprehension are usually located in the left hemisphere. Therefore, a neurological impairment affecting the left hemisphere is more likely to cause aphasia.

The most frequent cause of aphasia is a stroke or cerebral vascular accident (CVA) which is due to a disturbance in the blood flow within or to the brain caused by thrombosis, embolism or hemorrhage.

> *“In the European Union (EU), Iceland, Norway, and Switzerland an estimated 1.1 million new stroke events occur each year and currently 6 million subjects live in these countries having survived a stroke. According to population projections from the United Nations the number of new stroke events will increase to 1.5 million per year in 2025 in these countries, if stroke incidence rates remain stable solely due to demographic changes.”*

(http://www.europeanbraincouncil.org/projects/CDBE.htm , last visited 21.09.2008)

Further causes of aphasia include

- Traumatic brain injury (TBI)
- Brain tumor
- Infectious diseases (e.g., meningitis)

Symptoms

Primary Symptoms	Phonological and Graphemic Level	Lexical Level	Word Level	Sentence Level	Text Level
	Phonematic Paraphasia Phonematic Neologisms Alexia Agraphia	Semantic Paraphasia Semantic Neologisms	Anomia Circumlocution Conduite d'approche	Agrammatism Paragrammatism Jargon	Coherence
Secondary Symptoms	Apraxia of speech Dysarthria Agnosia				

Table 1. Symptoms of aphasia

Not all of the symptoms are listed in Table 1. Many symptoms are represented on a multimodal level. Such symptoms cannot be assigned to a single linguistic level. Among these symptoms are perseveration, echolalia, speech effort, dysprosodia, comprehension deficit, mutism, and logorrhoe. Each of these is represented across several linguistic levels.

Classification of Aphasia

	Fluency	*Repetition*	*Comprehension*	*Naming*
Global Dysphasia	Nonfluent	−	−	−
Broca's Dysphasia	Nonfluent	−	+	−
Transcortical Motor Dysphasia	Nonfluent	+	+	−
Mixed Transcortical Dysphasia	Nonfluent	+	−	−
Wernicke's Dysphasia	Fluent	−	−	−
Transcortical Sensory Dysphasia	Fluent	+	−	−
Conduction Dysphasia	Fluent	−	+	−
Anomic Dysphasia	Fluent	+	+	−

− Impaired
+ Normal or relatively spared

Table 2. Aphasia syndrome classification. (Albert, M. et al., 1981, p.56)

L o c a l i z a t i o n

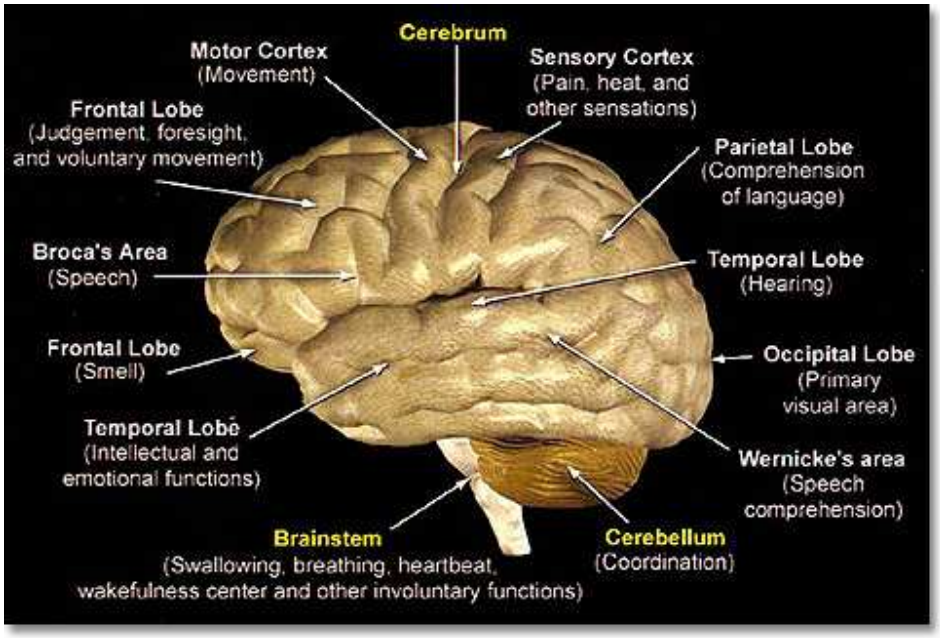

Figure 7. http://www.theuniversityhospital.com/stroke/images/aboutstroke/anatomy.jpg (last viewed, 02.01.2009*)*

As different areas of the brain are ascribed different functions, the symptoms can vary according to the localization of the lesion. The manifold language functions are connected in various complex networks. Therefore, a partial impairment can be observed in a language function, although the primary corresponding area is not affected. The lesion localizations associated with the main aphasia types are:

- Broca's aphasia: The frontal gyrus, the frontal opperculum, insula, and the cortical area of that region can be damaged.
- Wernicke's aphasia: Gyrus supramarginalis and the temporo-parietal region are affected.
- Conduction aphasia: The lesion is placed within insula or fasciculus arcuatus.
- Transcortical aphasia: The connection between the language areas. Accordingly a prefrontal cortex lesion, temporo-occipital region damage or multiple lesions within the association-cortex can be responsible for transcortical-motor,

transcortical-sensory, and mixed transcortical aphasias.

- Anomic or amnestic aphasia: Temporo-parietal or left- frontal lesions as well as lesions to other parts of the brain can result in anomic aphasia.
- Global aphasia: The lesion is usually very large and encompasses most of the perisylvian language areas (including Broca's and Wernicke's area).

PROGNOSIS

The acute phase of aphasia is considered to be up to approximately 4 to 6 weeks post-onset. During the acute phase and up to 6 to 9 months post-onset of aphasia the clinical symptomatology can undergo a radical change due to spontaneous remission. Making a prognosis in this phase is not necessarily reliable. Spontaneous recovery or spontaneous remission can last up until 9 to 12 months. Although the opinions vary, the chronic phase is assumed to begin between 9 to 12 months post-onset of aphasia. At this time the symptoms have become more stable.

Predictions about the course of aphasia depend on several factors including the localization of the lesion in the brain, the extent of the lesion, the initial severity of the language impairment, etc. Furthermore, the personality, the motivation and the attitude of the person with aphasia towards the therapy play a significant role.

APHASIA IN BILINGUAL SPEAKERS

Studies among bilingual persons with aphasia have been undertaken in various contexts. Some case studies have shown all of the languages spoken by an individual were affected and others in which only one of the languages showed impairment

Three theories have been put forward to account for the various patterns. The first theory is Ribot's law (1883), stating that the first acquired language will be the most resistant to aphasia. The second theory was formulated by Pitres (1895). He postulates that the premorbidly most used language will be least affected and will recover the fastest. The third theory was developed by Minkowski (1927). He discusses the principle of a positive or negative affective factor related to one of the languages which in turn minimizes the

language deficits due to brain injury in that particular language. Furthermore, if the emotionally stronger related language is affected following brain injury, it will recover faster than the other languages.

In accordance with these theories different recovery patterns have also been postulated. Paradis (1977) introduced the parallel, the differential, the selective, the successive, the blended and the antagonistic recovery patterns. Empirical evidence has been collected for several of these patterns, e.g.:

- the parallel recovery pattern (Paradis,1998, 2004; Fabbro, 2001)
  This pattern implies that all spoken languages recover simultaneously.
- the differential recovery pattern (Paradis, 1998, 2004; Fabbro, 2001)
  Following this pattern the languages recover differently referring to variables such as time of acquisition, type, severity, social context.
- the selective recovery pattern (Paradis& Goldblum, 1989; Paradis 1998),
  If a selective recovery pattern is observed, only one of the languages shows aphasic symptoms.
- the antagonistic recovery pattern (Goldblum & Abidi, 1982),
  According to this pattern the spoken languages cannot be accessed concurrently.
- blended recovery pattern (Fabbro, Skrap & Agliotti, 2000),
  In this pattern the person with aphasia blends the languages.
- successive recovery pattern(Nilipour & Ashayeri, 1989; Paradis, 1998)
  When the person with aphasia shows successive recovery one of the languages recovers before all the others.

Studies on bilingual aphasia assessment and recovery will be discussed in chapter 6. Since each person with aphasia –monolingual or bilingual- has an individual background of language acquisition and use of his/her acquired languages, the individual patterns of the aphasic symptoms and also the recovery will vary. In the next two chapters a general overview of language assessment and therapy will be provided.

Chapter 4

Aphasia Assessment

In order to arrive at an accurate aphasia diagnosis of intact and impaired language functions and processing abilities, it is important to have adequate assessment materials. Current assessments generally provide one or all of the following: measurement of select, specific language skills, a correlation between symptoms and lesion sites, and a classification of surface symptoms. However, there are several aspects that are not addressed by certain assessment procedures. Among these, (1) is the lack of relation between the symptoms and the processing mechanisms, (2) the insufficiently provided information regarding the impairment of relevant language functions in the various modalities and their functional relevance and (3) the minimal or lack of discriminatory power for measuring change over time, e.g. after therapy.

> *"The information about a patient's performance on a battery of tests provides us the information ('the wood') about deficits and remaining abilities....*
> *Once one has an idea of where the problem lies, more targeted testing ('the trees') can be carried out."* (Kay et al., 1990)

Therefore, it is important to focus on the crucial aspects which are not represented in the current standardized tests and test batteries to ensure that neither the wood nor the trees are missed - as Kay et al. (1990) rightfully emphasize.

Domains generally evaluated in language assessment materials in the oral/auditory/visual modalities are:

- Spontaneous speech
- Comprehension
- Naming
- Writing
- Repetition

Levels covered in language assessment and/or treatment protocols are depicted in Table 3.

Phonological Level	Minimal pairs, syllable structure, consonant structure
Lexical Level	Preposition, pronoun, adjective, verb, noun
Morphological Level	Sg. vs. pl, verb inflection, derivation
Text/Discourse Level	Narratives, procedural discourse, picture descriptions
Pragmatic Level	Speech acts, inferencing, dialogues
Cognitive Tasks	Digit/word span, conceptual thinking, non-verbal tasks

Table 3. Linguistic levels covered in aphasia assessment and treatment

Schuell (1970, cited in Sally Byng et al. (1990)) has listed three questions regarding the basis for the assessment of a person with aphasia:

(1) A therapist has to know which cerebral processes are impaired and which are still intact.
(2) A therapist has to know when and where performance collapses.
(3) A therapist has to know why performance collapses.

In addition, there are four criteria that any test should adhere to. These are validity, reliability, adequacy, and objectivity. The validity of the test material depends on the criteria defined for it. That is, the test has to deliver valid information which it claims to provide. The reliability is provided by the consistency of a set of measures (Wikipedia, 2008). The adequacy is closely related to the validity. It ensures that the subject matter attains a level of appropriateness. Moreover, the objectivity defines the measurement independence of the procedure. In summary, this means that a test that fulfills the objectivity criteria can be administered by any person and it would still result in the same outcome when applied to any individual.

Each assessment procedure has a different goal. Therefore, the goal and the structure of the test and, thus, the assessment material should be defined. The assessment can be based on a neurological, linguistic, functional, or on a symptom-oriented perspective. Dependent on its

ultimate intention, the diagnostic tool should provide information on how the operating components are impaired and possibly provide a reason for the impairment. Furthermore, Spreen and Risser (In Taylor Sarno, 1998, p.72) have distinguished four main types of evaluation purposes, which are "(a) screening, (b) diagnostic assessment, (c) descriptive testing for rehabilitation and counseling, (d) progress evaluation".

Aphasic language deficits should be diagnosed with reference to a language processing model which allows the clinician to formulate hypotheses regarding the person's linguistic performance. Again the choice of the underlying model can differ for each test or assessment material.

OVERVIEW OF ASSESSMENT MATERIALS

Before going into detail on the basis of the language assessment, it is important to have an overview of the available language assessment materials. Edwards (2005) explains the aim of aphasia assessments as follows:

> *"Aphasia assessments, while varying in content, detail and focus, all aim to provide information about the type of disorder rather than the presence of aphasia."* (Edwards, 2005, p.62)

It is expected that the language assessment forms a kind of basis or a guideline for the therapy. However, this does not always apply. Each assessment procedure has strengths and weaknesses. In this case, it is important to combine different assessment materials which are necessary to test for the working hypothesis. A single assessment usually does not cover all language modalities in detail. Hence, it is necessary to use a combination of different assessments. There are standardized and non-standardized language assessments. They have a complementary function. Selected tests for assessing language will be discussed in the following paragraphs.

Standardized language assessment tools

Although, there are numerous assessment tools, not all of them are standardized. The underlying principle of administering a standardized procedure is that the

clinician/researcher has a population to which (s)he can compare the obtained results. In addition, it allows the clinician to see changes in performance over time as judged by a change in the overall score. Furthermore, a standardized assessment procedure should allow for predicting the pattern of improvement of specific deficits, course of the impairment, and course for the language therapy plan. Not all standardized procedures allow for a detailed or qualitative analysis of change in performance in specific domains. As previously mentioned each assessment tool can be of different nature and thus can allow a syndrome classification and/or give a general profile of the language skills.

Boston Diagnostic Aphasia Examination (BDAE), Western Aphasia Battery (WAB), Minnesota Test for Differential Diagnosis of Aphasia (MTDDA), Bilingual Aphasia Test (BAT), Multilingual Aphasia Examination (MAE), Aachener Aphasia Test (AAT), Lexicon model-oriented (LeMO), Aegean Aphasia Test (EAT), Gülhane Aphasia Test-2 (GAT-2) and the Boston Naming Test (BNT) count among the standardized assessment procedures.

The **BDAE** is one of the most recommended assessment materials in the English speaking community. The administration of the BDAE (Goodglass & Kaplan, 1983) provides a profile of the functional communication skills. However, it does not provide an in-depth analysis. The results depict the aphasia syndrome of the person with aphasia (PWA). Furthermore, a study of *"Brookshire and Nicholas (1994) found that by using additional measures of connected speech (in addition to the BDAE's cookie theft picture) higher test-retest correlations could be obtained in measures of words per minute, correct information units (CIUs) per minute, and percent correct information units (calculated by dividing the number of CIUs in a speech sample by the number of words in the sample)"* (Neils-Strunjas, 1998).

WAB (Kertesz, 1982) also allows syndrome classification as well as a severity measure of the language impairment of the PWA. The WAB provides the clinician with an Aphasia quotient (A-Quotient) and also with a cognitive-quotient. Thus, in addition to testing various language functions, tasks are also included in the WAB to assess other cognitive functions. A French and a Spanish version of this assessment material are also available (Lezak, 1995 cited in Neils-Strunjas, 1998).

WAB is one of the most popular assessment materials within the English-speaking community.

BNT (Kaplan, Goodglass & Weintraub, 1976, 1978, 1983) The **BNT** is a specific language assessment tool for assessing oral confrontation naming of single objects differing in their word frequency. This test has been standardized for several languages. Another assessment tool for the oral confrontation naming of actions or single verbs is the Action Naming Test (ANT). This test is only available as a preliminary version.

AAT (Huber, Poeck, Weniger & Springer, 1983) The AAT provides the clinician with a profile of the language impairment on various linguistic levels and also with a syndrome classification and a severity measure. No other cognitive functions are included in the assessment. The AAT provides a basic overview for the clinician. The AAT is the most commonly used aphasia assessment material within the German-speaking community. To assess specific language functions in greater detail, the authors Huber, Klingenberg, Poeck and Willmes have developed supplementary test material for the AAT. These supplements cover the modalities, naming, and related stimuli, lexical discrimination, reading, sentence comprehension, and retelling texts.

LeMO (De Bleser et al., 2004) is a widely used assessment tool in the German speaking community. It is based on the logogen model (Patterson, 1988). It consists of monomorphemic words and non-words. There are 33 subtests covering the different modalities, thus the routes of the logogen model. It provides an in-depth analysis of the impaired routes illustrated in the underlying language processing model. One of the goals of this assessment tool is to detract from the conventional view of syndrome classification and emphasize the functional impairment patterns.

EAT (Atamaz, Yağız On & Durmaz, 2003). This test has been developed in order to have a standardized Turkish assessment instrument, which is not a translated or an adapted version of an already existent assessment. The authors have used the Minnesota Test for Differential Diagnosis of Aphasia (MTDDA) as well as the Boston Diagnostic Aphasia Examination (BDAE) for developing several subtests and test items. The main objective of this test is to identify the language

impairment. Although the assessment is generated with respect to the Turkish socio-cultural perspectives, it is still difficult to draw the line between pathological and normal, due to the education level diversity of the patients.

GAT-2 (Tanrıdağ, Topbaş, Maviş, 2007). GAT-2 is a revised version of GAT. It is a standardized aphasia screening for Turkish-speaking aphasics. GAT was developed by a neurologist and has been constructed with the help of speech pathologists/linguists. The aim of the revision was to bring the assessment up to date. The main goal of GAT-2 is to find out whether the patient has a pathological communicative problem. Moreover, the test is administered to determine whether the patient needs further language assessment and to ascertain at which level the patient is capable of performing.

BAT (Paradis, 1987) This test has been developed in order to enable language assessment of bilingual speakers with a language impairment within a multicultural population. BAT was constructed as a multilingual assessment tool with versions which are equivalent across languages. To date there are versions in approximately 65 languages, which are adaptations (not translations!) of the original test.

MAE (Benton & Hamsher, 1989) This collection of tests has been derived from the Neurosensory Center Comprehensive Examination of Aphasia (Lezak, 1995). It exists in French, Italian, German, Spanish and English. However, the assessment does not have a wide range of items and therefore has limited explanatory power.

Non-standardized assessment materials

Non-standardized assessment procedures (tasks, test batteries) are important, as they are important supplements for the clinician. As is the case for standardized assessments, the non-standardized materials can have different goals. In addition to tasks assessing the word- to sentence level abilities of a person with aphasia, the pragmatic abilities, the general competence of the PWA are targeted in the various non-standardized procedures and questionnaires. Additionally the specific type of impairment (e.g. object naming tests vs. action naming tests) can be explored. Specific testing of the (relatively) intact abilities can be a very informative source for the ensuing language remediation.

In addition to the various language tests, other cognitive abilities have to be examined in order to achieve a better understanding of the capacities of the PWA. There is also a wide range of standardized assessments for cognitive functions. However, the clinician has a greater flexibility using certain non-standardized assessment materials.

The non-standardized assessment materials can be updated more often in contrast to the standardized materials. Therefore, they are more flexible in their application. The Psycholinguistic Assessment of Language Processing in Aphasia (PALPA), the Auditory Comprehension Test for Sentences (ACTS), the Basel-Minnesota-Test for Differential Diagnosis of Aphasia (BMTDA), retelling stories, object naming tests, pragmatics questionnaires are among the non-standardized assessment procedures, which serve the clinician as domain-specific supplements to the aforementioned assessment materials.

PALPA (Kay, Coltheart & Lesser, 1992) is a psycholinguistic assessment tool. It offers 60 subtests on the basis of auditory processing, reading and spelling, picture and word semantics and sentence comprehension. Hence the linguistic levels, phonology, word level, morphology, syntax semantics are examined. The test reveals a detailed profile of the impaired and maintained language skills. Further the results can be interpreted in terms of the cognitive language processing models.

ACTS (Shewan, 1988) This test gives the clinician the opportunity to test the patient in-depth for auditory sentence comprehension skills. On the other hand, the patient only has to give nonverbal responses so that it is easier to go through the test.

BMTDA (Delavier & Graham, 1981) The BMTDA is a test battery, which identifies aphasia and accompanying impairments, such as auditory or visual perception impairments. Furthermore, a diagnosis of the neuromuscular impairments is possible. The assessment material is composed of 50 subtests.

Retelling Stories This is a supplementary task, which can vary from one clinician to the other. However, most of the clinicians use fairy tales, such as “Little Red Riding Hood” or “Cinderella” for this task. A similar task is also implemented in some of the standardized assessment materials. The task can be administered in different ways.

Object naming tasks The clinician can compose this task out of objects used in everyday life and ask the patient to name them orally or in written language. Although, it is useful to use a standardized assessment for assessing naming skills, cultural or dialectal differences can affect the outcome. Therefore, it can be more effective to use a "self-made" test in certain situations.

Pragmatic questionnaire Although there are several questionnaires available, the clinician can compose his/her own yes/no questions to investigate the pragmatic behavior of the patient. For example,

In the clinical practice clinicians are often restricted in the amount of time they can invest in assessing a single patient. Therefore, it is important to determine whether aphasia applies or not. The next steps would be further diagnostic investigation, if possible. The language assessment and the following treatment should be done interdisciplinarily. Interdisciplinary cooperation is important because as Spreen & Risser (1998), point out, *"language is not an isolated cognitive function."* Another fundamental issue is the differentiation between suddenly occurring language impairment as aphasia and a language impairment which, although a primary language impairment, has developed across time, as is the case with primary progressive aphasia (PPA). There are, of course, other secondary impairments of language functions due to other diseases or syndromes (e.g. dementia, Parkinson's disease).
So far, all considerations have been based on the presently available assessment materials. It may, however, be necessary for the clinician to adapt or adjust an assessment tool to evaluate a patient's specific deficits. There are several points to take into consideration. The pre-morbid skills of the patient including his/her educational level, age, cultural background, the spoken languages and dialects, the social life and engagement before aphasia and motivational factors can influence the evaluation as well as the remediation of a person with aphasia.
Each assessment procedure is as good as the variables on which the individual assessment procedure has been based. The information provided by the assessments is affected by several factors. Whitworth et al. (2005) give a basic list of the factors to be considered, including:

1. Word frequency

2. Imageability
3. Word length
4. Word regularity
5. Lexicality
6. Word grammatical categories

In addition to these, syllable length, morphological complexity, representation (size, color, spatial location) are important factors that should be taken into consideration. These factors will be explored in detail in chapter 5 and 6 in the context of bilingualism and the adaptation of assessment and therapy materials.

CLINICAL RELEVANCE OF ASSESSMENT

Having discussed several assessment tools it is necessary to consider the construction and clinical relevance of assessments in terms of available language processing models.

Processing models used in assessment materials

Several of the assessment materials are based on a language processing models of which there are numerous. These models are relevant for providing a linguistic foundation for the developed language assessment procedure. While the use of a language processing model can make it easier to determine the assumed level of impairment, a model can also be of use for understanding the connections among the domains that are impaired.

A serial model of language processing has been developed by Garrett (1980, 1987). This model is the pioneer model underlying Levelt's (1989) model of language processing.

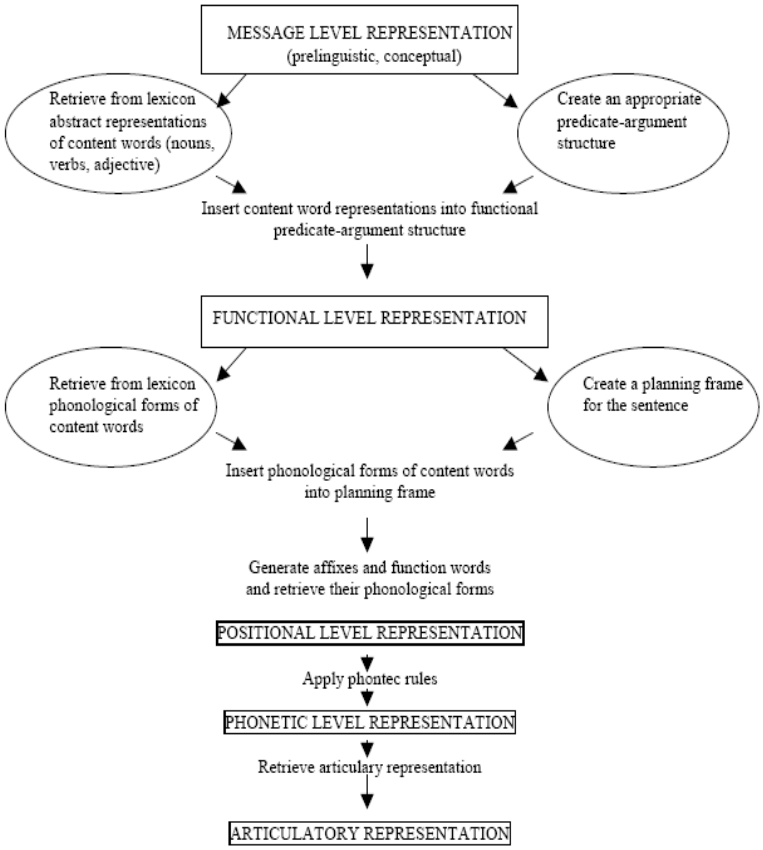

Figure 8. Model of sentence production Garrett (1982)

In this model the first assumption is that a message has a nonverbal representation. This means that the first representation of the message for the final utterance "the cherry trees are blooming" will be a picture of the sentence. Afterwards, the picture is turned into a verbal representation. This step allows the lexical entry to help construct a syntactic representation. Once the syntactic representation has been formed, the phonetic rules are applied and in turn the phonetic representation is completed. Finally, the phonetic representation triggers the articulatory representation, which enables the articulation of the utterance.

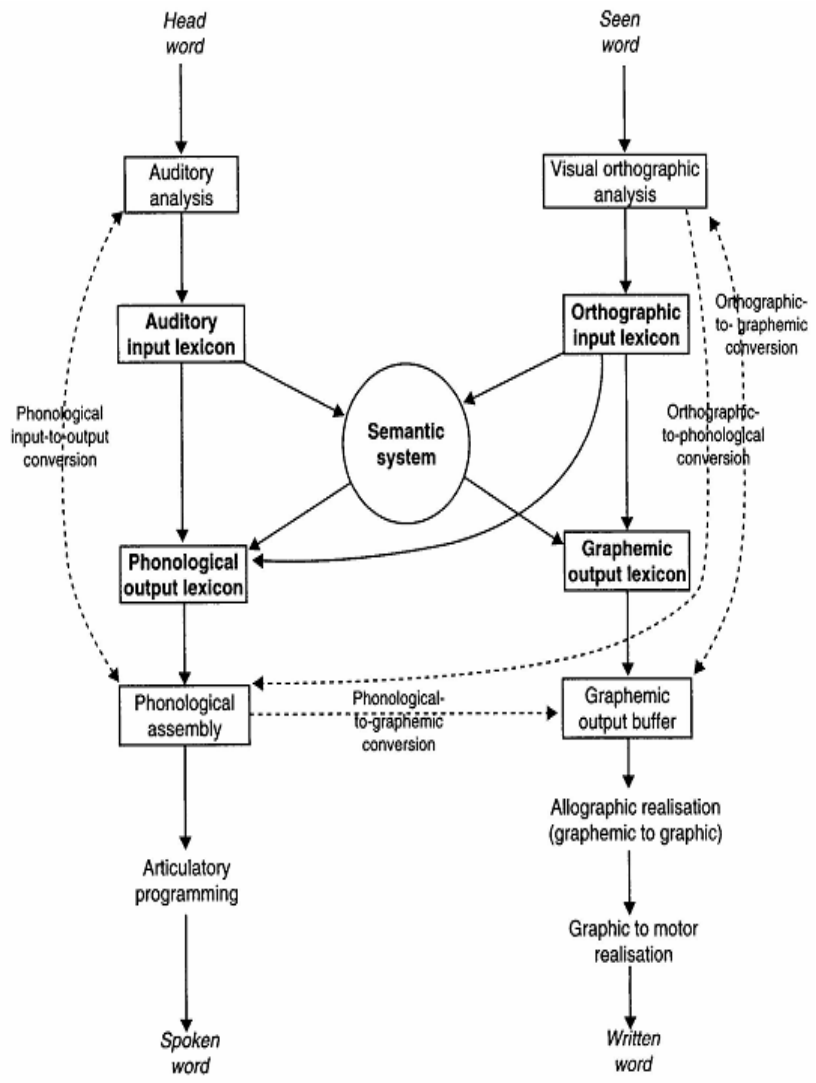

Figure 9. Logogen model, based on Patterson and Shewell's (1987) model, in Whitworth, Webster and Howard, 2007

Another early model is the Logogen model, which was developed by Morton (1979). This model is a psycholinguistic word-processing model. It was based on the representation of a single word or morpheme in the lexicon. It is also a model that is widely used for clinical research. This model postulates two input channels, the auditory and visual input. It further assumes a prelexical analysis system. This system is connected to the input buffer. The input buffer has two different connections. The first is the direct connection to the phonological input lexicon (PIL) and the second is the auditory phonological

correspondence route. With regard to the first connection, the PIL is connected to the semantic system, to the phonological output lexicon and the graphematic output lexicon. The phonological output lexicon ends in the phonological output buffer. The phonological output buffer is connected with the phoneme-grapheme correspondence route, which is connected to the graphematic output buffer. Moreover, there is an external feedback route implemented as a control mechanism. The system works the same way for the visual input. The only difference is that the visual input buffer is connected to the phonological output buffer by the grapheme-phoneme correspondence route.

The language processing model of Levelt (1989) which has been revised by Dietrich (2002) is serial -as well as modularity- based. Levelt starts with a conceptualizer, which has the function of accessing episodic and semantic memory, discourse dynamics and social interaction, and the message generation. This model consists of conceptual and formulatory processes. First, the thoughts are conceptualized and a preverbal representation is formed. Then, the verbal representation is constructed via the lexicon. The grammatical forms are then checked and applied so that a syntactic structure is built. In the next steps, the phonological encoding and the articulatory formation take place. During all the processing, the lexical system is activated. The lexical system provides the other domains with the necessary information. After the utterance has been articulated, there is one component of the model that is activated, the control mechanism. The control mechanism checks the produced utterance. This means that the whole model first runs backwards and then once again forward. Through this mechanism the production and perception circle is completed.

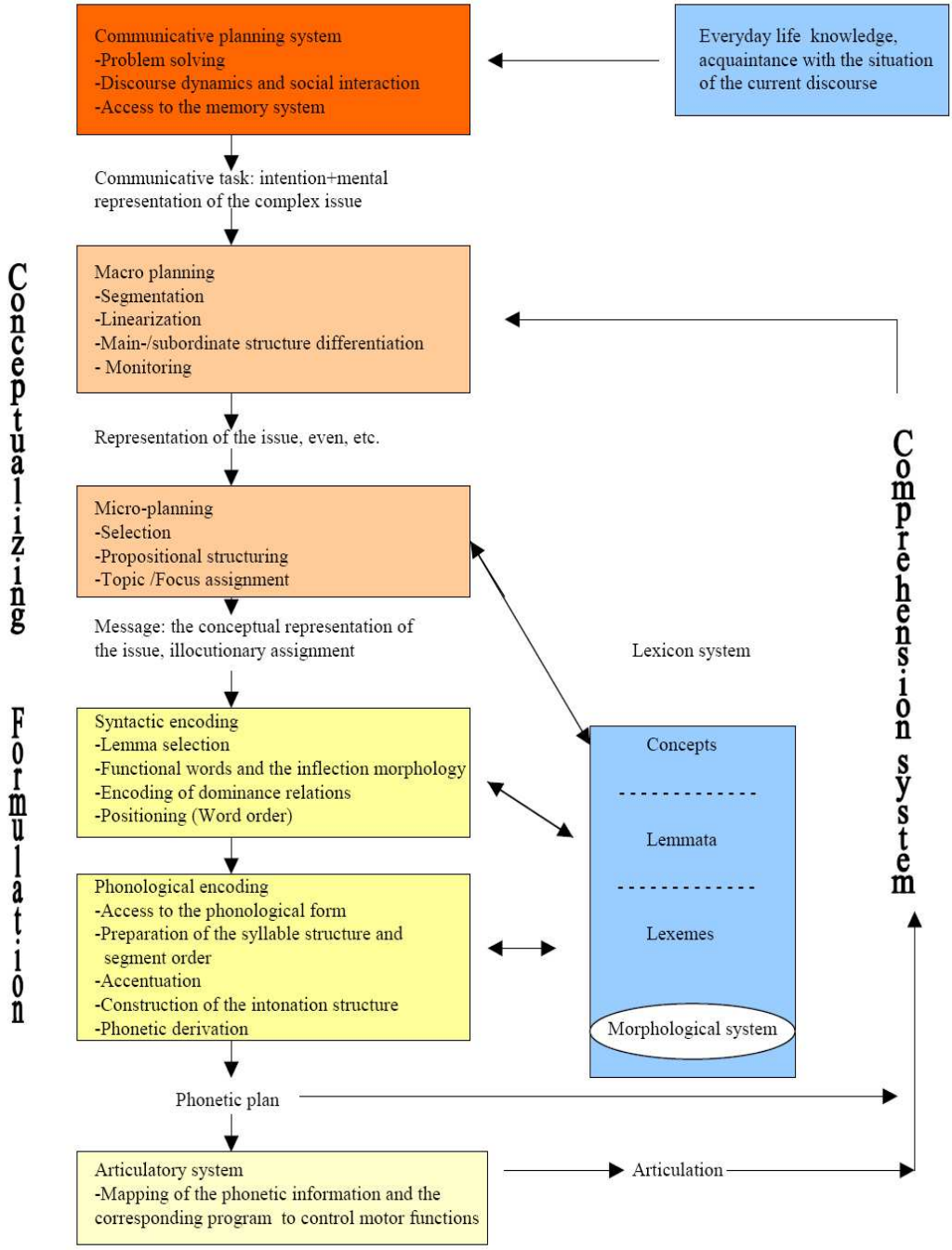

Figure 10. Language processing system after Levelt (1989), in Dietrich 2002, p. 124

When applying language processing models, it must be stressed that not every model is appropriate for every research question. Therefore, it is necessary to ascertain which model best suits the clinical or research topic. All three models mentioned above are widely used

for empirical studies as well as for the formulation of hypotheses and for testing them within the framework of a clinical study.

CLINICAL APPROACHES

When applying the processing models to clinical settings, we are confronted with a dichotomy. In general, two approaches are used for testing. They are:

(1) Battery-testing approach

According to this approach, the clinician uses the same assessment procedures for every patient. The assessment materials usually administered in this approach are standardized assessment materials (e.g. BDAE, WAB, AAT, and AST). Depending on the time post-onset, the language assessment might vary between a screening and a full assessment procedure. Although, it is an advantage to use the same assessment for every patient - it provides the opportunity to compare the data and results with those from other patients - it is restricting for the clinician. The restriction applies to several areas. The profile information that is provided by the assessment material does not give direction to the therapy. Moreover, it can also cause a loss of time. The chosen assessment material might not include the examination of some domains that in further testing prove themselves to be impaired.

(2) Hypothesis-driven testing approach

The hypothesis-driven testing approach is in total contrast to the battery-testing approach. Here it is important to observe the symptoms of the patient and act according to them. The clinician will form a hypothesis and use the necessary assessment materials to verify/falsify it. Furthermore, the clinician will be able to see in detail which skills are intact and which are impaired. The point of this approach is to use the most effective assessment material to provide the most effective treatment. In this procedure the trial-error process leads the clinician to a new hypothesis and provides the information needed for a prediction of the course of the therapy. This approach is also associated with the cognitive

neuropsychological approach. Within the assessment procedure, standardized as well as non-standardized assessment materials can be used.

> *"[...] Als Ergebnis dieser Diskussionen aufgrund einiger bisher vorliegender experimenteller Studien wird von vielen Autoren erwartet , daß Einzelfallanalysen (z.B. Yule & Hemsley; Hersen & Barlow, 1976), die auf kognitiven Verarbeitungsmodellen wie dem Logogenmodell (z.B. Ellis, 1982) aufbauen, eine gezieltere und damit effektivere Rehabilitation kognitiver Störungen ermöglichen, als dies auf der Grundlage klinischer Gruppierungen oder syndromorientierter Testverfahren möglich ist. Die Vertreter dieses Ansatzes fordern, das individuelle Leistungsprofil jedes zu behandelnden Patienten möglichst detailliert zu ermitteln und auf der Grundlage eines Verarbeitungsmodells zu interpretieren, um schließlich basierend auf dieser modellorientierten Interpretation eine möglichst spezifische Therapie der individuelle Störungen durchzuführen.*[3]*"* (Cholewa, 1996, pp.67-68)

Although, the standardized assessment materials account for a safe result for a clinician with little to no experience, with growing experience the skills broaden and it is easier to form a hypothesis. Whereas the battery-testing approach is restricted to a certain level which is set by the authors of the assessment material used, this approach is without a priori restraint regarding test materials.

While each of these approaches has its advantages and disadvantages, a combination might be the most efficient way to assess language impairment. Due to the clinical routine some clinicians have limited time, which constrains them. Depending on the mandatory proscribed length of the therapy/assessment session, it may be necessary to use standardized assessment material to obtain a profile of a patient's performance. However,

[3] Resulting from the research studies to this day authors discuss that single case studies based on a cognitive processing model, such as the Logogenmodel are more effective than the basic clinical classifications or syndrome-oriented assessment procedures. Proponants of this approach demand that each indiciduals profile must be assessed and interpreted on the basis of a language processing model. Thus, language processing models enable a more specific therapy approach.

due to the specificity of the deficit, it may be the case that a patient initially reveals a single impairment which requires qualitative testing with non-standardized materials.

To sum up, it is important to consider and rank the following factors, when choosing an adequate assessment tool for the specific research question or clinical application:

The goal of the assessment,

The type of assessment,

The approach to be chosen,

The information that is provided by the assessment material,

The patient and the premises he/she brings with him/her,

The time that is necessary,

The time that is available.

Chapter 5

Aphasia Therapy

The aphasia diagnosis builds the foundation for the ensuing therapy. In general, language therapy provided to a PWA is based on the results from the language assessment procedure, that is, it is impairment-based. However, when we take an overall look at the aphasia therapy, a much wider range of variables is covered. A few of these domains will be discussed. The discrimination between the pre-morbid language skills and professional interests and the aphasic language is an important issue because it helps the clinician to understand the level the PWA would like to achieve at the end of the therapy.

> *"Therapy is a discipline in its own right that demands the development of a methodology appropriate to its practice. Until we find some ways of examining the process of therapy itself we will not be able to relate the therapy to the disorder to generate theories of therapy. Making therapy explicit, and thereby recognizing the skills it requires, is not only vital for the development of our therapeutic skills, but also to realize the full potential of our service to people with aphasia." (Byng, 1995, p.17)*

There are two overall approaches to language rehabilitation. They are restoration or restitution on the one hand or reestablishment and compensation on the other. In the first approach an attempt is made to restore the patient's pre-morbid language skills by providing systematic language therapy and thus working on the specific language deficits. According to the second approach the aphasic is trained to partially or completely bypass the impaired function that is to compensate for the deficit by using other means to reach the goal. For example, if a word cannot be orally produced and writing is possible, then the PWA is taught to write down a word when it cannot be orally produced. In this approach, the PWA is encouraged to use the language and communication skills which are best preserved to circumvent difficulties.

According to some authors a third approach to language rehabilitation is reorganization. The provided language therapy is considered to result in a reorganization of the aphasic's language skills brought about by remediating the deficits. Regarding these approaches, it is, however, sometimes difficult to differentiate among them. In terms of support it is crucial to try to talk to the persons close to the PWA, so that they adjust their behavior according to the abilities of the PWA. Last but not least, the PWA has to be given the opportunity to use the relearned language skills within familiar situations in everyday life and not only within the clinical context to achieve a generalization to other contexts and from trained items to untrained items or structures.

Thus, there are a fairly large number of factors which make it difficult to set a frame for a definition. Howard and Hatfield (1987, in Nickels (2003)) discuss the reason for the implicit function and explain it as a lack of meta-theory. The function of the meta-theory would be building up a relationship between the analysis of the impairment and the course of the therapy. It follows, that the therapy approach more or less depends on the clinician. The course of aphasia therapy can be structured as follows (Byng, 1990):

- Setting the goals of the therapy
  The goals can be set according to different criteria (e.g. communicative competence in everyday life, primary symptoms, results of the standardized assessment). In this step it is important to map the goals out as specifically as possible, so that the therapy effect can be determined on the basis of selected criteria and test results.
- Form a justification/motivation for the therapy
  This step is building a bridge between the analysis of the language impairment and the therapy. At this point a hypothesis is formed, which gives the therapy direction.
- The strategies to be used in the therapy should be clearly defined
  The therapy could be directly related to the restitution of a function, as well as a strategy that bridges from this function to a substitute. One uncertainty remains. There is no strict course of therapy in general, because each therapist uses different strategies.
- Create the exercises that are to be used within the scope of the therapy.
  In contrast to the other steps a detailed description is provided for this phase.

- Describe the interaction within the therapy.

  Describing the interaction between the person with aphasia and the clinician is a crucial aspect of the therapy process. The types of feedback and cueing, the amount of time allowed for the PWA to respond before the therapist steps in and assists the person are only a few of the aspects of the interactions between the PWA and the therapist to be considered.

- Measure the effectiveness of the therapy.

  For every therapy protocol provided to a PWA it is necessary to administer pretests and following the provision of therapy to retest the aphasic using adequate tests to determine the changes in performance. As previously mentioned, a combination of standardized and non-standardized assessments should be administered to measure the effectiveness of the therapy and qualitative changes in language performance.

THERAPY APPROACHES

As with regard for the assessment procedures there are also general approaches described for aphasia therapy. Tesak (1999, after Howard and Hatfield, 1987) lists them as follows:

- Processing phase approach

This approach is founded by the Russian school of neurophysiology and neuropsychology. It is based on the chronological sequence of the language impairment. During the acute phase a stimulation of the linguistic abilities is aimed for. After the aphasia becomes chronic, the focus is on substitution and compensation strategies.

- Stimulation approach

Schuell (1965) advanced the view that language cannot be relearned, but must be reactivated. The auditory, visual and tactile stimulation should elicit the verbal output. This view is still accepted for acute cases and also used in several tasks in the chronic phase.

Reasoning by analogy, the first thermodynamic law states *"In any process, the total energy of the universe remains the same."* The second law states *"The entropy of an isolated system not in equilibrium will tend to increase over time, approaching a maximum value at equilibrium."* The third law states *"As temperature approaches absolute zero, the entropy of a system approaches a constant minimum."*

*(*http://en.wikipedia.org/wiki/Laws_of_thermodynamics, last viewed 20.10.08)

To sum up, (a) language is not lost, (b) language can only be maximized as much as it is used and (c) even if language seems to be lost, it is reduced to a minimum.

- Holistic approach

In this approach an aphasic person is considered in his/her totality, i.e. as a whole person. This means that the body, the mind and the external factors have to be considered. In this case a multidisciplinary treatment procedure is to be followed. In this concept, multidisciplinary rehabilitation includes speech therapy, physiotherapy, ergo-therapy, psychological therapy, the medical care provided by physicians and consultations by social workers.

- Communicative approach

The focus of the communicative approach is on the pragmatic functions of the PWA. Communication is regarded as the sum of verbal and non-verbal expressions. In this case, the therapy provided is a communication therapy which is built on the impairment caused by aphasia.

- Didactic approach

In contrast to Schuell's ideas, the didactic approach proposes that speech therapy should be carried out in the same way as a second language is acquired. The linguistic abilities that are impaired will be learned according to the rules.

- Syndrome based approach

The clinician classifies the therapy approach according to the syndrome classification. Although the classification of aphasia types is still prevalent, the syndrome based approach is not predominantly in use anymore. However, this approach is employed in some empirical studies.

- Linguistic approach

The linguistic approach is based on various linguistic theories. All linguistic levels are referred to when constructing tasks for the therapy:

- the phonological level,
- the lexical level,
- the morphological level,
- the syntactic level
- the text/discourse level and

- the pragmatic level

The clinician develops a therapy program for remediating the impaired levels. By doing so, the major symptoms are addressed and remediated.

- Model-guided approach

The model-guided therapy is based on a psycholinguistic language processing model (See Chapter 3). This model allows the clinician to address certain aspects of the language processing system or linguistic structures. The language processing models do not provide any information about the location of the impairment in the brain. However, they refer to the functions of the linguistic domains which are affected by the lesion. The model used as the basis of the therapy guides the clinician with reference to the (relatively) intact domains and processing routes, which can be used for a restoration of the impaired ones and the connections between them.

- Strategy-driven approach

The strategy-driven approach assists the clinician in selecting the necessary tools for the appropriate treatment. The therapy can be implemented in the hypothesis-testing approach and revised when necessary:

> *"The strategy can be modified when performance suggests that the hypothesis was either not entirely accurate or because some change had taken place. We often learn as much about the nature of the disorder by implementing the therapy and monitoring the patients' response as we can through exploratory investigations."*
>
> (Byng, 1993)

It should be stressed that all of these approaches should not be seen as restrictions for the therapy methods. Whether the clinician chooses to act on a linguistic basis, holistic or model-guided, the actual procedures they use might be the same. This means that the therapy methods are not subject to these theories. For each PWA, the therapy methods are chosen by the clinician according to what he/she deems necessary. The clinicians who work with different PWAs on a daily basis have their preferred methods and procedures and act accordingly in the process of treatment.

THERAPY METHODS

There is a wide assortment of methods and materials used in aphasia therapy. They include for example Promoting Aphasics' Communicative Effectiveness (PACE) therapy, the Melodic Intonation Therapy (MIT), the Visual Action Therapy (VAT), Constraint-Induced Aphasia Therapy (CIAT) and the ELA-Syntax Program, etc. These therapy methods fall into three groups.

a) Activation methods
b) Language systematic methods
c) Methods in reference to interlocution

PACE (Davis & Wilcox, 1979, 1981) is a formalized natural conversation between the clinician and the PWA, viz., a method in reference to interlocution. Within this framework "formalized natural conversation" means that the PWA and the clinician have a natural conversation, while they follow certain rules. The rules include (1) Equal participation by turn-taking (2) Using new information to both participants at all times (3) Free choice of communication channels (gesture, speech, pointing, writing) (4) Giving natural feedback based on the message received (adequate reactions). Although, this method gives the PWA the opportunity to follow the course of a natural discourse, it might be biased by the clinician. The source for the continuous new information is drawn from a limited number of word-cards. As the clinician will use these cards more often, the PWA may be able to remember the items after a while. Thus, the rules might cease to be observed.

MIT (Sparks, 1973, 1981) This activation method is based on the assumption, that the intonation is processed in the right hemisphere of the brain. The right hemisphere can support the prosody of the verbal output. Hence, it is assumed that the prosody aids the person with aphasia to orally produce a word, phrase, or short sentence or question. The therapy has three difficulty levels varying in the phrase length, phrase complexity, and phonological complexity. In each level the phrases are first said with an exaggerated prosody by the clinician and

then repeated by the PWA in the same way. The goal is to use prosody as a medium for making verbal production possible.

VAT (Helm-Estabrooks, Fitzpatrick & Baresi, 1982) For this activation procedure gestures are initially used as the form of expression rather than speech. The PWA is asked to use the gestures as a means of supporting verbal expression with the goal of orally producing an item without using gestures by the end of the therapy. The therapy offers the patient an option to compensate for the verbal impairment via nonverbal channels.

CIAT (Pulvermüller et al., 2001) The constraint induced aphasia therapy is based on the idea that when various compensatory strategies are constrained, the PWA will be forced to use spoken language. Furthermore, it is important to provide the therapy as often as possible on a regular basis. The difference between this method and other conventional therapies is that the goal is to reach total communication restitution by constraining the use of gesture and written language, etc. This activation method is assumed to be effective in a short period of time.

ELA®-**Syntax therapy program (**Stark, 2005)) is a therapy protocol based on the ELA®- picture stimuli (Stark, 1992, 1995, 1997, 2003) which aims at improving oral sentence production. This language systematic procedure consists of a fixed sequence of seven steps for the entire therapy protocol (n=60 sessions).

The sequence her therapy steps follow as:

Step 1 – Memory - Last session: At the beginning of a new session the participant is asked to recall the sentences worked on in the previous session.

Step 2 - Old cards: Oral sentence production is practiced with the 4 to 6 photo cards used in the previous session. The participant is asked to say what is happening on each photo card at least twice (4 to 6 cards).

Step 3 - New cards - Constructing/Building up a sentence: Four to six new picture stimuli varying in verb argument structure and semantic reversibility from 1- to 3-place predicates are worked on in each session. The participant is asked to describe what is happening on a picture card. The therapist waits for

a response and gets involved in the process only after the participant has provided a response to work on: an agrammatic sentence, a phrase, a noun, a verb, a gesture in combination with a verbal response. Each card is worked on intensively with the participant repeating and producing the sentence several times alone as well as together with the therapist.

Step 4 - Taking apart the sentence in the form of answering questions (posed in random order) regarding the verb and the thematic roles: 'Who is doing something?', “What activity is the person doing”, etc. The number of questions varies according to the content of the sentence. After the questions have been asked, the participant is asked to say the entire sentence once again. The content of step 4 is comparable to an "oral mapping program" in that the therapist poses questions concerning all the participants of the sentence and the activity depicted.

Steps 3 and 4 are carried out for each stimulus consecutively for each of the new cards. These two steps constitute the main part of each session in terms of the intensity of interactions between the participant and therapist: cueing, feedback, repeating, etc. and also in terms of time allotment: Each sentence is built up incrementally, practiced and then taken apart and finally produced as a sentence again.

Step 5 - Auditory comprehension check: After steps 3) and 4) have been completed for all of the stimuli selected for that session, the photo cards are placed on the working space in front of the participant and he/she is asked to point to the card which matches the sentence spoken to him/her.

Step 6 - New cards - Second time: Each of the (new) photo cards is shown again individually and the participant is asked to say once again, what is happening in a sentence. Each sentence is produced at least twice. Help is provided when the participant demonstrates difficulty with a particular aspect of the sentence.

Step 7- Memory - New cards: At the end of the session the participant is asked to recall the (new) sentences worked on in that session. The participant is allowed as much time as he/she needs to access and produce the sentences

worked on in that session. Non-specific cues are provided after the participant has indicated that he/she has terminated his search.

Homework is an important aspect of the treatment program. Following each therapy session the participant is given the homework assignment of writing down the sentences worked on in the actual therapy session from memory (Stark, 2005, p. 1077).

THERAPY PHASES

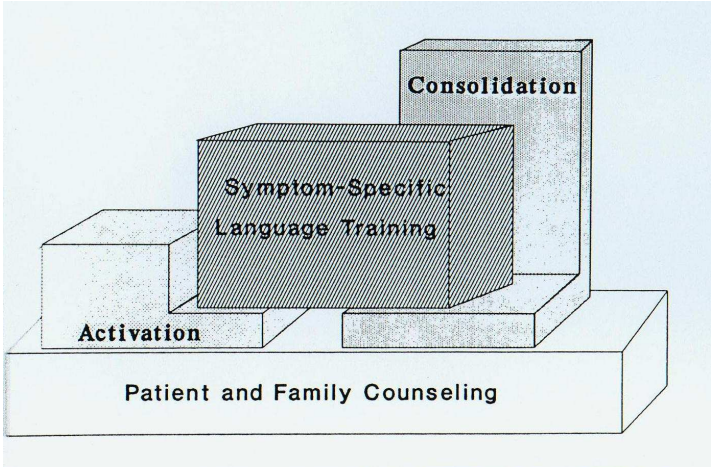

Figure 10 Stages of aphasia treatment (Holland & Forbes, 1993, p.57)

The stages of therapy phases illustrated in Figure 10 reveal criteria regarding the choice of therapy method. The activation phase mostly takes place within the acute phase post-stroke. This phase has the goal to activate the retained language functions to reach the most possible restitution. The symptom-specific language training phase is introduced when the patient is stabilized in the symptoms. It serves as a guideline to the therapy as long as the patient continues to make progress. The consolidation phase is reached when the patient learns to implement the trained structures in the everyday life interactions (Huber, Poeck, and Springer, 2006). The transfer between these phases is not abrupt. As illustrated in the figure the phases are connected with each other at some point. The clinician decides on the time and part where these points are reached and new information can flow into the therapy.

THERAPY EVALUATION

The effectiveness of a therapy can be viewed from different perspectives. Whitworth et al. (2005) emphasize the following point:

> *"It has been documented extensively in the literature that significant improvement in performance does not by itself show that a specific therapy technique is effective."*(p.111)

The improvement of the language performance can inter alia be influenced by the time post-onset, environmental factors, and changes in well-being. Furthermore, there are a number of factors that affect the efficiency of the therapy - some of which are illustrated in Figure 11.

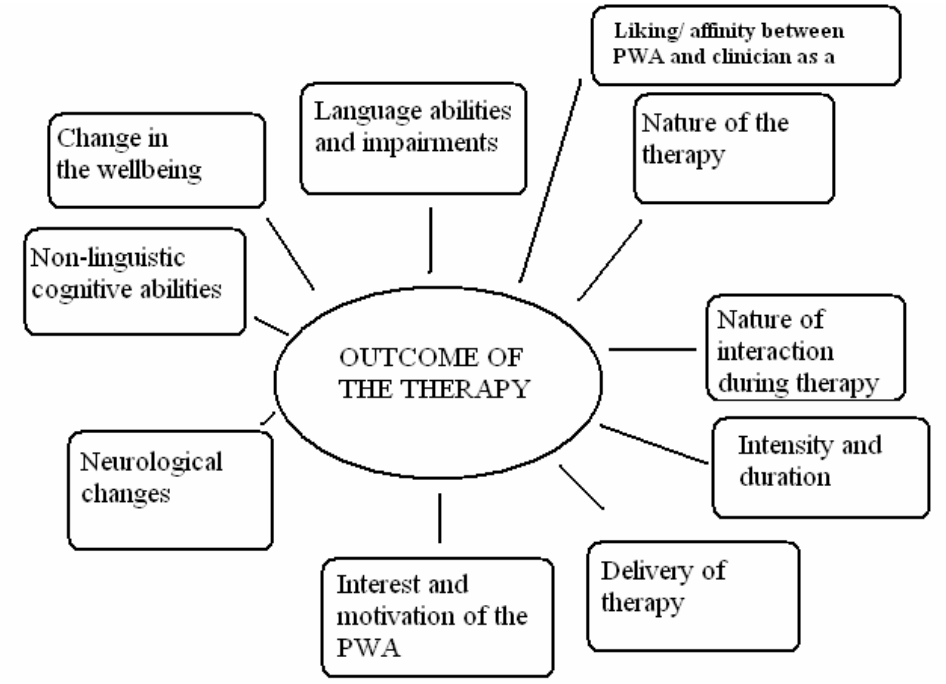

Figure 11. Factors affecting therapy outcome. Whitworth et al. (2005), p.260 modified

It must be emphasized, however, that is often difficult to evaluate the effectiveness of the therapy. The ICF- Australian User Guide provides the clinician with a general therapy

outcome scale (Australian Therapy Outcome Scale- AusTOM). This scale has the following four functional levels: (1) impairment of structure or function, (2) activity limitations (3) participation restrictions (4) wellbeing /distress. This scale is then adapted for the speech pathologists. Within the range of this scale, it is possible to ascertain the clinicians' and the patients' evaluation of the situation. Although the experience of the patient/ clinician plays a role in this process, the clinician might have a slightly different expectation regarding the process and the achievements. However, a study by Unsworth, Duckett, Duncombe, Perry, Skeat and Taylor (2004) has shown that AusTOM had a very similar output for both the clinician and the patient.

Impairment of either Structure or Function (as appropriate to age):	*Impairments are problems in body structure (anatomical) or function (physiological) as a significant deviation or loss.*
0	The most severe presentation of impairment (either structure or function)
5	No impairment of structure or function
Activity Limitations (as appropriate to age):	*Activity limitation results from the difficulty in the performance of an activity. Activity is the execution of a task by the individual.*
0	Complete difficulty
5	No difficulty
Participation Restrictions (as appropriate to age):	*Participation restrictions are difficulties the individual may have in the manner or extent of involvement in their life situation. Clinicians should ask themselves: "…given their problem, is this individual experiencing disadvantage?"*
0	Unable to fulfill social, work, educational or family roles. No social integration. No involvement in decision-making. No control over environment. Unable to reach potential in any situation.

	No difficulties in fulfilling social, work, educational or family roles. No assistance required for social integration or decision-making. Control over environment in all settings. Reaches potential with 5 no assistance.
Wellbeing/Distress (as appropriate to age):	*The level of concern experienced by the individual. Concern may be evidenced by anxiety, anger, frustration etc.* 0 High and consistent levels of distress or concern. Able to cope with most situations. Accepts and 5 understands own limitations.

Table 4. Health Generic AusTOMs scales (Perry et al, 2004) in Qual Life Outcomes. 2004; 2: 64. modified

Irrespective of the treatment method and the materials used, the carry over from the therapy setting to the everyday life of the PWA is most important. As the goal of aphasia therapy is to re-integrate the PWA step-by-step into his/her social environment, the transfer of the therapy to the real-life situations should be prioritized as far as possible.

> *"If a particular set of items has been treated during the therapy, the observed improvements may be restricted to just the treated items (item-specific effects) or may generalize to untreated items."* (Edwards ed. by Code & Müller (1995), p.153)

The generalization of the treated aspects is an important indicator of the effectiveness of the treatment. In order to be able to measure the efficacy of the therapy provided, the clinician must perform pre- and post-treatment testing using the same assessment materials. Yet the problem remains that there are only a few assessment materials that are sensitive enough to measure changes in performance. Even these show differences in their sensitivity. Some assessment materials record a change only after there is a change from severe to mild impairment. Others only when there is a change in the subtests regarding the treated items.

To evaluate improvement in performance, it is not always necessary to obtain significant changes. As the PWA has also set particular goals to reach, he/she also evaluates the therapy process. Sometimes even though there is no significant change on paper the PWA and also caregivers report positive changes.

> *"Judgements about therapy successes for individuals are based on whether the consumer perceives positive changes in "living with aphasia". Consumers therefore are the ones who are in the best position to judge therapy success. This framework requires authentic consumer involvement in order to ensure that the therapy has been relevant and that it has had a positive effect on their everyday lives."* (Kagan and Duchan (In Duchan & Byng), 2004)

An important consideration at this point is that it is not enough to let the PWA set his/her own goals in the therapy. On the other hand, there are situations in which the patient cannot formulate his/her goals as the language impairment induces a barrier. Under such circumstances, the PWA should be integrated into the decision process with regard to "setting the goals" and "defining the therapy" as far as possible. However, when goals have been set, it is also important to follow them in the best interest of the client. Although clinicians respect the goals of the PWA in therapy, they automatically act according to their experience and sometimes forget the goals that were primarily set. Kagan and Duchan (2004) provide insight into the importance of the direction of the therapy according to PWAs in general terms.

> *"Getting* ***out more, doing more***
> *You have to get going. Doing doing doing. (Don)*
> ***Having satisfying relationships***
> *You ask he, girl, the man, are you OK with all the different kids, your friends?*
> *(Don talking about how to find out how people with aphasia are doing)*
> ***Having self-esteem/confidence***
> *You can do it because you are right in your heart. (Don)*
> *You get the confidence to talk about aphasia (Pam)*

Feeling in control.

Ten years ago, no. Now, ok. (Oriana talking about changes in feelings of control over her life)" (p.168-169)

Concluding from their suggestions, the opinions of the persons living with aphasia might be of great value for further research. The development of new assessment procedures and materials which are more sensitive to the changes in the quality of life of a PWA would advance our knowledge of the therapy process and the effectiveness of the therapy provided.

The monolingual perspective of aphasia assessment and treatment has been dealt with. In order to have a better understanding of the bilingual perspective studies performed with bilingual persons with aphasia will be introduced.

Chapter 6

Selected language therapy studies performed with bilingual speakers

With respect to bilingual speakers a relevant question is the order of the acquisition of the languages one acquires and if this process occurs parallel or in succession. There are numerous similarities in language processing of monolingual and bilingual speakers as well as many differences. In the past three decades, research on aphasia in bilingual speakers has gained importance due to the increasing population of bilingual speakers around the world. The basic theories on bilingual aphasia and its recovery have been discussed in chapter 3. In this chapter a selection of studies on aphasia assessment and therapy in bilingual speakers with particular reference to possible patterns of deficits and recovery will be presented. In the studies on these issues differential and parallel patterns have been put forward. The differential pattern may refer to the rate, timing, type of deficit, or manner of recovery (Obler, Centeno and Eng, 1995). The parallel pattern refers to a similar deficit and the simultaneous recovery in the languages spoken by the patient.

> *"The selective impairment of cues in comprehension, and the relative accessibility of forms in production, will reflect quantitative differences in strength or probability of form-function and form-form mappings in the premorbid language of the patient."* (Bates, Wulfeck & MacWhinney, 1991, p.127)

As the language changes the specific features, the outcome of the assessment differs accordingly. Bates, Wulfeck and MacWhinney (1991), summarize cross-linguistic findings on six points. These are the following:

1) Cross-linguistic variation

The authors refer to on the qualitative and quantitative variation. The 'pronoun-dropping' (pro-drop) feature exemplifies a qualitative variation as it provides information about the inferred context. Japanese and Turkish are counted among the pro-drop languages (Slobin, 1989). Italian, Spanish, and Catalan only allow this feature in particular constellations and, are therefore, only partially pro-drop languages. German and English, on the contrary, have the obligatory pronoun

parameter (Friederici, Weissenborn, & Kail, 1989). The use of articles illustrates the quantitative variation across languages. Comparing English, German and Turkish the omission of articles would be expected to be greatest in German-speaking PWAs. The reason fort his claim is the wide range of the forms of articles. In English there are only three forms, ‘a, an, the’. Turkish has no definite article and only one optional indefinite article ‘bir’ (Eng: one). However, the German article system consists of definite and indefinite forms for the masculine, feminine, and neuter genders for four cases (nominative, accusative, genitive, dative) resulting in thirteen distinct forms.

2) Performance deficits

This issue is defined by the nature of language deficits. In this account deficits are described as the lack of performance caused by the blocked access to the desired target.

3) Selective vulnerability of morphology

In aphasia, the morphological structures differ in their vulnerability according to the language they are observed in. The phenomena described for the linguistic variation also apply for the selective vulnerability of morphology. Furthermore, case marking and agreement count among the morphological structures that vary in vulnerability across languages.

4) Patient group similarities

The similarities in patient groups can be referred to as similarity of the deficits. That is certain deficits are expected to be found when a person is said to have Broca’s aphasia or Wernicke’s aphasia. Consequently, the cognitive functions are addressed as a global measure.

5) Similarity of lexical and grammatical symptoms

This approach accounts for the interpretation of the lexical and grammatical deficits found in PWAs. Although the morphological and lexical forms differ across languages the interpretation of the impaired processing mechanism can be compared.

6) Patient group differences

The differences in the nature of the deficits refer to the expected differences between a Broca's or Wernicke's aphasia. Thus, a non-fluent patient would simplify the sentence structure and a fluent patient would produce a more complex structure than necessary. Although this difference is very basic it helps to elicit the type of observed deficit.

These basic findings will be referred to in the presented studies performed with bilingual persons with aphasia (PWA). However, it must be noted that there are very few studies which provide information about the assessment procedures carried out with the bilingual PWAs discussed in the publications. Among these exceptions are the studies of Junqué, Vendrell, Venrell-Brucett, and Tobeña (1989), Centeno (2005), Muñoz & Marquardt (2008), and Penn (2007) which provide detailed information on the utilized assessment procedures.

Junqué, Vendrell & Venrell-Brucett (1989) investigated the linguistic behavior of Catalan-Spanish bilingual PWAs. Thirty PWAs between 33 and 79 years participated in the study. The language impairment was classified according to the performance on the Boston Diagnostic Aphasia Examination (BDAE). Three tasks, namely, naming, pointing, and translation tasks were administered to the patients. The picture stimuli were the same in the naming and pointing tasks. For the translation task 20 noun pairs were presented to the clients. Two sets of testing were designed. The first set was established before language therapy and the second set three months post-therapy. The results showedthat all participants improved significantly following the received therapy. Furthermore, differential recovery patterns were observed. Although the second test results were significantly better in both languages, the treated language showed greater improvement. The authors find evidence for the differential recovery pattern which had been questioned by the previous studies performed with bilingual PWAs. Spanish-English bilingual studies Centeno (2005) reports the case of a woman who was born in Venezuela and moved to the United States at the age of 32. Until that time English had only been used in school. After she got married to a Spanish-English bilingual man, she spoke Spanish and English with him and her children. It was reported that she read and watched television more frequently in Spanish than in English. The client had Broca's

aphasia in both languages. To assess the language impairment the BDAE was used to assess both languages. The dialectal adaptations necessary for the Venezuelan Spanish had been established prior to testing. The results showed a better performance in Spanish than in English. The therapy had been based on the sociolinguistic, ethnographic, and psycholinguistic approaches to bilingualism (Junqué, Vendrell,Venrell-Brucett, and Tobeña 1989, Roberts, 2001, Centeno, 2005). A parallel recovery was observed within the course of the therapy. Following a different approach to bilingual aphasia, Muñoz & Marquardt (2008) examined the performance of healthy Spanish-English bilingual speakers on the Bilingual Aphasia Test (BAT). The test was administered to twenty-two bilingual speakers between 51 and 77 years of age. All of the participants had reported to use Spanish at home and English at work and for education. Although the language proficiency was rated by the participants themselves, the data on language use and history was collected via the BAT questionnaire. The participants revealed significantly better results in English than in Spanish. In this study the need for adaptation according to the bilingual community due to the observed problematic items is stressed. The authors suggest that the BAT must reveal a correlation between the language impairment and the monitored differences between the languages. They conclude that this feature may not be adequately represented in the current form of the BAT.

The studies discussed to this point have all been performed with bilinguals of Spanish and a varying second language. Penn (2007) carried out a study on connected speech and administered ecologically valid assessment and therapy procedures with bilingual speakers of Afrikaans and English in South Africa. Within the scope of this study data from thirty-one healthy bilingual persons and thirty-one bilingual persons with aphasia, in total sixty-two bilingual speakers were collected. The PWAs among the group had mild to moderate aphasia according to an adapted version of the Western Aphasia Battery (WAB). The variables considered in this study were age, gender, language, cultural group, education, and occupation. A questionnaire adapted from Paradis was administered regarding the acquisition of the aforementioned variables. For the data on connected speech, picture description tasks, picture sequence tasks, fable telling and retelling, and the narrative of a personal experience were used. The findings showed that the PWAs had more verb errors, more incomplete sentences, coherence rating

differences, more language switching in comparison to the healthy bilingual speakers. Furthermore, for both groups it was observed that they produced less language alternation in English than in Afrikaans. In the analysis of the collected data repetition, word order, code-switching and tense use was discussed. Qualitative and quantitative analyses revealed that the boundaries between pathological and normal language have to be examined with regard to the socio-cultural, contextual and dialectal situation.

There are many studies on language therapy in bilingual PWAs. The case studies which will be discussed in this regard address the question: "For which language should language therapy be first provided?"

Holland and Penn (1995) introduce the case of Mr. K-J H (Holland's patient), a German male, who was an English, French, German speaking trilingual premorbidly. His family was monolingual and spoke only German. The first attempts in assessment were carried out in German until the clinician decided that her proficiency in German was not enough to isolate the pathological language. K-J presented similar linguistic behavior in English and was classified to have moderate Broca's aphasia. However, no clear statement on the state of his German could be made. Thus, the therapy was delivered in the language of the clinician, namely English. On the request of the patient German was also included in therapy mainly by means of translating materials. After K-J returned to Germany, he received intensive therapy in German. It was reported that following language therapy he spoke English and German fluently, but slower than before the stroke. However, his French did not return to its previous state of fluency, as he did not receive any treatment for this language.

Another case with a type of differential recovery pattern is discussed by Nilipour and Ashayeri (1989). They discuss the case of an English, Farsi, and German speaking trilingual PWA. The case represents an alternating antagonistic pattern of recovery. Post-stroke, only Farsi recovered initially. A few days later, he lost access to Farsi and regained access to German. Although access to the production had been lost for Farsi, the PWAs'comprehension was not completely lost. This condition remained for a few weeks. The patient received language treatment mainly in Farsi. The patient regained the ability to control his languages 6 weeks post onset. The third language, namely English,

recovered only after Farsi and German had improved. In contrast to single case studies reported on the literature, Fabbro (2001) presents the language recovery of 20 Friulian-Italian bilingual PWAs. Seventeen patients were native Friulian speakers and three were native Italian speakers. The type and the severity of aphasia had been determined via the BAT and the Italian version of the Aachener Aphasia Test (AAT). Thirteen patients showed parallel recovery and seven differential recovery. The author based the selection of the language to treat first on the assessment results and on the sociolinguistic factors reported by the patient. He further stressed that treatment in one language generalizes to the other languages spoken by the patient irrespective of the structural similarity of the languages.

Briefly summarizing the selected studies, each author has stressed the importance of the socio- cultural context, the severity, and type of language deficits. Additional factors that might have influence on the choice of language to treat first are the observed recovery pattern, the psychosocial, physiological factors, and the cognitive factors. The selected studies incorporated the adapted materials for languages for which there were no standardized assessment materials at the time of testing. Furthermore, they introduced assessment and recovery by the example of bilingual PWAs speaking structurally dissimilar languages as well as similarly structured languages. All in all, the studies show that neither Ribot's, Pitres's nor Minkowski's theories are true for all cases. The different patterns found in each PWA draw particular attention to the difficulty in assessing and treating a bilingual PWA.

Chapter 7

Prerequisites for developing language test and therapy materials for bilingual speakers

> *"As the new migrants age within their new countries, there are an increasing number of people who have acquired aphasia but do not have native competence of the language of their adopted country, and clinicians are in the position of having to do the best they can. The development of language assessments needs to be within a context of knowledge of the language of the assessment, and we have endeavoured to demonstrate why straightforward translation of a test into another language will not provide an assessment tool that can be of any use."* (Edwards & Bastiaanse, 2007, p.254)

The model described for language processing in bilingual speakers in chapter 2 could also be applied to explore the production patterns and impairments of bilingual persons with aphasia (PWA). Assessment and treatment of bilingual PWAs requires comprehensive knowledge about the impairments found in monolingual speakers of those languages spoken by the bilingual person and also background information which is culturally and linguistically relevant administering for the relevant procedures.

> *"Based on sociolinguistic, linguistic, and ethnographic principles, culturally and linguistically-suitable diagnostic and therapeutic approaches were implemented. Particularly the use of a sociolinguistic interview, knowledge of typical expressive routines in bilingual communication, and the use of linguistically- and culturally-sensitive formal testing guided the analysis between typical bilingual communicative features and post-stroke aphasic features and the use of realistic treatment approaches." (Centeno, J., 2005)*

Even though many aphasia assessment materials have been developed for various languages very few exist in many other languages. The use of already existent assessment materials for languages in which aphasia research is in its initial stages must be investigated. Based on experience gained in South Africa, Penn (2007)

describes three clear universals regarding the cultural dimension of aphasia in bilingual speakers, namely:

"1. Multilingual persons with aphasia use the tools in their linguistic repertoire differently and respond to aphasia in different ways.

2. There tends to be a very fine, often indiscernible, line to be drawn between pathological and normal language in the context of natural use.

3. Narrative discourse provides at the same time a culturally relevant assessment tool and an opportunity to explore the complexity of language and its use, a window onto cognitive and pragmatic processes and a genre for meaningful intervention."(Penn, 2007, p.222)

In light of the issues discussed with regard to bilingual language processing models, it is important to develop suitable assessment materials based on a bilingual language processing model. As is the case for language processing in monolingual speakers, a model encompassing bilingual language processing would also provide a basis for understanding acquired language processing difficulties revealed by bilingual speakers. To date, there are many languages for which no standardized assessment materials are available. In relation to bilingualism it is important to be able to assess the proficiency in all languages the PWA spoke pre-morbidly. Therefore, the necessity seeks to make use of already existing materials. However, a translation does not resolve the problem as it no longer fulfills the conditions of the original material the development of which was based on a specific language.

There are several reasons for the adaptation of language test- and therapy materials for use with bilingual aphasic clients. First and foremost, an international terminology is needed for the identification and comparison of aphasic symptoms in structurally different languages (cf. A. Holland & C. Penn, 1989). The required basic terminology refers primarily to linguistic terms necessary for capturing the similarities and differences in structure among the world's languages.

For example, with regard to surface syntactic information, *"… two strings made up of the*

same basic set of words may differ in only a small number of ways:

1. Serial order

2. Morphology

1 + 2. Serial order plus morphology

3. Intonation and phrasing and

4. Syntactic categories.

All information about the meaning of sentences must somehow be derived from these four sources, plus two others that are not the direct concern of syntax: choice of words, and nonlinguistic context" (Stockwell, 1977, pp. 63-66).

There are universal structures for all languages with respect to morphology and phonology. However, typology groups the languages according to the differences among them and not according to their similarities.

Canonical word order is a language specific feature. English, Italian and many other European languages are subject-verb-object (SVO) languages. Turkish, Finnish, Japanese, Armenian are among the SOV languages. German is a SOV language with a verb-second placement in the main clause. Arabic, Welsh and other languages have VSO order. There are also languages with an OSV, OVS, VOS order, as well as languages with free word order. Moreover, the SVO and SOV order languages predominate. Languages also differ morphologically from one another. Some structures are more represented in one language than in another one. According to their general structure, four language types are described:

1) Inflectional languages

In such languages the word form changes with the changing grammatical function.

2) Agglutinating languages

These languages express the change in function and/or meaning by affixes (usually suffixes but sometimes also prefixes.)

3) Incorporating languages

All morphemes are incorporated to form a word. Therefore, a sentence can be expressed in a single word.

4) Isolating languages

Each word corresponds to a morpheme. In these languages also the syntactic relationships are expressed by separate words.

Structural differences can be seen even among the same language type. An example for a structural difference within the inflectional languages would be the use of articles in English versus German. English has “the, a, an” and German “der, die, das, des, dem, den. ein, eine, eines, einem, einen”. The main difference is that in German the articles are also adapted to the case, gender and number. In English the articles are only nominative by nature. Most of the languages have the features tense, finiteness/infiniteness, case, gender and agreement. However, the parameter values are highly differentiated. This allows for a variety of different possible forms and in them possible errors.

For example, (Stark & Dressler, 1990, p. 406)

(Patient tells the story of Little Red Riding Hood)

German:

Mr. „Meyer“: Die (1) uh Rotkäppchen... Die Mutter von Rotkäppchen in – und ah die- die... Eine alte Tante wohnt in (2) Wald... und die Mutter von Rotkäppchen sagt... in...“ Du musst in die Wald die Tante besuchen und ihr was mitbringen.“ Ja. Und Rotkäppchen geht in den Wald mit einen (3) Korb voll Essen. Und da de ge- na da gebe- na (Flüstert) Da- Da gegene- na- Da begeg-...

Translation to English:

(1) Little Red Riding Hood... Little Red Riding Hood’s mother in – and ah the- the...An old aunt lives in (2) woods... and Little Red Riding Hood’s mother says…in‘ You must visit your aunt in the woods and take somethin’ along.’ Yes. And Little Red Riding Hood goes into the woods with a (3) basket full of food. And there th’t- uh-th’ tee- uh (speaking in a low voice) There- there teet- um- there meet…

(1) In German all nouns with a diminutive suffix are used with a neutral article “das”. The patient uses the feminine article “die” in her story.

(2) Here the patient does not use any article, although she would have to use the dative singular article “dem”. The article is used to differentiate between the direct (accusative) and indirect (dative) object in German.

(3) In this case the dative is mistaken for the accusative case.

On the other hand, an inflectional and an agglutinating language are compared. The utterances below are from a Macedonian Turkish patient NS[4]. He had a lesion in the left hemisphere demonstrated a very mild Wernicke’s aphasia. His language abilities were tested for German and Turkish during his stay in the clinic. The following passage is taken from the administration of a preliminary Turkish version of the Aachener Aphasie Test (AAT) as no material for assessing Turkish was available at the time of testing. The first line is the target and the second line in italics is the response of the PWA, client NS:

[4] I would like to thank Mag. Stark for allowing me to collect and utilize the presented data.

Adam oltayla çizme tuttu/ yakaladı. ***Herif sudan çıkardi ikinci (1) ayakkabı.***	The man fishes/catches a boot. ***The guy (he) takes out second (1) shoe out of the water.***
Oğlan bir bardak/ cam kırdı. ***Çocuk galiba kırdi bişe, ağliyor. Kırdı bişe.***	The boy broke the glass. ***The kid presumably broke something, (he) cries. (He) broke something.***
Baba ve Oğul kızılderilicilik oynuyor / oynuyorlar. ***Çocuklar oynuyorlar. Belki (2) çocuklarla indian oldular. Çocuklar oynuyor belki indianlar gibi. Filmlerde gibi.***	Father and son are playing Indians. ***The children (they) are playing. Maybe they (2) become with the children Indians. The children are playing maybe like the Indians. Like in the movies.***
Polis bir hırsız(ı) tutukluyor. ***Adamı (3) mapus koyacaklar. Polis (4) elleri kapadi.***	The police is taking the thief under arrest. **(*They) are going to put the man (3) jail. The police closed the (4) hands.***

Table 5. Examples from the AAT- (Translated to Turkish) naming situations

When comparing the structure of Turkish and English it is important to note that Turkish is a pro-drop language. Therefore, some pronouns are placed in brackets to show that they have been marked on the verb but are not explicitly produced. Although the sentences seem to be correct for the most part, they do contain numerous errors. (1) Here NS does not use the accusative form of the noun but rather the nominative form. (2) The second error is semantic in nature, as the sentence does not make sense, i.e. is semantically inadequate. However, the missing reference would have resulted in the correct meaning. The most obvious errors are observed in the target sentence: 'The police is taking the thief under arrest'. NS says,

Adami mapus koyacaklar. Polis elleri kapadi.
The man- ACC jail-nom put-FUT-3.P.PL. Police-nom the hands-ACC closed-3.P.SING.

(3) In English, the preposition “in” would be missing. In the Turkish version the dative marker for “mapus” is missing. (4) Furthermore, the possessive marker is missing. This would indicate that the owner of the hands is the thief and not the policeman. In English this feature would be expressed by a possessive pronoun.

The morphological differences are not limited to these features. As Haspelmath (2002) puts forward, morphological research has the goal of describing the linguistic patterns within and across languages and these should adhere to the cognitive aspects, in turn they should form universal statements which can be used to define a descriptive architecture for the observed rules and domains. Moreover, there are two main grammatical theories for describing the aforementioned features and errors provided for the example in Table 5, the functionalist and the generative approach. The functionalist approach attempts to capture the semantics and the pragmatics of utterances and the syntactic form is not in the foreground. Thus, this approach can be considered a holistic one.

That is, it is interested in capturing how the speakers of a language initiate the described features on the inter- and intrapersonal level. The generativist approach is grammar-oriented, i.e. it is interested in capturing the grammatical features and its architecture. Together the functionalist and generativist view would provide a more complete picture. Moreover, with respect to the issues discussed in this thesis, the functionalist view gives more insight into language processing.

It is not only the morphological level nor the phonological level that creates the necessity of adaptation. The discourse level and the pragmatic level also contribute to this issue. As shown in Table 3 (see chapter 3), the latter comprises speech acts, inferencing and dialogue construction. In general, it is important to mention that pragmatic skills are crucial in everyday life activities. As it is in all aspects of assessment and treatment also here some points need to be considered and when necessary altered for the individual patient including:

- The speech acts
- The context
- The amount of inferencing used to capture presuppositions
- The adequacy of the utterance in relation to the given context

These factors might vary according to the language as well. An utterance in one language may not fit in the pragmatic context of another language. To illustrate this point an example from a bilingual Turkish- German speaker is provided. As depicted in the example below, the context is stretched. In other words, the patient does not adhere to the Grice'an maxims of relevance, quantity and quality.

E.g. NS (I: Interviewer, P: Patient)

I: *Aileniz ne kadar büyük? Aileniz ne kadar büyük? Çocuklarınız-*	*How big is your family? How big is your family? Your children-*
P: *Bizim ailem burda, yani altmışüç yaşındalar. Nasıl deyim? Bir hafta evvelin (anlaşılmıyor) Benim bir hafta daha büyük ailemden. Çocuklar var bir kız. Çocuk, çocuk değil artık yani, o yaşıyor Hollandiyada. Hollandiyada, ordadur kırküç senedir o. Ihtiyar, demi? Sonra geliyor bir oğlan bizim. O da dır hasta. Ayaklari şimdi çalışmiyorlar ya. Ordaki hastanede o şimdi Bad Piravatta (anlaşılmıyor) Sonra da çocuk kırk ıı üç yaşındadır erkek çocuk. Daha büyük kız var. 22 yaşında. Amerikada. Kemana çalışırdi, orda. Konservatoryumda, Viyana'da.*	*Our family[5] is here, they are 63 years old. How can I say? A week before xxxx I am a week older than my family[6]. We have children, one girl. The child is not a child anymore, so she lives in Holland[7].She is in Holland since… 43 years is she. Old right? Then comes a boy. And he is sick. His feet don't work. He is in that hospital there in Bad Piravat xxxx. Then is the boy 40 uh 43 years old. There is also a big daughter. 22 years old. In the states. She studied for the violin there.. in the conservatoire in Vienna.*
I: *Üç çocuğunuz var yani?*	*So you have three children?*
P: *Üç çocuğum ve torun çocuklarım da var. Üç tane var Hollandiyada, iki tane…bir tane amerikada, dört iki daha alti, alti tane torunlar var.*	*Three children and also grandchildren children. There are three in Holland, two.. one in America. Four plus two is six. I have six children.*

[5] The wife is being referred to as the family.

[6] Wife = Family.

[7] NS says Hollandiya instead Hollanda for Holland which is a confusion of forms. There are different suffixes for the formation of country names. Among these also the suffix –iya is being used. (e.g. Finland- Finlandiya)

Table 6. Excerpts from an interview with client NS

The interview with NS in Table 6 shows the importance of the cultural and dialectal background. The aforementioned factors may be universal and therefore used to establish a common ground. That is, if the patient does not answer the questions adequately within the given context it is out of context in every case.

The factors necessitating the adaptation of language assessment and language therapy materials from one language to another have been briefly alluded to. The necessity for adapting and developing new materials has also been demonstrated in the given examples: there was no known standardized assessment material available in one of the languages at the time of testing. Moreover, several factors that would provide a common ground for every language have been cited.

Chapter 8

The adaptation of language assessment and therapy materials

> *"An analysis of the state of the art of qualitative assessment measures and therapy programmes for language impaired brain damaged persons reveals that the measures at a clinician's/ researcher's disposal are not uniform, not comparable and not comprehensive enough to allow a qualitative assessment and comparison of the deficits and remaining abilities of brain damaged persons with aphasia. This stems from a lack of comparable assessment procedures of the processing of lexical-semantic, morphosyntactic, syntactic, discourse and/or pragmatic aspects of language processing and in turn from insufficiently developed intervention programmes provided to language impaired persons throughout the world."* (Stark, 1996)

In the past decade many questions have been formulated and addressed in the ongoing research in "bilingual aphasia". Before even considering the treatment of a person with aphasia (PWA) the assessment of the languages and the equivalence of the measures have to be considered as in Stark (1996). For a long time only translations of the assessment materials developed in English or German were available in many languages. However, it has been demonstrated that this practice is ineffective, as the languages show such differences that a "translation" affects the whole structure of the material. Hence, translation is not the solution. An adaptation is necessary in order to reach equivalence in the selected relevant measures.

Pioneer studies on bilingual aphasia assessment were published by Paradis (1987). He developed the Bilingual Aphasia Test (BAT). To date, most of the studies published in the area of bilingual aphasia are on English-Spanish and English-Italian bilinguals as discussed in Chapter 6. Among these are studies on,

1) the bilingual lexicon (Schreuder and Weltens, 1993),

2) differences in language proficiency (Grosjean, 1998; Munoz and Marquardt, 2004),

3) the recovery process of bilingual aphasics (Watamori and Sasanuma, 1976; Whitworth and Sjardin, 1993; Agliotti and Fabbro, 1993; Wiener, Obler and Taylor-Sarno, 1995),

4) differential impairments in bilingual aphasics (Fabbro and Paradis, 1995), and

5) bilingualism and aphasia in general (Fabbro and Vorano, 1996; Fabbro and Frau, 2000; Paradis, 2001).

The adaptation of language assessment and language therapy resources has become an area of great interest as the bilingual population is steadily increasing. The lack of language assessment resources in some languages aroused further inquiry regarding the adaptation process. At the moment there are a number of assessment materials that were adapted for several languages. Besides the BAT, among these are, the:

- Psycholinguistic Assessments of Language Processing in Aphasia (PALPA) (Kay, Coltheart & Lesser, 1992) for Spanish, Dutch, Hebrew, European Portuguese
- Boston Diagnostic Aphasia Examination (BDAE) (Goodglass & Kaplan, 1983) for French and Finnish
- Aachener Aphasie Test (AAT) (Huber, Poeck, Weniger & Springer, 1983) for English, Italian and Swedish
- Western Aphasia Battery (WAB) (Kertesz, 1982) for Japanese

SEVERAL FACTORS TO BE CONSIDERED IN THE PROCESS OF ADAPTATION

Several major points are to be taken into consideration for the adaptation of language assessment procedures and therapy materials. First of all, the function of the original test is to be maintained. The structure of the test has to facilitate substitution of the stimulus items with one of the same linguistic and psycholinguistic attributes as the items in the original test. (Stark, 1996). This issue will be discussed in a separate section. The language specific structural differences have to be considered and compared to those of the language of the original test. Furthermore, the linguistic parameters that were taken into consideration while developing the material have to be explored and applied across languages. The social and cultural differences are crucial in order to obtain a complete understanding of the PWA. Last but not least, the target group, i.e. the language community (at home vs. abroad) has to be considered.

Ad) **Target group**

To define the target group the background of the PWA has to be specified. Each of the following options would define a different target group. The reason for this differentiation is that each option reflects a different language background. Consequently, the function of the languages tested would vary in each case. When considering, e.g., a Turkish person in the following situations:

a) living in Istanbul or metropolitan area
b) living in central Turkey
c) born and living abroad e.g. in Germany or America for the past 20 years
d) who grew up abroad and returned to Turkey after 20 years
e) who grew up in Turkey and then moved abroad as an adult the clinician must respond on an individual basis.

As previously mentioned, each of the conditions would reveal a different proficiency level and a different socio-cultural adaptation of the person. In this regard also the age of acquisition has to be considered for each language. The BAT, for example, covers this aspect with the introductory interview surveying the language history of the aphasic client.

Ad) **Social and cultural differences**

The terms 'social differences' and 'cultural differences' vary in their meaning among the population. Both terms comprise various aspects of interpersonal relationships. The term social is defined as *"living together in organized groups or similar close aggregates"* (http://www.thefreedictionary.com/social). The same database defines culture as *"the totality of socially transmitted behavior patterns, arts, beliefs, institutions, and all other products of human work and thought"*. Thus, when the social and cultural factors are combined the clinician is confronted with two kinds of behavior patterns. One of them reflects the social patterns and the other the cultural patterns. These two patterns can, however, overlap. Considering the fact that this thesis focuses on bilingual speakers, the social and cultural patterns will differ accordingly.

Cultural differences are most strongly demonstrated with picture stimuli. These will be referred to in detail in the context of the adaptation of the language assessment and

language therapy picture stimuli titled '*Everyday Life Activities Photo Series Set 1 to Set 3'* (hence 'ELA®') (Stark, 1992, 1995, 1997, 1998).

The BAT delivers the largest corpus of social and culturally adapted language assessment procedures as it exists for approximately 65 languages. The context has been discussed in earlier chapters (See Chapters 1-3). However, in the below example the change of hair color does not suffice to illustrate social and cultural differences.

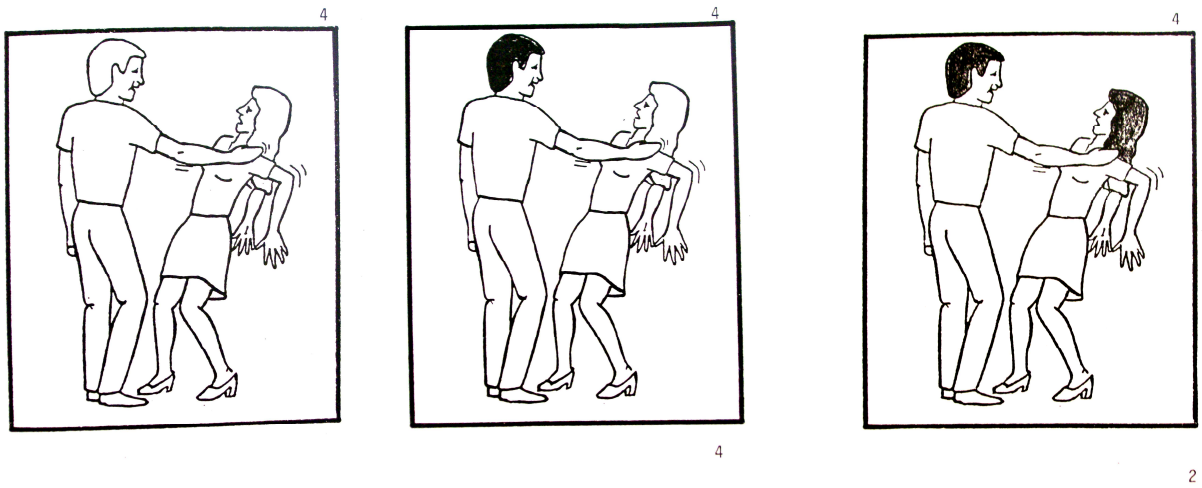

Figure 13. Examples from BAT-

English, German and Turkish version for a single item of the same task respectively.

In the above illustration it is the differentiation of the nationality which is illustrated by the change of hair color. As the picture stimuli are drawings and not photographs, it is difficult to include any other characteristic change. The only distinctive feature in a drawing is contrast. Thus, the use of photographs instead of drawings allows for a clearer representation of the presented item (object, activity). Moreover, in today's world the conditions for adaptation of picture stimuli have also changed. The color of one's complexion (the phenotype) is still a distinctive feature for different cultural groups. However, the depiction of the crucial features should be constant regardless of the target group.

Figure 14. Example from the ELA Photo Series Set 3 (Stark, 1998) photo card number 2746

As shown in Figure 14 the two women could be identified as persons from any nationality with a light complexion. Thus, it is better to use photographs instead of drawings for the picture stimuli. The use of photo cards as stimuli also has the advantage that the patient will be able to distinguish the presented figures more easily. When social and cultural issues are depicted the represented persons are only a small aspect of the whole picture. The way the people are dressed, the activities they perform (national sports, traditional rituals), the background of the picture (a church, a mosque, seaside, hills, the seasons) play a significant role in the representation of the stimuli in a social and cultural context.

Ad) **Language specific differences**

- **Word frequency**

The socio-cultural context also has an impact on the vocabulary of a language. Mavioğlu et al. (2006) adapted a word-recognition test for Turkish, in which the word „ocean“ was replaced with the word „deniz“ (English:'sea'), as it has a higher frequency and a stronger emotional meaning for Turkish-speaking persons. The word frequencies are denoted in the word frequency lexicon of the written language of Göz (2003). According to, the frequency of the word "deniz" (English: 'sea') is 509 in contrast to the frequency of "okyanus" (English: 'ocean'), which is 37. As there is a significant difference between the two

frequencies, it must be considered an important factor in the construction/adaptation of language assessment and language therapy material.

- **Word initial frequency**

When adapting a confrontation naming or word repetition task, the word onset frequency observed for Turkish, namely that 'k' is the most frequent phoneme and grapheme must be taken into account. The implications of this for adapting any materials from another language into Turkish are that items with an initial 'k' will be more prevalent in a test or therapy procedure. Following 'k', the phonemes/graphemes with the highest frequency are 'f' and 's'(Mavis & Topbas, 2007). As no such feature is known for English or for German this would not be a crucial point to be considered when adapting a test for those two languages. However, when adapting Turkish material from English or German this issue must be assessed in terms of whether this feature has an impact on the function of the material or not.

- **Word order**

Differences in word order have already been alluded to in this text and they play a role in the assessment of a PWA speaking two or several language, especially when the various languages differ in their word order.

German is an SOV-language, with Verb-second in the main clause.

e.g. Ich bin ins Krankenhaus gekommen, weil ich einen Schlaganfall erlitten habe.

S V O S O V

(I was admitted to the hospital, because I had a stroke.)

English is SVO

e.g. I was admitted to the hospital, because I had a stroke.

S V O S V O

Turkish is classified as an SOV-language with a fairly free word order.

Evidence for this is the "inverted" sentence construction.

e.g. a) [(Ben) Beyin kanaması geçirdiğim için] hastahaneye geldim. (SOV)

S O V

(Because I had a stroke, to the hospital was I admitted.)

b)Hastahaneye [(ben) beyin kanaması geçirdiğim için] geldim. (OSV)

O S V

(To the hospital, because I had a stroke, was I admitted).

c)Geldim hastahaneye, çünkü [(ben) beyin kanaması geçirdim.] (VOS)

S O V

V O S

(I was admitted to the hospital, because I had a stroke.)

d) Geldim [(ben) beyin kanamasi geçirdiğim için] hastahaneye. (VSO)

V S O

(I was admitted, because I had a stroke, to the hospital.)

However, there are still restrictions on Turkish word order constellations. Thus, word order has to be considered in an adaptation of language materials, as it reveals different aspects about the grammatical structure of a language. In languages with free word order it is sometimes difficult to understand certain sentence structures. In languages with a fixed word order (formally structured) the sentences are strictly based on the regular use of the necessary grammatical elements. With respect to the bilingual speaker, interlinear translations within the context of code switching can result in misinterpretation of the utterances.

Ad) **Linguistic parameters to be taken into consideration across languages**

Many language assessment materials do not explain the linguistic criteria underlying the selection of tasks and test items. “This fact raises some difficulties regarding the partial or total adaptation of the battery of tests to other languages.” (Gallardo, Hernandez, & Moreno, 2006). This problem can only be partially solved by a reconstruction. The reconstruction can be accomplished by an analysis of the evaluation criteria of the assessment material. The resulting variables should reveal the assumed underlying criteria.

Ad) **Function of the original test**

The general aims of aphasia testing postulated by is follows,

“ (1) diagnosis of presence and type of aphasic syndrome, leading to inferences concerning cerebral localization; (2) measurement of the level of performance over wide range, for both initial determination and detection of change over time; (3) comprehensive

*assessment of the assets and liabilities of the patient in all language areas as a guide to therapy." (*Goodglass & Kaplan, 1983, p.1)

Kay et al. (1990) agree with these aims to some extent only. Although the patient's performance on a battery provides a profile of the impairment, more testing has to be carried out to obtain more detailed information. In summary, it is crucial for an assessment material or procedure has to adhere to these and other basic principles. When adapting language assessment and language therapy materials it is important to know the function of the original test or procedure. In turn, it is crucial to see how the original function can be preserved, while some of the factors considered during the construction of the material must be changed. Each language assessment or therapy material is constructed to fulfill a certain purpose beyond the aforementioned basic principles. As different languages have different structures the requirements of the languages change accordingly. The function of the original test is maintained when all the features listed above are taken into consideration.

BIAS

Having discussed the important issues in adaptation of language assessment and therapy materials, further variables will be discussed relating to how the cross-cultural dimensions should be adhered to. Van de Vijver (1997) described two cultural dimensions, namely, the *context variables* and the *culture-related variables*. Within the context variables he specifies the age, the gender and the psychological characteristics of a person. The culture-related variables refer to the GNP (Gross national product), the educational system and the health care institutions. In relation to the cultural dimensions, three types of bias are depicted.

(1) Construct bias is present when the variables do not match across different cultural groups.
(2) Method bias is explained on the basis of its common source as the differential familiarity with stimuli. In this regard, Cattell (1940) developed the "culture free test" and Cattell & Cattell (1963) the "culture fair test".

(3) Item bias reflects the quantity of contrived articles at an item level. This refers to inappropriate responses, inadequate formulations and inadequate translations.

Proceeding on the basis of cross-cultural equivalence of studies, assessments or therapies, Van de Vijver (1997) defines bias and equivalence in terms of the design. The control of bias and equivalence has been built up on the conceptualization of the theoretical constructs, the design and the data analysis:

> *"When an instrument measures different constructs in two cultures (i.e., when 'apples and oranges are compared'), no comparison can be made." (Van de Vijver, 1997, p. 8)*

There are significant discrepancies on nonverbal neuropsychological tests –i.e. when administering the Raven's Matrices Test (Raven, 1938)-, in the results of illiterate and literate subjects of the same cultural background (Manly et al., 1999). These results are an indication that verbal aspects play a role in the overall test.

In order to get a culturally balanced design *either* a culturally diverse perspective (decentered approach) has to be chosen or a perspective which offers each researcher the possibility to design his/her own instrument to test with (convergence approach).

Biased items cannot be used for cross-cultural comparisons. Therefore, it is important to discover the sources of bias in aphasia language assessment and therapy materials and to overcome these barriers.

In Figure 15 an example from a Turkish phonology assessment procedure is presented. This example clearly depicts culturally meaningful aspects for a Turkish speaker, namely the tomb of Ataturk in Ankara. However, this example could not be used for another language because it is heavily culturally biased.

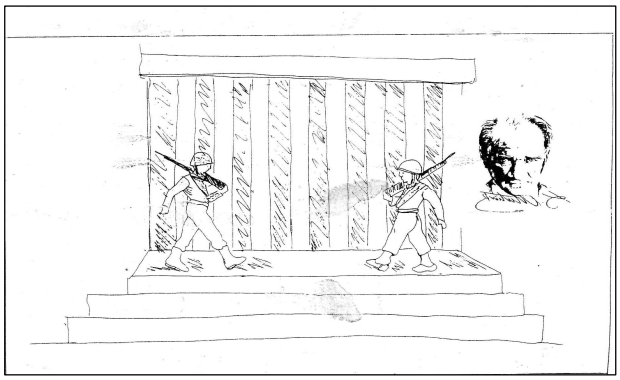

Figure 15. An example from a Turkish phonology evaluation set. Essay cards, Anıtkabir (The tomb of Atatürk) (cited in Topbaş, 1999)

Figure 16. An example from the ELA®-Photo Series Set 3, Photo card number 2801(Stark, 1998)

Whereas in Figure 15 the picture stimulus has cultural importance for Turkish people, its use for other social groups is highly limited. Figure 16 represents two children playing with hand puppets (Kermit the Frog® and Fozzie Bear® from Jim Henson's® Sesame Street). Although this picture seems to be culture free, it cannot be fully appreciated if the persons are not familiar with the Sesame Street® figures. However, the fact that the children are *playing* with something on their hands (hand puppets or funny gloves) the main activity is depicted. In Turkey shadow puppets as shown in Figure 17 are most akin to hand puppets in their function. They are part of the traditional shadow theater in Turkey. It must be stressed that a person living in an urban area could be acquainted with hand puppets. However, a person living in a rural area or in the eastern part of Turkey will not be able to identify the hand puppets as such but will be able to depict the main

activity in the photo card as mentioned above. The function of cultural differentiation and language specific material is important.

Figure 17. Hacivat and Karagöz the shadow puppets.
(http://www.karagozevi.com/image/karagozler/250/oyun1.jpg, last viewed 21.12.2008)

As important as it is to consider the barriers created by the use of culturally heavily loaded picture material as illustrated in Figure 15, it is also important to examine the possible barriers caused by the use of specific written material. Important issues related to the adaptation of written texts can be shown by the text reading comprehension subtest of the BAT. Paradis claims that for the adaptation of the written texts the information load has been kept approximately the same. However, the number of words in the texts can greatly vary from the one to the other language.

BAT English Version

The man left to go fishing with his son. They caught some trout. When they returned to the village, they went to the market and exchanged their trout for a chicken.

BAT German Version

Die Mutter machte mit ihrer Tochter einen Ausflug in den Wald. Sie pflückten einen Strauß hübscher Feldblumen. Bei ihrer Rückkehr ins Dorf gingen sie zum Markt und tauschten die Feldblumen gegen ein Dutzend Eier ein.

BAT Turkish Version

Adamın biri oğlu ile pazara gitti. Pazardan beş kilo elma aldı. Dönerken balıkçıya uğradı. Elmaları balıkla değiştirdi.

Each of the stories are adapted for the culture in which the stories are to be used. The English version is about a man going fishing with his son and exchanging fish for a chicken. The German version is about a woman and her daughter picking flowers in the forest and exchanging them for eggs. The Turkish version is about a man and his son going to the bazaar and exchanging the bought apples for fish. As the BAT is designed for assessment of bilingual speakers, the contextual changes among the texts for the different language assessments can be considered a positive aspect in that they also eliminate a learning effect across languages. Although the contextual structure allows for drawing the same functional conclusion, the effect of the social and cultural structure on the surface structure is striking.

To this point specific issues and tasks have been discussed. In the following table two aphasia screening procedures which are available in different languages and which have the same goal will be discussed, namely the Aphasie Checkliste (ACL) (E. Kalbe, N. Reinhold, U. Ender, J. Kessler & M. Brand, 2002) and the Gülhane Afazi Testi (GAT-2) (I. Maviş, K. Colay, S. Topbaş, O. Tanrıdağ ,2006)

ACL (Aphasie Check Liste)	GAT-2 (Gülhane Afazi Testi)
1. Series 2. Comprehension 3. Token test 4. Naming 5. Spontaneous speech 6. Repetition 7. Cognitive tasks	1. Awareness 2. Comprehension 3. Oral evaluation (pa-ta-ka, ka-la-ka-la) 4. Automatic speech 5. Repetition 6. Naming

Table 7. The comparison of two aphasia screening procedures

The ACL and the GAT-2 are very similar procedures. Both procedures are built on the principle to test as many functions as quickly as possible. However, this brings up the first problem. A screening procedure cannot cover all language and cognitive areas in a set time- limit. The ACL and GAT-2 have an insufficient number of items per subtest in common. Although they follow the same basic principles they differ in the domains they cover. Whereas the ACL includes cognitive tasks, the GAT-2 includes only oral evaluation tasks. These domains show the difference in the functional approach. Both can influence the outcome of the assessment. Whereas the cognitive functions assessed by the ACL provide an overall picture of the constitution and the vigilance of the language impaired client, the assessment of oral language production assessed by the GAT-2 tasks are aimed at differentiating aphasia from speech apraxia or dysarthria.

All in all, both procedures were developed for the same purpose, namely as a screening procedure for medical doctors in a clinical setting. The developmental difference of the countries for which their use has been designed for is reflected in their overall structure and emphasis on specific linguistic and cognitive components. The ACL includes cognitive tasks and reveals a more general profile of the patients' cognitive status. Hereby, not only the medical factors but also the neuropsychological perspective is covered. On the other hand, the GAT-2 assesses motor functions and so defines a rather medical focus on articulation. In this context, it should be mentioned that both of the screening procedures have been developed by linguists in cooperation with neurologists.

The different components that are important for the adaptation process are summarized in Table 8. The sequence is presented in accordance with the assumed relative importance of the particular aspect.

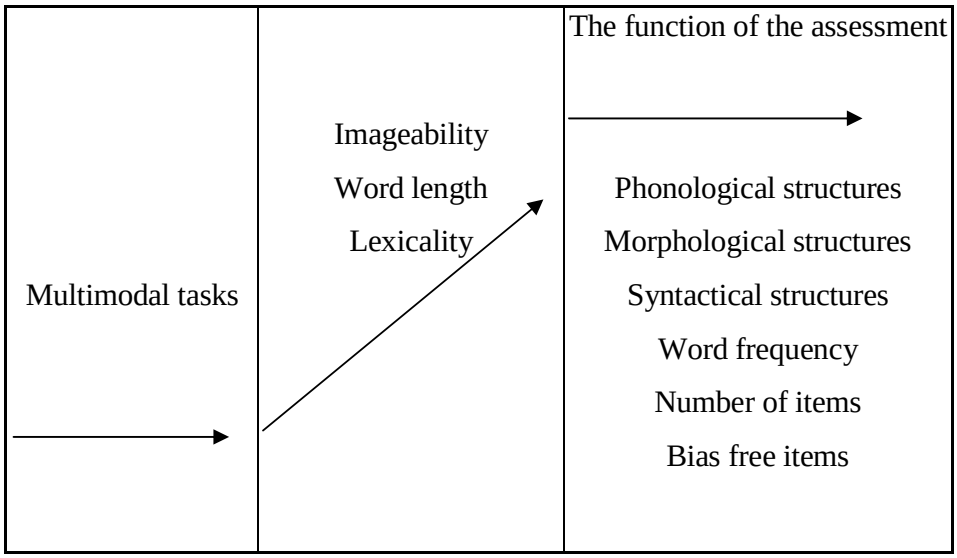

Table 8. The relative importance of different components within the adaptation of aphasia assessment and therapy materials.

It is recommendable that multimodal tasks are chosen to facilitate the process of assessment and treatment. With the help of multimodal tasks, multiple senses (inputs and outputs) are addressed in isolation, in combination, or succession. Consequently, different storage systems and presentation media are activated. It is important to have multimodal tasks (auditory, visual, etc.) due to the increasing interaction between each modality and the increasing activation of the stimuli shown. Imageability, word length and lexicality of the stimuli play an important role in language processing. Each of these components brings about a change in language processing i.e., in the degree of recognition and of the understanding of the stimuli. Therefore, it is desirable to consider these variables in the process of development and adaptation of language assessment and therapy material. The dual-coding theory which has been postulated by Paivio (1986) accounts for the cumulative nature of the internal representational units. Thus, the interaction of different representations strengthens the activation. The theory first dealt only with the effects of multimodal stimulation on memory and later was expanded to the whole cognitive system. That is, different representations are activated for the assumed subsystems of language processing, namely the nonverbal and the verbal subsystems. Furthermore, it is stated that concreteness and imagery showed beneficial effects on the processing (Paivio, 2006). The last column in Table 8 presents the

indispensible linguistic components crucial for the adaptation of language assessment and therapy materials. The building blocks of language assessment and treatment materials are the linguistic structures, e.g. the phonological, morphological, and syntactical structures to be assessed. The number of items for a linguistic category depends on the frequency of occurrence in the target language. Moreover, the number of items has to be adapted so that the function of the original material is maintained. However, the problem of biased items is not a resolved issue. Although it is crucial to develop or adapt bias free items for language assessment and treatment materials it is a goal which is difficult to achieve.

CONSIDERATIONS ON THE ADAPTATION OF THE ELA-MATERIAL

There is an ever increasing demand for therapy material that is valid across languages. Around the world, countries in which aphasia research has been active for a longer period of time have for the most part developed their own language assessment and language therapy materials. For those countries lacking adequate language assessment and language therapy materials, the question arises whether the already existing material can or should be adapted or new language materials be developed. The ELA®-materials provide the opportunity to approximate a PWA's everyday life activities. They consist of picture material the social and cultural components play a significant role. However, as they encompass the basic everyday needs, they are by and large part applicable to any cultural context. Focusing on the languages English, German and Turkish, the communities in which the materials will be utilized, will affect the range of application.[8] The ELA®-Material consists of three sets. The first set - which is the basic set - is focused on the *"basic daily activities such as: sleeping, getting washed, getting dressed, eating, drinking, going to work by car or to school by bus, shopping, going to a doctor or dentist,…., giving someone money."* (Stark, 1998, Set 3 p.14) The photo cards of the first set consist mainly of single persons carrying out a particular activity or two persons involved in a same or a different activity.

Figure 18. The man is sleeping:
ELA®Photo Series Set 1, photo card no. 0111

Figure 19. The boy is taking a bath.
ELA®Photo Series Set 1, photo card no. 0147

The second set has its emphasis on sentence level tasks and provides adequate stimuli for the elicitation of various syntactic structures. Numerous examples of semantically reversible and

[8] Some of the examples illustrated from the ELA®-Material are marked bold for all three languages in the appendix.

irreversible activities are included as well as picture stimuli to elicit dialogues between two persons.

The third set represents the highest difficulty level in tasks. The photo cards can be used to construct a complex discourse or dialogues between the PWA and the clinician. Although all three sets allow for administering language tasks from the word- to discourse-level tasks, the second and third set of the series are structurally more differentiated.

As it has been mentioned in the former chapters, it is important to adjust the material according to the norms of a language. As a result of the semanto-syntactic similarities picture material allows for the application of any norms as it has no written requirements. The ELA®-Material is based on psycholinguistic variables addressing all linguistic levels and the task suggestions in the accompanying manuals also adhere to psycholinguistic principles.

A general issue while adapting the ELA®Photo Series for Turkish – which applies for any material - is the absence of gender in Turkish. In English gender must be considered and for German gender as well as number have to be taken into consideration for the case marking of the articles (definite and indefinite). Moreover, in contrast to English or German, prepositions and reflexive pronouns are expressed in Turkish as bound morphemes in the form of suffixes. The preposition and the reflexive pronoun in English and the corresponding morphemes in Turkish are written in italics in the following example.

wash (*[his]* hands) ((*in* something ↔ bathroom sink ↔ wash basin)) (2073) boy

yıkamak (eller*ini*) ((bir şey*de* ↔ evye ↔ lavabo)) (2073) erkek

Figure 20. An example from the ELA Photo Series Set 3, photo card number 2073

The cultural, religious, and linguistic structures cannot be isolated from one another as there is a smooth transition between them, i.e. they overlap to varying degrees. The ELA®-Material is rather oriented to Christianity, in keeping with the predominant beliefs of the European and English-speaking society as demonstrated by particular stimuli, e.g. getting married. However, religion is not an isolated issue. It is interwoven together with the traditions and plays a central role within the culture as well.

marry # wed (couple * bride & groom) ((in something ↔ church))

evlenmek # nikah kıymak (çift * gelin & damat) ((bir yerde ↔ nikah dairesi))

In Europe it is common to get married in a church as the marriage is seen as closely related to the participants' religious views.

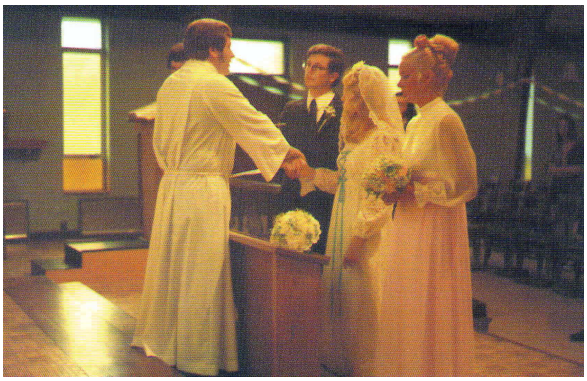

Figure 21. An example from the ELA® Photo Series Set 3, photo card number 2005

In Turkey it is commonplace to get married in a registrar's office. It is seldom the case that people get married in a mosque. This occurs mainly in isolated regions or in small villages. Therefore, the photo card for marriage would have to be replaced with one representing the customs in Turkey.

Figure 22. A marriage ceremony in the registry office in Turkey
http://img.turkmedya.tv/image/d247c6df77a1a3901db3ea4911520f89/248/189, last viewed 12.10.2008.

As mentioned within the context of the relevant factors to be considered in the process of adapting picture materials, the culture specific activities (national sports, traditional rituals) and the landscape (seaside, hills, the seasons) must also be taken into account.

Figure 23. An example from the ELA® Photo Series Set 3, photo card number 2909

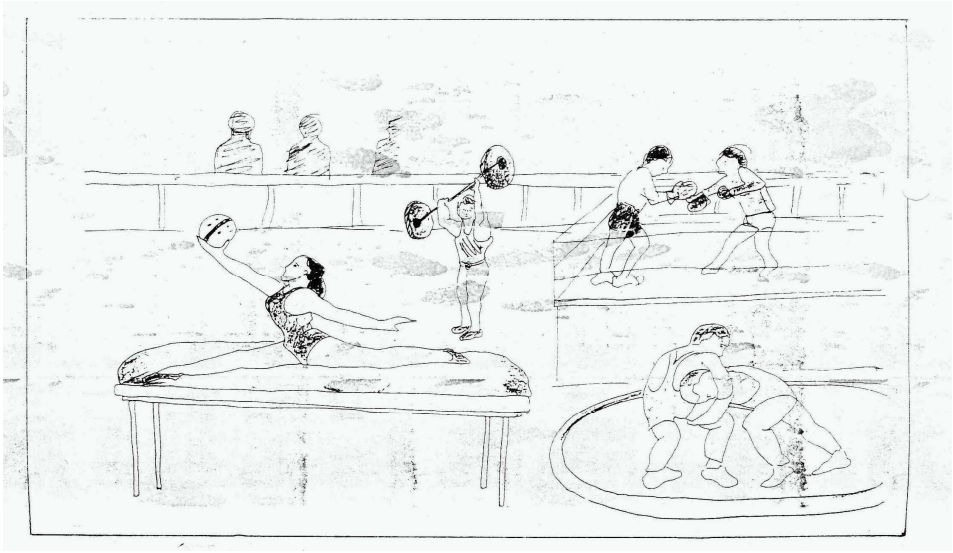

Figure 24. Turkish Phonology Evaluation Set. Picture Stimuli for Text Production (cited in Topbaş, 1999)

With reference to the photo cards representing culture-specific sports, e.g. photo card number 2909 representing baseball would have to be replaced by pictures of sports that are more popular in the Turkish culture such as wrestling, weight lifting or track and field as shown in Figure 24.

Another difference is the presentation of gender specific actions. In different cultures, women and men have to live up to different expectations. Conventionally higher education and higher professional positions are related and they are both usually male-dominated around the world - although the situation is slowly changing. In the American and German culture the equivalence of men and women is given in the broader perspective, although not yet in the workplace. In contrast, in the Turkish culture, women and men are still ascribed a notably different place value. The term 'place value' does not only define aspects such as a difference in income and daily chores, but also the placement of women in the society as a whole – including the right to express one's opinion in a particular matter. The social ascendancy of a specific group of people plays an important role in this context. In order to fit, in women have to meet the demands put forward by the society.

Figure 25. An example from the ELA® Photo Series Set 3, photo card number 2117

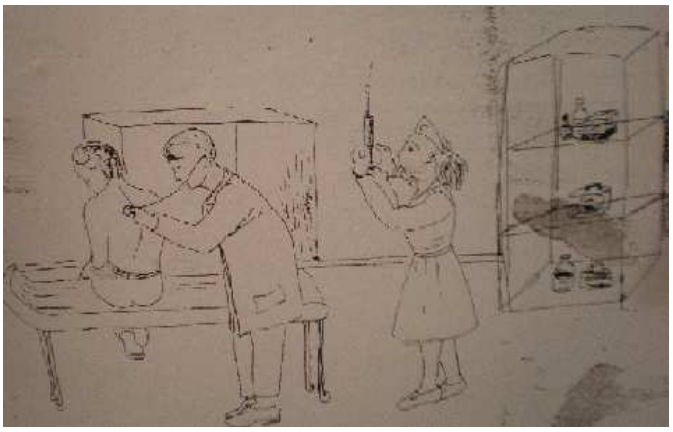

Figure 26. Turkish Phonology Evaluation Set. Picture Stimuli for Text Production (cited in Topbaş, 1999)

In the urban areas in Turkey women have a higher status than in the rural areas. Whereas a woman in a large city would be in the position to be examined and treated by a male physician, a woman from a village would be accompanied by her husband and examined by a female physician. Thus, women in rural areas waive their right to speak up in front of men to meet the societal demands. It could be the case that a woman would feel ashamed if she were shown the stimulus in Figure 25 with a depiction of a male physician. There are several reasons for this. First, the gender of the physician is an essential factor. Second, the tradition in some areas demands that women are not allowed to speak to male strangers in the presence of their husbands (or other men in the family). Third, in some areas the religious view that the woman can only show her bare skin (unclothed body parts) to her husband is still preserved. Consequently, it can be said that although the picture stimuli can be used in the urban areas of

Turkey, certain picture stimuli would be problematic in rural areas and/or with very conservative persons.

Religion, and thus religious holidays, are related to their cultural realization. In this context, Christmas is the religious holiday that is celebrated most extensively. The tradition that is followed on Christmas in the western world is celebrated in Turkey as New Year's Eve. Thus, when used with Turkish-speaking persons, the photo cards depicted below would be used for the holiday "New Year's Eve" (Tr: yılbaşı). Here, it is also important to note that although a word for Christmas exists in Turkish, the frequency and the context differ for the presented stimuli. This point leads to the cultural differences which affect the outcome of any measures applied in the scope of assessing language skills.

Figure 27. Examples from the ELA® Photo Series Set 3, photo cards number 2366 and 2367

The overall developmental status of a country is also a central issue to be considered when adapting materials for that country. In Europe and America the Tube/Underground/subway and the Tram/street car are well known even to persons living in cities and towns in which there are no subways or street cars. However, in some countries that are not so developed, there are no undergrounds. In Turkey there are only a couple of cities which are equipped with an underground system. Therefore, the frequency and the familiarity of the underground would not be so high as one would expect it to be in highly industrialized countries. Thus, with respect to these examples it would be recommendable to use these stimuli, if the expected reaction "train" or "vehicle" is considered an appropriate response. For several culturally specific examples, it cannot be assumed - in an across the board fashion - that the picture stimuli will be identified and adequately perceived and that the frequency of use is the same for all speakers. Since this is the case, even those photo cards which are not known to speakers living in specific areas of Turkey, must still be included in the adaptation for the

Turkish version, because other Turkish speakers will be acquainted with the depicted activities and objects.

As previously stated, the circumstances for a bilingual Turkish person will vary depending on his individual life situation. In the case of a Turkish person born and living abroad, e.g. in Germany or America for the past 20 years, the frequency of use for the word 'tram' or 'Tube' would be as high as for any German- or English-speaking person. On the other hand, these stimuli would not be familiar to a Turkish person born and living in eastern Anatolia for his/her whole life. Since the ELA® Photo series is constructed to have a broad applicability, the stimuli were selected to cover as many aspects of everyday life as possible.

Figure 28. Examples from the ELA® Photo Series Set 3, photo cards number 2603 and 2606

Moreover, the developmental status of a country can influence the educational level of the population. The educational level observed in total also has an informative value about the literacy rate in that country. The illiteracy rate in Turkey is very high in comparison to highly industrialized countries. According to the United Nations development program 2007/2008 the illiteracy rate for Turkey lies approximately at 13%, which means every sixth person is illiterate. In comparison, the illiteracy rates for America and Germany are estimated to be 1%. The immense difference between the values reveals the large developmental gap between the countries. As discussed in detail, many of the language assessment and language therapy materials rely on the use of written language. This raises a very relevant question, namely how will this effect the overall language performance of an illiterate PWA? Since most of the language assessment materials are constructed so that they can give an overall or general profile, the acquired language difficulties with written language due to a stroke or

brain injury will be masked by the pre-morbid level of proficiency for written language materials. However, illiteracy in general has to be excluded before drawing a conclusion about a PWA's written language abilities or deficits. If the PWA is illiterate two language tasks have to be omitted, namely reading and writing. This situation draws attention to how the problem of administering a language assessment procedure to an illiterate PWA can change the original function of the assessment? Furthermore, it has to be noted that this is only a deviation from the general procedure since reading and writing play an important role in the assessment and treatment process for literate patients.

With reference to the ELA® picture stimuli they can be used for assessing and treating all modalities and linguistic levels. They can be used to work on spoken as well as written language.

In language therapy provided on a long-term basis, using picture stimuli such as the ELA® photo cards can be a useful resource for relearning literacy. The ELA® picture stimuli offer a wide range of possibilities for monolingual as well as bilingual PWAs, as they provide a visual stimulation and thus enhance the retrieval of the conceptual representation associated with the semantic/lexical representations of the depicted activities.

With regard to the issue of literacy, it must be noted that bilingual persons may not be literate in both languages. As emphasized in the previous chapter the emotional meaning of a language to a bilingual person plays a central role in the manner of use. In the case of aphasia the language that has the highest emotional value to the PWA is not always the one that is retained best. Moreover, the emotional attachment does not necessarily indicate pre-morbid literacy in that particular language. Hence, it is more difficult to deal with the issue of literacy with regard to bilingual speakers. This brings us once again to the importance of considering the needs of the specific target group namely PWAs with regard to developing and adapting language assessment and language therapy materials. The target group determines the practice, efficiency, and purpose of the materials used in the language assessment and therapy processes.

So far some of the important points discussed in the literature to be considered when adapting language assessment and language therapy materials have been discussed and some further points have been added. The cultural and social differences have been viewed with respect to the religious aspects as well as to the developmental status of a country/region. The language-

specific differences were presented with regard to the morphological structures of the particular languages, i.e. gender, the use of the article, and issues of frequency. Literacy has become an issue of great importance in this context. It has been identified as a subject that affects language assessment and treatment of PWAs in general.

The issues discussed in this paper do not represent all the aspects to be considered in an adaptation. Yet, they play a major role in the process of adaptation and provide a foundation for further research in this field.

ADAPTATION OF GRAMMATICAL ASPECTS

In adapting language assessment and language therapy materials the process is not complete by only considering the linguistic structures. In this context, a more functional approach (i.e. functional grammar approach, hence 'FG') is preferable in the adaptation process. The term "functional" is at the core of the functional grammar.

Since the ultimate goal of aphasia research and language therapy is to improve the verbal communicative abilities of PWAs, the *overall function of language* as well as the *observed functional impairments of language* are central in this endeavor. Thus, it is important to be able to describe the clinical information obtained from a PWA in terms of the theoretical framework on which the analysis is based -as language is observed to reflect the interchange between *parole* and *langue* (defıned by Saussure, 1916, in Otmar & Hundsnurscher, 1990).

Language is made up of many functional layers. When referring to functional layers not only the lexico-grammatical perspective but also the communicative perspective must be considered. The communicative perspective is the medium which gives expression to one's words. It is composed of strata such as culture, genre, relations and manner of a text. Each of these components enriches the expression in a different way. The cultural component adds a certain ramification to the meaning. The genre reveals the theme as well as the specific objective of the utterance. The relations then express more about the correlation between the single components within the utterance. Furthermore, the social standing and the assigned parts to the various components are defined by the strata. The manner of the text does not reveal the emotional manner but the communicative channel that is being used while producing the text. Consequently, it can be the auditory, the visual or a combination of different modalities.

"The significance of any functional label lies in its relationship to the other functions with which it is structurally associated. It is the structure as a whole, the total configuration of functions, that construes, or realizes, the meaning."

(Halliday & Matthiessen, 2004, p.60)

FG assumes that there is a hierarchical order – so to speak of a rank scale - among the constituents of linguistic units. These units are realized under the terms phoneme, morpheme, group, clause and sentence, respectively. Each of these units plays an important role in the resulting meaning of the produced text.

"..this semantic foundation of the grammar should be explicitly recognized. FG derivations would then be explicitly designed to do the central job of linguistics, namely relate the two basic empirical sides of language: content and expression, form and meaning."(Harder, In Anstey, Mackenzie, Lachlan (Eds),2005, p.222)

How the processes in functional grammar (FG) are instantiated is described in Figure 29. The processes begin with theoretical terms and go on to empirical terms. As Harder emphasizes, it is important to focus on the content and expression as well as the form and the meaning as this leads to a multi-level analysis of the utterance.

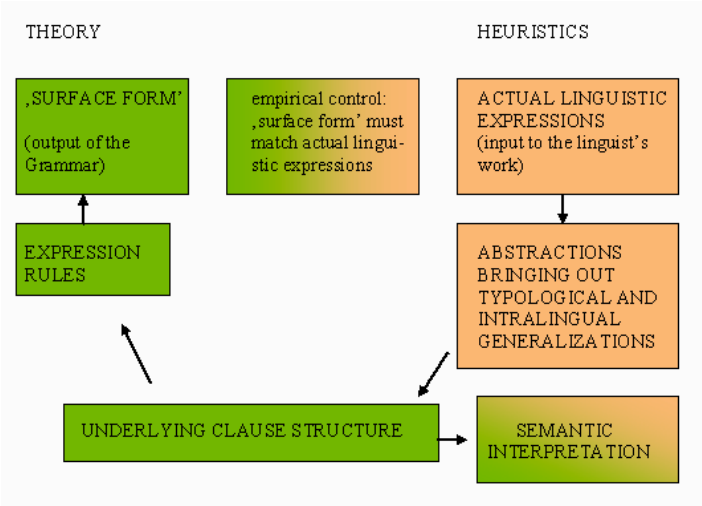

Figure 29. FG as conceived in terms of 'underlying-to-surface' description (Harder, In Anstey and Mackenzie (Eds), 2005, p.222)

Returning to the constituents of the rank scale, the surface form is produced. The prototypical configuration of an expression will be explained on the basis of the following example:

She / stay/ed/ although / she/ had/ limit/ed/ time (9 morphemes)

She / stayed/ although/ she /had/ limited / time (7 words)

She / stayed/ although/ she/ had/ limited time (6 groups)

She stayed / although she had limited time (2 clauses)

In this example, it can be observed how the structure is built up in a step-by-step manner. Although, the structure seems to flow from empirical to theoretical, the arrows imply the possibility of a circular flow within active processing.

The systemic functional grammar is characterized by three metafunctions, the ideational, the interpersonal, and the textual metafunction.

(1) The ideational metafunction represents the interpretation of the utterance. It has a semantic, propositional, cognitive and representative structure. It is manifested strongest in the transitivity.

(2) The interpersonal level defines as its name indicates the interaction between the speaker and listener. The turn-taking behavior is an important indicator for this level which expresses the pragmatic features. The mood and the modality provide information about this metafunction.

(3) The textual metafunction is a combination of the ideational and the interpersonal

metafunctions. It analyzes the text within the context. Consequently, the pragmatic level, the discourse level and the functional perspective are represented within the theme and conjunction.

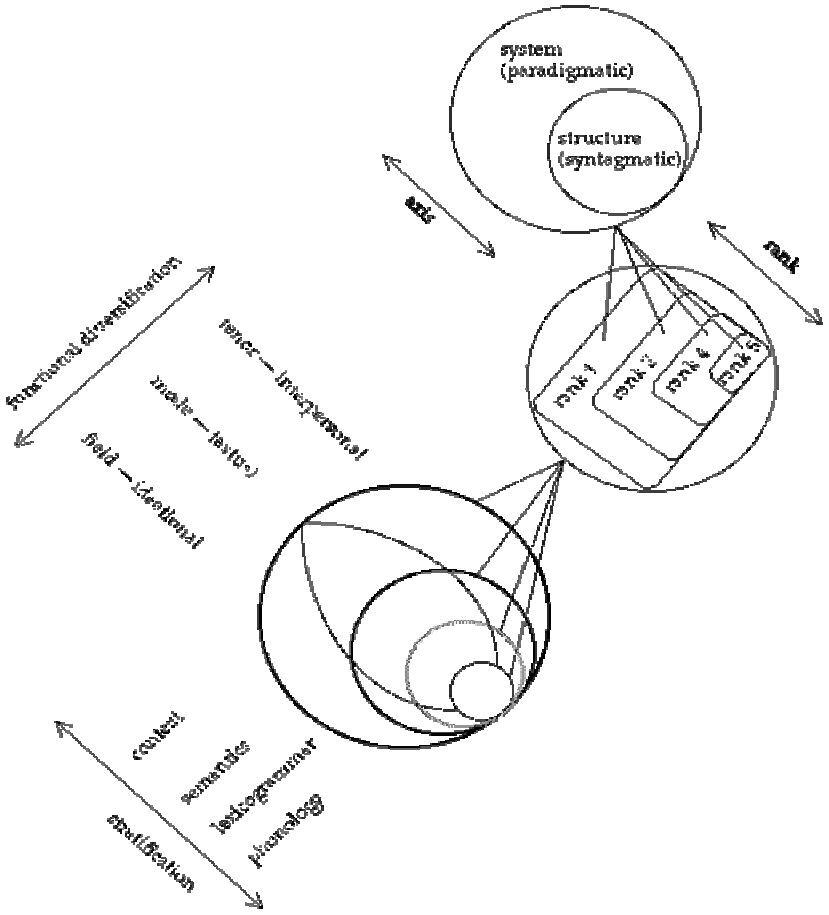

Figure 30. The axis and rank as principles of intra-stratal organization manifested in the different stratal subsystems of language in context
http://minerva.ling.mq.edu.au/resource/VirtuallLibrary/Publications/sfg_firststep/SFG%20intro%20New.html

Figure 30 shows the configuration of the systemic functional grammar. The contributing structures of the model have already been briefly discussed. The diagram shows how the single structures are interwoven. The only issue in the diagram that has not yet been discussed is the syntagmatic and paradigmatic axis and their effect on the overall verbal output. It must be stated that even though various languages have similar functional

paradigms they can reveal different syntagmatic realizations. For example, all three of the following sentences have the same meaning:

English:
The man is smoking (a cigarette).
German:
Der man raucht (eine Zigarette).
Turkish:
*Adam *(sigara) içiyor.*

However, their syntactical realization differs. In English and in German the verb already reveals the action of smoking. In Turkish the verb that is used to describe the action of smoking is "*drinking*". If an interlinear translation is made the sentence has the meaning "*the man is drinking a cigarette*". In this case, the object has to be named in order to specify the action. Otherwise the sentence cannot be interpreted correctly. In contrast, in the German and English versions of the sentence the object is optional as the verb already implies the object of the action. If the same examples are applied to the paradigmatic structure it can be observed that only in Turkish the verb allows a broader change in context:

Adam *sigara* içiyor
Puro (cigar)
Su (water)
Süt (milk)

In both German and English the verb 'smoking' narrows down the possible objects which can follow, i.e.

The man is smoking a *cigarette.*
cigar
pipe
waterpipe

Der Mann raucht eine *Zigarette*.
Zigarre (cigar)

Pfeife (pipe)
Wasserpfeife (Waterpipe, narghile)

The functional grammatical approach fits in this context as it is based on the idea of function of the language as it is configured. On the paradigmatic axis, the different possibilities of the realizations of the produced utterances are made available for the ultimate grammatical structure. In contrast to the generative approach, the form does not have priority but rather the logic, the resource and the meaning of the utterance.

> *"One natural outcome of functionalism's interest in the interplay of linguistic resources and their change over time is an attempt to understand how innerlanguage selects the first meaning-to-form mappings and how they expand." (Bardovi-Harlig, 2007, p.59)*

The principle of the meaning-to-form mapping is mirrored in the bilingual speaker in the interaction of the spoken languages. The shifting variable is the one-to-one mapping as it changes to multiple-to-multiple. Thus the meaning-to-form mapping becomes multifunctional within the situational context.

In summary, it is crucial to investigate linguistic structures qualitatively. Especially in the case of persons with aphasia, quantitative analysis might reveal the numerical position, but the qualitative analysis would reveal the social position. In contrast to the generative approach functional grammar has the main objective to explain the use of language in the everyday life. As every theory this theory also has its weaknesses and fractions that need to be worked on, such as the problem of transitivity. The goal to uncover the meaning is tried to be reached by the used grammatical structures. The distinction of the three points of view namely, interpersonal, ideational, and textual assist this aim. As the goal of aphasia therapy is to improve a PWA's quality of life by remediating his/her language skills and thus enabling him/her to accomplish every day life activities, it is important to have results from quantitative and qualitative language data. The paradigmatic perspective of functional grammar offers the opportunity to obtain a smooth transfer between quantitative and qualitative language data.

Discussion

The purpose of this thesis has been to provide a departure point for adequately adapting and the future of developing language test and therapy materials for all languages. Thus, the overview of the current status of the aphasia assessment and treatment materials in the context of the multilingual world set the context and provided the fundamental knowledge. The multilingual world is defined as the persons speaking multiple languages, as well as persons living with bilingual speakers. In order to reach the ultimate goals the sociolinguistic perspectives of bilingualism were briefly presented. Subsequently, a definition of aphasia and the changing factors with respect to bilingual speakers has been elucidated. The current status of the aphasia, assessment and treatment were the factors discussed, before the factors referring to the adaptation of language materials for evaluating and remediating language functions. In this regard several questions were formulated and addressed out of different perspectives. The main questions were:

- What is missing and what has to be amended in the current assessment and therapy procedures?
- Which theories underlie the research regarding bilingual speakers?
- What are the aims of adapting language materials for the bilingual communities?
- What kind of material allows for a more or less culture-free testing?

Aspects of these questions have already been addressed in the current literature. Kay et al. (1990) not only cite the missing components in the current assessment procedures but they also make suggestions regarding, how they can be improved. Furthermore, Weniger and Bertoni (1993) discuss the importance of language processing models in the identification of the responsible dysfunctions of acquired processing deficits. In some cases language processing models have formed the basis for different assessment and therapy materials which have been developed and also adapted for a variety of languages. Paradis (1987) developed the BAT and it has been adapted for over 65 languages to date. Via this assessment procedure, Paradis put forward several factors to be considered in an adaptation of language assessment materials. More importantly he emphasized the overall need for

adaptation. Although the language specific differences, social differences, and cultural differences have been considered, not all factors have been uncovered. Edwards and Bastiaanse (2007) addressed the matter of applying presently available material by scrutinizing two adapted aphasia assessment materials, namely the Psycholinguistic Assessment of Language Processing in Aphasia (PALPA) and the Verb and Sentence Test (VAST). The results of their investigation showed that translating the material is not sufficient, as the original function cannot be preserved. Psycholinguistic and linguistic variables like the word order, the verb movement, the lexical items, and word frequency have been identified to be problematic. Among others the reported results have also been discussed.

The literature overview and the adaptation of the 'Everyday Life Activities (ELA®)' have demonstrated the necessity of adequately adapting materials and not just translating them. In order to assure that the adapted material still measures the same structure or target a translation back into the original language and/or testing a healthy bilingual could be helpful. The double-dissociation and the data collected from the healthy bilingual speaker can provide relevant information regarding 'normal' language processing and oversights. Language testing of bilingual control persons in each language is almost an important goal for the future. Furthermore, findings revealed that the cultural relevance has been underestimated in adapting test and therapy materials and procedures. As Penn (2007) has rightfully emphasized, bilingual speakers are different in their use of language(s) as they are influenced by a diversity of cultural contexts.

> *"Indeed, diversity and flexibility are the essence of the human condition and are probably nowhere better expressed than in the phenomenon of aphasia"* (Penn, C. In Ball & Domico, 2007, p.237)

The complexity of language use within varying contexts necessitates consideration of the cultural background in the assessment and treatment of persons with aphasia.

> *"The departure point for the specific studies stems from more personal interest in demonstrating the validity of specific procedures being adapted rather than from a more general, theoretical perspective."* (Akin & Stark, 2008)

In accordance, the relevant application of objectively determined linguistic- and socio-cultural variables lead to a more adequate adaptation of language materials. Thus the struggle for culture-free testing can be considered ambivalent at best.

Neither adaptations nor translations offer the ultimate solution to the problem. However, adaptation can be used as a temporary solution. The use of adapted material is an auxiliary tool for the bilingual communities, especially for those which do not possess any self-developed assessment and treatment materials.

In order to meet the demands of Schuell (1970, see Chapter 4), we have to adhere to all the points that have been mentioned. This thesis does not represent all the aspects to be considered in an adaptation. Yet, it will prove constructive for the conduct of future research in this relevant area of research and clinical practice. Future research should expand on the present results and attempt to account for a better understanding of issues discussed and provide an in-depth account of assessment and treatment of aphasia in bilingual speakers in a multilingual community.

In summary, I agree with, Edwards & Bastiaanse's (2007) concluding remarks regarding assessment of aphasia in a multilingual world.

> *"We are beginning to explore how to create assessments that are applicable in cross-language research and how to best assess people who are aphasic in a multi-lingual world. There is much work still to be done." (p.255)*

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Appendix

Main Index according to Semantic Categories

N.b.: A basic premise for the listings in this index is that each entry is to be considered to serve as a first sentence in a discourse.

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Semantic sense distinctions are not split in this index.

Portraits - Introduction of the persons (-> 0001-0004;1001-1002)

The main persons in this photo series are:

smile / stand / pose (÷ for someone * for something ↔ photo ÷) / look (towards↔into↔at something ↔ camera ↔ someone (holding a camera)) (-> T: 1997-2000)
(xxx1) boy *son *brother
(xxx2) girl *daughter *sister
(xxx3) woman * mother*wife
(xxx4) man *father *husband

Naturally other persons are involved/participate in the activities, for example: a doctor/physician, a dentist, a neurologist, a physiotherapist, a nurse, a pharmacist/ druggist /chemist, a teacher, a salesman, a saleswoman, a priest/reverend/pastor/minister and .....

As is the case in every family, the children behave themselves sometimes and for that reason they are praised:

praise # admire # look at # observe (someone * boy * [his] son // girl * [his] daughter) / make (praising gesture) >>+<< receive (something * praise * recognition) (÷ from someone ↔ man ↔ [his // her] father ÷) / be happy * pleased (÷ about something ↔ //[man's * father's]// praise ↔ recognition (//[[man * [his //her] father]] * from someone ↔ man ↔ [his // her] father//) ÷) / be glad (about something ↔ //[man's * father's]// praise ↔ recognition (//[[man * [his//her] father]] * from someone ↔ man ↔ [his // her] father//)) >><< be proud (of someone ↔ boy ↔ [his] son // girl ↔ [his] daughter * of something ↔ [his // her] achievement) / look at (someone * each other) / look happy / seem § appear (to be) proud / seem <it> ((that) the man↔father↔boy↔son//the man↔ father // girl↔daughter is proud) (-> T/O: 0925-0926;1050-1057;1062-1065;1308-1319; 1322-1323;1563-1564;1589-1608;1629-1636;1667-1692;2660-2661 V: 0823-0824;1565-1566;2854; 2856)
(xxx5) man * father -> *boy * son*
(xxx6) man * father -> *girl * daughter*

But sometimes the children do not behave themselves and they are fresh. For that reason they are reprimanded:

reprimand # scold # warn # reproach # yell at # shout at (someone * boy * [his] son // girl * [his] daughter) / be angry * mad (÷ at↔with someone ↔ boy ↔ [his] son // girl * [his] daughter ÷) ((about something)) / threaten (someone * boy * [his] son // girl * [his] daughter) ((with something ↔ finger ↔ punishment)) / forbid # not allow (someone * boy * [his] son // girl * [his] daughter) (something * to do something) / get upset (÷ about something ↔ someone ÷) / be in a bad mood >>+<< listen to # pay attention to (someone * man * [his // her] father //[man's * [his // her] father's]// warning (//from someone ↔ man ↔ [his // her] father//))) / take~seriously (someone * man * [his // her] father *) / be ashamed (of oneself ↔ himself // herself) / be stubborn / lower ([his // her] head) (÷ in something ↔ shame ÷) >><< look upset * angry / seem § appear (to be) angry * mad / seem <it> ((that) the man↔father↔boy↔son // the man↔father↔ girl↔daughter is angry) (-> T/O: 0816-0818;1140-1149;1342-1361;1378-1401;1459-1496;1519-1522;1555-1560;2718-1719;2727-2728;2753;2756 V: 0017-0019;0819-0820;1553-1554;1647-1648)
(xxx7) man * father -> *boy * son*
(xxx8) man * father -> *girl * daughter*

That's how our family began! - Getting married - Highlights of the wedding ceremony

look at # admire # enjoy ((([their])) (wedding) photographs ↔ photos ↔ pictures) ((in something ↔ (wedding * photo) album)) ((together)) >>+<< show (someone * family) ((([their])) (wedding) photographs ↔ photos ↔ pictures) ((in something ↔ (wedding * photo) album)) / tell (someone * children) (something ↔ details [[(([their])) wedding]] * about something ↔ wedding) / hold ((photo) album) ((in↔with↔on something ↔ [her] hand(-s) ↔ lap)) >>!<< get divorced+ / remarry+ # get married+ / die+ <(birth) mother> (÷ at↔after↔following↔from something ↔ birth [[child]] ↔ illness ÷) / explain <stepmother> (something * circumstances * family situation) (÷ to someone ↔ children ÷) (-> V: 0907; 0915-0916;1042-1049;1050-1067;1503-1508;1563-1564;1758-1761;1998-1999;2020;2210;2238; 2300;2383-2386;2446-2447;2456;2490;2548;2576;2666;2669;2793;2795)
(2001) woman -> family

get ready (÷ for something ↔ [her] wedding ceremony ÷) ((in front of something ↔ mirror)) / prepare (for something ↔ [her] wedding ceremony) ((in front of something ↔ mirror)) / decorate ([her] hair) (÷ with flowers ↔ daisies ÷) ((in front of something ↔ mirror)) / look at (herself) (÷ in something ↔ mirror ÷) >>+<< look at (someone * bride) / watch # observe (someone * bride * the bride while she is getting ready) / be of help * assistance (to someone ↔ bride) (÷ in getting ready for [her] wedding ÷) / assist (someone * bride * [her] friend) (÷ in getting ready for [her] wedding * to get ready for [her] wedding ÷) / help (someone * bride * [her] friend) (÷ to do something * to get ready for [her] wedding ÷) (-> V: 2041;2087;2232;2393;2566;2570;2580;2598-2599;2619;2643;2807;2824;2893;2896;2907; 2927 / 2004;2103)
(2002) woman * bride - *friend * maid of honor*

marry # wed (couple * bride & groom) ((in something ↔ church)) / hold (something * wedding ceremony) ((in something ↔ church)) / carry out # perform (something * wedding ↔

marriage ceremony) ((in something ↔ church)) / read (out) # read ~out loud (something * ceremony * wedding vows) (÷ to someone ↔ couple ↔ bride & groom ÷) >>+<< get married # marry (÷ in something ↔ church ÷) / listen to # pay attention to (someone * priest * reverend * pastor * something * [priest's * reverend's * pastor's] words) / be (at something ↔ altar) / stand (÷ at↔in front of something ↔ altar ÷) (-> V: 2666;2669;2793;2795)
(2003) priest * reverend * pastor - *bride & groom*

exchange ((wedding) rings ↔ vows) ((in something ↔ church)) / be (at something ↔ altar) / give (someone * groom) (something * (wedding) ring) / put # place (something * (wedding) ring) (on someone ↔ groom * on something ↔ [groom's] finger) / put on (something * (wedding) ring) (÷ on something ↔ [groom's] finger ÷) / promise (someone * groom) (something * to stand by him * to be true to him * [her] fidelity ↔ love) / swear (something * [one's] fidelity) / get married # marry (÷ in something ↔ church ÷) >>+<< look at (someone * bride & groom) / watch # observe (someone * bride & groom * the bride & groom (while they are) exchanging ↔ while they exchange their (wedding) rings
↔ vows) (-> V: 0835;0856-0857;1328-1329;1332-1333;1336-1337;1340-1341;1547-1548 / 2002)
(2004) *priest * reverend * pastor* - bride & groom

marry # wed (couple * man & woman * bride & groom) ((in something ↔ church)) / declare (couple * bride & groom) (something * husband & wife) / perform (something * wedding ↔ marriage ceremony) ((in something ↔ church)) >>+<< get married # marry (÷ in something ↔ church ÷) / listen to # pay attention to (someone * priest * reverend * pastor * [priest's * reverend's * pastor's] words) / look at (someone * priest * reverend * pastor) / be (at something ↔ altar)
(2005) priest * reverend * pastor -> *bride & groom*

kiss (someone * each other * one another) ((on something ↔ lips ↔ mouth)) ((at something ↔ altar * after taking wedding vows * at the end [[wedding ceremony]])) / be (at something ↔ altar) / get married # marry (÷ in something ↔ church ÷) / end (wedding ceremony) (÷ with something ↔ kiss at the altar ÷) (-> V: 0811-0812;1451-1454;1639-1640;1655-1656; 1742-1745;2018-2019)
(2006) bride & groom

attend (wedding reception) / be (at something ↔ wedding reception) / sit # stand (÷ at something ↔ table ↔ wedding reception ÷) / celebrate (÷ something * ([couple's]) marriage ÷) / make (toast) (÷ to someone ↔ bride & groom ↔ newly weds ↔ couple ↔ future ÷) / toast (someone * bride & groom * newly weds * couple) / raise ([one's] glass) (÷ to someone ↔ bride & groom ↔ newly weds ↔ couple ÷) >>+<< listen to (someone * something * speech) / sit (÷ at something ↔ wedding reception ÷) (-> T/O: 2312-2314; 2315-2318;2319-2324 V: 0444-0446;2303-2307;2310-2311;2328-2348;2366-2367;2394-2396)
(2007) bride & groom & wedding guests

toast (someone * each other) ((with something ↔ champagne ↔ sparkling wine)) / propose # drink # make (toast) (÷ to someone ↔ each other * to something ↔ future ÷) / drink (÷ glass

[[champagne * sparkling wine]] * champagne * sparkling wine ÷) ((with someone ↔ each other * together)) / celebrate (÷ something * ([couple's]) marriage ÷) / be (at something ↔ wedding reception) / be happy (÷ about something ↔ marriage) / be glad (about something ↔ marriage) / smile / smile at # look at (someone * each other) / be in love (÷ with some one ↔ each other ÷) / look happy / seem § appear (to be) happy / seem <it> ((that) someone ↔ the couple is happy) (-> V: 0444;1158;1168;1176;2322)
(2008) bride & groom

cut # slice (something * (wedding) cake) ((together)) ((with something ↔ knife)) / celebrate (÷ something * ([couple's]) marriage ÷) / be (at something ↔ wedding reception) (-> V: 0284-0285;0317;0351;2217;2242-2244;2257;2275;2286;2344;2357;2412;2440;2449;2461;2465; 2465;2469;2470;2535;2538;2708;2713;2841)
(2009) bride & groom

I. Daily Physical Needs

1. Sleeping - Bedroom Activities (-> T/O: 0108-0134)

A new day begins! - Another day comes to an end!

yawn / be tired * sleepy / look § feel tired / go (to something ↔ bed) / sit (÷ on something ↔ bed * at something ↔ edge [[[his // her] bed]] ÷) & yawn / be awake / wake up+ // stretch (([her] arms)) / (have to) get up / seem § appear (to be) tired / seem <it> ((that) the boy//girl is tired) (-> T/O: 2142-2157;0428-0429 V: 0035-0037;0122-0125)
(2010) boy
(2011) girl

wake (~up) (someone * boy * [his] son // girl * [his] daughter) >>+<< sleep / oversleep+ / be late (÷ for something ↔ school ↔ appointment ÷) / not hear+ (alarm clock) (-> V: 0833-0834)
(2012) man * father -> *boy * son*
(2013) man * father -> *girl * daughter*

sleep (÷ in something ↔ bed ÷) / lie (in something ↔ bed) / fall asleep+ / go+ (to something ↔ bed) (-> T/O: 0108-0134 V: 0108-0111;0833-0834)
(2014) man & woman

wake (~up) (someone * man & woman * [his // her] father & mother ↔ parents) >>+<< sleep / oversleep+ / be late (÷ for something ↔ work ↔ appointment ÷) / not hear+ (alarm clock) (-> T/O: 2158-2172;0428-0429 V: 2012)
(2015) boy * son -> *man & woman * father & mother*
(2016) girl * daughter -> *man & woman * father & mother*

be awake / lie (awake) (in something ↔ bed) / not be able to (fall) sleep / be about to fall asleep / be tired * sleepy / look § feel tired / seem § appear (to be) tired / seem <it> ((that) the man and woman are tired) (-> T/O: 0641-0642 V: 0122-0125)
(2017) man & woman

kiss (someone * man * [her] husbamd // woman * [his] wife) ((on something ↔ cheek)) / give (//someone * man * [her] husband // woman * [his] wife//) (kiss) ((on something ↔ cheek)) (//to someone ↔ man ↔ [her] husband // woman ↔ [his] wife//) / say (something * good morning * good night) (÷ to someone ↔ man ↔ [her] husband // woman ↔[his] wife÷) ((with something ↔ kiss)) / love # care for (someone * man * [her] husband // woman * [his] wife) >>+<< receive (kiss) ((on something ↔ (([his // her])) cheek)) (÷ from someone ↔ woman // man ÷) (-> T/O: 2312-2314;2315-2318;2319-2325;2325;2340;2379;2382; 2496;2519-2520 V: 0811-0812;1451-1454;1639-1640;1655-1656;1742-1745;2006;2372)
(2018) *man* <- woman
(2019) man -> *woman*

say (something * good morning * good night) (÷ to someone ↔ woman ↔ [his] wife ÷) / describe (something * [his] dream ↔ day) (÷ to someone ↔ woman ↔ [his] wife ÷) / tell (someone * woman * [his] wife) (about something ↔ [his] dream ↔ day * something * good morning * good night) / talk # speak (÷ to↔with someone ↔ woman ↔ [his] wife ↔ each other ÷) ((in something ↔ bed)) / joke # fool around (÷ with someone ↔ [his] wife ↔ each other ÷) / poke fun at # make fun of # tease (someone * woman * [his] wife * each other) / whisper (something * good morning * good night) (÷ to someone ↔ woman ↔ [his] wife ÷) >>+<< wake+ up / listen to (someone * man * [her] husband) >><< be awake (÷ in something ↔ bed ÷) / lie (awake) (in something ↔ bed) / converse # chat (÷ with someone ↔ woman ↔ [his] wife ↔ man ↔ [her] husband ↔ each other ÷) ((in something ↔ bed)) / be happy (÷ about something ↔ new day * to be alive and healthy ÷) (-> V: 0427; 0445;0802-0806;0858-0861;1543-1544;2300)
(2020) man & woman

2. Necessary Activities

Going to the toilet / bathroom / lavoratory / WC

go (to something ↔ toilet ↔ bathroom ↔ WC ↔ lavoratory) / open (//bathroom// door ((//[[bathroom * toilet * WC]]))//) (-> T/O: 0032;0044;0047;0420;0441;2326-2346;2105-2108;2114-2115;2202-2209;2524-2526 V: 0097-0100)
(2021) boy

flush (toilet) / press ((down)) (lever ↔ button (([[toilet bowl * WC]]))
(2022) boy

wash ([his] hands) ((in something ↔ bathroom sink ↔ wash basin)) (-> V: 0135-0138;2072; 2077;2534;2546;2620)
(2023) boy

Pet duties - Taking care of the dog (V/T/O: 0697-0700;0721-724;1847-1852;1909-1912)

feed ((([her])) dog) / give (//something * (([her])) dog//) (((dog)) food * [its] food bowl * something to eat) (//to something ↔ (([her])) dog //) / take care of (something * (([her])) dog) (-> V: 0697-0698;2972)
(2024) girl

put (//[dog's]// leash) (on something ↔ //[dog's]// collar ↔ dog) / put on (//[dog's]// leash) (÷ on something ↔ //[dog's]// collar ÷) / fasten (//[dog's]// leash) (to something ↔ //[dog's]// collar ↔ dog) / attach (//[dog's]// leash) (÷ to something ↔ //[dog's]// collar ↔ dog ÷)
(2025) girl

take (~out) ((([her])) dog) (÷ for something ↔ walk ÷) / go (for something ↔ walk) ((with something ↔ (([her])) dog)) / walk ([her] dog * with something ↔ (([her])) dog) ((in↔on↔along something ↔ park ↔ sidewalk ↔ path)) (-> V: 0721-0724)
(2026) girl

The habit of smoking **(-> V/T/O: 0101-0102;0862-0867;1557-1560;1903-1908)**

>>!<< should tell # should advise <one> (someone * man) (something * to stop smoking * that he should not smoke ((cigarettes // cigars // a pipe)) * about the dangers [[smoking ((cigarette // cigar // pipe))]]) / should inform # should warn <one> (someone * man) (÷ about something ↔ smoking ((cigarettes // cigars // a pipe)) * about the dangers ↔ health risks [[smoking ((cigarettes // cigars // a pipe))]] ÷) / should make aware <one> (someone * man) (of something ↔ dangers ↔ health risks [[smoking ((cigarettes// cigars // a pipe))]]) / should recommend <one * someone> (to someone ↔ man) (something * to stop smoking * that he should not smoke ((cigarettes // cigars // a pipe))) / should not smoke <someone * man> (something * cigarettes // cigars // a pipe) / be unhealthy <smoking> / not follow (something * //[doctor's * physician's * woman's * wife's//] advice //[[doctor * physician * woman * wife]]//)

Smoking a cigarette

light (~up) (cigarette) ((with something ↔ (cigarette) lighter)) / smoke (÷ cigarette ÷) (-> T/O: 0862-0867;1557-1560 V: 0101-0102;0862-0867;2034;2038;2341;2580-2582)
(2027) man

smoke (÷ cigarette ÷) / puff (on something ↔ cigarette) / enjoy (cigarette * smoking a cigarette) / inhale # breathe in (something * smoke (([[cigarette]]))) / take (puff ↔
drag (([[cigarette]]))) (-> T/O: 0862-0867;1557-1560 V: 0103-0104;2035;2039)
(2028) man

exhale # breathe out (smoke (([[cigarette]]))) / enjoy (cigarette * smoking a cigarette) (-> V: 0713-0714;1942-1945;2343;2583;2584)
(2029) man

put # tap # flick (ashes) (into something ↔ ash tray) (-> V: 2040;2287)
(2030) man

put ~out # stub ~out (cigarette) (÷ in something ↔ ash tray ÷)
(2031) man

Smoking a cigar

smell (cigar) / enjoy # breathe in # inhale # check (aroma [[cigar]])
(2032) man

bite (~off) # cut (~off) (of something ↔ tip ↔ end [[[his] cigar]])
(2033) man

light (~up) (cigar) ((with something ↔ match)) / puff (on something ↔ cigar) (-> V: 2027)
(2034) man

smoke (÷ cigar ÷) / puff (on something ↔ cigar) / enjoy (cigar * smoking a cigar) / take (puff ↔ drag (([[[his] cigar]]))) (-> V: 2028)
(2035) man

Smoking a pipe

put (tobacco) (in(to) something ↔ [his] pipe) / fill (~up) ([his] pipe) (÷ with something

↔ tobacco ÷)
(2036) man

press # stuff (tobacco) (in(to) something ↔ [his] pipe) ((with something ↔ tobacco stuffer)) / fill (pipe) (÷ with something ↔ tobacco ÷) (-> V: 2852)
(2037) man

light (~up) ([his] pipe) ((with something ↔ match)) / puff (on something ↔ [his] pipe) (-> V: 2027)
(2038) man

smoke (÷ [his] pipe ÷) / enjoy ([his] pipe * smoking [his] pipe) / take (puff ↔ drag [[[his] pipe]]) (-> V: 2028)
(2039) man

tap (tobacco (remains) * //[his] pipe//) (into ↔ on something ↔ ash tray * //out of something ↔ pipe//) / shake (tobacco (remains)) (out something ↔ pipe) (÷ into something ↔ ash tray ÷) / empty (tobacco (remains)) (into something ↔ ash tray) / empty ([his] pipe) (÷ into something ↔ ash tray ÷) (-> V: 2195;2402;2698;2700;2703; 2705;2815;2818)
(2040) man

3. Personal Hygiene

Taking a bath

fill ((bath) tub) / turn ~on (water * faucet ↔ tap (([[bathtub]]))) / want to take (bath) / take a bath / have a bath / prepare (bathtub) (÷ for something ↔ (bubble) bath ÷) (-> V: 2070;2174;2189;2407;2568; 2574)
(2041) man

get undressed / take ~off ([his] clothes ↔ shirt) ((in something ↔ bathroom * for something ↔ bath)) / get ready (÷ for something ↔ [his] bath ÷) (-> V: 0222-0225;2143;2625)
(2042) man

take a (bubble) bath / have a bath / lie # be (in something ↔ bathtub) / relax (÷ in something ↔ bathtub ÷) (-> V: 0147-0150 / 2105;2118;2800;2870-2871;2980-2981;2985)
(2043) man

dry (himself * [his] body) ((with something ↔ ((blue)) towel)) / stand (÷ in something ↔ bathtub ÷) (-> V: 0163-0166;2061;2067;2074;2079;2979;0457-0460;0874-0875;1871-1876;2074; 2079;2302;2979)
(2044) man

put ~on ([his] bathrobe ↔ dressing gown) / put (//[his]// arm) (into something ↔ //[his]// bathrobe ↔ dressing gown) / slip into (something * [his] bathrobe ↔ dressing gown) (-> V: 0222-0245;1601-1602;2142-2172;2489-2493;2503-2504;2599;2846;2875;2900)
(2045) man

Brushing one's teeth

fill (~up) ((plastic) cup) (÷ with something ↔ water ÷) / turn ~on+ (water * faucet * tap) / hold ((plastic) cup) (÷ under something ↔ (running) water ↔ tap ↔ faucet ÷) {bathroom}
(2046) woman

put # squeeze (toothpaste * dab [[toothpaste]]) (on(to) something ↔ [her] tooth brush) / squeeze (toothpaste * dab [[toothpaste]]) (out of something ↔ tube (([[toothpaste]])))
(2047) woman

brush # clean ([her] teeth) ((with something ↔ toothbrush)) (-> V: 0167-0170;2216;2277; 2283;2545)
(2048) woman

rinse (~out) ([her] mouth) ((with something ↔ water)) (-> V: 2059;2066;2138)
(2049) woman

clean # rinse (~off) ([her] toothbrush) / rinse (toothpaste) (from↔off something ↔ [her] toothbrush) / hold ([her] toothbrush) (÷ under something ↔ (running) water ↔ tap ↔ faucet ÷) (-> V: 2049)
(2050) woman

Shaving oneself - Giving oneself a shave

shave (÷ himself * [his] ((stubbly)) beard] ÷) ((with something ↔ electric razor ↔ safety razor)) {bathroom - dressed - street clothing} (-> T/O: 2303-2307 V: 0179-0182)
(2051) man

be about to shave # get ready to shave # want to shave # will shave (÷ himself * [his] ((stubbly)) beard ÷) ((with something ↔ (electric * safety) razor)) {bathrobe - setting photo}
(2052) man

plug ((electric * safety) razor * plug [[(electric * safety) razor]]) (in something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet) / stick (plug [[(electric * safety) razor]]) (into something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet) / plug in # stick in ((electric * safety) razor * plug [[(electric * safety) razor]]) (÷ in(to) something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) / unplug ((electric * safety) razor) / pull # take (plug [[(electric * safety) razor]]) (out of ↔ from something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet) / take ~out (plug [[(electric * safety) razor]]) (÷ from something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) / remove (plug [[(electric * safety) razor]]) (÷ from something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) (-> V: 2068;2167)
(2053) man

shave (÷ himself * [his] ((stubbly)) beard ÷) ((with something ↔ (electric * safety) razor)) ((in something ↔ bathroom))
(2054) man

be about to shave # get ready to shave # want to shave # will shave (÷ himself * [his] ((stubbly)) beard ÷) ((with something ↔ razor ↔ disposable razor ↔ throw away razor ↔ razor blade)) {bathrobe - setting photo}
(2055) man

put # squeeze # squirt ((shaving) foam ↔ cream) (on(to) something ↔ palm [[[his] hand]] ↔ hand) (-> V: 2426)
(2056) man

put ((shaving) foam ↔ cream) (on something ↔ [his] face ↔ beard ↔ cheeks) / apply ((shaving) foam ↔ cream) (÷ onto ↔ to something ↔ [his] face ↔ beard ↔ cheeks ÷) (-> V: 0194;2062;2076)
(2057) man

shave (÷ himself * [his] ((stubbly)) beard ÷) ((with something ↔ razor ↔ disposable razor ↔ throw away razor ↔ razor blade))
(2058) man

rinse (off) # clean (razor blade * disposable razor * throw away razor) / rinse ((shaving) foam ↔ cream) (from ↔ off something ↔ razor blade ↔ disposable razor ↔ throw away razor) / hold (razor blade * disposable razor * throw away razor) (÷ under something ↔ (running) water ↔ tap ↔ faucet ÷) (-> V: 2049)
(2059) man

rinse # wash ((shaving) foam ↔ cream) (off↔from something ↔ [his] face ↔ cheeks) / rinse # wash (off) ([his] face ↔ cheeks) (-> V: 2023)
(2060) man

dry # wipe ~off ([his] face) ((with something ↔ ((orange flowered ↔ floral)) towel)) (-> V: 0159-0162;2044;2979)
(2061) man

put (aftershave * eau de cologne) (on something ↔ [his] ((freshly shaven)) face ↔ cheeks) / splash on # put on (aftershave * eau de cologne) (÷ on (to) something ↔ [his] ((freshly shaven)) face ↔ cheeks ÷) / apply (aftershave * eau de cologne) (÷ to something ↔ [his] ((freshly shaven)) face ↔ cheeks ÷) / moisten ([his] ((freshly shaven)) face ↔ cheeks) ((with something ↔ aftershave ↔ eau de cologne)) (-> V: 0194;2057)
(2062) man

Washing one's hair

wet ([her] hair) / hold # put ([her] head ↔ hair) (under something ↔ (running) water ↔ tap ↔ faucet) {bathroom sink - bathroom}
(2063) woman

put # empty # pour (shampoo) (on(to) something ↔ palm [[[her] hand]] ↔ [her] hand) (2064) woman

rub (~in) # distribute (shampoo) (÷ into↔onto↔on something ↔ [her] hair ↔ scalp ÷) / apply (shampoo) (÷ to something ↔ [her] hair ↔ scalp ÷) / wash # shampoo ([her] hair) ((in something ↔ bathroom sink ↔ basin)) / massage ([her] scalp) (-> V: 0155-0158; 2023;2534)
(2065) woman

rinse ([her] hair) (÷ under something ↔ faucet ↔ tap ÷) ((in something ↔ bathroom sink)) / rinse (shampoo * suds * lather * foam) (out of↔off↔from something ↔ hair ↔ scalp) / wash out (shampoo * suds * lather * foam) (÷ out of↔off↔from something ↔ hair ↔ scalp ÷) / hold # put ([her] head ↔ hair) (under something ↔ (running) water ↔ tap ↔ faucet) (-> V: 2049)
(2066) woman

dry # rub down # towel dry ([her] hair) ((with something ↔ towel)) (-> V: 2044)
(2067) woman

put # place (plug [[hairdryer * blowdryer]]) (in↔into something ↔ ((bathhroom)) socket ↔ wall-socket ↔ ((electrical)) outlet) / plug in (hairdryer * blowdryer) (÷ in↔into something ↔ ((bathroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) / unplug (hairdryer * blowdryer) / take # pull (plug [[hairdryer * blowdryer]]) (out of ↔ from something ↔ ((bathhroom)) socket ↔ wall-socket ↔ ((electrical)) outlet) / take out (plug [[hairdryer * blowdryer]]) (÷ out of ↔ from something ↔ ((bathhroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) / remove (plug [[hairdryer * blowdryer]]) (÷ from something ↔ ((bathhroom)) socket ↔ wall-socket ↔ ((electrical)) outlet ÷) (-> V: 2053)
(2068) woman

blowdry ([her] hair) / dry ([her] hair) ((with something ↔ hairdryer ↔ blowdryer)) / brush # fix # do # style ([her] hair) ((with something ↔ hair brush & hairdryer ↔ blowdryer)) (-> V: 0183-0186;1536-1538;1633-1634)
(2069) woman

Washing one's hands

turn ~on (water-tap * faucet * water) / (want to) wash (himself * [his] hands) / (want to) get washed ((in something ↔ bathroom)) {bathroom} (-> V: 2023;2041)
(2070) boy

put # rub (soap) (on↔onto something ↔ [his] hands ↔ palm [[[his] hands]]) / apply (soap) (to something ↔ [his] hands ↔ palm [[[his] hand]]) / lather (~up) ([his] hands) ((with something ↔ soap))
(2071) boy

wash ([his] hands) ((in something ↔ bathroom)) / get washed ((in something ↔ bathroom)) (-> V: 0135-0138;0143-0146;2023)
(2072) boy

rinse (~off) ([his] hands) ((under something ↔ (running) water ↔ tap ↔ faucet)) / rinse (soap * lather * suds) (off something ↔ hands) ((under something ↔ (running) water ↔ tap ↔ faucet)) / hold ([his] hands) (under something ↔ (running) water↔tap↔faucet) (-> V: 2023)
(2073) boy

dry # wipe ~off ([his] hands) ((with something ↔ towel)) (-> V: 0159-0162;2044)
(2074) boy

(Stark, 1998, pp.80-90)

Hauptverzeichnis nach Semantischen Kategorien

Portraits - Vorstellungsfotos/-photos (-> 0001-0004;1001-1002)
Die Hauptpersonen dieser Fotoserie sind:

lächeln / stehen / posieren ('E für etwas « Foto « Photo * für jmdn. 'E) / schauen # gucken (in etwas « Kamera) (-> T: 1997-2000)

(xxx1) Junge/Bub	*	Sohn	*	Bruder
(xxx2) Mädchen	*	Tochter	*	Schwester
(xxx3) Frau	*	Mutter	*	(Ehe-) Gattin
(xxx4) Mann	*	Vater	*	(Ehe-) Gatte

Natürlich kommen auch andere Personen vor, wie etwa: ein Arzt, eine Zahnärztin, ein Neurologe, eine Physiotherapeutin, eine Krankenschwester, ein Pharmazeut bzw. Apotheker, eine Lehrerin, ein Verkäufer, eine Verkäuferin, ein Priester bzw. ein Pfarrer und .....

Wie es bei jeder Familie der Fall ist, sind die Kinder manchmal brav und werden deshalb gelobt:

loben # bewundern # betrachten (jmdn. * Jungen/Buben // Mädchen * ((sein-)) Sohn « Tochter) / machen ((lobend-) Geste) >>+<< bekommen (Lob * Anerkennung) ('E von jmdm. « Mann « ((sein- // ihr-)) Vater 'E) / freuen [sich] (über etwas « Lob « Anerkennung ('E [[Mann * ((sein- // ihr-)) Vater]] 'E)) >><< stolz sein (auf jmdn. « Jungen/Buben « ((sein-)) Sohn « // Mädchen « ((sein-)) Tochter * sich * auf etwas « (sein- // ihr-) Leistung) / anschauen # angucken (sich * einander) / glücklich ausschauen § dreinschauen § dreinblicken / scheinen (etwas zu sein * glücklich zu sein) (-> T/O: 0925-0926;1050-1057;1062-1065;1308-1319;1322-1323;1563-1564;1589-1608;1629-1636;1667-1692;2660-2661 V: 0823-0824;1565-1566;2854;2856)
(xxx5) Mann * Vater -> *Junge/Bub * Sohn*
(xxx6) Mann * Vater -> *Mädchen * Tochter*

Aber manchmal sind die Kinder schlimm oder frech und werden deshalb zurechtgewiesen:

warnen # ermahnen # zurechtweisen # tadeln # schelten # ausschimpfen # beschimpfen (jmdn. * Jungen/Buben * ((sein-)) Sohn // Mädchen * ((sein-)) Tochter) / schimpfen ('E mit jmdm. « Jungen/Buben « ((sein-)) Sohn // Mädchen « ((sein-)) Tochter 'E) ((wegen [[etwas]])) / drohen (jmdm. * Jungen/Buben * ((sein-)) Sohn // Mädchen * ((sein-)) Tochter) ((mit etwas « Zeigefinger « Strafe)) / verbieten # nicht erlauben (jmdm. * Jungen/Buben * ((sein-)) Sohn // Mädchen * ((sein-)) Tochter) (etwas) / aufregen (sich) ('E über etwas « jmdn. 'E) / böse sein ('E auf jmdn.«mit jmdm. « Jungen/Buben « ((sein-)) Sohn // Mädchen « ((sein-)) Tochter 'E) >>+<< zuhören (jmdm. * Mann * ((sein- // ihr-)) Vater) / ernst nehmen (jmdn. * Mann * ((sein- // ihr-)) Vater) / genieren [sich] # schämen [sich] ((wegen [[etwas]])) / trotzig sein ((wegen [[etwas]])) >><< böse dreinschauen § dreinblicken / scheinen (etwas zu sein * böse zu sein) (-> T/O: 0816-0818;1140-1149;1342-1361;1378-1401;1459-1496;1519-1522;1555-1560;2718-1719;2727-2728; 2753;2756 V: 0017-0019; 0819-0820;1553-1554;1647-1648)
(xxx7) Mann * Vater -> *Junge/Bub * Sohn*
(xxx8) Mann * Vater -> *Mädchen * Tochter*

anschauen # angucken # ansehen ((sich)) ((gemeinsam)) (Fotos * Photos * Hochzeitsfotos /-photos) ((in etwas « (Foto-/Photo-) Album)) / betrachten # genießen (Fotos * Photos * Hochzeitsfotos/-photos) ((in etwas « (Foto-/Photo-) Album)) >>+<< zeigen (jmdm. * Familie) (Fotos * Photos * Hochzeitsfotos/-photos) ((in etwas « (Foto-/Photo-) Album)) / erzählen (Ë jmdm. * ((ihr-)) Kindern Ë) (über etwas « Hochzeit) / halten ((Foto-/Photo-) Album) ((in etwas « Hand)) >>!<< scheiden lassen+ (sich) / wieder heiraten+ / sterben+ <(leiblich-) Mutter> (Ë bei etwas « Geburt * an etwas Ë) / erzählen <Stiefmutter> (Ë jmdm. * Kindern Ë) (etwas * über etwas « (ihr-) (verstorben-) Mutter) (-> V: 0907;0915-0916;1042-1049;1050-1067;1503-1508;1563-1564;1758-1761;1998-1999; 2020;2210;2238;2300;2383-2386;2446-2447;2456;2490;2548;2576;2666;2669;2793;2795
(2001) Frau -> Familie

vorbereiten (sich) (Ë auf etwas « ((ihr-)) Hochzeit Ë) ((vor etwas « Spiegel)) / bereit machen # fertigmachen (sich) (Ë für etwas « ((ihr-)) Hochzeit « Zeremonie Ë) / schmücken (((ihr-)) Haar) (Ë mit etwas « Blumen « Margeriten Ë) ((vor etwas « Spiegel)) / anschauen # angucken (sich) (Ë in etwas « Spiegel Ë) >>+<< zuschauen # zugucken (jmdm. * Braut * der Braut beim Frisieren « Fertigwerden « Herrichten) / beobachten (jmdn. * Braut * die Braut beim Frisieren « Fertigwerden « Herrichten) / behilflich sein (jmdm. * Braut) (Ë beim Fertigwerden « Frisieren Ë) (-> V: 2041;2087;2232; 2393;2566;2570;2580;2598;2619; 2643;2807;2824;2893;2896;2907;2927)
(2002) Frau * Braut - *Freundin * Trauzeugin * Brautjungfrau*

halten (Trauung * Hochzeitszeremonie) ((in etwas « Kirche)) / trauen ((Braut-) Paar * Frau & Mann * Braut & Bräutigam) ((in etwas « Kirche)) / durchführen (Trauung * Hochzeitszeremonie) ((in etwas « Kirche)) / vorlesen (Ë jmdm. * Brautpaar Ë) (etwas * Trauspruch) ((in etwas « Kirche)) >>+<< vermählen (sich) ((in etwas « Kirche)) / heiraten (Ë in etwas « Kirche Ë) / zuhören (jmdm.* Pfarrer * Priester) / aufpassen (auf etwas « Worte [[Pfarrer * Priester]]) / stehen (vor etwas « Altar) (-> V: 2666;2669;2793;2795)
(2003) Pfarrer * Priester - *Braut & Bräutigam*

austauschen ((miteinander)) ((Ehe-) Ringe * Eheversprechen) ((in etwas « Kirche)) / stecken # geben (jmdm. * Bräutigam) ((Ehe-) Ring) (Ë an etwas « ((sein-)) Ringfinger Ë) / versprechen # schwören # geloben (jmdm. * Bräutigam) (((ihr-)) Treue « Liebe) / ablegen (Gelübde) (Ë etwas zu tun * ((ihr-)) Mann « Gatte treu zu bleiben«sein Ë) / vermählen (sich) ((in etwas « Kirche)) / heiraten (Ë in etwas « Kirche Ë) / stehen (vor etwas « Altar) >>+<< zuschauen # zugucken (jmdm. * Braut & Bräutigam * der Braut & dem Bräutigam beim Austauschen [[Ringe]]) / beobachten (jmdn. * Braut & Bräutigam * die Braut & den Bräutigam beim Austauschen [[Ringe]]) (-> V: 0835;0856-0857;1328-1329;1332-1333;1336-1337;1340-1341;1547-1548 / 2002)
(2004) *Pfarrer * Priest*er - Braut & Bräutigam

trauen ((Braut-) Paar * Frau & Mann * Braut & Bräutigam) ((in etwas « Kirche)) / erklären (Paar * Braut & Bräutigam) (zu«für etwas « Mann und Frau) >>+<<

vermählen (sich) ((in etwas « Kirche)) / heiraten (Ɛ in etwas « Kirche Ɛ) / stehen (vor etwas « Altar) / zuhören (jmdm. * Pfarrer * Priester) / aufpassen (auf etwas « Worte [[Pfarrer * Priester]])
(2005) Pfarrer * Priester -> *Braut & Bräutigam*

küssen (jmdn. * einander * sich) ((auf etwas « Lippen « Mund)) ((vor etwas « Altar * bei etwas « Hochzeitszeremonie « Trauung)) / vermählen (sich) ((in etwas « Kirche)) / heiraten (Ɛ in etwas « Kirche Ɛ) / stehen (vor etwas « Altar) / beenden (Hochzeitszeremonie * Trauung) ((mit etwas « Kuß)) (-> V: 0811-0812;1451-1454;1639-1640;1655-1656;1742-1745;2018-2019)
(2006) Braut & Bräutigam

sein (bei etwas « Hochzeitsmahl * Hochzeitsfeier) / beiwohnen (Hochzeitsmahl * Hochzeitsfeier) / sitzen (Ɛ bei « an etwas « Tisch « Tafel Ɛ) / feiern (Ɛ ((ihr-)) Hochzeit « Vermählung Ɛ) / aussprechen # ausbringen (Trinkspruch * Toast) (Ɛ auf jmdn. « Brautpaar « frisch vermähltes Paar * auf etwas « Glück « Hochzeit « Zukunft Ɛ) / erheben (((ihr-)) Gläser) (Ɛ auf jmdn. « Brautpaar Ɛ) / stehen (Ɛ mit etwas « (erhoben-) Gläsern Ɛ) >>+<< zuhören (Trinkspruch * Toast) / sitzen (Ɛ an etwas « Hochzeits-tafel Ɛ) (-> T/O: 2312-2324 V: 0444;2303-2307;2310-2311;2328-2348;2366-2367; 2394-2396)
(2007) Braut & Bräutigam & Hochzeitsgäste

zuprosten (jmdm. * sich * einander) / anstoßen (Ɛ miteinander Ɛ) ((mit etwas « Sekt « Champagner)) / aussprechen # ausbringen (Trinkspruch * Toast) (Ɛ auf jmdn. « einander * auf etwas « Hochzeit « Zukunft Ɛ) / trinken ((miteinander * gemeinsam)) (Ɛ ((Glas)) Sekt « Champagner Ɛ) / feiern (Ɛ ((ihr-)) Hochzeit « Vermählung Ɛ) / sein (bei etwas « Hochzeitsmahl * Hochzeitsfeier) / freuen [sich] (über etwas « Vermählung) / anlächeln # anschauen # angucken (einander * sich) / verliebt sein (Ɛ in jmdn. « einander Ɛ) / glücklich ausschauen § dreinschauen § dreinblicken / scheinen (etwas zu sein * glücklich zu sein) (-> V: 0444;1158;1168; 1176;2322)
(2008) Braut & Bräutigam

schneiden # anschneiden ((gemeinsam * miteinander)) (((ihr-)) (Hochzeits-) Torte « Hochzeitskuchen) ((mit etwas « Messer « Tortenmesser)) / feiern (Ɛ ((ihr-)) Hochzeit « Vermählung Ɛ) / sein (bei etwas « Hochzeitsmahl * Hochzeitsfeier) (-> V: 0284;0317-0320;0351-0352;2217;2242-2244;2257;2275;2286;2344-2345;2357;2412;2440;2449;2461;2465; 2465;2469;2470;2535;2538;2708;2713;2841)
(2009) Braut & Bräutigam

I. Tägliche Körperliche Bedürfnisse

1. Schlafen - Schlafzimmer (-> T/O: 0108-0134)

Ein neuer Tag beginnt! - Ein Tag geht zu Ende!

gähnen / verschlafen * müde sein / müde ausschauen § dreinschauen § dreinblicken / gehen (in«zu etwas « Bett) / schlafen gehen / sitzen (Ɛ auf etwas « ((sein-)) Bettrand Ɛ) &

gähnen / wach * munter werden / aufgewacht sein ((gerade)) // strecken # rekeln [sich] / aufstehen (müssen) (-> T/O: 0428-0429;2142-2157 V: 0035-0037;0122-0125)
(2010) Junge/Bub
(2011) Mädchen

aufwecken (jmdn. * Jungen/Buben * ((sein-)) Sohn // Mädchen * ((sein-)) Tochter) >>+<< schlafen ('E in etwas « Bett 'E) / liegen # sein (in etwas « Bett) / spät d(a)ran sein ('E für etwas « Schule « Termin 'E) / überhören+ (Wecker * Läuten [[Wecker]]) / verschlafen+ (-> V: 0833-0834)
(2012) Mann * Vater -> *Junge/Bub * Sohn*
(2013) Mann * Vater -> *Mädchen * Tochter*

schlafen # einschlafen+ ('E in etwas « Bett 'E) / liegen # sein (in etwas « Bett) (-> V/T/O: 0108-0134)
(2014) Mann & Frau

aufwecken (jmdn. * Mann & Frau * ((sein-//ihr-)) Vater & Mutter * Eltern) >>+<< schlafen / spät d(a)ran sein ('E für etwas « Büro « Arbeit « Termin 'E) / überhören+ (Wecker * Läuten [[Wecker]]) / verschlafen+ (-> T/O: 2158-2172;0428-0429 V: 2012)
(2015) Junge/Bub * Sohn -> *Mann & Frau * Vater & Mutter*
(2016) Mädchen * Tochter -> *Mann & Frau * Vater & Mutter*

wach * munter sein / aufgewacht sein ((gerade)) / wach liegen (in etwas « Bett) /wach sein ('E in etwas « Bett 'E) / nicht einschlafen können / müde sein / müde ausschauen § dreinschauen § dreinblicken (-> T/O: 0641-0642 V: 0122-0125)
(2017) Mann & Frau

küssen (jmdn. * einander * sich) ((auf etwas « Wange)) / geben (jmdm. * ((ihr-)) Mann « Gatten // ((sein-)) Frau « Gattin) (Kuß) ((auf etwas « Wange)) / erwidern (Kuß) ((auf etwas « Wange)) / sagen ('E ((ihr-)) Mann « Gatten // ((sein-)) Frau « Gattin 'E) (etwas * 'guten Morgen' * 'gute Nacht') ((mit etwas « Kuß)) / lieben # lieb haben (jmdn. * ((ihr-)) Mann « Gatten // ((sein-)) Frau « Gattin) / zärtlich sein ((mit jmdm. « einander)) >>+<< bekommen # erhalten ('E von jmdm. « ((sein-)) Frau « Gattin // ((ihr-)) Mann « Gatten 'E) (Kuß) ((auf etwas « Wange)) (-> T/O: 2312-2314;2315-2318;2319-2325;2325;2340;2379;2382;2496;2519-2520 V: 0811-0812;1451-1454;1639-1640;1655-1656;1742-1745;2006;2372)
(2018) *Mann* <- Frau
(2019) Mann -> *Frau*

sagen ('E jmdm. * ((sein-)) Frau « Gattin 'E) (etwas * 'guten Morgen' * 'gute Nacht') / erzählen ('E jmdm. * ((sein-)) Frau « Gattin 'E) (etwas * Geschichte * ((sein-)) Traum * über etwas « ((sein-)) Traum) / aufheitern # necken (jmdn. * ((sein-)) Frau « Gattin) / plaudern # reden # sprechen # scherzen ('E mit jmdm. « ((sein-)) Frau « Gattin « einander 'E) ((in etwas « Bett)) / zuflüstern (jmdm. * ((sein-)) Frau « Gattin) (etwas) / flüstern (jmdm. * ((sein-)) Frau « Gattin) ('E etwas 'E) (in etwas « ((ihr-)) Ohr) >>+<< munter werden / aufwachen+ / zuhören (jmdm. * ((ihr-)) Mann « Gatten) >><< wach sein ('E in etwas « Bett 'E) / wach liegen (in

etwas « Bett) / unterhalten (sich) ((in etwas « Bett)) / glücklich sein (Ɛ über etwas « (neu-) Tag « Gesundheit « Leben Ɛ) (-> V: 0427;0445;0802-0806;0858-0861;1543-1544;2300)
(2020) Mann & Frau

2. Notwendige Tätigkeiten

Auf die Toilette gehen

gehen (zu«auf etwas « Toilette « Klo « WC) / aufsuchen (Toilette * Klo * WC) / aufmachen # öffnen (//Klo * WC// Tür (((//[[Toilette * Klo * WC]]//))) (-> T/O: 0032;0044;0047;0420;0441; 2326-2346;2105-2108;2114-2115;2202-2209;2524-2526 V: 0097-0100)
(2021) Junge/Bub

hinunterspülen (Toilettenpapier) / abziehen / betätigen ((Klo- « Toiletten- « WC-) Spülung) / drücken (auf etwas « WC-Spülung « Spülung (([[Klosett * Toilette * WC]]))) (2022) Junge/Bub

waschen (sich *//(sein-) Hände//) (//((sein-)) Hände//) ((auf«in etwas « Toilette « Klo « WC « Waschbecken (([[Klo * WC]])))) (-> V: 0135-0138;2072;2077;2534;2546;2620)
(2023) Junge/Bub

Haustierpflichten - Für den Hund sorgen (-> V/T/O: 0697;0721-724;1847-1852;1909-1912)

füttern (Hund) / geben (Hund) (Futter * Futternapf * etwas zu fressen) / versorgen (Hund) (Ɛ mit etwas « Futter Ɛ) ((in etwas « Futternapf)) (-> V: 0697-0698;2972)
(2024) Mädchen

befestigen # festmachen # anhängen (Hundeleine) (Ɛ an etwas « Halsband [[Hund]] Ɛ) / hängen # geben (Hundeleine) (an etwas « Halsband [[Hund]])
(2025) Mädchen

spazieren gehen # hinausgehen # äußerln gehen # Gassi gehen (Ɛ mit etwas « Hund Ɛ) ((in«auf etwas « Park « Gasse « Weg)) / äußerln führen # ausführen (Hund) / führen (Hund) (Ɛ an etwas « Leine Ɛ) (-> V: 0721-0724)
(2026) Mädchen

Das Rauchen als Gewohnheit **(-> V/T/O: 0101-0102;0862-0867;1557-1560;1903-1908)**

>>!<< sagen sollen # empfehlen sollen # nahelegen sollen <man> (jmdm. * Mann) (etwas * daß man « er nicht rauchen soll) / aufklären sollen # aufmerksam machen sollen # informieren sollen <man> (jmdn. * Mann) (Ɛ über etwas « Zigarette // Zigarre // Pfeife « Gefahren [[((Zigaretten- // Zigarren- // Pfeife-)) Rauchen]] Ɛ) / abraten sollen <man> (jmdn. * Mann) (Ɛ von etwas « Zigarette // Zigarre // Pfeife « Gefahren [[((Zigaretten- // Zigarren- // Pfeife-)) Rauchen]] Ɛ) / ungesund sein <Rauchen> / nicht befolgen (etwas * Ratschläge [[((sein-)) Arzt « Frau « Gattin]])

Eine Zigarette rauchen

anzünden ((sich)) (Zigarette) ((mit etwas « Feuerzeug)) / ziehen (an etwas « Zigarette) / rauchen ('E Zigarette 'E) (-> T/O: 0862-0867;1557-1560 V: 0101-0102;0862-0867; 2034;2038; 2341;2580-2582)
(2027) Mann

ziehen (an etwas « Zigarette) / nehmen (Zug) ('E von etwas « Zigarette 'E) / machen (Lungenzug) / inhalieren (Rauch ((([[Zigarette]]))) / rauchen ('E Zigarette 'E) / genießen (Zigarette) / schmökern (-> T/O: 0862-0867;1557-1560 V: 0103-0104;2035;2039)
(2028) Mann

ausatmen # ausblasen (Rauch ((([[Zigarette]]))) / rauchen ('E Zigarette 'E) / genießen # paffen # qualmen (Zigarette) / schmökern (-> V: 0713-0714;1942-1945;2343; 2583;2584) (2029) Mann

klopfen # hineintun # geben (Asche) (in etwas « Aschenbecher) / hineinaschen # ausklopfen (Asche) ('E in etwas « Aschenbecher 'E) (-> V: 2040;2287)
(2030) Mann

ausdämpfen # ausdrücken (Zigarette) ('E in etwas « Aschenbecher 'E)
(2031) Mann

Eine Zigarre rauchen

riechen (an etwas « Zigarre) / genießen # prüfen (Geruch « Duft ((([[Zigarre]]))) / rauchen wollen (Zigarre)
(2032) Mann

abbeißen # abschneiden (Mundstück « Ende [[Zigarre]])
(2033) Mann

anzünden (Zigarre) ((mit etwas « Streichholz « Zündholz)) / ziehen (an etwas « Zigarre) / rauchen ('E Zigarre 'E) (-> V: 2027)
(2034) Mann

rauchen ('E Zigarre 'E) / genießen # paffen # qualmen (Zigarre) / ausatmen # ausblasen (Rauch ((([[Zigarre]]))) / nehmen+ (Zug) ('E von etwas « Zigarre 'E) / ziehen+ (an etwas « Zigarre) (-> V: 2028)
(2035) Mann

Eine Pfeife rauchen

geben # hineintun (Tabak) (in etwas « ((sein-)) Pfeife) / füllen (((sein-)) Pfeife) ('E mit etwas « Tabak 'E)

(2036) Mann

stopfen (Tabak) (in etwas « ((sein-)) Pfeife) ((mit etwas « Pfeifenstopfer)) / stopfen (((sein-)) Pfeife) / füllen (((sein-)) Pfeife) ('E mit etwas « Tabak 'E) (-> V: 2852)
(2037) Mann

anzünden (((sein-)) Pfeife) ((mit etwas « Streichholz « Zündholz)) / ziehen (an etwas « Pfeife) (-> V: 2027)
(2038) Mann

rauchen ('E ((sein-)) Pfeife 'E) / genießen (((sein-)) Pfeife) / nehmen (Zug) ('E von etwas « Pfeife 'E) / ziehen (an etwas « Pfeife) (-> V: 2028)
(2039) Mann

ausklopfen (Tabakreste * //Pfeife//) ('E //aus etwas « Pfeife// 'E) ('E in etwas « Aschenbecher 'E) / klopfen (Tabakreste) (aus etwas « Pfeife) ('E in etwas « Aschenbecher 'E) (-> V: 2195;2402;2698;2700;2703;2705;2815;2818)
(2040) Mann

3. Körperpflege

Ein Bad nehmen

einlassen (Bad * Badewasser) / aufdrehen (Wasserhahn (([[Badewanne]])) * Wasser) / füllen (Badewanne) ('E mit etwas « Wasser 'E) / nehmen wollen # nehmen ((Schaum- * Erholungs-) Bad) / vorbereiten (Badewasser * Badewanne) ('E für etwas « (Schaum- * Erholungs-) Bad * zu etwas « Baden 'E) (-> V: 2070;2174;2189;2407;2568;2574)
(2041) Mann

ausziehen (sich * //(sein-) Hemd//) ('E ///((sein-)) Hemd// 'E) ((in etwas « Badezimmer * für etwas « Bad)) / fertigmachen (sich) ('E für etwas « Bad 'E) (-> V: 0222-0225;2143; 2625) (2042) Mann

baden ('E sich 'E) / nehmen ((Schaum-) Bad) / liegen # sein (in etwas « Badewanne) / entspannen (sich) ('E in etwas « Badewanne « (Schaum- * Erholungs-) Bad * mit etwas « Schaum- * Erholungs-) Bad 'E) (-> V: 0147-0150 / 2105;2118;2800;2870-2871;2980-2981;2985) (2043) Mann

abtrocknen (sich * //(sein-) Körper//) ('E //((sein-)) Körper// 'E) ((mit etwas « ((blau-)) Handtuch)) / trocken rubbeln (sich) ((mit etwas « ((blau-)) Handtuch)) / stehen ('E in etwas « Badewanne 'E) (-> V: 0163-0166;2061;2067;2074;2079;2979;0457-0460;0874-0875;1871-1876;2074;2079;2302;2979)
(2044) Mann

anziehen (sich * //(sein-) Frotteemantel « Bademantel//) ('E //((sein-)) Frotteemantel « Bademantel// 'E) / bekleiden (sich) ('E mit etwas « Frotteemantel « Bademantel 'E) /

schlüpfen (in etwas « ((sein-)) Bademantel « Frotteemantel) (-> V: 0222-0245;1601-1602; 2142-2172;2489-2493;2503-2504;2599;2846;2875;2900)
(2045) Mann

Die Zähne putzen

füllen (Becher) ('E mit etwas « Wasser 'E) / aufdrehen (Wasserhahn * Wasser) / halten (Becher) (unter etwas « (fliessend-) Wasser « Wasserhahn) {Badezimmer - Kimono}
(2046) Frau

geben (Zahnpasta * Zahncreme) (auf etwas « ((ihr-)) Zahnbürste) / d(a)raufgeben # auftragen # verteilen (Zahnpasta * Zahncreme) ('E auf etwas « ((ihr-)) Zahnbürste 'E) / drücken (Zahnpasta * Zahncreme) ((aus etwas « (Zahnpasta- * Zahncreme-) Tube)) (auf etwas « ((ihr-)) Zahnbürste)
(2047) Frau

putzen (sich * //(ihr-) Zähne//) (//((ihr-)) Zähne//) ((mit etwas « Zahnbürste)) / pflegen (Zähne) ((mit etwas « Zahnbürste)) (-> V: 0167-0170;2216;2277;2283;2545)
(2048) Frau

ausspülen # spülen (sich * //(ihr-) Mund//) (//((ihr-)) Mund//) ((mit etwas « Wasser)) (-> V: 2059;2066;2138)
(2049) Frau

abspülen # reinigen (((ihr-)) Zahnbürste) / schwemmen (Zahnpasta * Zahncreme) (von etwas « ((ihr-)) Zahnbürste) / halten (((ihr-)) Zahnbürste) (unter etwas « (fliessend-) Wasser « Wasserhahn) (-> V: 2049)
(2050) Frau

Sich Rasieren

rasieren (sich * //(sein-) Bart//) ('E //((sein-)) Bart// 'E) ((mit etwas « Rasierapparat « ((elektrisch-)) Rasierer)) {Badezimmer-angezogen - Straßenkleidung} (-> T/O: 2303-2307 V: 0179-0182)
(2051) Mann

rasieren wollen # rasieren werden (sich * //(sein-) Bart//) ('E //((sein-)) Bart// 'E) ((mit etwas « Rasierapparat « ((elektrisch-)) Rasierer)) / beabsichtigen # im Begriffe sein (etwas zu tun * sich zu rasieren) {Bademantel -Settingfoto-/photo}
(2052) Mann

anstecken # ausstecken (Rasierapparat * ((elektrisch-)) Rasierer) / stecken (Stecker (([[Rasierapparat]]))) (in etwas « Steckdose) / nehmen # ziehen (Stecker (([[Rasierapparat]]))) (aus etwas « Steckdose) / herausnehmen (Stecker (([[Rasierapparat]]))) ('E aus etwas « Steckdose 'E) (-> V: 2068;2167)
(2053) Mann

rasieren (sich * //(sein-) Bart//) (Ë //((sein-)) Bart// Ë) ((mit etwas « Rasierapparat « ((elektrisch-)) Rasierer)) ((in etwas « Badezimmer)) {Bademantel}
(2054) Mann

rasieren wollen # rasieren werden (sich * //(sein-) Bart//) (Ë //((sein-)) Bart// Ë) ((mit etwas « Naßrasierer « Wegwerfrasierer « Einwegrasierer)) / beabsichtigen # im Begriffe sein (etwas zu tun * sich zu rasieren) {Bademantel - Settingfoto-/photo}
(2055) Mann

sprühen # geben (Rasierschaum) (auf etwas « ((sein-)) Hand) / d(a)raufgeben (Rasierschaum) (Ë auf etwas « ((sein-)) Hand Ë) (-> V: 2426)
(2056) Mann

geben (Rasierschaum) (auf etwas « (sein-) Gesicht « Bart « Wangen) / auftragen # einreiben (Rasierschaum) (Ë auf etwas « (sein-) Gesicht « Bart « Wangen Ë) (-> V: 0194; 2062;2076)
(2057) Mann

(naß) rasieren (sich * //(sein-) Bart//) (Ë //((sein-)) Bart// Ë) ((mit etwas « (Naß-) Rasierer « (Einweg-) Rasierer))
(2058) Mann

abspülen # reinigen (Rasierer) / halten (Rasierer) (unter etwas « (fliessend-) Wasser « Wasserhahn) (-> V: 2049)
(2059) Mann

waschen (sich * //(sein-) Gesicht//) (//((sein-)) Gesicht//) / reinigen ((sein-) Gesicht) / waschen # schwemmen (Rasierschaum) (von etwas « ((sein-)) Gesicht) (-> V: 2023)
(2060) Mann

(ab-) trocknen (sich * //(sein-) Gesicht//) (//((sein-)) Gesicht//) ((mit etwas « ((geblumt-)) Handtuch)) (-> V: 0159-0162;2044;2979)
(2061) Mann

geben (Aftershave * Rasierwasser) (auf etwas « (sein-) Gesicht « Wangen) / auftragen # d(a)raufgeben (Aftershave * Rasierwasser) (Ë auf etwas « (sein-) Gesicht « Wangen Ë) / pflegen ((sein-) Gesicht) ((mit etwas « Aftershave « Rasierwasser)) (-> V: 0194;2057)
(2062) Mann

Die Haare waschen

naß machen (sich * //(ihr-) Haare//) (//((ihr-)) Haare//) / halten # geben ((ihr-) Kopf) (unter etwas « (fließend-) Wasser « Wasserhahn) {Waschbecken - Badezimmer - Kimono}
(2063) Frau

schütten # geben (Shampoo * Haarwaschmittel) (auf etwas « (ihr-) Hand)
(2064) Frau

verteilen (Shampoo * Haarwaschmittel) (ɛ auf etwas « ((ihr-)) Haare « Kopfhaut ɛ) / waschen # schampunieren (sich * //(ihr-) Haare//) (//((ihr-)) Haare//) (-> V: 0155-0158; 2023;2534)
(2065) Frau

abspülen (sich * //(ihr-) Haar(-e)//) (//((ihr-)) Haar(-e)//) ((mit etwas « (klar-) Wasser)) / ausspülen (Shampoo * Haarwaschmittel * Schaum) (ɛ aus etwas « ((ihr-)) Haar(-en) ɛ) / waschen # spülen (Shampoo * Haarwaschmittel * Schaum) (aus etwas « ((ihr-)) Haar (-en)) / halten # geben ((ihr-) Kopf) (unter etwas « (fließend-) Wasser « Wasserhahn) (-> V: 2049)
(2066) Frau

(ab) trocknen # frottieren (sich * //(ihr-) Haare//) (//((ihr-)) Haare//) ((mit etwas « Handtuch)) (-> V: 2044)
(2067) Frau

anstecken # ausstecken (Fön * Föhn * Haartrockner) ((in etwas « Badezimmer)) / stecken (Stecker (([[Fön * Föhn * Haartrockner]]))) (in etwas « Steckdose) / nehmen # ziehen (Stecker) (aus etwas « Steckdose) / herausnehmen (Stecker) (ɛ aus etwas « Steckdose ɛ) (-> V: 2053)
(2068) Frau

fönen # föhnen (sich * //(ihr-) Haar(-e)//) (ɛ //((ihr-)) Haar(-e)// ɛ) / trocknen (sich * //(ihr-) Haare//) (//((ihr-)) Haare//) ((mit etwas « Fön « Föhn « Haartrockner)) / frisieren (sich * //(ihr-) Haare//) (ɛ //((ihr-)) Haare// ɛ) ((mit etwas « Haarbürste & Fön « Föhn)) (-> V: 0183-0186;1536-1538;1633-1634)
(2069) Frau

Die Hände waschen

aufdrehen (Wasserhahn * Wasser) / Katzenwäsche machen ((in etwas « Badezimmer)) / waschen (wollen) (sich * //(sein-) Hände//) (//((sein-)) Hände//) ((in etwas « Badezimmer)) {Badezimmer - Pyjama} (-> V: 2023;2041)
(2070) Junge/Bub

geben (Seife) (auf etwas « ((sein-)) Hände) / einseifen (sich * //(sein-) Hände//) (ɛ //((sein-)) Hände// ɛ)
(2071) Junge/Bub

waschen (sich * //(sein-) Hände//) (//((sein-)) Hände//) ((mit etwas « Seife)) ((in etwas « Badezimmer)) / Katzenwäsche machen ((in etwas « Badezimmer)) (-> V: 0135-0138; 0143-0146;2023)
(2072) Junge/Bub

abwaschen # abspülen # abmachen (Seife) (ɛ von etwas « (sein-) Händen ɛ) / waschen # spülen (Seife) (von etwas « (sein-) Händen) / halten (((sein-)) Hände) (unter etwas «
(fließend-) Wasser « Wasserhahn) (-> V: 2023)
(2073) Junge/Bub

(ab-) trocknen (sich * //(sein-) Hände//) (///((sein-)) Hände//) ((mit etwas « Handtuch)) (-> V: 0159;2044)
(2074) Junge/Bub

(Stark, 1997, pp. 60-69)

Semantik Kategorilere Göre Ana Dizin

N.b.: Bu dizindeki her madde bir konuşma içerisinde ilk cümle olarak kullanılacak şekilde tasarlanmıştır.

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Bu dizin içerisinde semantik kavram ayrımı yapılmamıştır.

Portreler – Kişilerin tanıtımı (-> 0001-0004;1001-1002)
Bu fotoğraf dizisindeki ana karakterler:

gülümsemek / ayakta durmak / poz vermek (÷ birisi için * birşey için ↔ fotoğraf ÷) / bakmak (yönelik↔içeri↔birşeye ↔ kamera ↔ birisi (kamerayı tutan)) (-> T: 1997-2000)
(xxx1) erkek *oğul *erkek kardeş * ağabey
(xxx2) kız *kız *kız kardeş * abla
(xxx3) kadın * bayan *anne *eş * karı
(xxx4) adam *bay *baba *eş * koca

Normalde olaylara başka insanlar dahil olur. Örneğin: Bir doctor, bir dişçi, bir nörolog, bir fizyoterapist, bir hemşire, bir eczacı, bir öğretmen, bir satıcı, bir imam ve…

Her ailede olduğu gibi, çocuklar bazen uslu olur ve bunun için övülür:

Övmek # hayran olmak # bakmak # incelemek (birini * erkek * oğlunu // kız * kızını) / ödüllendirici bir davranış >> + << almak (birşey * ödül * kabul görme) (÷ birisinden ↔ adam ↔ babasından÷) / mutlu olmak * memnun (÷ birşey hakkında ↔ //adamın * babanın* // ödül ↔ kabul görme (// [[adam* [onun]babası]] * birisinden ↔ adam ↔ babadan//)) >><< gurur duymak (birisiyle ↔ erkek ↔oğlu // kız ↔ kızı * birşeyle ↔ onun başarısıyla) / bakmak (birine * birbirine) /mutlu gözükmek / gurur duyar gibi görünmek / gibi <o> ((o) adam ↔baba ↔ erkek ↔ oğul // adam ↔ baba // kız ↔ kız gururlu) (->T/O: 0925-0926;1050-1057;1062-1065;1308-1319; 1322-1323;1563-1564;1589-1608;1629-1636;1667-1692;2660-2661 V: 0823-0824;1565-1566;2854; 2856)

(xxx5) adam * baba -> *erkek * oğul*
(xxx6) adam * baba -> *kız * kız*

Ama bazen çocuklar uslu durmazlar ve canlıdırlar. Bu sebepten dolayı telkin edilirler/azarlanırlar:

Telkin etmek # haşlamak # uyarmak # yaklaşmak # bağırmak # (birine * erkek * oğlu // kız * kızı) / kızmak* deli olmak (÷ birine ↔ erkek ↔ oğlu // kız * kızı ÷) ((birşey yüzünden)) / tehdit etmek (birisini * erkek * oğlu // kız * kızı) ((birşeyle ↔ parmak ↔ ceza)) / yasaklamak # izin vermemek (birisine * erkek * oğlu // kız * kızı) (birşey * birşey yapmak) / üzülmek (÷ birşey hakkında ↔ birisi ÷) / keyifsiz olmak >>+<< dinlemek # dikkat etmek (birisine * adam * babası //[adamın * babasının]// uyarı (//birisinden ↔ adam ↔ babası//))) / ciddiye

almak (birisini * adam * babası *) / utanmak (kendisinden) / inatçı olmak / eğmek (başını) (÷ birşeye ↔ utanç ÷) >><< üzgün durmak * kızgın / kızgın durmak * deli olmuş gibi görünmek / gibi <o> (adam ↔baba ↔erkek ↔oğul // adam↔baba↔ kız↔kız kızgın) (-> T/O: 0816-0818;1140-1149;1342-1361;1378-1401;1459-1496;1519-1522;1555-1560;2718-1719;2727-2728;2753;2756 F: 0017-0019;0819-0820;1553-1554;1647-1648)
(xxx7) adam * baba -> *erkek * oğul*
(xxx8) adam * baba -> *kız * kız*

Ailemiz böyle oluştu! –Evlenme- Düğünün en ilginç olayları

bakmak # hayran olmak # tadını çıkarmak ((([onların])) (düğün) fotoğrafları ↔ fotoğraflar ↔ resimler) ((birşeyin içinde ↔ (düğün * fotoğraf) albüm)) ((beraber)) >>+<< göstermek (birisine * aile) ((([onların])) (düğün) fotoğrafları ↔ fotoğraflar ↔ resimler) ((birşeyin içinde ↔ (düğün * fotoğraf) albüm)) / anlatmak (birisine * çocuklar) (birşey ↔ detay [[(([onların])) düğün]] * birşey hakkında ↔ düğün) / tutmak ((fotoğraf) albüm) ((birşeyin içinde↔ birşey ile↔birşeyin üzerinde ↔ elinde(ellerinde) ↔ kucak)) >>!<< boşanmak+ / yeniden evlenmek+ # evlenmek+ / ölmek+ <(doğum) anne> (÷birşey↔süresince↔sonra↔takiben ↔ doğum [[çocuk]] ↔ hastalık ÷) / açıklamak <üvey anne> (birşey * durum * aile durumu) (÷ birisine ↔ çocuklar ÷) (-> F: 0907; 0915-0916;1042-1049;1050-1067;1503-1508;1563-1564;1758-1761;1998-1999;2020;2210;2238; 2300;2383-2386;2446-2447;2456;2490;2548;2576;2666;2669;2793;2795)
(2001) kadın -> aile

hazırlanmak (÷ birşey için ↔ düğün seremonisi ÷) ((birşeyin önünde↔ ayna)) / hazırlamak (birşey için ↔ düğün seremonisi) ((birşeyin önünde ↔ ayna)) / decorate ([her] hair) (÷ with flowers ↔ daisies ÷) ((birşeyin önünde ↔ ayna)) / bakmak(kendine) (÷ birşeyde ↔ ayna ÷) >>+<< bakmak (birisine * gelin) / izlemek # incelemek (birisini * gelin * gelini hazırlanırken) / yardımcı olmak*yardım etmek * asistanlık etmek (birisine ↔ gelin) (÷ düğününe hazırlanırken ÷) / asistanlık etmek (birisine * gelin * arkadaşı) (÷ düğününe hazırlanırken * düğününe hazırlanmak için ÷) / yardım etmek * yardımcı olmak(birisine * gelin * arkadaşı) (÷ birşey yapmak için * düğününe hazırlanmak için ÷) (-> F: 2041;2087;2232;2393;2566;2570;2580;2598-2599;2619;2643;2807;2824;2893;2896;2907; 2927 / 2004;2103)
(2002) kadın * gelin - *arkadaş * baş nedime*

evlenmek # nikah kıyılmak (çift * gelin & damat) ((bir yerde ↔ nikah dairesi)) / tutmak (birşey * düğün seremonisi) ((bir yerde ↔ nikah dairesi)) / yapmak (birşey * düğün ↔ düğün seremonisi) ((bir yerde ↔ nikah dairesi)) / okumak # sesli okumak (birşey * seremoni * evlilik yemini) (÷ birine ↔ çift ↔ gelin & damat ÷) >>+<< evlenmek # nikahlanmak (÷ bir yerde↔ nikah dairesi ÷) / dinlemek # dikkat etmek (birine * nikah memuru * birşey * [nikah memurunun] kelimeleri) / olmak (bir şeyde ↔ nikah masası) / durmak (÷ bir yerde ↔bir şeyin önünde durmak ↔ nikah masası ÷) (-> F: 2666;2669;2793;2795)
(2003) nikah memuru - *gelin & damat*

değişim ((nikah) yüzükler ↔ yeminler) ((bir yerde ↔ nikah dairesi)) / olmak (bir yerde↔ nikah masası) / vermek (birine * damat) (bir şey * (nikah) yüzük) / koymak # yerleştirmek (birşey * (nikah) yüzük) (birinin üzerine ↔ damat * birşeyin üzerine ↔ [damadın] parmağı) / giymek(put on) (birşey * (nikah) yüzük) (÷ bir şeye ↔ [damadın] parmağı ÷) / söz vermek (birine * damat) (birşey * yanında olmak * dürüst olmak * sadıklık ↔ aşk* sevgi) / yemin etmek (birşey * [birinin] sadıklığı) / evlenmek # nikahlanmak (÷ bir yerde ↔ nikah dairesi ÷) >>+<< bakmak (birine * gelin & damat) / izlemek # incelemek (birisini * gelin & damat * gelin & damat değişirken↔ nikah yüzüklerini değişirlerken
↔ yeminler) (-> F: 0835;0856-0857;1328-1329;1332-1333;1336-1337;1340-1341;1547-1548 / 2002) (2004) *nikah memuru* - gelin & damat

evlenmek # nikahlanmak (çift * adam & kadın * gelin & damat) ((bir yerde ↔ nikah dairesi)) / ilan etmek (çift * gelin & damat) (birşey * karı & koca) / yapmak (birşey * düğün ↔ düğün seremonisi) ((bir yerde ↔ nikah dairesi)) >>+<< evlenmek # nikahlanmak (÷ bir yerde ↔ nikah dairesi ÷) / dinlemek # dikkat etmek (birisine * nikah memuru * [nikah memurunun] kelimelerine) / bakmak (birisine * nikah memuru) / olmak (bir şeyde ↔ nikah masası)
(2005) nikah memuru -> *gelin & damat*

öpmek (birisini * birbirini * biri ötekini) ((bir şeyin üzerine ↔ dudaklar ↔ ağız)) ((bir yerde ↔ nikah masası * nikah yeminlerinden sonra * sonunda [[düğün seremonisi]])) / olmak (bir yerde ↔ nikah masası) / evlenmek # nikahlanmak (÷ bir yerde ↔ nikah dairesi ÷) / sonlandırmak*bitirmek (düğün seremonisi) (÷ birşeyle ↔ nikah masasında öpüşmek ÷) (-> F: 0811-0812;1451-1454;1639-1640;1655-1656; 1742-1745;2018-2019)
(2006) gelin & damat

Gitmek* orda olmak (düğün daveti) / olmak (bir şeyde ↔ düğün daveti) / oturmak # ayakta durmak (÷ birşeyde ↔ masa ↔ düğün daveti ÷) / kutlamak (÷ birşey * ([çiftin]) düğünü ÷) / kaldırmak (kadeh) (÷ birisine ↔ gelin & damat ↔ yeni evliler ↔ çift ↔ gelecek ÷) / kadeh kaldırmak (birisine * gelin & damat * yeni evliler * çift) >>+<< dinlemek (birisine * birşey * konuşma) / oturmak (÷ bir şeyde ↔ düğün daveti ÷) (-> T/O: 2312-2314; 2315-2318;2319-2324 F: 0444-0446;2303-2307;2310-2311;2328-2348;2366-2367;2394-2396)
(2007) gelin & damat & düğüne davetliler

Kadeh kaldırmak (birisine * birbirine) ((birşeyle ↔ şampanya)) / evlenme teklifi # içmek # kadeh kaldırmak (÷ birisine ↔ birbirine * bir şeye ↔ gelecek ÷) / içmek (÷ bardak [[şampanya]] * şampanya ÷) ((birisi ile ↔ birbirine * beraber*birlikte)) / kutlamak (÷ birşey * ([çiftin]) evliliği ÷) / olmak (bir şeyde ↔ düğün daveti) / mutlu olmak (÷ birşey hakkında ↔ evlilik) / memnun olmak (birşey hakkında ↔ evlilik) / gülümsemek (birisine * birbirine) / aşık olmak (÷ birisine ↔ birbirine ÷) / mutlu gözükmek / mutlu gibi durmak / gibi <o> (birisi ↔ çift mutlu) (-> F: 0444;1158;1168;1176;2322)
(2008) gelin & damat

kesmek # doğramak (birşey * (düğün) pasta(sı)) ((beraber)) ((birşey ile↔ bıçak)) / kutlamak (÷ birşey * ([çiftin]) evliliği ÷) / olmak (bir şeyde ↔ düğün daveti) (->F:0284-0285;0317;0351;2217;2242-2244;2257;2275;2286;2344;2357;2412;2440;2449;2461;2465; 2465;2469;2470;2535;2538;2708;2713;2841)
(2009) gelin & damat

I. Günlük fiziksel ihtiyaçlar

1. Uyku – Yatak odası aktiviteleri (-> T/O: 0108-0134)

Yeni bir gün başlıyor! - Başka bir gün sona eriyor!

esnemek / yorgun olmak * uykulu / yorgun gözükmek/hissetmek / gitmek (bir şeye ↔ yatak) / oturmak (÷ birşeyin üzerine ↔ yatak * birşeye ↔ kenar [[[onun] yatağı]] ÷) & esnemek / uyanık olmak/ uyanmak+ // esnemek ((kollarını)) / (zorunda olmak) kalmak / yorgun gibi durmak / gibi <o> (erkek//kız yorgun) (-> T/O: 2142-2157;0428-0429 V: 0035-0037;0122-0125)
(2010) erkek
(2011) kız

uyandırmak (birisini * erkek * oğlunu // kız * kızını) >>+<< uyumak / fazla uyumak+ / gecikmek (÷ bir şey için ↔ okul ↔ randevu ÷) / duymamak+ (çalar saat) (-> F: 0833-0834)
(2012) adam * baba -> *erkek * oğul*
(2013) adam * baba -> *kız * kız*

uyumak (÷ bir şeyin içinde ↔ yatak ÷) / yatmak (bir şeyin içinde ↔ yatak) / uyuyakalmak+ / gitmek+ (bir şeye gitmek ↔ yatak) (-> T/O: 0108-0134 V: 0108-0111;0833-0834)
(2014) adam & kadın

uyandırmak (birisini * adam & kadın * babasını & annesini ↔ ebeveynleri) >>+<< uyumak / fazla uyumak+ / gecikmek (÷ bir şey için ↔ iş ↔ randevu ÷) / duymamak+ (çalar saat) (-> T/O: 2158-2172;0428-0429 V: 2012)
(2015) erkek * oğul -> *adam & kadın * baba & anne*
(2016) kız * kız -> *adam & kadın * baba & anne*

Uyanık olmak / yatmak(uyanık) (bir şeyin içinde ↔ yatak) / uyuyamamak(uyuyakalamamak) / uyuyakalmak üzere olmak / yorgun olmak * uykulu / yorgun hissetmek§ görünmek / yorgunmuş gibi görünmek / gibi <o> (adam ve kadın yorgun) (-> T/O: 0641-0642 V: 0122-0125)
(2017) adam & kadın

öpmek (birisini * adam * kocası // kadın * karısı) ((bir şeyin üzerine ↔ yanak)) / vermek (//birisine * adam * kocası // kadın * karısı//) (öpmek) ((bir şeyin üzerine ↔ yanak)) (//birisine

↔ adam ↔ kocası // kadın ↔ karısı//) / söylemek (bir şey * günaydın * iyi geceler) (÷ birisine ↔ adam ↔ kocası// kadın ↔karısı ÷) ((bir şeyle ↔ öpücük)) / aşk * sevgi # ihtimam göstermek (birisine * adam * kocası // kadın * karısı) >>+<< öpülmek ((bir şey üzerine ↔ (yanak)) (÷birisinden ↔ kadın // adam ÷) (-> T/O: 2312-2314;2315-2318;2319-2325;2325;2340;2379;2382; 2496;2519-2520 F: 0811-0812;1451-1454;1639-1640;1655-1656;1742-1745;2006;2372)
(2018) *adam* <-
kadın
(2019) adam ->
kadın

söylemek (bir şey * günaydın * iyi geceler) (÷ birisine ↔ kadın ↔ karısı÷) / tarif etmek# tanımlamak (bir şey * rüyası ↔ gün) (÷ birisine ↔ kadın ↔ karısı ÷) / anlatmak (birisine * kadın * karısı) (birşey hakkında ↔ rüyası ↔ gün * bir şey * günaydın * iyi geceler) / konuşmak (÷ e ↔birisi ile ↔ kadın ↔ karısı ↔ birbirine ÷) ((bir şey içinde ↔ yatak)) / şaka # oynamak (÷ birisi ile ↔ karısı ↔ birbiri ÷) / tiye almak # dalga geçmek # takılmak (birisine * kadın * karısı * birbiri) / fısıldamak (bir şey * günaydın * iyi geceler) (÷ birisine ↔ kadın ↔ karısı÷) >>+<< uyanmak / dinlemek (birisini * adam * kocası) >><< uyanık olmak (÷ bir şeyin içinde↔ yatak ÷) / yatmak (uyanık) (bir şeyin içinde↔ yatak) / konuşmak # sohbet (÷ birisi ile ↔ kadın ↔ karısı↔ adam ↔ kocası↔ birbiri ÷) ((bir şeyin içinde ↔ yatak)) / mutlu olmak (÷ bir şey hakkında↔ yeni gün * yaşıyor olmak ve sağlıklı olmak ÷) (-> F: 0427; 0445;0802-0806;0858-0861;1543-1544;2300)
(2020) adam & kadına

2. Gerekli Etkinlikler

Tuvaelete/ Banyoya/ Wcye gitmek

gitmek (bir şeye ↔ tuvalet ↔ banyo ↔ WC ↔ hela) / açmak (//banyo// kapı (((//[[banyo * tuvalet * WC]]))//) (-> T/O: 0032;0044;0047;0420;0441;2326-2346;2105-2108;2114-2115;2202-2209;2524-2526 F: 0097-0100)
(2021) erkek

Sifonu çekmek / basmak ((aşağı)) (kol ↔ düğme (([[toilet bowl * WC]]))
(2022) erkek

yıkamak (ellerini) ((bir şeyde ↔ evye ↔ lavabo)) (-> F: 0135-0138;2072; 2077;2534;2546;2620)
(2023) erkek

Hayvan görevleri - Köpek beslemek (F/T/O: 0697-0700;0721-724;1847-1852;1909-1912)

beslemek ((([onu])) köpek) / vermek (//bir şey * (([ona])) köpek//) (((köpek)) yemek * [onun] yemek kabı * yiyecek bir şey) (//bir şeye ↔ (([ona])) köpek //) / bakmak (bir şeye * (([ona])) köpek) (-> F: 0697-0698;2972)

(2024) kız

koymak (//[köpeğin]// tasması) (bir şeyin üzerine↔ //[köpeğin]// boynu ↔ köpek) / takmak (//[köpeğin]// tasması) (÷ bir şeyin üzerine ↔ //[köpeğin]// boynu ÷) / bağlamak (//[köpeğin]// tasması) (bir şeye ↔ //[köpeğin]// boynu ↔ köpek) / takmak (//[köpeğin]// tasması) (÷ bir şeye ↔ //[köpeğin]// boynu ↔ köpek ÷)
(2025) kız

Çıkarmak(dışarı) ((([onu])) köpek) (÷ bir şey için↔ yürümek ÷) / gitmek (bir şey için ↔ yürüyüş) ((bir şey ile ↔ (([o])) köpek)) / yürüyüşe çıkarmak ([onu] köpek * bir şey ile ↔ (([o])) köpek) ((içinde↔üzerinde↔beraberinde bir şeyin ↔ park ↔ kaldırım ↔ yol)) (-> F: 0721-0724)
(2026) kız

Sigara içme alışkanlığı (-> F/T/O: 0101-0102;0862-0867;1557-1560;1903-1908)

>>!<< söylemeli # öğüt vermeli <birisine> (birisi * adam) (birşey * sigarayı bırakmak * sigara içmemesi gerektiği ((sigara // puro // pipo)) * tehlikeler hakkında [[sigara içmek ((sigara // puro // pipo))]]) bilgilendirmeli # uyarmalı <birisi> (birisi * adam) (÷ birşey hakkında ↔ sigara içmek ((sigara // puro // pipo)) * tehlikeler hakkında ↔ sağlık riskleri [[sigara içmek ((sigara // puro // pipo))]] ÷) / farkına vardırılmalı <birisi> (birisi * adam) (bir şey hakkında ↔ tehlikeler ↔ sağlık riskleri [[sigara içmek ((sigaralar// purolar // pipo))]]) / tavsiye edilmeli <birisi * birisi> (birisine↔ adam) (bir şey * sigarayı bırakmak * sigarayı bırakması gerektiğini ((sigaralar // purolar // pipo))) / sigara içmemeli <birisi * adam> (bir şey * sigaralar // puro // pipo) / sağlıksız olmak<sigara içmek> / takip etmemek# uymamak (bir şey * //[doktorun * kadının * karısının//] öğüdünü //[[doktor * kadın * karı]]//)

Sigara içmek

yakmak (sigara) ((bir şey ile ↔ çakmak)) / sigara içmek (÷ sigara ÷) (-> T/O: 0862-0867;1557-1560 V: 0101-0102;0862-0867;2034;2038;2341;2580-2582)
(2027) adam

Sigara içmek (÷ sigara ÷) / nefes almak (bir şeyden ↔ sigara) / tadın çıkarmak (sigara * sigara içmek) / nefes almak # nefesi içine çekmek (bir şey * sigara içmek ((([sigara]))) / almak (nefes ↔ çekmek ((([sigara]))) (-> T/O: 0862-0867;1557-1560 F: 0103-0104;2035;2039)
(2028) adam

Nefes vermek # soluk vermek (sigara içmek ((([sigara]))) / tadını çıkarmak(sigara * sigara içmek) (-> F: 0713-0714;1942-1945;2343;2583;2584)
(2029) adam

koymak # tıklamak # flick (külleri) (bir şeyin içine ↔ kül tablası# küllük) (-> F: 2040;2287)

(2030) adam

Söndürmek (sigara) (÷ bir şeyin içine ↔ kül tablası# küllük ÷)
(2031) adam

Puro içmek

Koklamak (puro) / tadını çıkarmak # nefes çekmek # nefes almak # kontrol etmek (aroma [[puro]])
(2032) adam

Isırıp atmak # kesmek (bir şeyden ↔ uç ↔ son [[purosunun]])
(2033) man

yakmak (puro) ((bir şeyle ↔ kibrit)) / nefes çekmek (bir şeyden ↔ puro) (-> F: 2027)
(2034) adam

içmek (÷ puro ÷) / nefes çekmek (bir şeyden ↔ puro) / tadını çıkarmak (puro * puro içmek) / almak (nefes ↔ çekmek (([[purosundan]]))) (-> F: 2028)
(2035) man

Pipo içmek

koymak (tütün) (bir şeyin içine ↔ piposuna) / doldurmak (piposunu) (÷bir şey ile ↔ tütün ÷)
(2036) adam

bastırmak # tıkmak (tütün) (bir şeyin içine ↔ piposuna) ((bir şey ile ↔ tütün tıkayıcıyla)) / doldurmak(pipo) (÷ bir şey ile ↔ tütün ÷) (-> F: 2852)
(2037) adam

yakmak (piposunu) ((bir şey ile ↔ kibrit)) / nefes çekmek (bir şeyden ↔ piposundan) (-> F: 2027)
(2038) adam
içmek (÷ piposunu ÷) / tadını çıkarmak (piposunu* piposunu içmek) / almak (nefes ↔ çekmek [[piposundan]]) (-> F: 2028)
(2039) adam

tıklamak (tütün (kalanlarını) * //piposu//) (içine ↔ bir şeyin üzerine↔ kül tablası # küllük * //bir şeyden ↔ pipo//) / dökmek (tütün (artıklarını)) (bir şeyin içinden ↔ pipo) (÷bir şeyin içine ↔ kül tablası # küllük ÷) / boşaltmak (tütün (artıklarını)) (bir şeyin içine ↔ kül tablası # küllük) / boşaltmak (piposunu) (÷ bir şeyin içine ↔ kül tablası # küllük ÷) (-> F: 2195;2402;2698;2700;2703;
2705;2815;2818)
(2040) adam

3. Kişisel Hijyen

Banyo yapmak

doldurmak (küvet) / açmak (su * musluk ↔ tıkaç (([[küvet]]))) / yapmak istemek (banyo) / banyo yapmak / hazırlamak (küvet) (÷ bir şey için ↔ (köpük) banyosu ÷) (-> F: 2070;2174;2189;2407;2568; 2574)
(2041) adam

soyunmak / çıkarmak (kıyafetlerini ↔ gömlek) ((bir şeyin içinde ↔ banyo * bir şey için ↔ banyo)) / hazırlanmak (÷ bir şey için ↔ banyosu ÷) (-> F: 0222-0225;2143;2625)
(2042) adam

(köpük)banyosu yapmak / yatmak # olmak (bir şeyin içinde ↔ küvet) / rahatlamak (÷ birşeyin içinde ↔ küvet ÷) (-> F: 0147-0150 / 2105;2118;2800;2870-2871;2980-2981;2985)
(2043) adam

kurutmak (kendini * vücudunu) ((bir şey ile ↔ ((mavi)) havlu)) / durmak (÷ bir şeyin içinde ↔ küvet ÷) (-> F: 0163-0166;2061;2067;2074;2079;2979;0457-0460;0874-0875;1871-1876;2074; 2079;2302;2979)
(2044) adam

giymek (bornozunu↔ sabahlık # robdöşambr) / koymak (// kolunu) (bir şeyin içine ↔ // bornoz ↔ sabahlık # robdöşambr) (-> F: 0222-0245;1601-1602;2142-2172;2489-2493;2503-2504;2599;2846;2875;2900)
(2045) man

Dişlerini fırçalamak

doldurmak ((plastik) kab) (÷ bir şey ile ↔ su ÷) / açmak+ (su * musluk * tıkaç) / tutmak ((plastik) kab) (÷ bir şeyin altına ↔ (akan) su ↔ musluk ÷) {banyo}
(2046) kadın

koymak # sıkmak (diş macunu * sürmek [[diş macunu]]) (bir şeyin üzerine ↔ diş fırçasının) / sıkmak (diş macunu * sürmek [[diş macunu]]) (bir şeyin içinden ↔ tüp (([[diş macunu]])))
(2047) woman

fırçalamak # temizlemek (dişlerini) ((bir şey ile ↔ diş fırçası)) (-> F: 0167-0170;2216;2277; 2283;2545)
(2048) kadın

çalkalamak (ağzını) ((bir şey ile ↔ su)) (-> F: 2059;2066;2138)
(2049) kadın

temizlemek # durulamak (diş fırçasını) / durulamak (diş macunu) (bir şeyin içinden↔ diş fırçası) / tutmak (diş fırçasını) (÷bir şeyin altına ↔ (akan) su ↔ musluk ÷) (-> F: 2049)
(2050) kadın

Traş olmak- Kendini traş etmek

Traş olmak (÷ kendini * ((kısa)) sakal] ÷) ((bir şey ile ↔ elektrikli traş makinesi ↔ traş makinesi # jilet)) {banyo - giyinik – sokak kıyafeti} (-> T/O: 2303-2307 V: 0179-0182)
(2051) adam

Traş olmak üzere olmak # traş olmaya hazırlanmak # traş olmak isteme # traş olacak (÷ kendini * ((kısa)) sakal ÷) ((bir şey ile ↔ (elektrikli) traş makinesi)) {bornoz – sahne fotoğrafı}
(2052) adam

takmak ((elektrikli) traş makinesi * takmak [[(elektrikli) traş makinesi]]) (bir şeyin içine ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva) / sokmak (takmak [[(elektrikli) traş makinesi]]) (bir şeyin içine ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva) / takmak # sokmak ((elektrikli) traş makinesi * takmak [[(elektrikli) traş makinesi]]) (÷ bir şeyin içine ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva) / çıkarmak ((elektrikli) traş makinesi) / çekmek # almak (fiş [[(elektrikli) traş makinesi]]) (bir şeyden ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva) / çıkartmak (fiş [[(elektrik * güvenli) jilet]]) (÷ from something ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva / çıkarmak (fiş [[(elektrikli) traş makinesi]]) (÷ bir şeyden ↔ ((banyo)) priz ↔ duvardaki priz ↔ yuva (-> F: 2068;2167)
(2053) adam

Traş etmek (÷ kendini * ((kısa)) sakal ÷) ((bir şey ile ↔ (elektrikli) traş makinesi))
((bir şeyin içinde ↔ banyo))
(2054) adam

Traş olmak üzere olmak # traş olmaya hazırlanmak # traş olmak isteme # traş olacak (÷ kendini * ((kısa)) sakal ÷) ((bir şey ile ↔ traş makinesi ↔ jilet ↔ tek kullanımlık jilet)) {bornoz – sahne fotoğrafı}
(2055) adam

koymak # sıkmak # fışkırtmak ((traş) köpüğü ↔ kremi) (bir şeyin üzerine ↔ avuç [[eli]] ↔ el) (-> F: 2426)
(2056) adam

koymak ((traş) köpüğü ↔ kremi) (bir şeyin üzerine ↔ yüzü ↔ sakal ↔ yanaklar) / uygulamak ((traş) köpüğü ↔ kremi) (÷ bir şey üzerine ↔ bir şeye ↔ yüzü ↔ sakal ↔ yanaklar ÷) (-> F: 0194;2062;2076)
(2057) adam

Traş etmek (÷ kendini * ((kısa)) sakal ÷) ((bir şey ile ↔ traş makinesi ↔ jilet ↔ tek kullanımlık jilet))

(2058) adam

durulamak # temizlemek (jilet * traş bıçağı* tek kullanımlık jilet) / durulamak ((traş) köpüğü ↔ kremi) (bir şeyden ↔ jilet ↔ traş bıçağı ↔tek kullanımlık jilet) / tutmak (jilet* traş bıçağı * tek kullanımlık jilet) (÷ bir şeyin altında ↔ (akan) su ↔ musluk ÷) (-> F: 2049)
(2059) adam

durulamak # yıkamak ((traş) köpüğü ↔ kremi) (bir şeyden ↔ yüzü ↔ yanaklar) / durulamak # yıkamak (yüzü↔ yanaklar) (-> F: 2023)
(2060) adam

kurulamak # silmek ~üzerinden ([his] yüz) ((bir şey ile ↔ ((portakal aromalı ↔ çiçekli)) havlu)) (-> F: 0159-0162;2044;2979)
(2061)adam

koymak (aftershave * kolonya) (bir şeyin üzerine ↔ ((taze traşlı)) yüz ↔ yanaklar) / kullanmak (aftershave * kolonya) (÷ bir şey üzerine ↔ ((taze traşlı)) yüz ↔ yanaklar ÷) / nemlendirmek (((taze traşlı)) yüz ↔ yanaklar) ((bir şey ile ↔ aftershave ↔ kolonya)) (-> F: 0194;2057)
(2062) adam

Saçlarını yıkamak

ıslak (saç) / tutmak # koymak (baş ↔ saç) (bir şeyin altına ↔ (akan) su ↔ lavabo ↔ musluk) {lavabo - banyo}
(2063) kadın

koymak # boşaltmak # dökmek (şampuan) (bir şey(in) üzerine ↔ avuç [[el]] ↔ el(ine) (2064) kadın

sürmek # dağıtmak (şampuan(ı)) (÷ içine↔üzerine↔ saç(ının) ↔ baş ÷) / uygulamak (şampuan) (÷ bir şeye ↔ saç(ına) ↔ baş ÷) / yıkamak # şampuanlamak(saç(ını)) ((bir şeyin içine ↔ lavabo ↔ evye)) / masaj yakmak(baş(ına)) (-> F: 0155-0158; 2023;2534)
(2065) kadın

durulamak (saç(ını)) (÷ bir şeyin altında ↔ musluk÷) ((bir şeyin içine ↔ lavabo)) / durulamak (şampuan * köpük * sabun köpüğü * sabun) (bir şeyden (çıkarmak) ↔ saç ↔ baş) / temizlemek (şampuan * köpük * sabun köpüğü * sabun) (÷ bir şeyden ↔ saç ↔ baş ÷) / tutmak # koymak (baş(ını)↔ saç) (bir şeyin altına ↔ (akan) su ↔ musluk) (-> F: 2049)
(2066) kadın

kurutmak # durulamak # havlu(yla) (saç(ını)) ((bir şey ile ↔ havlu)) (-> V: 2044)
(2067) kadın

koymak # yer (plug [[saç kurutma makinası * fön makinası]]) (içine ↔bir şeyin içine ↔ ((banyo)) priz ↔ duy ↔ yuva) / bağlamak (saç kurutma makinası * fön makinası) (÷ içine↔bir şeyin içine ↔ ((banyo)) priz ↔ duy ↔ yuva÷) / fişi prizden çekmek (saç kurutma makinası * fön makinası) / almak # çekmek (takmak [[saç kurutma makinası * fön makinası]]) (-dan/-den ↔ bir şeyden ↔ ((banyo)) priz ↔ duy ↔ yuva) / çıkarmak (fiş [[saç kurutma makinası * fön makinası]]) (÷ -den/-dan ↔ birşeyden ↔ ((banyo)) priz ↔ duy ↔ yuva / çıkartmak (fiş [[saç kurutma makinası * fön makinası]]) (÷ bir şeyden↔ ((banyo)) priz ↔ duy ↔ yuva) (-> F: 2053)
(2068) kadın

Saç kurutmak (saç[ını]) / kurutmak (saç[ını]) ((bir şey ile ↔ saç kurutma makinası ↔ fön makinası)) / fırçalamak # düzeltmek # yapmak # şekil vermek (saç[ını]) ((bir şey ile ↔ saç fırçası ↔ tarak & saç kurutma makinası ↔ fön makinası)) (-> F: 0183-0186;1536-1538;1633-1634)
(2069) kadın

Ellerini yıkamak

açmak (musluk * su) / (istemek) yıkamak (kendini * ellerini) / (istemek) yıkanmak ((bir şeyin içinde ↔ banyo)) {banyo} (-> F: 2023;2041)
(2070) erkek

koymak # sürtmek (sabun) (-a/-e ↔bir şeyin üzerine ↔ eller[ine]↔ avuç [[eller[i]]]) / sabunlamak (eller[ini]) ((bir şey ile ↔ sabun))
(2071) erkek

yıkamak (eller[ini]) ((bir şeyin içinde ↔ banyo)) / yıkanmak ((bir şeyin içinde ↔ banyo)) (-> V: 0135-0138;0143-0146;2023)
(2072) erkek

Durulamak (eller[ini]) ((bir şeyin altında ↔ (akan) su ↔ musluk)) / durulamak (sabun * köpük * sabun köpüğü) (bir şeyden ↔ eller) ((bir şeyin altında ↔ (akan) su ↔ musluk)) / tutmak (eller[ini]) (bir şeyin altına ↔ (akan) su ↔musluk) (-> F: 2023)
(2073) erkek

kurulamak # silmek (eller[ini]) ((bir şey ile ↔ havlu)) (-> F: 0159-0162;2044)
(2074) erkek

(Akin, work in progress)