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LEXICAL SKILLS IN ALZHEIMER'S DEMENTIA (BASED ON THE MATERIAL OF DIALOGUE UTTERANCES)

The paper discusses the lexical skills of adults with Alzheimer's dementia, assessed on the material of dialogue utterances. The paper presents a proposal for a way of describing lexical disorders in dementia and illustrates the problems commonly occurring in this group of patients. The linguistic analysis covered 1000 pages of transcripts of conversations with patients with moderate and severe intensity of dementia. In the discussion of the results, the most common symptoms of lexical disorders were presented that characterize functional behaviors in dementia: quasi-nomination with the use of the pronoun, transfer of a name, and delexicalization (dephraseologization). At the same time, the behaviors and reactions of patients were shown that appear in the situation of experiencing communication failures due to a decreased lexical skills.

Key words: lexical skills, lexical disorders, Alzheimer's dementia, dialogue utterances

Introduction

An assessment of the lexical skills of persons with Alzheimer's dementia based on spoken utterances, especially in conditions of everyday communication, is not easy for many reasons.

First, no data are available on the difficulties in actualization of words by adults without dementia, especially in adults of advanced age. Spoken spontaneous utterances are characterized by great freedom in linguistic behaviors. The symptoms that, in retrospect, turn out to be prodromes of language disintegration because of a developing process of dementia, are initially perceived as lexical errors or difficulties commonly encountered in colloquial speech: as such, they become part of the picture of spoken Polish. The boundary between the normal and the pathological is hardly noticeable. This often makes it impossible to diagnose discrete language disorders.

Second, in the clinical picture of Alzheimer's disease (progressive, insidiously developing for years), lexical disorders are treated as typical symptoms even though

in many cases in the early phase they are weakly manifested (Domagała, 2003). In Alzheimer's dementia different disorder profiles may occur – Bayles, Kaszniak, and Tomoeda (1987) distinguish the following groups of patients: (1) with dominant memory disorders; (2) with dominant language disorders; (3) with dominant visual-spatial disorders. The authors explain the differences in disorder profile by the asymmetry of changes in the brain. The observable manifestations of language pathologies can therefore be more or less distinct in individual cases. The place of language disorders in the clinical picture of dementia is underspecified. According to some researchers, language deficits can be a prodromal symptom of dementia (Miller & Morris, 1993), an indicator of the presence of dementia process and a measure of its advancement (Bayles, 1982; Skelton-Robinson & Jones, 1984), while others stress that these become evident after one to three years following the onset of the disease (Zec, 1993).

Third, the findings of researchers concerning the lexical skills in persons with Alzheimer's dementia may vary considerably because of the methods applied to obtain research material. Different faces of anomia are shown by test studies and by studies carried out in the condition of day-to-day communication. When diagnosing the symptoms of anomia and assessing its intensity, we should remember about the findings of Shuren et al (1993): an indicator of anomia can be the decreased information content in the utterance of the patient investigated; and about Hamilton's findings (1994): because of lexical difficulties the utterances of patients become lengthy, they appear to be roundabout, while at the same time difficulties with finding a particular word do not always have to be manifestly noticeable. Quantitative data collected in connection with specific phenomena sometimes only partly reveal the problem of anomia in the patients studied. In conditions of day-to-day communication, the patients have to develop diverse compensatory-adaptive strategies (Domagała, Długosz, & Gustaw, 2003).

The object of the author's investigations in the area of the lexicon in Alzheimer's dementia was functional behaviors that reflect the mental processes in everyday life (contrasted by neuropsychologists with the so-called clinical performance). No studies have been carried out to date on linguistic behaviors in Alzheimer's disease on Polish, and ways of analyzing material or assessing lexical skills in dementia have not been developed.

Methods and Materials

The investigation took the form of individual interactions in day-to-day language communication. The empirical material was obtained in the following communication situation:

- 1) interlocutors: the patient investigated – the researcher-interviewer (always the author);
- 2) place of conversation: fixed, a room in the hospital ward or in the daycare center;

- 3) time: usually late morning, taking the patient's mood into account; the length of conversations depended on the patient's physical and mental condition; meetings were held at several-day intervals (they usually lasted a month);
- 4) subjects of conversations: strictly related to the patient – her family and occupational life, ways of spending leisure time, interests (with an additional assumption that all topics started by the patient investigated would be discussed).

Utterances were recorded with a digital recorder and then transcribed.

The linguistic analysis covered 1000 transcription pages illustrating the linguistic behaviors of ten patients with Alzheimer's dementia with the late onset (moderate or moderately severe degree of the disease: severely disturbed cognitive functioning /Mini Mental State Examination results score ranging 8-15 points/, temporary symptoms of mental disorders and behavioral disorders). The group investigated consisted of patients with a similar social profile: women aged 71.5 to 83.1 (mean age = 79.2), with primary or secondary education, living in large towns, who had spent most of or all their lives in town, and usually looked after their household and family, mostly widows.

In analyzing lexical phenomena, I adopted the structuralist conception of the linguistic sign (de Saussure, 1961) as the starting point, and distinguished:

- 1) phenomena manifested as incomplete lexical units in relation to the bilaterality of sign described as a whole: name – meaning:
 - a) name - X (no transmission of meaning, a semantically empty word);
 - b) X (i.e. no name) – explication of meaning;
 - 2) lexical phenomena resulting from the disturbance of the relation: name – meaning;
 - 3) phenomena pertaining to the name itself; changes of structural character.
- Consequently, I adopted the following pattern to describe the material:
- 1) No name (with possible explication of meaning)
 - 2) Quasi-name (no transmission of meaning; semantically empty words)
 - 3) Incorrect choice of name (semantic changes)
 - 4) Structurally incorrect meaning (essentially with no semantic changes)

I based the analysis of the relation between name and meaning on Ullman's classification of semantic neologisms (using summaries in the studies by Grabias, 1982, 1994), Doroszewski's (1950) findings on language errors, the classification of neologisms by Grabias (1981), and Boniecka's findings on defining concepts in colloquial language (1999). When categorizing the pathological phenomena and interpreting them, I referred to the achievements of Polish aphasiology, which already has a long tradition in describing lexical problems, from the studies by Maruszewski (1970), Zarębina (1973), Mierzejewska (1977) to the most recent, e.g., by Przybysz-Piwko (2000).

As a result, the adopted model of description of the lexicon allowed the author to take into account diverse phenomena indicated in the Western literature relat-

ing to speech disorders in dementia - in the interpretations derived from studies on aphasia.

Results

In the course of the analyses, the foregoing pattern was filled in the following way:

1. in the case of incomplete units, with the absence of names (and with an at least partly retained possibility of explicating the meaning):
 - 1.1. requests for clues, asking the researcher for help;
 - 1.2. circumlocutions, descriptive utterances;
2. in the case of incomplete units, with no transmission of meaning:
 - 2.1. quasi-nomination with the use of pronouns;
 - 2.2. the use of words with a too general meaning, pointing to basic semantic features (of the type: object, activity);
3. in the case of incorrect choice of name, changes in the meaning of lexical units:
 - in reference to words:
 - 3.1. transfer of a name (due to similarity or possibly to the emergence of other semantic associations and/or overlapping of meanings);
 - 3.2. transfer of meaning (due to similarity or overlapping of names);
 - in reference to phraseologisms (idiomatic collocations):
 - 3.3. assignment of incorrect meanings to collocations;
4. in the case of changes in the structure of lexical units:
 - 4.1. production of new derivational constructions;
 - 4.2. delexicalization.

The quantitative data pertaining to the above categories of lexical disorders are presented in Table 1.

As the figures in the table show, the dominant symptoms of lexical disorders turned out to be:

- 1) Quasi-nomination with the use of pronouns;
- 2) Semantic changes resulting from the transfer of a name;
- 3) Delexicalization.

These phenomena have a specific character:

1) Quasi-nomination with the use of pronouns

They overwhelmingly relate to nouns (486 occurrences) out of all the 637 recorded/, for comparison – 67 occurrences relate to verbs), and are characterized by the following behaviors:

- A) Replacement of a noun with a pronoun (144 occurrences), used as in:
Popatrz na nią i chodź pójdziemy na ten ([Look at her and let's go to this] here: ten [this] = party? supper? walking?)

Table 1. Symptoms of lexical disorders – quantitative characteristics

No.	Symptoms of lexical disorders	No. of occurrences	Percent	Degree of importance
1	No name (with explication of meaning /incomplete/)	63	7 %	4
	– asking for clues	35	4 %	
	– circumlocutions	28	3 %	
2	incorrect choice of name (semantic changes) with words:	201	23 %	2
	– transfer of a name	181	21 %	
	– transfer of meaning	17	2 %	
	with phraseologisms:			
	– assigning incorrect meanings to collocations	3	(below 0.5 %)	
3	Quasi-name (no transmission of meaning)	484	56 %	1
	– quasi-nomination with the use of pronouns	210	24 %	
	(seeking a name)	(477)	(55 %)	
	– the use of words with a too general meaning	7	1 %	
4	Structurally incorrect name	122	14 %	3
	– production of new derivational constructions	32	4 %	
	– delexicalization	90	10 %	
	Total	870	100 %	

Powyciągam kiedyś ten, to pani pokażę ([I will take out this to show you] here: this = pictures? picture albums? souvenirs?)

In this case, the patients use pronouns in such a way as if these were indisputable carriers of meaning. If the context allows this, the addressee may assign a more or less plausible meaning to such occurrences but there are grounds to fear that it may be inconsistent with the sender's intention. Sometimes the difficulties with a particular name manifest themselves in different utterances of the patient (and in next conversations), due to which it is easier to point to the word required.

Out of the cases analyzed, worth noting is the use of pronouns: *tu*, *tam* [here, there], e.g.,

Jedna chce iść do... y tam, to idziemy o-obie... [one of us wants to go to... er... there] (*tam* [there] = ?), then we both g-go...]

O, ten ksiądz teraz krzyczy, co z nami był tam na tym, o, słyszy pani? [Look, this priest is shouting now, the one who was there this, can you hear it?] (*tam* [there] = ?)

Tam [there] always remains semantically empty, *tu* [here] is most often combined with problems with identifying a given place (hence occurrences of the type 'call to here') and establishing the shared perspective of seeing a place. Some occurrences show fairly unambiguously that the patient associates the pronoun with a specific place (name of the place?) and expects the same from the interlocutor despite the absence of sufficient clues allowing them [the patient and addressee] to agree on the perspective:

A.E. (patient): *Dość dawno, że był papież i ja byłam. Ale czy byłam... tam?* (the patient thinks) *Tam byłam ja już.* [Quite long ago that the Pope was and I was. But was I ... there? (-) There I already was.]

I. (researcher-interviewer): *Uhm.* [hm, o yeah]

A.E.: *Ja tam byłam. Ja tam byłam... nawet dość długo.* [I was there. I was there... even for a long time]

I.: *I udało się z bliska zobaczyć?* [Did you manage to see from close up?]

A.E.: *Z bliska. Byłam tam, byłam o tego / u niego.* [From close up. I was there, I was at this / with him]

In the course of further conversation the researcher-interviewer fails to establish which place is meant (Vatican? Częstochowa? or some other place? – it is also doubtful whether the patient means the Pope all the time, probably confabulations appear). The patient is annoyed that she is not understood and keeps emphasizing the pronoun *tam*[there] as if it acquires a sense shared by the interlocutors. This kind of behavior was reported in the Western literature by Hamilton [1994]: as the disease progressed, her female patient stopped giving the clues that would permit her interlocutor to identify places (persons or objects), which the investigator interpreted as indicating that the patient did not feel that such information was needed to achieve understanding: in dementia one loses the ability to adopt the perspective of the other person.

B) The use of a pronoun when trying to actualize the noun (342 occurrences), e.g.,

Ale tam jakoś słabe te... były, gdzie ojciec pracował [But there they were somehow low these ...] (here: implicitly from the context – wages)

Zapisałam się do tej... Na mieszkanie zbierałam jeszcze wcześniej... [I joined this... (I saved up for an apartment even earlier...)] (here: implicitly from the context – a housing cooperative)

From the addressee's point of view, as regards the meaning value, occurrences of this type do not differ from the above cases (substitution of a pronoun for a noun) when an attempt to actualize a specific noun fails, and this happened most often (254 occurrences out of 342). However, a search for a specific word is clearly seen here (signals at the suprasegmental level, sometimes additional comments by the patient).

Under such circumstances pronouns *taki*, *taka*, *takie* [such] also sometimes occur (32 occurrences out of 254), e.g.,

Bo bo bo bo my zaraz poje-pojechaliśmy, tam na takie... jakby restauracja tam, nie restauracja tylko ten taki taki... No jak to na-nazwać? Nazwać. [Because, because, because, because we w-went there right away to such... sort of a restaurant there, not a restaurant, only this such such... Well, what do you call it? Call it.]

C) The pronoun as a temporary substitute for the noun, preceding actualization of the right name.

Cases of this type, defined by Ożóg [1990] as metatextual pronominal prostheses, were recorded the least often (88 occurrences out of 342): the appearance of the pronoun (*ten, ta, te*, [this, these], exceptionally: *taki, takie*[such]) as a temporary substitute was always characterized by concord of the case category with the noun sought, and in the vast majority of cases, also by concord between the gender and number, e.g.,

A oni to... chcieli koniecznie, żeby pojechać... na ten. Na oj, ten... cmentarz. [And they... wanted very much to go... to this. To, well, this ... cemetery]

In the case of quasi-nomination, if we reverse the order of the phenomena discussed, we can present in the following way the growing problems with the noun seen through the prism of the use of pronouns: (1) the pronoun as a temporary substitute leading to the actualization of the noun (*Idę na ten, na ten, na film [I am going to /see/ this, this, a movie]*); (2) the pronoun as a substitute used while trying to actualize the noun but failing (*Idę na ten ten ten... [I am going to this, this, this...]*); (3) the pronoun as a quasi-name, without any signals of trying to actualize the noun (*Idę na ten [I am going to this]*).

The special status of the pronoun among the parts of speech (because of its demonstrative and substitutive functions) causes pronouns to be useful for patients suffering from lexical-semantic difficulties. The frequency of pronouns increases and the rules change pertaining to how pronouns fill the positions open to other parts of speech in the surface structure of the utterance. As a result, there are realizations of the type: ksiądz *chodzi pooo*, [the priest *makes...*], ma *taki rok*, kiedy są *te... dni* [he has *such a year* when there are *these... days*], przychodzi *tam*, gdzie są *jakiś te* [he comes *where there are some, these*], odwiedza *te...*, zawsze jest *ten* [he visits *these ...*, there is always *this*] (= ksiądz *chodzi po kołędzie* [the priest *makes a round of house calls on parishioners during the period after Christmas*]).

2) Semantic changes resulting from the transfer of a name

This group comprises 181 units, verbs being dominant (105 words). The transfer of a name may take place owing to the similarity (or emergence of other semantic relations) or to overlapping of meanings. I regard the semantically new words as a substitutive way of communicating meanings, based on the substitution of the desired word by one of a similar meaning, or another word that is in a definite semantic relation with a given word (or exceptionally even in a loose collocation). The transfer of a name owing to the overlapping of meanings is unusual here (only four cases of metonymization were recorded).

I associate occurrences of this type primarily with disruptions of the mechanism of selection of lexical units (according to the findings of Jacobson [1989]), in connection with their impeded actualization and the progressive impoverishment of the vocabulary. These are mostly ephemeral, nonce words created by individual patients:

posadzić [sit up] ‘położyć [put] (poduszkę [a pillow])’ – cf. posadzić [sit up] ‘umieścić kogoś w pozycji siedzącej [place someone in a sitting position]’, położyć [lay down] ‘umieścić kogoś w pozycji leżącej [place someone in a lying position]’; ‘umieścić coś na czymś, zwykle poziomo, na płask’ [put something on something, usually flat, horizontally]

robiąca się [becoming] ‘tworząca się, powstająca (rodzina) [arising, being formed, emerging (family)]: *chcieli się wcisnąć do tej... no... ro-robiącej się... no... rodziny* [they wanted to get into this... well... em-emerging... well... family] przekabacić [literally talk someone over] ‘zmienić, przekręcić (coś) [change, turn something over]: *starali się... to jakoś przekabacić* [they tried... to somehow change it] – cf. przekabacić kogoś [talk someone over]

zwiększać się, pomniejszać się [increase, grow bigger, decrease, grow smaller] ‘when talking about life and passage of time’: *Nie, nie zwiększa się życie, a po-po-po-po-pomniejsza* [No, life does not increase but it de-de-de-de-decreases] (dobrze) opracowany [(well) worked] ‘(dobrze) nastawiony (zegarek) [(well) adjusted (watch)]’

The verbs that replace the correct names are mostly words with similar meanings: synonymous (including quasi-synonyms) and those based on more remote associations in the semantic field. The role of substitutes is performed both by verbs with a narrower meaning (e.g. ‘fastrygować [baste]’ instead of ‘szyc’ [sew]), and verbs with a very general meaning (see above: zwiększać się, pomniejszać się [increase, decrease] /in reference to life/). Semantic changes (extensions of meaning) are also signaled by differences in the collocability of a given word (see above: ‘przekabacić coś’ [talk something over=turn something over], versus ‘przekabacić kogoś’ [talk someone over]). In the case of difficulties with a given word an emotionally-stylistically marked synonym is used far less often. Finally, substitutes can be verbs that have a common component of meaning with the desired word but they are in remote semantic relations and may disturb the collocability of words (see: ‘dobrze opracowane zegarki’ [well worked watches instead of ‘nastawione’ [set, adjusted]]).

With more remote semantic associations, the resulting combinations of words may appear to be metaphorical uses because of their peculiar character, e.g.

A.K.: *Ale o, o tej... czasie, to jest tak, że słońce świeci, naraz się chowa...* [But at, at this ... time, it is like this, the sun shining and suddenly it hides...

I. (researcher-interviewer): *No tak.* [Yes, indeed]

A.K.: *...i chmura wybucha.* [... and the cloud explodes (...)]

I.: *Tak, tak. Gdyby padało dalej, to byśmy widziały. To nie, to musiał przestać*

jednak. [Yes, yes. If it went on raining, we would see. No, it must have stopped, though]

A.K.: *Tak. Tak, tak. Odrzucił krople i wspina się wyżej*. [Yes, yes, yes. It shook off the drops and is climbing higher]

(here: the underlined collocations can be given the status of a poetic metaphor – worth noting is the way of depicting: *słońce się chowa* [the sun hides], *chmura wybucha* [the cloud explodes] *deszcz odrzucił krople i wspina się wyżej* [the rain shook off the drops and is climbing higher /cf. *deszcz zaczyna nagle padać, powoli przestaje*/ [the rain starts falling suddenly and is slowly stopping]).

In this group antonyms and conversion also appear, although exceptionally, e.g.,

zapomnieć [forget] ‘*pamiętać* [remember]’: (the patient looks at the door plate) *Żeby nie pamiętać* [not to remember]

(here: note, however, the complications connected with the appearance of the negative: *nie pamiętać* [not remember] /*pamiętać* [remember]/ – *zapomnieć* [forget])

The use of words that are in a specific semantic relation to one another may at the same time be motivated by sound similarity. Among the verbs, this mechanism applies to almost one-third of the words (31), being connected almost without exception with the similarity of the initial sound, due to which it is inseparably connected in many cases with structural similarity and the meaning of the prefix, e.g.,

posunąć się [move on] ‘*poruszyć się* (o drzewach) [move (about the trees)]’: *czasem posuną się tylko (z powodu wiatru)* [sometimes they only move on (because of the wind)].

We should also note one more question relating to the cases of transfer of a name because of similarity of meaning. Although they are sporadic, for ad hoc purposes (they appear in a given context because of difficulties with finding the right word); sometimes we may observe the overuse of certain words (ranging from more or less appropriate uses to the occurrences in which, as substitutes, they become semantically empty), i.e., these are substitution realizations that suggest themselves to the patient and are of comparatively permanent character if they are attributed with some, even general, meaning.

This is illustrated by the example of uses of the verb ‘*uzupełnić* [supplement, complement]’ (recorded from the utterance of one patient):

uzupełniać [complement] [*przyswajać wiedzę? uczyć się?* /acquire knowledge? learn?/]: *Ale są ludzie, co sobie uzupełniają dobrze, a są tacy, co oni dwa razy przeczytają i już mają dosyć* [but there are people who supplement = learn well, and there are those who can read twice and it is enough {for them to learn}]

uzupełnić (rzecz) [supplement a thing] [*mieć ponownie (coś dostępnego)?* /have something available again?/]: *Co tak krzyczyć albo coś. Bo bo ci gąska tam stała czy tam co tam... To jest wszystko, no rzecz taka, którą można...*

uzupełnić... [Why shout something or what., because a goose stopped there or something... This is everything, a thing that you can supplement...]

uzupełnić [?]: *Ta matka to ona tak... za/ yyy tak... zupełnie wszystko sobie uzupełni, tak jak gdyby to było dawno, dawno, a to wszystko zrobione* [this mother, she so... for/ er, so she will supplement everything for herself, as if it was long ago, long ago, and all this is done]

uzupełnić [?]: *Rodzice jak rodzice, biedne jak mogą też, uzupełniło się i poszło już... przecież Marek, Marek to już jest po ma/ jest po maturze, mówię pani* [Parents like parents, poor, as they also can, it got complemented and already gone... after all, Marek, Marek already got/ got his high-school diploma, I'm telling you]

uzupełnić [improve]: *No to no coś to to tak to życie, no ni, a a to Olunia moja, to ona troszeczkę, może ja wiem, ale przecież... Mogłaby sobie jeszcze uzupełnić to miejsce* [Well, this is so, this life, well no, and, and my Olunia, she could a little, maybe, I don't know, but still... She could still supplement = improve this place]

uzupełnić [improve]: *Ale teraz Boże, wszystko idzie jakoś tak, wszystko się uzupełnia na podwórku już jest lepiej, już tak jest dobrze* [And now God, everything is going well somehow, everything is supplementing = improving in the yard it is already better, it is already good like this]

Uses of this type (utilizing different meanings of a word, and at the same time going beyond the scope of its meaning in some cases, or with the possible attribution of some general sense /e.g. uzupełnić [improve] applies to positive changes and actions/) can be treated as behaviors exempting the speaker from the need to seek another word, to try to use precise and unambiguous words. Words that are easy to actualize can become expansive in the scope of their semantic range and collocability. This phenomenon is typical of substitutive aphasia, as the development of the type of 'generalized verb', which can replace any verb in severe disorders: this was already described for the Polish language by Zarębina (1973). As words that recur in the patient's utterances they sometimes may appear as stable semantic changes. We can illustrate this by the use of the word 'stosowany [applied, used]' during two different conversations (despite difficulties in establishing the meaning of this word, there are certain common features: *dzieci były/ są stosowane* [children were/are applied]; in reference to the sphere of behavior and upbringing/):

stosowane [wychowywane? applied=brought up, educated?]: *Inaczej było. Dzieci tak nie były y stosowane jak dziś* [It used to be different. were not applied like today (cf. apply specific methods of bringing up/education – although this is doubtful)]

stosowane [applied] [?]: *nie są... źle stosowane ani wnuki, ani dzieci, ani ja* [they are not ...badly applied grandchildren, nor children, nor I]

The above examples suggest that we should look differently at the question of the ad hoc transfer of a name owing to the similarity of meanings.

3) Delexicalization

I treat the examples (90) subsumed under this heading as the result of disturbed realization of structurally established word combinations (collocations) – lexical units that, on account of their analytical character, are prone to disintegration both because of the impeded realization of a specific constituent of a given collocation and because of the need to reproduce a specific formal whole in an unchanging form (or with a limited possibility of introducing changes permitted by the language). Units in this group were used by the patients investigated in the context consistent with their original meaning, thus in interactions the interlocutor regards them as carriers of the meaning assigned to them in the language system. On account of contextual correspondence we are dealing therefore with a situation in which ‘the traditional content of a phraseologism is retained whereas its structure is modified’ (Buttler 1987, p. 217).

In most cases, changes relate to the lexical content of a phraseologism and are of qualitative character (exchange of a constituent/constituents) e.g.

U śmiech [smile, grin] od buzi do buzi [from mouth to mouth] ‘uśmiech od ucha do ucha’ [grin from ear to ear]

ten Piotr dał na... kolędy [this Peter *gave ... for Christmas carols] [had his banns called] ‘dać na zapowiedzi’ [have one’s banns called, literally *give for banns]

I potem on ją odprowadził. Prawda? [And then he saw her home, right?] *I i i rzucił nad/ na łono rodziny, jak to mówią (...)* [And, and, and he turned her back/over to the bosom of her family, as they say (...)] *No, pytam się: “No i co?”* [Well, I ask him: ‘and what?'] *“Nic, odprowadziłem ją i rzuciłem na łono rodziny”* [‘nothing, I saw her home and turned her back to the bosom of her family’] *‘wrócić na łono rodziny’* [return to the bosom of one’s family]

Sometimes the utterances of the patients show that they do not feel that the exchange of constituents is not appropriate, cf. ‘wpuścić kogo w maliny’ [literally *lead someone into raspberries =lead someone up the garden path, take someone for a ride] and ‘wyrwać się, wyskoczyć jak Filip z konopi’ [literally, *rush out, jump out like Philip from the hemp=put your foot in it, speak totally off the point]:

A.J.: *Nie dawali się tak, jak to mówią, jak się to mówiło? W konopie.* [They didn’t let themselves {be led}, as you say, how do you say? Into the hemp = be led up the garden path]

I.: *A, tak. Wpuścić w maliny.* [Ah, yes. *Led into the raspberries=led up the garden path].

A.J.: *Wpuścić w maliny. Albo w konopie* [*Led into the raspberries. Or into the hemp]

The exchange of a constituent or several constituents most often occurs because of the similarity of meanings (also by association with another collocation, see above: *wpuścić kogo w maliny / w konopie* [lead someone into the raspberries

= lead someone up the garden path /into the hemp/). Metonymy (see above: uśmiech – buzia [grin-mouth) and paronymy (see above: wrócić – rzucić [return – turn back]) appear exceptionally. The exchange of a constituent is seldom connected with the change in the grammatical properties of a collocation (cf. ktoś wrócił na łono rodziny [someone returned to the bosom of one's family] – ktoś rzucił kogoś na łono rodziny [someone turned someone back to the bosom of the family]).

With regard to the structure of the collocations, the dominant ones in the collected material are phrases or sets of words with the verb as the main constituent (70 units or 78%). Only very few phrases (9 or 13%) reveal problems with actualization of the verb, e.g.,

I mogę swojego trzy grosze włączyć [literally *I can put in my three pennies {put in my two cents' worth}] 'wtykać, wsadzać, wtrącać swoje trzy grosze'; 'włączać się do rozmowy' ['add, put in one's two cents' worth', 'join the conversation'].

I have presented in detail all the categories of lexical disorders according to the adopted model of description of the lexis in my earlier studies (Domagała, 2005, 2007b). At this point I would like to emphasize the lexical problems of adults with Alzheimer's dementia, by showing the following reactions of the patients:

1) Surprise with one's own lexical difficulties, especially with their scale, disbelief (for example: the patient is surprised that she does not at all remember the names of persons she meets every day, and she cannot understand this herself: "Muszę wiedzieć chyba... [I have to know, I guess...] Bo nawet nie wiem... [because I even don't know...] Muszę, bo jak to? Jak to? (...) [I have to, because what would it be? What would it be?] Znać i wiedzieć, jak się nazywa, bo jak by to było inaczej?" [Know and, and, and know what his/her name is, or else what would it be like/])

2) Embarrassment at failed attempts to actualize a given word, excusing oneself before the interlocutor (for example: the patient is embarrassed that 'she can't say' and explains that she stays alone at home all the time: she seldom meets other people, has no one to talk to, and hence her problems).

3) Regret that the ability to express oneself has been lost (for example: the patient wants to speak about the flowers that are blossoming in the garden, this is emotionally important to her, but impossible for lexical reasons; she feels bitter because she cannot overcome the communication barriers even with the help of her interlocutor).

4) Resignation, discouragement (for example: the patient stops the conversation because she is short for words and she feels that her utterance is incoherent: "Nie, to nie tak, jakieś są nazwy" [No, it's not like this, there are names]), withdrawal (for example, the patient loses control of what she is saying "Nie no ja... ja tego... chodziłam do szkoły... chodziłam do szkoły i i i jak to się nazywa? Nazywa się... zaraz, zaraz, zaraz... (in softer voice) chodziłam do szkoły, no to chodziłam, to normalne i... zaraz... no ale to ni-nic, to to samo bym powiedziała" [No, well, I ... I well... went to school ... went to school and, and, and, what do you call it? It's

called... just a moment, just a moment... (in softer voice) I went to school, well I went to school, that's normal... and ... just a moment... well but that was n-nothing), I would have said the same]).

5) Frustration at not being able to express in words what one wants to say (for example: the patient, trying to find a name, rejects all suggestions of the interlocutor – she finds the clues partially accurate but she is annoyed because, as she stresses, she wants to express things 'more strongly', what she says is not what she wanted to say).

6) Complaining about lexical difficulties, commenting on the patient's own failures (for example: "Ojej, nie mogę się wypowiedzieć, proszę panią, człowiek zapomina się, nie wiem, jak to te litery poskładać" [Oh my, I can't express myself, you just forget, I don't know how to put these letters together]).

7) Looking for support from another person, feeling that one has lost one's independence in contacts with the environment (for example: patients directly ask: 'tell me', they ask 'how to say it?', 'what do you call it?' 'how do you express it?')

Overcoming a lexical problem during the conversation (by the patient or with the interlocutor's help) makes it easier for the interlocutors to mutually communicate but it may also be very important to the patient in the cognitive respect: naming people, places, activities, etc. helps the patient to be aware of the surrounding reality, and actualize his/her particular areas of knowledge. The patients, while looking for names, may at the same time look for information that is crucial for them.

A.H. (patient): *I to jest, jest taki... to jest yyy jak jak jak powiedzieć? No nie, jak to jak ono się nazywa to pomieszczenie? Jak... no, jak by pani powiedziała, w jakim pomieszczeniu?* [And this is, is such a... this is...er... how, how, how to say it? Well, what... what do you call this place? How... well, how would you call it, in what place?]

I. (researcher-interviewer): *Pani tu jest w sali pod czwórką, tak?* [You are here in ward number four, right?]

A.H.: Yyy. [yeah]

I.: *Nie, pod piątką.* [No, it's number five]

A.H.: *Pod piątką.* [Number five]

I.: *Pod piątką.* [Number five]

A.H.: *Pod piątką, to jak się jak się ogólnie nazywa to?* [Number five, that's what it is generally called, right?]

I.: *Sala chyba, po prostu sala.* [A ward, I think, simply a ward]

A.H.: *No a...* [Well and ...]

I.: *Sala czy pokój...* [A ward or a room?]

A.H.: *...sala, sala, ale jak? Sala.* [... a ward, ward, but how? A ward.]

I.: *Sala chorych chyba* [A ward for the sick, I think.]

A.H.: *Nie chorych, tylko tylko...* [Not for the sick, only, only ... (she strongly counters)] *Tam są yyy lekarze. To jak to nazwać to? Przecież tam tylko... różni lekarze są i i ludzie jak to to to nie chcą wcale wypuścić, tylko trzymają. Jakby*

jakby chciała się wy/ wy/ wy/ się stamtąd wydostać... [There are, er, doctors there. What do I call it them? After all there are only... different doctors there and people, they, well, well, don't want to let {me} out, only keep there. How, how would I like to get/get/get out of there...]

I.: *Uhm.* [Hm]

A.H.: *...to mówią, że mnie nie nie nie nie nie dadzą mi się wydostać stamtąd.* [... they say they won't, won't, won't won't let me get out of there]

I.: *No bo to jest jednak oddział szpitalny.* [Well, because this is a hospital ward, after all]

A.H.: *A, to szpital, ooo* [Ah, that's hospital, ah! (with a great load of emotion – that's the word she meant)]

I.: *Szpital.* [Hospital]

A.H.: *No właśnie, to jest szpital. No widzi pani, jak się...* [Exactly, that's hospital. See how...]

I.: *Tak, tu jest oddział szpitalny. Pani szukała tego słowa szpital, tak?* [Yes, this is a hospital ward here. You looked for the word 'hospital', right?]

A.H.: *No tak.* [I did]

I.: *Aha. Aha.*

A.H.: *Tego słowa szpital szukałam. Że nie wiem, jak się nazywa. To przecież szpital.* [That's the word 'hospital' that I looked for. That I don't know what it is called. But that's hospital]

For the Alzheimer patient language disorders mean changes in different forms of cognitive activities (hard to assess), closely connected with language, e.g., internal speech, thinking, and memory processes. The patient loses ethnic language.

Discussion and conclusions

Lexical problems were not always easy to notice in the recorded utterances. Considering the ample material analyzed, the frequency of symptoms of lexical disorders was comparatively low, including also the dominant ones: quasi-nomination with the use of pronouns, incorrect use of names because of semantic similarity, and delexicalization.

When comparing the author's own findings with the findings presented in the literature on the subject, we should note the specific character of the research material (dialogue utterances). Lexical disorders can be certainly observed with greater clarity in tests and experimental trials, which reveal the patient's deficits, presenting him/her with the necessity of giving a concrete answer. Anomia/dysnomia is perceived as the starting point in the development of language disorders syndrome in Alzheimer's dementia (Kertesz, 1979, after: Zec, 1993) and, consequently, naming disorders are emphasized on the lists of leading symptoms (Łuczywek, 1996; Szepietowska & Daniluk 2000; Herzyk, 2001, 2005). However, in the case of spontaneous speech, the naming disorders, for example semantic paraphasias, are

shown as a characteristic symptom mainly in comparative research studies (conducted in patient groups with different types of dementia, e.g., by Illes (1989) in a group of patients with Alzheimer's disease, with Huntington's disease, and with Parkinson's disease). As Marczevska [1994] shows, in reference to the studies by Illes, although patients with Alzheimer's dementia in the moderate stage of the disease had (comparatively) mostly semantic paraphasias, yet in terms of figures it was ca. 8 paraphasias per 1000 words used.

It should be emphasized that in the case of dialogue behaviors, the lexical problems of the patients have different implications for the addressee of an utterance (language in the communication function) and different ones for the sender-speaker (language in the cognitive function). The author's own studies showed that the disorder of lexical skills is a problem of crucial importance and that utterances are constructed by the patients with great difficulty: the patients' adverse reactions to difficulties they experienced, their comments and complaints show this most strongly.

The disorder of lexical skills leads to communication failures: because of the difficulties of the patients, these issues should be included in the programs for improvement of communication of the patients assigned to this group. In Polish conditions it is necessary to develop ways of treating patients with Alzheimer's dementia in the conditions of day-to-day communication – the first efforts in this field have already been made (Domagała, 2007a).

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