



UniversitätsKlinikum Heidelberg

Psychotherapy and the Internet: Enticing technology & challenging methodology?

*Hans Kordy, Benjamin Zimmer et al.
Center for Psychotherapy Research Heidelberg*

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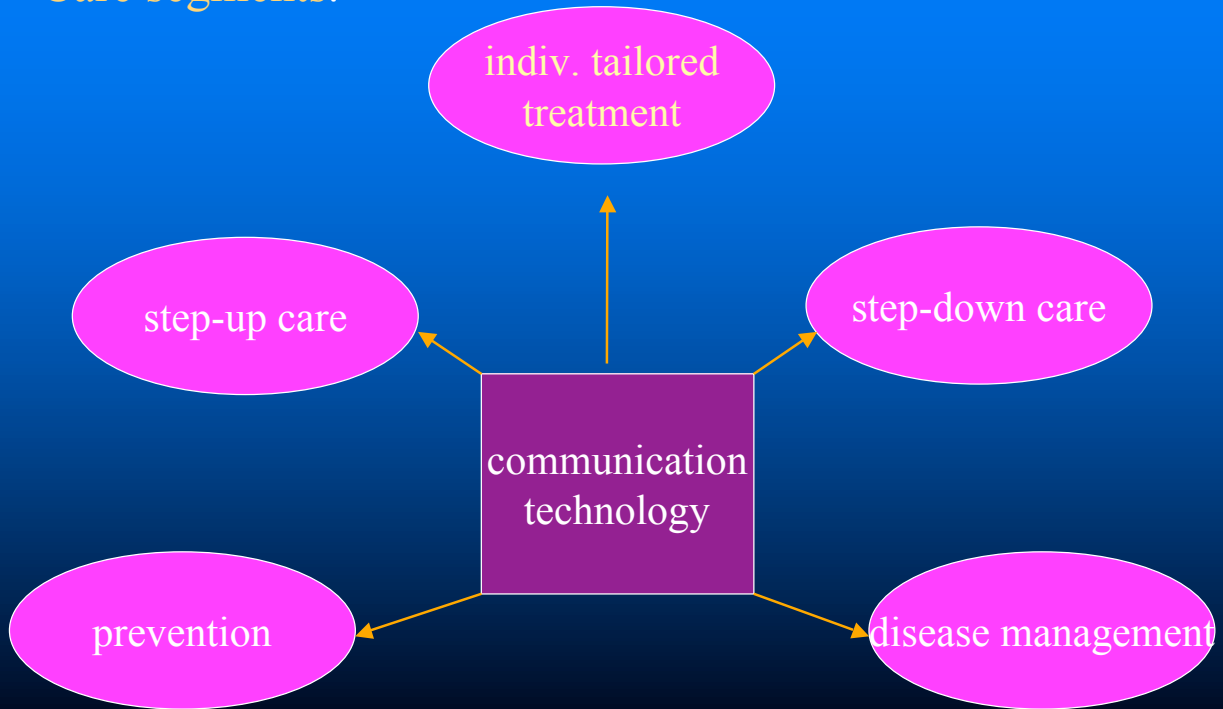
—○○— Enticing technology & challenging methodology

General assumption:

Modern communication technology opens up
new avenues for research and care provision!

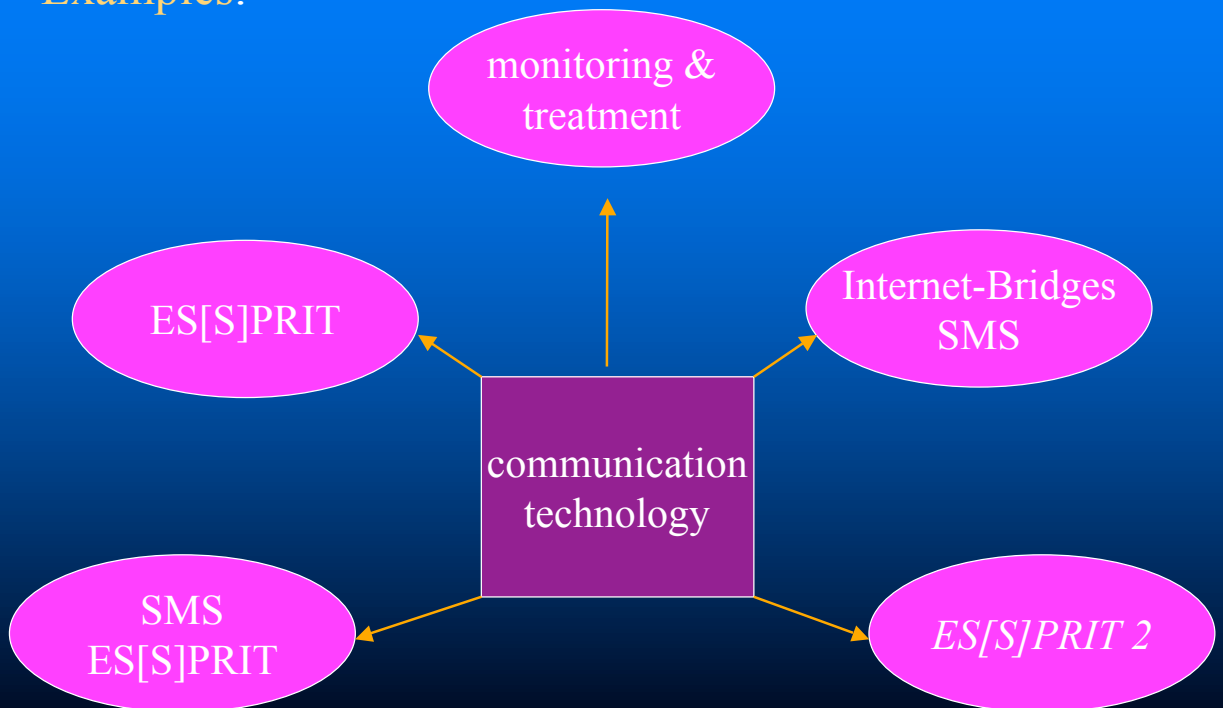
○ ○ E-Mental Health at the Center 2001-7

Care segments:



○ ○ E-Mental Health at the Center 2001-7

Examples:



○○ E-Mental Health at the Center 2001-7

- „Web-Akquasi“: quality management & outcome monitoring (*R. Percevic, M. Möbner, C. Gallas, B. Puschner*)
- „Internet-Bridge“: maintenance group setting (*B. Zimmer, M. Möbner, S. Haug, V. Golkaramnay*)
- „e-mail Bridge“: maintenance individual setting (*M. Wolf*)
- „Relapse prevention through SMS-Monitoring“ (*S. Bauer, PhD*)
- „Es[s]prit“ eating disorders prevention through the internet (*S. Bauer, M. Möbner,*)
- „Intervision“ supervision among peers through the internet (*S. Bauer, C. Gallas - in co-operation with AED*)

○○ E-Mental Health at the Center

“Windfall research” – E-Mental Health:

An invitation to improve our understanding of the processes of getting ill - getting well - staying well

○○ E-Mental Health at the Center

Specifically, E-Mental Health is

an invitation for the investigation of communication

○○ Enticing technology & challenging methodology

Workshop Overview:

- online assessment
- computer assisted textanalysis
- interaction analysis

○ I. Online Assessment

Examples:

- adhoc html-forms (plus databank)
- Hogrefe-Testsystem
- Web-AKQUASI

○ I. Online Assessment

Advantages (*e.g. Percevic et al., 2005*):

- better quality of data -less missings, less mistakes
- better control of possible bias
- easier organisation and lower cost
- quicker availability of information

○ ○ I. Online Assessment

Example:

Online assessment through web-AKQUASI

○ ○ I. Online Assessment

Web-AKQUASI - Modules

- | | |
|-----------------------|--|
| assessment | <ul style="list-style-type: none">- online (inter-/intra-net)- various devices- flexible inventory (adapted for each version)- flexible assessment schedule |
| feedback | <ul style="list-style-type: none">- without time-lag- on single cases & on group level |
| administration | <ul style="list-style-type: none">- user & patient administration- data import and export |
| data security | <ul style="list-style-type: none">- patient codes- entry via username and password- restriction of user rights- encoded data transfer and storage |

I. Online Assessment

Example: QM core inventory

dimensions	instruments	
	patient	therapist
sociodemographic data	Psy-BaDo	Psy-BaDo
physical problems	KPD-38	BSS
psychological problems	KPD-38	BSS/ GAF
social problems	KPD-38	BSS/ GAF
competence, satisfaction, social support	KPD-38	
quality of life	LQ	
helping alliance	HAQ	HAQ
consumer satisfaction	ZUF-8	

I. Online Assessment

fields of application

- quality management & outcome monitoring
- monitoring of stepped-care / after care
- process-outcome research
- clinical training & continuous education

○ ○ I. Online Assessment

Where has Web-AKQUASI being implemented?

Germany

- monitoring and quality assurance in inpatient psychotherapy
- monitoring of computer-based aftercare via Chat and E-Mail
- Internet-based prevention program for eating disorders

Netherlands

- monitoring of an Internet-Chat based aftercare program for eating disorders
- pilot study on outcome monitoring in an outpatient therapy center

program versions in several languages

(German, Dutch, English, French, Portuguese, Spanish, Czech, Slovak)

○ ○ I. Online Assessment

Technical requirements (user perspective)

Internet application:

computer(s) with internet access

Intranet („stand-alone version“):

- server
- computer(s) with intranet connection
- technical support



II. Computer aided textanalysis



II. Computer aided text analysis

- General Inquirer (Stone et al., 1966)
- Gottschalk-Gleser Scales (Gottschalk & Gleser, 1969; Berth, 2001)
- DICTION (Hart, 1984, 2001)
- Affektives Diktionär Ulm (ADU) (Hölzer et al., 1992)
- TAS/C (Mergenthaler, 1996)
- Referential Activity (Mergenthaler & Bucci, 1999; Bucci & Maskit, 2004)
- **Linguistic Inquiry and Word Count (LIWC, Pennebaker et al., 2001):**
 - **2.300 words and wordstems**
 - **total 84 output variables (linguistic dimensions, psychological constructs, relativity, personal concerns)**



II. Computer aided text analysis - LIWC

Positive Emotions (POSEMO)

happy
pretty
good

Negative Emotions (NEGEMO)

hate
worthless
sad

Cognitive Processes (COGMEC)

know
cause

Social Processes (SOCIAL)

talk
share
us

Total 1st Person (SELF)

I
we
me

Negations (NEGATE)

no
never
not

Inclusive (INCL)

and
with
include

Tentative (TENTAT)

maybe
perhaps
guess

Discrepancy (DISCREP)

should
would
could

LIWC findings

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- As people **age**, they use increasing numbers of positive emotion words, cognitive processing words, large words, exclusive words, and future tense. Decline in the use of 1st person singular, references to the past, and time-related words (Pennebaker et al., 2004).

II. Computer aided text analysis

Instruction

“Please write an email for 10-15 minutes. Describe your thoughts and feelings about the topic that was emotionally of highest importance for you during the last week and is of greatest relevance for your current situation and your future.

Please take into account your personal goals and problems, e.g. your personal relationships, your professional situation, your physical and psychological well-being, your self-image and your self-experience. Of these topics choose that one, that was most important for you during the last week and describe comprehensively your thoughts and feelings that accompanied your experience and activities. It may deal with how you saw yourself in the past, how you see yourself today, or how you want to see yourself in the future.

Do not care about spelling and grammar. The only rule is: do not interrupt after you started writing before ending of the time of 10-15 minutes.

II. Computer aided text analysis

Findings “e-mail bridge”

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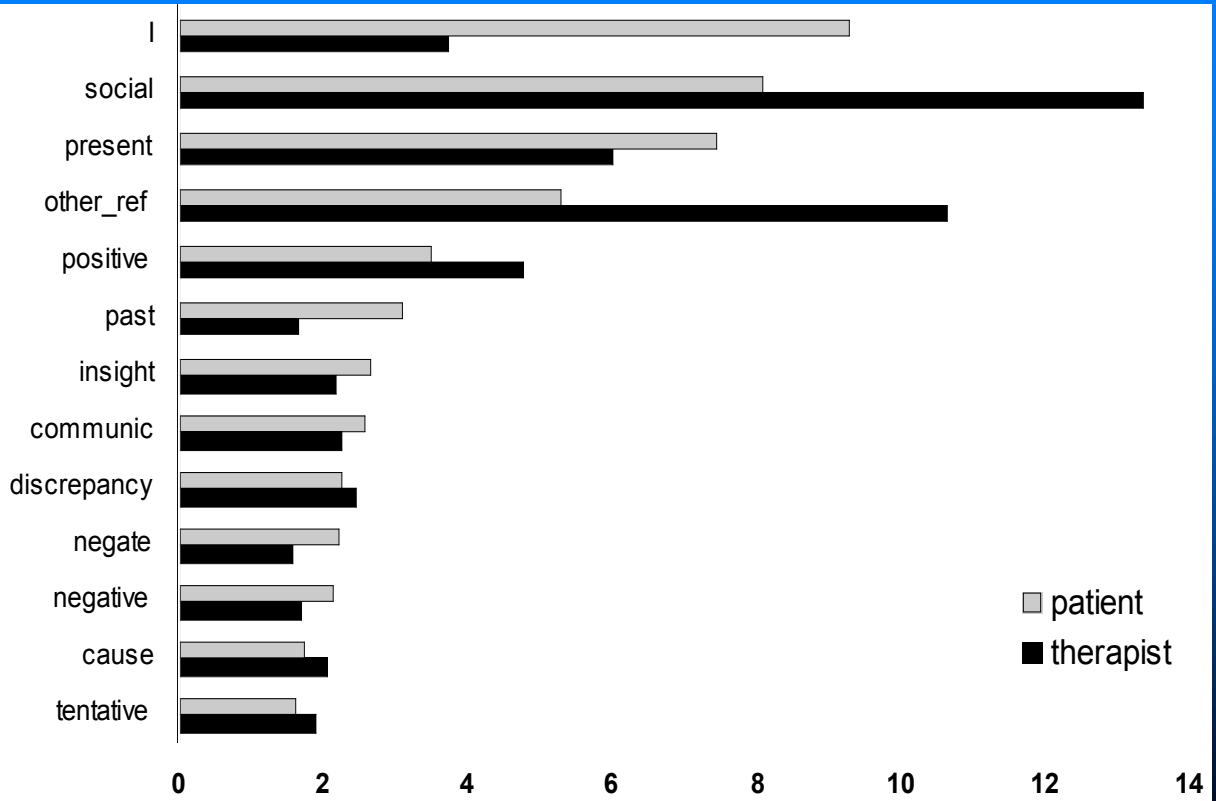
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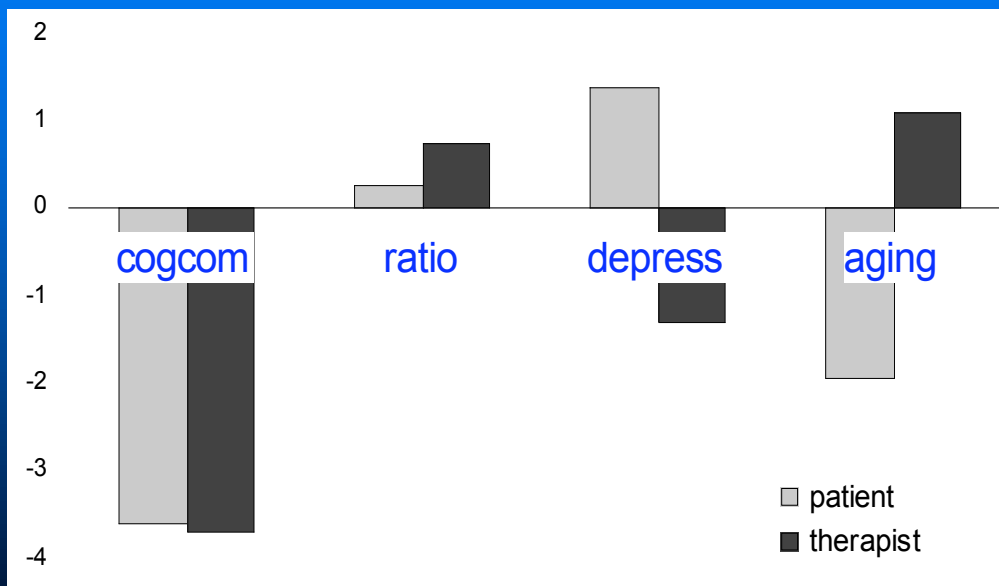
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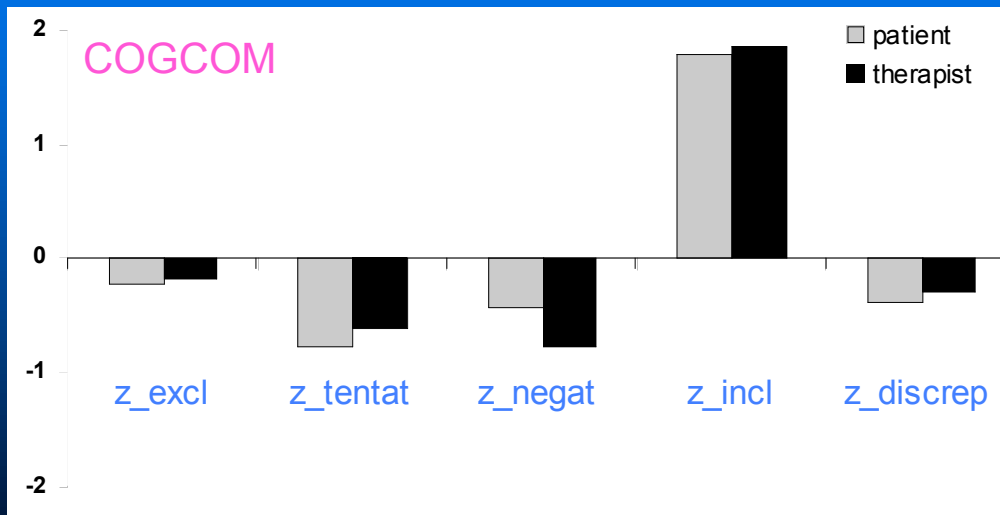


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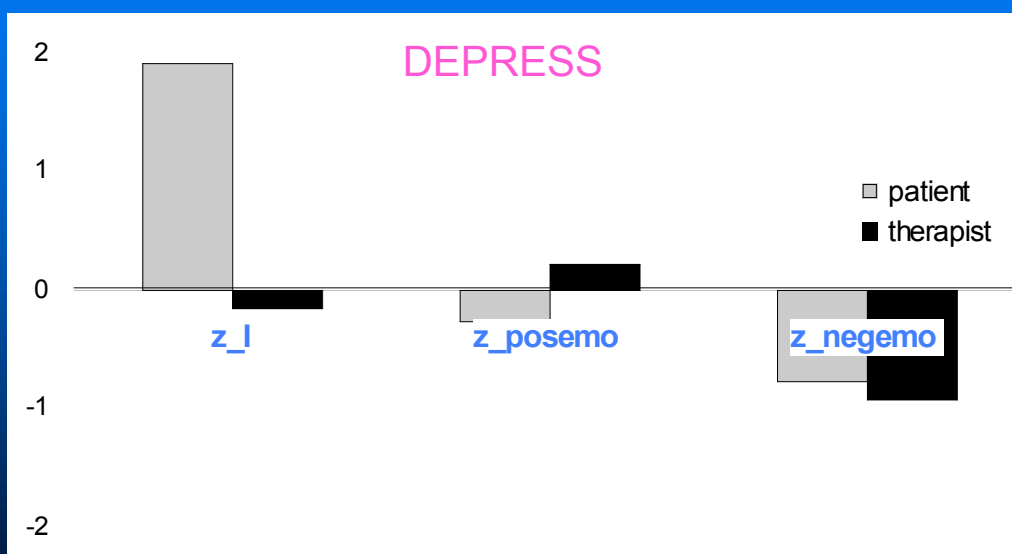


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Results

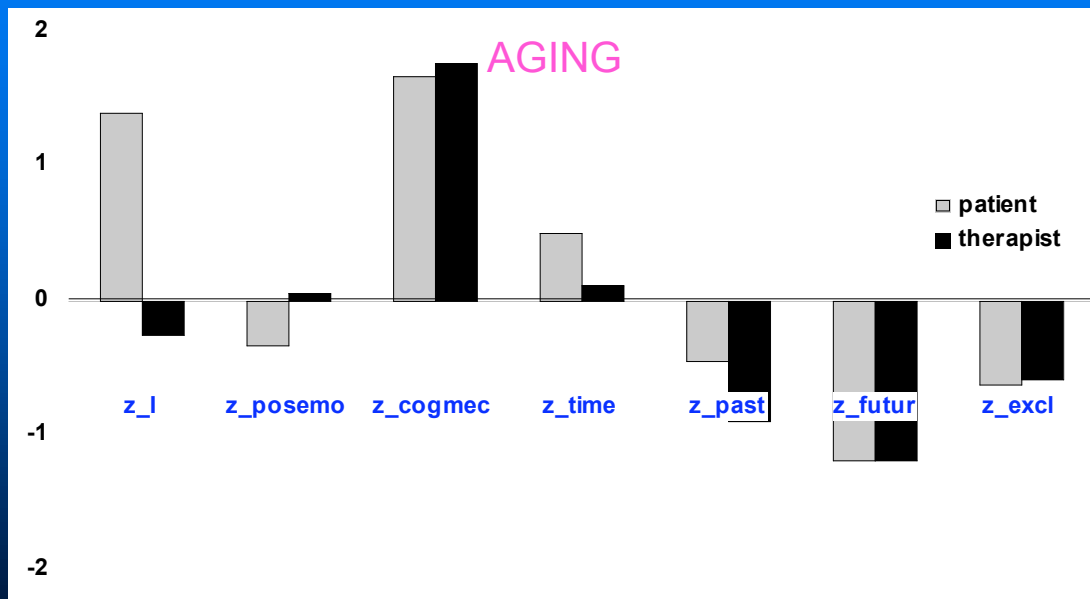


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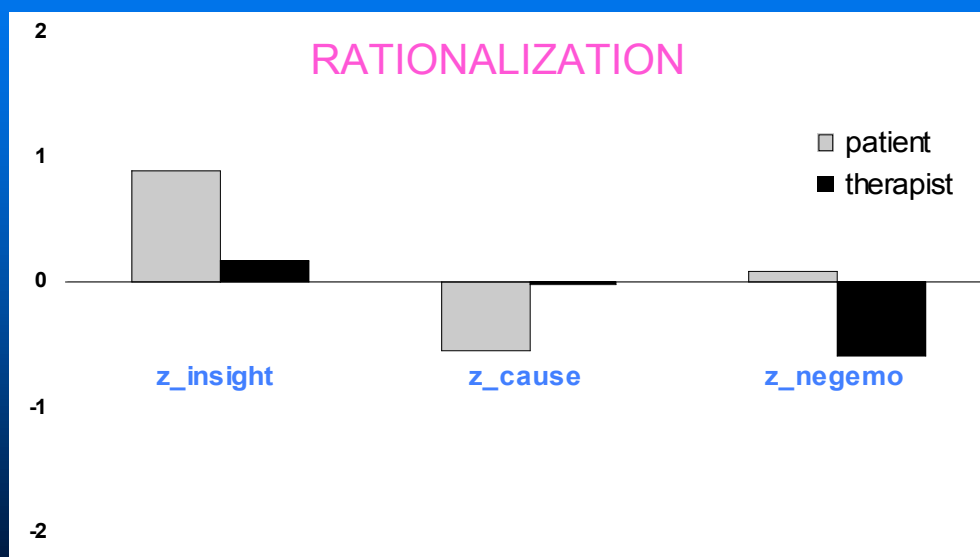




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Summary

Patients and therapist writing styles can be reliably discriminated

Patients E-mails can be characterized (on average) as:

1. cognitive non-complex,
2. primarily self-focussed,
3. highly emotional
4. with a strong emphasis on the present situation and social related topics.

Therapist E-mails can be characterized (on average) as:

1. comparably non-complex,
2. written in a explicitly positive tone,
3. but much less self-focussed
4. with even more references to others and social topics.