

Contamination and Redemption Narratives in Aphasia Recovery: Perspectives of Stroke Survivors

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Background

Persons with aphasia (PWA) experience communication difficulties, which negatively impact their quality of life¹. Personal narratives can help clinicians understand the experiences of PWA and provide an outlet for sharing personal information.²

The concept of *narrative identity*, supported by the Living with Aphasia: Framework for Outcome Measurement (A-FROM)³, highlights the importance of personal storytelling to enhance personal relationships and increase social interaction⁴.

A promising approach in related fields is the thematic coding of redemption (negative beginning, positive ending) and contamination (positive beginning, negative ending). These themes offer insight into their emotional experiences.⁵

Aims

- Examine the frequency of affective sequences within narratives in people with aphasia.
- Determine whether the presence of affective sequences in narration was predictive of baseline depression score.

Methods

17 stroke survivors with chronic aphasia (>6 months) were received from an ongoing study (Table 1). All participants completed the Aphasia Bank Discourse Task⁶ and the Neuro-QoL Depression Short Form as a measure of depression.⁷

Two certified Speech-Language Pathologists (SLPs) coded the interviews based on affective sequence types displayed in Table 2.

Table 1. Participant Demographics

Age (M, SD)	57.59 (10.63)
Sex (%)	
Female	18%
Male	82%
Race (%)	
White	65%
Black/African-American	35%
Months Post Diagnosis (M, SD)	58.71 (53.49)
Boston Naming Test ⁸ score (M, SD)	25.59 (11.77)
Comprehensive Aphasia Test ⁹ Modality Mean (SD)	49.33 (3.60)

Note. Mean (Standard Deviation)

Aphasia Bank Prompts

1. How is your speech these days?
2. Tell me about the day you had you stroke?
3. Tell me about your recovery. What things have you done to try to get better since your stroke?
4. Tell me something that was important that happened to you in your life.

Results

Table 2. Theme Definitions

Affective Sequences	Definition	Example
Contamination	Present when a narrative shows a clear shift from a pleasant or positive beginning to a subsequent negative ending. The negative state must spoil the previous positive state.	"Very good at not very good."
Redemption	Present when a narrative shows a clear shift form an undesired or negative beginning to a subsequent positive ending. Emergent positivity must undo the core of the initial negativity.	"You know, I'll forget words, not forget them. But some words I might have to ask someone or it. It just takes so longer. But I can see that it's getting better."
Positive Stability	Present when a narrative has an overall positive tone but does not have a specific shift from negative to positive.	"good, um I can do it. Take your time. Don't rush. I'm fine."
Negative Stability	Present when a narrative has an overall negative tone but does not have a specific shift from positive to negative.	"It is uh hard, but uh it is. Um It is. It is hard."

Aim 1: Frequencies and descriptives of affective sequences across the four Aphasia Bank prompts

Overall Affective Profile

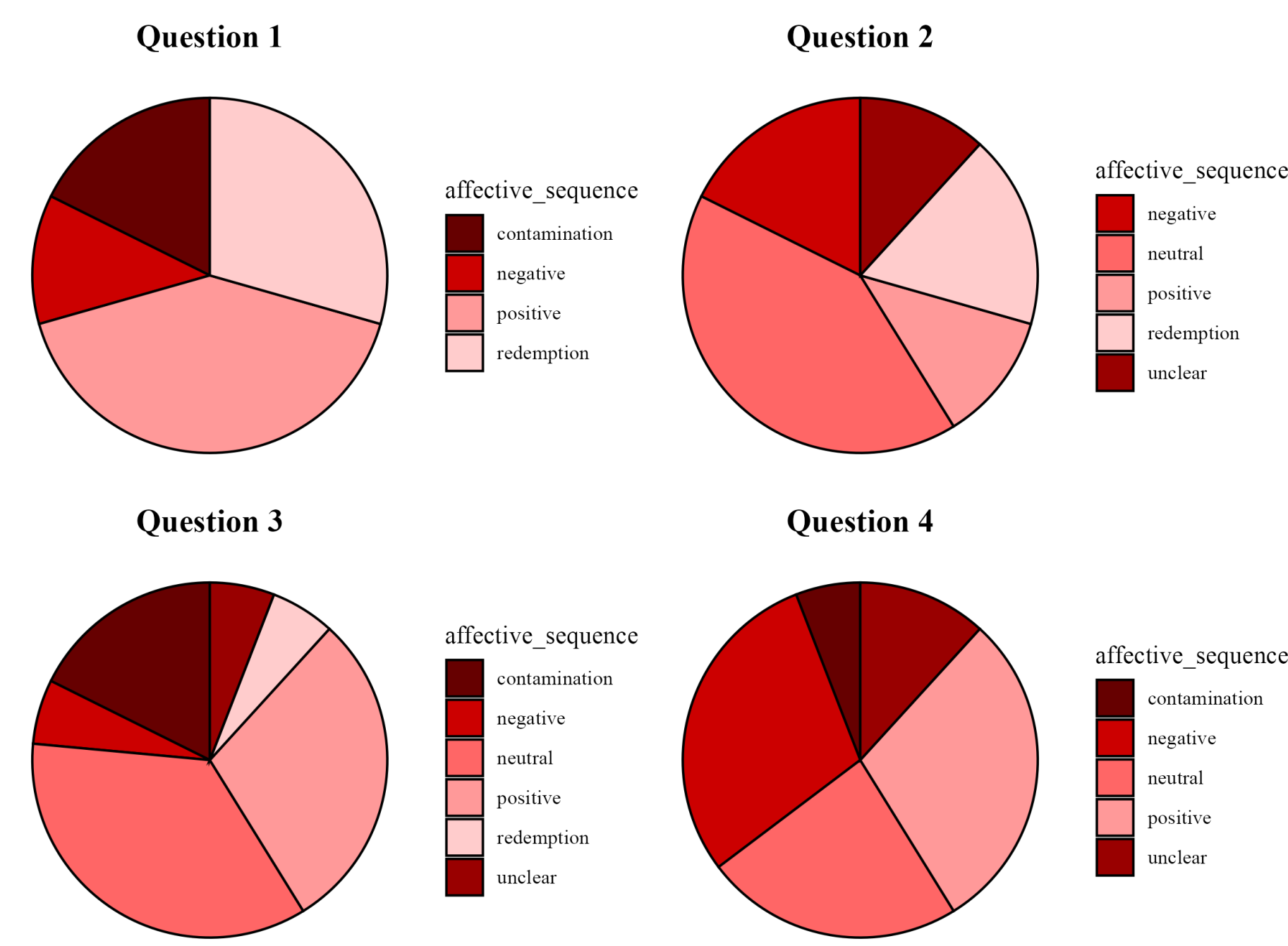
- 23.5% Negative Profiles
- 47% Positive Profiles
- 29.5 Mixed Profiles

Frequency of contamination versus redemption

- 13% redemption sequences
- 10% contamination sequences

Frequency of positive, negative, neutral, and unclear

- 28% positive
- 16% negative
- 25% neutral
- 8% unclear



Aim 2:

Linear Regression Model examining the relationship between each AB questions and participant depression scores

Question 1

No significant difference in depression across affective profiles (all p > .37)

Question 2

No significant differences in depression across affective profiles (all p > .33)

Question 3

No significant differences in depression across affective profiles (all p > .29)

Question 4

Positive profiles showed significantly lower depression ($\beta = -9.73$, $p = .008$)

Discussion

Our results found a significant relationship between lower depression scores and a positive affective sequence on the fourth Aphasia Bank prompt. Specifically, when participants were prompted to share an important story, good or bad, their depression levels varied. For instance, a participant who recounted a story about a bad car accident generally had higher levels of depression than a person who shared a story about a fun vacation.

The three aphasia-related prompts did not show a significant association with depression levels. This may be because narratives about one's strokes and residual deficits are often inherently negative and may reflect a person's awareness of the severe impact of stroke and aphasia.

Overall, these results suggest that the emotional content of personal narratives can provide insights into an individual's well-being. This line of research may inform future assessment or intervention tools.

Future Directions

- Continue recruiting for greater statistical power to establish significance and generalization.
- Impact of Redemption and Contamination on aphasia treatment.
- Investigate the relationship between quality of life and contamination narratives.

References

- Bullier, B., Cassoudeulle, H., Villain, M., Cogné, M., Mollo, C., De Gabory, L., ... & Gilze, B. (2020). New factors that affect quality of life in patients with aphasia. *Annals of physical and rehabilitation medicine*, 63(1), 33-37.
- Ulatowska, H. K., Reyes, B., Santos, T. O., Garst, D., Vernon, J., & McArthur, J. (2013). Personal narratives in aphasia: Understanding narrative competence. *Topics in stroke rehabilitation*, 20(1), 36-43.
- Kagan, A., Simmons-Mackie, N., Victor, J. C., Carling-Rowland, A., Hoch, J., & Huijbregts, M. (2010). Assessment for living with aphasia. *International Journal of Speech-Language Pathology*.
- Strong, K. A., & Shadden, B. B. (2020). The power of story in identity renegotiation: Clinical approaches to supporting persons living with aphasia. *Perspectives of the ASHA special interest groups*, 5(2), 371-383.
- Dunlop, W. L., Wilkinson, D., Harake, N., Graham, L. E., & Lee, D. (2020). The redemption and contamination research form: Exploring relations with narrative identity, personality traits, response styles, and life satisfaction. *Memory*, 28(10), 1219-1230.
- MacWhinney, B., Fromm, D., Forbes, M., & Holland, A. (2011). AphasiaBank: Methods for Studying Discourse. *Aphasiology*, 25(11), 1286-1307. <https://doi.org/10.1080/02687038.2011.589893>
- Cella, D., Lai, J. S., Nowinski, C. J., Victorson, D., Peterman, A., Miller, D., Bethoux, F., Heinemann, A., Rubin, S., Cavazos, J. E., Reder, A. T., Sufri, R., Simoni, T., Holmes, G. L., Siderowf, A., Wojna, N., Bede, R., McKinney, N., Podrasky, T., Wortman, K., ... May, C. (2012). Neuro-QOL: brief measures of health-related quality of life for clinical research in neurology. *Neurology*, 78(23), 1860-1867. <https://doi.org/10.1212/WNL.0b013e3182587444>
- Kaplan, E., Goodglass, H., & Weintraub, S. (1983). *Boston naming test*. Lea & Febiger
- Swinburn, K., Porter, G., & Howard, D. (2004). *Comprehensive aphasia test*. Taylor & Francis.

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