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MICROANALYSIS OF FORMULATIONS IN SOLUTION-FOCUSED BRIEF THERAPY, COGNITIVE BEHAVIORAL THERAPY, AND MOTIVATIONAL INTERVIEWING

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Formulation, in the research literature, refers to an everyday conversational practice in which one person comments on what another has said. Terms such as echoing, paraphrasing, or summarizing are used for formulating in therapy, where these are usually considered neutral techniques. We propose that therapists’ formulations are not neutral because they selectively preserve, omit, alter, or even add to what a client has said. Using the method of microanalysis, we compared formulations made within different therapeutic approaches. The data were the opening minutes of demonstration videos by two Solution-Focused Brief Therapy experts, two Cognitive Behavioral Therapy experts, and one Motivational Interviewing expert. As predicted, the SFBT formulations preserved a significantly higher proportion of the client’s exact words and added significantly fewer of the therapist’s interpretations than did the CBT and MI formulations. Examples illustrate the role of formulations as an observable process through which co-construction takes place in dialogue.

The conversation analysts Garfinkel and Sacks (1970, p. 350) introduced formulating as a technical term in order to draw attention to those moments in any dialogue when one person describes, explains, characterizes, explicated, translates, summarizes, or furnishes the gist of some part of the conversation. Example 1 is from the kind of everyday dialogue that these researchers studied. (The words in the formulation are underlined.)

Complete methodological details are available from the authors.
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1. John: How long y’gonna be here?
3. John: Till—oh y’mean like a week from tomorrow.
4. Mary: Yeah.

At #3, John formulated Mary’s answer. He rephrased “Monday” as “a week from tomorrow.”

FORMULATIONS IN PSYCHOTHERAPY

Formulations occur regularly in therapy sessions, where they are called echoing, summarizing, paraphrasing, or mirroring and are generally considered neutral and non-directive ways of joining with the client and showing understanding or empathy. In the following excerpt from a therapy session, the adolescent client was describing his suicide attempt the night before:


1. Client: Until I held back my head, yeah. Said my last prayers and whatever, and then I just started cutting. And you can see right here (pointing to marks on his neck).
2. Therapist: (With conviction) Yes, yeah, yeah, yes. Yes, I can see that. Yes.
3. Client: And it’s—I’m, I’m just lucky, you know, lucky to be alive today. [continues]

In #2, the client was emphasizing that the therapist could see where he had actually tried to cut his throat, and her formulation (“I can see that”) conveyed that she could indeed see it.

Watzlawick, Weakland, and Fisch (1974) began to call some formulations reframing, relabeling, or normalizing, which they described as deliberate interventions aimed at transforming the meaning of what the client(s) had said. For example, in one session, the parents were describing their adolescent daughter’s “rebellion” and how they were reasoning with her, to no avail. The therapist’s formulation, in part, was as follows:


THERAPIST: She doesn’t break you down with reason; she breaks you down with unreason.
FORMULATIONS TRANSFORM WHAT WAS SAID

In 1979, the conversation analysts Heritage and Watson proposed that formulations “manifest three central properties: preservation, deletion, and transformation” of what the other person has said (p. 129, emphasis added). In the mid-1980s, therapy researchers began to point out that even simple formulations (e.g., summarizing or paraphrasing) had a transformative function in psychotherapy (Antaki, Barnes, & Leudar, 2007; Davis, 1986; Grossen & Apothéloz, 1996). Phillips (1998, 1999) illustrated how systematic differences in formulations contributed to the co-construction of the different versions that emerged from two mediation sessions.

We began this project by applying Heritage and Watson’s (1979) principles of preservation, deletion, and transformation to therapists’ formulations in therapy sessions but found that more precision was required. First, we defined formulation as “a word or phrase in which the therapist talked about or commented on something the client had said.” Then we expanded the analysis to five ways that a formulation transforms what the client said:

1. The formulation may preserve some of the client’s words exactly.
2. The formulation may omit some of the client’s exact words.
3. The formulation may preserve some of the client’s words deictically (e.g., using “it,” “that,” “those,” etc., to refer to something the client has said).
4. The formulation may preserve some of what the client said in altered form (i.e., with a synonym or paraphrasing).
5. The formulation may add to what the client said (e.g., an interpretation or reframing).

These five relationships can be illustrated with a different excerpt from the same therapy session as in Example 2. The therapist had just asked the client what his best subject in school was, and the client responded “Algebra 2.” The following interchange ensued:


1. Therapist: Oh, What’s Algebra 2? [Client laughs.] It’s been a long time since I took math or algebra.
2. Client: Well um, it’s kind of like a process. When you’re in junior high you take Pre-algebra; it’s like written math, kind of like you use factoring, solving, and grouping. It’s basically like a process of elimination, and all that, and then you move up. Like when you get to high school—
3. Therapist: [overlapping] Yeah.
4. Client: You’ll take Algebra 1, the actual algebra. Then you take Geometry, which I don’t like. [Both of them laugh.] And then you take Algebra 2.
5. Therapist: Oh, so that’s what you’re taking.
6. Client: Yeah, I like it.
7. Therapist: And that is what you are best at.
8. Client: I’m making all A’s in it.
9. Therapist: Making all A’s on that?
11. Therapist: So, you must be a very smart young man.
15. Therapist: Average, okay, good.
16. Client: [Quick smile, then looks down]

The therapist used formulations (underlined) at #5, 7, 9, 11, 13, and 15. In these formulations, she preserved some of the client’s words exactly; for example, at #9, “making all A’s.” A good example of omitting much of what the client said occurred in her formulations at #5 and #7, where she omitted all the details of what the client had been saying about Algebra 2. The formulations at #7 and #9 are also good examples of preserving deictically some of what the client said; she used “that” to stand in for Algebra 2. A small example of preserving the client’s words in altered form occurred at #9 where the therapist slightly changed his words at #8 from “in it” to “on that.” Finally, her formulation at #7 added to what he said previously; he had not said that he was smart, only that he was making all A’s in Algebra 2.

We and others (Antaki, Barnes, & Leudar, 2007; Davis, 1986; De Jong, Bavelas, & Korman, 2013; Grossen & Apothéloz, 1996; Phillips, 1998, 1999) have proposed that, by transforming what the client says, a therapist’s formulation in effect offers the therapist’s version of what the client has said, and the client can then acknowledge this version as accurate or not. For example, in Example 4 above, the client at #6 and #10 explicitly acknowledged the therapist’s preceding formulations at #5 and #9. When the client acknowledges a formulation, it becomes agreed-upon knowledge that is incorporated into the version of the client’s life that the therapist and client are building together in their dialogue. Notice that at #12, the client did not acknowledge the therapist’s formulation at #11 as accurate. When this happens, the therapist and client may continue to work toward agreement as they did in #s12 through 16.

**Implications for Practice**

This article will illustrate in detail the transformations that formulations make, which may inform practitioners’ decisions about the most useful formulation to introduce into the ongoing dialogue, given what the client said. We propose that what therapists selectively choose to preserve, omit, alter, and add in their formulation—whether deliberately or inadvertently—contributes to the version of the client’s life and circumstances that emerges in the therapy session. Denying this
influence would have important implications for practice. As Weakland (1993, p. 143) pointed out, “Influence is inherent in all human interaction. . . . The only choice is between doing so without reflection, or even with attempted denial, and doing so deliberately and responsibly.” In conclusion, we will suggest how these choices contribute to co-construction in therapy.

Research Hypotheses

We compared formulations by experts in SFBT, Cognitive Behavioral Therapy (CBT), and Motivational Interviewing (MI). These therapies differ in how they see the role of language and communication in psychotherapy (e.g., Bavelas, McGee, Phillips, & Routledge, 2000, pp. 5–6). In SFBT, the solution-building is done within the client’s language and frame of reference, so the therapist would seek to use the client’s words in their collaborative development of goals and solutions (de Shazer et al., 2007). Many other therapies assume that, in order to help clients overcome their problems, the therapist must introduce additional language. In the case of CBT, this would be new language that helps the client identify and modify maladaptive thinking (e.g., Beck, 1995), and in MI, the therapist would introduce new language aimed at increasing the client’s level of motivation to change (e.g., Miller & Rollnick, 2002).

These differences led us to three hypotheses about how formulations in SFBT sessions would differ from those in combined CBT and MI formulations. First, because of the SFBT emphasis on using the client’s language, we predicted a higher proportion of preserving the clients’ exact words in SFBT formulations than in CBT/MI formulations. Second, because both CBT and MI emphasize introducing the therapist’s expertise, we predicted a higher proportion of words added by the therapist in CBT/MI formulations than in SFBT formulations. Third, because SFBT aspires to be a single model with an explicit focus on language use (e.g., De Jong & Berg, 2013; de Shazer et al., 2007) while CBT explicitly encompasses heterogeneous approaches (e.g., www.nacbt.org), we predicted that the formulations by the two SFBT experts would be more similar to each other than the formulations by the two CBT experts would be. (It was not possible to include a comparison between MI experts because, to our knowledge, only one published full MI expert session was available.)

METHOD

Microanalysis

Studying the relationship between a therapist’s formulation and what the clients said requires a method for analyzing sessions very closely. Our method is the microanalysis of face-to-face dialogue. Originally developed by Bavelas and colleagues for laboratory research (e.g., Bavelas, 2011; Bavelas, Healing, Gerwing,
Korman et al. & Tomori, 2011), this method is a rigorous, moment-by-moment examination of communication sequences in video-recorded dialogues. Microanalysis requires digitized video, ideally with both participants visible and audible at all times and uses ELAN software (http://tla.mpi.nl/tools/tla-tools/elan; Wittenburg, Brugman, Russel, Klassman, & Sloetjes, 2006), which permits repeated, frame-by-frame viewing of any excerpt, as well as annotation on the video itself.

Data

The data analyzed were five video-recorded demonstration sessions by experts in one of the three approaches. We assumed that these would represent good practice of their particular model. All are published or available on request.

- SFBT: Insoo Kim Berg (Berg & Franklin, 2008). The client was an adolescent boy who had attempted suicide the night before.
- SFBT: Harry Korman (1997). A young woman, recently divorced, was concerned about her ability to bond with her 19-month-old son.
- CBT: Donald Meichenbaum (American Psychological Association, 2007). The client was a young woman who had made several suicide attempts in her life.
- MI: William R. Miller (Lewis & Carlson, 2000). The interviewee was a man who had volunteered for a study about addiction counseling.

The two SFBT sessions were with clients (not actors); we assumed that the other sessions were as well. Table 1 gives a summary of the data analyzed, which were the first 6.5 minutes of four of the five therapy sessions and the first 10 minutes of the fifth, providing a comparable number of formulations by each therapist. The table also presents the number of therapist words spoken, the number of formulations, and the number of words in the formulations.

Analysis Procedures and Stages

Two of the authors (HK and PDJ) worked independently in four successive stages of analysis, first locating the formulations; then, in the next three stages, identifying the various transformations in each of the five videos. They conducted their analysis according to a manual of rules developed for this study, which is available from any of the authors. They compared their observations after each stage, calculating their number of agreements and resolving any disagreements (with input from JBB) before proceeding to the next stage so that errors would not carry forward. Two of the videos (Berg and Meichenbaum) were used for the formal assessment
of reliability. Inter-rater reliability was calculated for each stage as the percentage of agreements in the units analyzed (e.g., the number of words agreed upon divided by the total number of words analyzed). The degree of agreement of the two observers was high. The following sections identify the stages of the analysis, the decisions made at each stage, the annotations used for the various decisions, and the degree of inter-rater reliability for each stage.

Stage I. Locating Therapists’ Speaking Turns That Contained a Formulation

The analysts examined each speaking turn by the therapist and decided whether or not there was a formulation somewhere within it. The operational definition of a formulation was “a word or phrase in which the therapist talked about or commented on something the client had said.” The manual of rules provided detailed definitions and examples of what was and was not a formulation. The analysts agreed independently on 35 of 39 speaking turns (90%).
Stage II. Identifying the Exact Words of the Formulation

The next step was to examine every speaking turn that had been located in Stage I as containing a formulation and to underline the words that comprised the formulation itself. Sometimes the entire turn was a formulation, as in Examples 1 and 3 above. However, many speaking turns that included a formulation also contained other material, such as a question or request:

Example 5. American Psychological Association (2006; therapist is P. Lichtenberg).

THERAPIST: And what do you remember about that incident?
CLIENT: [begins to describe details]

The therapist was asking about an interactional sequence that the client had described earlier. The formulation within his question characterized the interactional sequence as “that incident.” Independent agreement between analysts for Stage II was 365 out of 382 words (96%).

Stage III. Finding the Words Preserved Exactly, Preserved Deictically, or Omitted

From this stage on, the analysts focused only on the formulations (the underlined words). In Stage III, they made three interrelated searches. (They used different colors to highlight what they found; for this article, their decisions are represented by different fonts.)

Words Preserved Exactly or Omitted. For each formulation, the analysts examined all of the client’s preceding speaking turns, looking for any of the client’s exact words that appeared in the formulation. Here, boldface identifies any words preserved exactly in the formulation and also marks those words where they had originally occurred in the client’s speech. In the following example, the client was describing her relationship with her husband:


1. Client: Well, I mean, I can’t just let my husband down, you know? He’s had a real hard time since, you know, he he went to prison. And, you know, trying to stay on his feet and putting himself down. He’s got one eye, um, you know, he didn’t go to college. Got his GED and that’s about it. And, you know, and I wasn’t perfect when he was gone for two and a half years, you know, and I told him, you know, all the mistakes that I made and, you know, I shouldn’t have done that because now he can’t let it go.
2. Therapist: **Wasn’t perfect?** What, what. . . . ?
3. Client: Well, you know, I cheated on him [continues]

The client had said 110 words. The formulation **preserved** two of these words **exactly** as she had said them and omitted 108 words covering numerous other topics.

*Words Preserved Deictically.* Deictic expressions include demonstrative pronouns (e.g., “that,” “those”) and other grammatical substitutes (e.g., “it”) when they refer to something the client has said. The test for a deictic reference is whether what the client actually said could be substituted in its place. Here, the font for DEICTIC REFERENCES is SMALL CAPITALS. In Example 5, for instance, instead of repeating the client’s complete description of the interactional sequence, the therapist referred to it as “**that incident.**” Notice that a deictic expression tends to occur fairly soon after the statement it refers to and to have a readily identifiable referent; otherwise, the other person could not make the connection. Because the use of a deictic expression presupposes agreed-upon knowledge, it is closely related to exact preservation. For the three mutually exclusive decisions in Stage III, the analysts agreed independently on 240 out of 267 words (90%).

**Stage IV. Identifying Alterations, Additions, and Discourse Markers**

*Parts Preserved in Altered Form.* The altered form is typically a synonym or paraphrase (i.e., a rewording that preserves the client’s meaning) or the therapist’s summary of a whole section of the interview. The parts preserved in altered form are represented in *Script MT Bold.*

*Example 7.* Lewis and Carlson (2000; therapist is W. R. Miller).

1. Client: (Talking about his alcohol use) It’s gone down simply (slight laugh) because I’m getting too old to do this stuff [Th: Uh-huh] anymore. If that makes any sense to you.
2. Therapist: **IT does. You can’t keep up with IT any more.**
3. Client: I don’t think I can. I really don’t think I can.

The therapist’s formulation is a paraphrase of “I’m getting too old to do this stuff.”

*Parts Added by the Therapist.* Finally, even though formulations are ostensibly a version of what the client has said, they often include material that had not been in what the client said at all. Typically, these additions are the therapist’s opinion, characterization, interpretation, professional evaluation, pronouncement, or expertise, for example, by introducing theoretical language. Additions are represented in white-on-black.
Example 8. American Psychological Association (2006; therapist is P. Lichtenberg).

1. Client: And basically I took care of the kids five days a week, (Th: M-hm) and made the rules and made sure they got their homework done, and these things.
2. Therapist: So in some ways a very traditional partnership where you were the homemaker.
3. Client: I was the homemaker . . .

Although this terminology is familiar to professionals, it was not the client’s language.

Discourse Markers. Discourse markers are conventional words or phrases that frame what follows. Typical discourse markers for formulations are “You mean . . .” (in Example 1) or “So” (in Example 8 and twice in Example 4). We left the discourse markers in normal font. Independent agreement between analysts for Stage IV was 118 out of 133 words (89%).

RESULTS

Figure 1 presents the distribution of the kinds of transformations used in formulations for each of the five therapists in our study. The results show that the five therapists used the four kinds of transformations in different proportions. For example, Korman’s formulations preserved the highest percentage of the client’s exact words while Miller’s formulations preserved the least. Miller’s formulations added proportionately more of his own words than any of the other therapists, while Berg added the fewest. The CBT therapists were in between.

In order to test the first two hypotheses, we combined the formulations of the two SFBT therapists and compared them to the combined formulations of the three CBT or MI therapists; see Table 2. Our first hypothesis was that there would be a higher proportion of preserving the clients’ exact words in SFBT formulations than in the CBT/MI formulations. The results confirmed this hypothesis with 46% of the words in the formulations of the SFBT therapists being exact preservations compared to 23% for the CBT/MI therapists. The second hypothesis was also supported: the CBT/MI formulations included proportionately more additions by the therapist (35%) than did the SFBT formulations (10%). Table 2 also shows that the observed differences for the two hypotheses were statistically significant at $p < .001$.

Our third hypothesis was that the pattern of transformations in the formulations of the two SFBT experts would be similar to each other and that the pattern in the formulations of the two CBT experts would be dissimilar to each other. Although there is no suitable statistical test for this hypothesis, the results in Figure 1 confirmed
Figure 1. Composition of formulations for individual therapists. The sections represent the proportion of words in the formulations that were either the clients’ exact words, a deictic reference to the clients’ words, an altered form of the clients’ words, or words added by the therapist.
TABLE 2. Differences in the Composition of Therapists’ Formulations as a Function of Therapy Model

<table>
<thead>
<tr>
<th>Therapists’ Formulations</th>
<th>SFBT</th>
<th>CBT + MI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of words preserved exactly</td>
<td>89 (46%)</td>
<td>124 (23%)</td>
</tr>
<tr>
<td>All other words</td>
<td>105 (54%)</td>
<td>417 (77%)</td>
</tr>
<tr>
<td>$\chi^2(1, N = 735) = 36.56, p &lt; .001$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of words preserved deictically</td>
<td>22 (11%)</td>
<td>34 (6%)</td>
</tr>
<tr>
<td>All other words</td>
<td>172 (89%)</td>
<td>507 (94%)</td>
</tr>
<tr>
<td>$\chi^2(1, N = 735) = 5.19, p &lt; .025$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of words preserved in altered form</td>
<td>64 (33%)</td>
<td>195 (36%)</td>
</tr>
<tr>
<td>All other words</td>
<td>130 (67%)</td>
<td>346 (64%)</td>
</tr>
<tr>
<td>$\chi^2(1, N = 735) = .58, ns$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of words added</td>
<td>19 (10%)</td>
<td>188 (35%)</td>
</tr>
<tr>
<td>All other words</td>
<td>175 (90%)</td>
<td>353 (65%)</td>
</tr>
<tr>
<td>$\chi^2(1, N = 735) = 43.96, p &lt; .001$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

that both SFBT therapists had a high proportion of preserving the client’s exact words and a low proportion of adding their own words. Figure 1 also shows the predicted differences within CBT practices: The formulations of the two expert CBT therapists were dissimilar to each other, especially in how much they added to what the client had said (15% vs. 37%). There was no second MI session for comparison.

Although we had no predictions about deictic references or words preserved in altered form, Table 2 shows that the SFBT formulations had a higher proportion of deictic references than did the CBT/MI formulations. This finding is consistent with SFBT incorporating more of the client’s language. Table 2 also shows there is no significant difference in the proportion of words preserved in altered form between SFBT and CBT/MI formulations.

IMPLICATIONS FOR THE THERAPIST’S CONTRIBUTION TO CO-CONSTRUCTION

In a companion article (De Jong et al., 2013), we proposed that the theoretical concept of co-construction is directly observable with microanalysis. In particular, formulations are one important way in which therapists contribute to the version of the client’s life being co-constructed during the session. This final section will expand on this proposal using the results found here. De Jong et al. proposed that the central process of co-construction is grounding (Bavelas, De Jong, Korman, & Jordan, 2012; Clark, 1996; Clark & Schaefer, 1987, 1989). Grounding
is the moment-by-moment process wherein “the participants in a dialogue are co-constructing (and aligning on) a shared version of what they are talking about” (De Jong et al., 2013).

Examples 1, 2, 6, 7, and 8 above illustrate the three basic steps of a grounding sequence: In each example, at #1, the client presented some information; at #2, the therapist’s formulation displayed how he or she had understood this information1; and at #3, the client acknowledged the therapist’s display as correct (or not). However, as shown in this study, formulations do not simply restate what the client said; instead, they selectively transform what the client said into a somewhat different version. Therefore, the client’s positive acknowledgment of the formulation in the third step of the grounding sequence implicitly or explicitly accepts the therapist’s version of what he or she said. In Example 1, Mary acknowledged the formulation with “yeah.” In Examples 2, 6, 7, and 8, the client acknowledged the formulation by building on it, that is, by continuing on in the direction selected by the therapist’s formulation. However, there is also room for negotiation. In Example 4, at #12, the client corrected the therapist’s formulation (“Well, no . . . No, I’m alright”). The therapist accepted this version, and then they negotiated a shared description of his abilities.

Placing formulations within grounding sequences demonstrates how they can influence the direction of the dialogue. The results of this study showed that some therapists’ formulations tended to preserve the client’s words while others tended to introduce more of the therapist’s language. Further research is needed on whether the model that a therapist works from systematically affects what the therapist chooses to preserve, omit, alter, or add. Presumably, therapists compose their formulations based on different assumptions about what will be useful to clients. In Example 4, Berg offered formulations that echoed and amplified her client’s competencies in school. In contrast, Meichenbaum’s formulation in Example 6 preserved the information about the client’s past transgressions (“wasn’t perfect”) while omitting her expressed desire not to let her husband down again. In Example 7, Miller’s altered form of the client’s words emphasized the client’s motivation to change. A microanalysis of the formulations by experts in different models—and whether the client follows the therapist’s lead—would tell us a great deal about the connection between a model and its expression in the therapeutic dialogue.

In conclusion, every time a client talks with a therapist about his or her life, the possibility exists for a new or different version to emerge, a version that has the potential to open up new possibilities in the client’s life outside of the therapy room. Formulations are one important way that therapists make choices

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1Formulations are not the only way to display understanding. Other options include nodding; saying “Mhm,” “Yes,” or the equivalent; or building on the topic the speaker had presented. However, Clark and Schaefer (1989, p. 267) pointed out that the strongest evidence of understanding by the listener is a “verbatim display of all or part of [the speaker’s] presentation,” that is, a formulation. It is therefore not surprising that all therapists make regular use of formulations in their work with clients. (Obviously, it is also possible to display not understanding, either verbally or by just looking puzzled.)
that contribute to the co-construction of this new version. By bringing therapists’ formulations out of the background, developing a systematic and reliable analysis of them, and documenting differences in the transformations they introduce, this research was an initial step toward making therapists’ contributions to co-construction observable.

REFERENCES


Formulations in SFbT, CbT, and MI


