

**Motivational Interviewing Sequential Code for Observing Process
Exchanges (MI-SCOPE)
Coder's Manual**

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MI-SCOPE was developed to encode recorded and transcribed motivational interviewing interactions between a therapist and an individual client, with a particular focus on the sequential information contained in the exchange between the parties, for the purpose of investigating the relationship between theoretical constructs important to MI, therapy process more generally, and client outcome. MI-SCOPE adapts and combines two other successful coding systems, the MISC (Miller, 2000), and the Commitment Language Coding System developed by Amrhein (2000). The MI-SCOPE is a two-pass coding scheme, with one pass for parsing the transcript into utterances and a separate pass for coding the utterances.

Each session to be coded must be transcribed, and two copies of each transcript should be made: one to be kept archived for the length of time that a particular tape is under consideration (and from which additional copies may be made) and one for the parsing pass. An additional copy of the parsed transcript must be made for the coding pass. Parsers and coders mark directly on the transcript. After the parsing pass is complete, the coding is done in a separate pass through the tape. An entire session should be coded. Parsers and coders may stop the tape as often as needed to correctly code each utterance.

Although coders must use the transcripts, it is also important to listen to the session recording while coding. This is important not only because transcripts, even by professional transcriptionists, are often inaccurate, but also because much of the complexity of real conversational exchanges cannot be reflected in a transcript. For example, interruptions are very difficult to properly transcribe, and non-verbal vocal cues are simply not included in transcripts. Therefore, listening to the session should guide coders' interpretations as much as reading the transcript does.

Parsing

The basic unit of coding is the utterance. An *utterance* is a complete thought, or a thought unit (Gottman, Markman, & Notarius, 1977; Weiss, Hops, & Patterson, 1973). Two or more utterances are often run together without interruption. If two consecutive sentences merit different codes (e.g., a reflection followed by a question), they are by definition separate utterances. Utterances of client change talk are *always* parsed into separate utterances, even if the client emits consecutive utterances from the same change talk (or counter-change talk) category.

T: (Thank you for coming in.) (What brings you to see us today?)

C: (Well, I really want to quit drinking.) (There's nothing I want more than to quit this habit.)

A client utterance always terminates a therapist utterance, and the next therapist utterance becomes a new response. Utterances should be enclosed by the parser in parentheses to indicate exactly which words are considered a part of each utterance. In cases where both parties speak at the same time, the transcript may be parsed to form separate coherent utterances.

T: (I think it's fantastic that you

C: (Yeah it was

T: ...were able to do that.)

C: ...hard for me).

These utterances would be nonsensical and uncodeable if each terminated when the other speaker began, but in this way they can be parsed in such a way as to form coherent utterances. Each parsed utterance is numbered, generally in the space above the printed line. The utterance numbers are then used in the coding pass.

Because each utterance is defined by the available behavior codes, the persons selected for the role of parsers must be well-trained and experienced with language coding. The same individual may both parse and code on the same project, but generally should not code the transcripts they have parsed.

Coding

During the coding pass the recording may be stopped as often as necessary. The coder must decide in which of the main behavior categories each utterance belongs. In the margin of the transcript, the number of the utterance is written, followed by the abbreviation of the appropriate behavior code. Then proceed to the next utterance. The same utterance may never be given two different codes. If two consecutive utterances both merit the same code, (e.g., two questions in a row, on two different topics) then mark them as such. However, two sentences that are essentially the same idea are only one utterance. Use the same number sequence for both client and therapist.

Examples:

T: (Why haven't you quit smoking? Are you ever gonna quit?) single utterance.

T: (How long since your last drink?) (Do you feel ok?) two utterances

C: (I can't quit.) (I just can't do it.) (I don't have what it takes.) (I just cannot stop.) four utterances.

A *volley* is an uninterrupted utterance or sequence of utterances by one party, before another party speaks. The same code may be assigned multiple times within a volley, but any given utterance within a volley must be assigned only one code.

Incomplete sentences: Occasionally, one party begins a thought but does not complete it. Sometimes, it is clear from the partial utterance what was meant, in which case it should be coded. At other times, it is not clear what was meant, and in these cases the incomplete statement should be ignored.

Examples:

C: I don't know what would happen to me if I went back to drinking.

T: You know, I... (not coded, because meaning is not clear)

C: I mean, I might lose my job.

T: So you're really drinking to excess.

C: No, I don't think... (coded as negative commitment language)

T: I mean you're in the top two percent.

Therapist Behavior Codes

Advise (Adv). The therapist gives advice, makes a suggestion, or offers a solution or possible action. These will usually contain language that indicates that advice is being given: Should, Why don't you, Consider, Try, Suggest, Advise, You could, etc.

Differential: Code as *INFORM* if the utterance gives information but does not contain direct advice or suggestion. Do not infer that the therapist meant to advise by giving the information.

Differential: If the language is imperative, code as *DIRECT*. For example:

You should avoid drinking when you feel down. Advise

Don't drink when you feel down

Direct

Differential: Code as QUESTION if the apparent advice is phrased in the form of a question.

You could ask your friends not to bring drugs when they come over. Advise

Could you ask your friends not to bring drugs when they come over? Closed Question

What could you ask your friends to do to help you stay clean? Open Question

Affirm (Aff). The therapist says something positive or complimentary to the client. The following are examples of AFFIRM responses, but subclassification is not required.

Appreciation. The therapist comments favorably on a trait, attribute, or strength of the client. The reference is usually to a "stable, internal" characteristic of the client, something positive that refers to an aspect of the client that would endure across time or situations (smart, resourceful, patient, strong, etc.), although it may also be for effort ("I appreciate your willingness ..." "I appreciate your getting here today.").

Reinforcement. These are general encouraging or "applause" statements that do not directly comment on a client's nature, and do not speak directly to self-efficacy. They tend to be short. "Good for you." "Well done!" "All right!" "Great job!" "Thank you!"

Differential: *Emphasize Control takes precedence over Affirm when a therapist response could be interpreted as both. "I know you have the ability to do this" is certainly affirming, but would be coded as Emphasize Control.*

Confront (Con). The therapist *directly* disagrees, argues, corrects, shames, blames, seeks to persuade, criticizes, judges, labels, moralizes, ridicules, or questions the client's honesty. These are the "roadblocks" that have a particular negative-parent quality, an uneven power relationship accompanied by disapproval or negativity. *Included here are utterances that have the form of questions or reflections, but through their content or emphatic voice tone clearly constitute a roadblock or confrontation.* Examples include:

Rhetorical "Don't you think that..." "Isn't it possible that..." "Do you honestly believe that..."

Leading "What makes you think that you can get away with it?"

Argumentative "How can you tell me that ..." "How could you ..."

Accusatory "You did *what*?" "What were you *thinking*?" "You expect me to believe ...?"

Disrespectful "You *actually* looked for a job this week" (sarcasm)
"You *smoked a joint* this week" (disbelief, disapproval)

Re-emphasizing negative consequences that are already known by the client constitutes a confront, except in the context of a double-sided or summary reflection.

Subtle inference is not sufficient reason to code a therapist behavior as confront. If you are in doubt as to whether a behavior was a confront or some other code (i.e., it *might* be interpreted as a confront), do *not* code it as confront. If the response directs the client to do something, code it as Direct.

Direct (Dir). The therapist gives an order, command, direction. The language is imperative. “Don’t say that!” “Get out there and find a job.” Phrases with the effect of imperative tone include “You need to...” “I want you to ...” “You have to...” “You must...” “You can’t...” and “You should ...”

The phrase “You should...” requires some judgment on the part of coders. Typically it will denote advice, but in certain contexts may be more properly considered directive. For example, in the context of a heated dispute between therapist and client, “You should go now” is clearly an order to leave. In general, the default code for “should” statements is Advise, unless the context makes clear that the intent of the therapist is to order the client to do something.

Emphasize Control (Econ). The therapist directly acknowledges or emphasizes the client's freedom of choice, autonomy, ability to decide, personal responsibility, etc. This may also be stated negatively, as in “No one else can make you change.” There is no tone of blaming or fault-finding. Statements supporting the client’s efficacy to accomplish something are also coded as Emphasize Control.

Feedback (FB). The therapist presents information that is personal to the client, in an objective and unbiased fashion. The information is presented without apparent attempt to persuade and the client is invited to draw his or her own conclusions from the data.

Differential: if the information is presented with substantial opinion or embellishment by the therapist it should receive a code of Advise, Confront or Opinion.

T: “This scale tells us that you are drinking about 72 standard drinks per week.” (Feedback)

C: “That’s not as much as a I thought!”

T: “Well, it does put you in the 99th percentile for men your age.” (Confront)

Filler (Fill). This is a code for the few responses not codeable elsewhere: pleasantries, etc. It should not be used often.

Self-Disclose (Sdis). This is information given to the client *about* the therapist. It includes disclosure of past events and experiences in the therapist's life, as well as expression of the therapist's present feelings or personal reaction to the client. Sometimes other categories, such as Support, Affirm, Confront, and Raise Concern are stated in self-disclosing language. These other categories take precedence over Sdis.

I care about what happens to you	Support
I'm happy for you	Support
As I listen to your story, I am feeling sad	Self-Disclose
I am feeling put off here, like I'm not getting through.	Self-Disclose
I am concerned that this is not a realistic plan.	Raise Concern
I'm worried that once you leave the hospital, you will be facing a lot more temptation	Raise Concern
I feel nervous as I hear you say this.	Self-Disclose
That doesn't fit with my own experience.	Self-Disclose
I don't think you're trying very hard.	Confront
I think you've done a great job.	Affirm

General Information (GI). The therapist provides straightforward information without added opinion or attempt to persuade the client to a particular point of view. Coders should not try to assess the truth value of the information. Information given about the experimental protocol is also coded here.

A beer is considered 1 standard drink.	General Info
Whiskey does not harm the liver.	General Info (may not be true, but is not stated as opinion)
Beer is much more harmful than whiskey.	Opinion.
We'll be meeting four times over the next eight weeks.	General Info

Permission seeking (Perm). The therapist requests permission from the client to speak. Permission seeking may be direct or indirect. For example, "May I share a concern I have about your plan?" would be direct permission seeking. In the volley, "This may or may not apply to you, but I think often it's best if people avoid the situations they find tempting," the first utterance "This may or may not make sense to you" is an indirect form of permission seeking. In effect, it gives the client permission to ignore or disregard the advise utterance which follows. **Note that when directly seeking permission, this code takes precedence over question.**

Question. The therapist asks a question in order to gather information, understand, or elicit the client's story. Generally these begin with a question marker word: Who, What, Why, When, How, Where, etc. The question may also be stated in imperative statement language:

Tell me about your family.	Open Question
Tell me more.	Open Question
Tell me how old you are.	Closed Question

QUESTION responses require subclassification as:

Closed Question (CQ). The question implies a short answer: Yes or no, a specific fact, a number, etc. This includes a "spoiled open question" where the therapist begins with an open question but then ends it by asking a closed question:

What do you want to do about your drug use?	Open Question
What do you want to do about your drug use? Anything?	Closed Question
Tell me about your drinking.	Open Question
Tell me about your drinking. How old were you when you had your first drink?	Closed Question

Closed questions may also be expressed in "multiple choice" format (as on a survey form), where the therapist suggests a series of answers from which the client is to choose one:

What county do you live in? Washington? Multnomah?	Closed Question
What do you want to do about your drinking?	Open Question

What do you want to do about your drinking: quit or cut down? Closed Question

Open Question (OQ). Questions that are not closed questions, which leave latitude for response. Remember that if the question can be answered by yes/no, it is a closed question.

How might you be able to do that? Open Question

Do you have any idea how you might be able to do that? Closed Question

Differential: Do not code clearly leading, rhetorical, accusatory, argumentative, sarcastic, or disrespectful "questions" here - code these as CONFRONT (see above). The effect of a CONFRONT disguised as a question is usually to reemphasize negative information that is already known to the client, rather than to gather new information.

Now remind me here - why is it again that you're on probation? Confront

Why should I trust you this time? Confront

Are you feeling angry with your mother? Closed Question

Open and closed questions require further sub-classification as questioning the negative aspects of the target behavior (i.e., negative consequences of continuing the behavior, positive consequences of changing the behavior, client dislikes regarding the behavior, etc.), the positive side of the target behavior (positive consequences of maintaining the behavior, negative consequences of changing it, positive feelings toward the behavior, etc.), or neither (target-behavior neutral). These should be specified in the coding as superscripts (- = target behavior negative, + = target behavior positive, 0 = target-behavior neutral) to the category. The language of the question must be unambiguous and overt. Do not attempt to infer the intent of the therapist. If there is doubt about what the therapist meant by the question, code it as neither. Questions about objective aspects of the target behavior, such as patterns of substance use, are neutral.

"What could you do to avoid tempting situations?"	OQ ⁻
"What consequences have you experienced as a result of alcohol?"	OQ ⁻
"Have you experienced any negative consequences?"	OQ ⁻
"What do you like about smoking crack?"	OQ ⁺
"What's the up side to drinking for you?"	OQ ⁺
"How'd you like that rain this morning?"	OQ ⁰
"How often do you use cocaine?"	OQ ⁰
"What might stand in the way of your quitting?"	OQ ⁺

Ambiguous example:

Client: My mom cried when I told her I was drunk.

Therapist: How did that make you feel, when you saw her cry?

This question may be intended by the therapist to address negative consequences of the target behavior, but it is ambiguous. The therapist may simply want to explore the client's feelings or reactions, or understand their point of view. When in doubt, code as neutral.

Questions are sometimes strung together in a series. In this case, if each question addresses a different topic, then each question is coded. If each question addresses the same topic, then the entire series of questions is coded as a single question, taking on the appropriate code for the last question.

Examples:

- “What about your mother? What does she think of all this?” OQ
“What about your family? And has your doctor discussed this with you?” OQ, CQ
“Tell me about your drug use. Do you use marijuana?” CQ
“Do you prefer uppers or downers? Tell me about your drug use.” OQ
“How old are you? Do you want to lose weight? Where did you get that pen?” CQ,CQ,CQ

Opinion (OP). The therapist provides information in a subjective fashion, often with the goal of supporting an argument being made or persuading the client to a point of view. Any time the therapist asserts something that cannot be given an objective truth value, code as opinion unless the statement fits one of the other categories. Note that other categories, such as support, affirm, or confront, usually also constitute opinions. In such cases, these other categories take precedence over Opinion.

- “Drinking even one drink is too many.” Opinion
“Alcoholics black out every time they drink.”
(may or may not be true, but may be verified or falsified) General Information
“More money should be spent on research.” Opinion
“In my opinion, you are lying.” Confront
“I appreciate your effort, ‘cause quitting is really hard.” Affirm
“I think this information is really important.” Opinion
“I think that must have been a very difficult choice.” Support
“I think you’ve done a great job.” Affirm
“What I think you need is to make new friends.” Advise

Raise Concern (RC). The therapist points out a possible problem with a client's goal, plan, or intention. Raise Concern may include elements of possible negative consequences as long as these are expressed as the counselor’s own concern.

Differential: *ADVISE* is coded when the therapist is suggesting a form of action. *RAISING CONCERN* does not advise a course of action, but rather points to a potential problem or issue for the client's consideration.

I wonder what you might do, then, when you hit situations where you have used drugs in the past, like when you feel bored. Raise Concern,

I wonder if you might take a ride on your bike when you're feeling bored, instead of using. Advise

Differential: *SUPPORT* includes statements of compassion that can appear similar in language. The difference is that *RAISE CONCERN* points to a particular issue, problem, or risk.

- I'm concerned about you.* Support
I've been worried about you this week. Support
I'm concerned that this may not work for you because.. Raise Concern
I'm worried that once you leave the hospital, you'll be facing much more temptation. Raise Concern

Differential. *QUESTION* takes precedence if a concern is raised in the form of a question.

<i>I'm concerned that you may have trouble keeping to your plan when you're around your old friends.</i>	Raise Concern
<i>How would you keep to your plan when you are around your old friends?</i>	Open Question
<i>Do you think you will be able to stick to your plan when you're around your old friends?</i>	Closed Question

Differential: *CONFRONT* involves direct disagreement, argument, persuasion, criticism, etc. *RAISE CONCERN* requires language that marks it as the therapist's concern (rather than Truth) or gives the client permission to disagree.

<i>Can't you see that this plan is going to fail the moment you walk out of this hospital?</i>	Confront
<i>There's no way that you are going to be able to stay sober without some additional support.</i>	Confront

Reflect (SR and CR). The therapist makes a statement that reflects back content or meaning previously offered by the client, usually (but not always) in the client's immediately preceding utterance. Code as REFLECT whether the therapist's voice inflection is up or down at the end of the statement. Never code questions (Who, Why, What, etc.) as REFLECT. If a therapist response includes both a REFLECT and another codable response (such as a REFLECT followed by a QUESTION), code *both* behaviors. However, do not sub-divide a reflection, even if it includes a great deal of information. If a reflection is interrupted by another category of behavior, such as reflect-confront-reflect, then both reflections would be coded. REFLECT responses require subclassification.

Simple Reflection: These reflections add little meaning or emphasis to what the client is saying. They typically restate or rephrase what the client has already said. These reflections may be lengthy, but they do not change substantially the client's intended meaning. Here, therapist is following the client's statements relatively closely.

Complex Reflection: These reflections add significant meaning to what the client has said. This may be accomplished in a variety of ways, but the essential feature of a complex reflection is the therapist's injection of emphasis or content to make the client's statement more than it was. Here are some examples of how reflections can become complex:

Amplified Reflection, in which content offered by the client is exaggerated, increased in intensity, overstated, or otherwise reflected in a manner that amplifies it

Double-Sided Reflection, in which both sides of ambivalence are contained in a single reflective response.

Continuing the Paragraph, in which the therapist anticipates the *next* statement that has not yet been expressed by the client

Metaphor and Simile in reflection

Reflection of Feeling where the affect was not directly verbalized by the client before

Reframe in which the therapist suggests a different meaning for an experience expressed by the client, placing it in a new light. These generally have the quality of changing the emotional valence of meaning from negative to positive (e.g., reframing nagging as caring), or from positive to negative (reframing "being able to hold your liquor" as a risk factor).

Note that each of these types of reflection MAY be complex, and when coders come across them, they should carefully evaluate whether the statement adds meaning or emphasis to what the client has said. However, these types of reflection are not necessarily complex. For example, a double-sided reflection may be a repetition of what the client has said. In this case, it is still a simple reflection:

C: "I want to, but I don't want to."
 T: "You want to change, but you don't want to." SR^{+/-}
 T: "You want to change, but the comfort of old habits also has a strong pull." CR^{+/-}

Reflections require further sub-classification as reflecting commitment to change (positive commitment), commitment to maintain the status quo (negative commitment), both or neither (see client behavior codes below for a discussion of change talk). Denote which type of reflection with a superscripted +, -, +/- or 0 as illustrated below.

Examples:

C: "I want to quit do badly, but I don't think I can do it."
 T: "So you're really concerned about whether you can do this or not." SR⁻
 T: "So you've got a really strong desire to quit drinking." SR⁺
 T: "So you have a strong desire to quit, but you're not sure you have the ability." SR^{+/-}

Support (Sup). These are generally supportive, understanding comments that are not codeable as Affirm or Reflect. They have the quality of commenting on a situation, or of agreeing or siding with the client. "I can see what you mean." "That must have been difficult for you." "Sounds awful." Statements of compassion (not AFFIRM) for the client are also coded here as SUPPORT. (I'm concerned about you. I've been worried about you this week.) An "agreement with a twist" consists of a Support followed by a Reframe, and both would be coded.

Differential: Sometimes CONFRONT responses are masked in "I'm concerned" language. Again, CONFRONTS have the effect of reemphasizing negative information already known to the client, or placing negative connotations.

<i>I'm concerned that you haven't been showing up for your appointments.</i>	Confront
<i>I'm glad to see you. I was getting worried about you.</i>	Support
<i>I'm concerned that you are an alcoholic.</i>	Confront
<i>I'm concerned about you, given all these difficulties you've been having.</i>	Support

Structure (Str). These are comments made to explain what is going to happen in the session, to make a transition from one part of a session to another, to help the client anticipate what will happen next, etc. These include episodes in which the therapist mentions something that the client said in a previous session, when the purpose is to remind the client of that material, unless the purpose is also to confront the client.

In the last session you mentioned asking for a raise. How did that go? Structure,
 Followed by open question
That's not what you said last time. You said you were going to ask for a raise. Confront

Warn. The therapist provides a warning or threat, implying negative consequences that will follow unless the client takes certain action. It may be a threat that the therapist has the perceived power to carry out (e.g., imposing negative consequences), or simply the prediction of a bad outcome if the client takes a certain course. WARN differs from ADVISE by the element of implied negative consequences.

Differential: If possible negative consequences are stated within the context of the therapist's own concern, code as Raise Concern.

You're going to relapse unless you get out of this relationship. Warn
You can't stay a non-smoker if you live with a smoker. Warn

I'm worried that it's going to be hard for you to stay sober while you're in this relationship. Raise Concern

Process Codes

In addition to the categories described above, each therapist utterance may be classified into one of three mutually exclusive categories of MI relevant content. These are simply plus, minus or neutral, and should be denoted by the letter M followed by a superscripted +, - or 0. Statements are coded as M+ if they serve any of the following purposes:

Express Empathy: These statements are typically reflections, but not all reflections express empathy. These reflections will have the quality of understanding the client's point of view, and not just repeating what the client has said.

C: "I can't believe I slipped. I was doing so well."
 T: "This is really eating at you." CR⁺ M⁺

C: "This is really hard for me."
 T: "Other people have gone through worse." Con M⁻

Develop discrepancy: These are statements that point out to the client a mismatch between values they have expressed and their behavior. They are typically reflections or questions.

C: "I just get out of control when I'm drunk."
 T: "So you're really in a tight spot, because on the one hand you want to be a good example for your kids, but then you do things that you regret when you drink." OQ⁺ M⁺

C: "I really want to start saving money. I'm so tired of living paycheck to paycheck."
 T: "Well if you'd quit smoking, that would save you \$100 a month." Con M⁻

Support self-efficacy: These statements serve to remind the client that the decision to change is theirs alone, or serve to support their ability to do so. Blaming the client is counted as a confront, not a support of self-efficacy.

"I'm not here to make you do anything. What you eat is up to you to decide." EC M⁺

“So you’ve been successful at cutting down in the past.” CR⁺ M⁺
 “You wrecked your car because you drank. You could have decided not to drive.” Con M⁻

Roll with resistance: these statements follow client resistance (negative commitment language or other resistance behaviors, see client commitment language below). Theoretically, they serve to minimize the resistance. Specific strategies to roll with resistance from an MI perspective include reflective responses, reframing, shifting focus, emphasizing control, and coming alongside.

C: “I don’t think it’s any of your business or my wife’s how much I drink.” O –
 T: “People shouldn’t worry about you, you’re ok.” CR⁻ M⁺
 C: “Yeah, like my boss. I don’t need to be sober to do my job.” N-
 T: “Sounds like people in your life are worried about you.” CR⁺ M⁺

C: “My grandfather smoked until he was 92, and he was never sick.” R-
 T: “Look, he was probably just lucky. You’re taking a big risk.” Con M⁻
 C: “I just think I probably got good genes.” R-
 T: “Would you want your kids taking that risk?” Con M⁻

Client Behavior Codes

Client responses are classified into one of three mutually exclusive categories. Commitment language requires further subclassification as detailed below. Any therapist utterance (except a Facilitate) ends the client response, and the next client utterance is coded as a new response. The three categories are:

Ask. The client requests information, asks a question, seeks the therapist's advice or opinion. Question-like utterances such as “You know?” should be coded as Follow/Neutral, not Ask.

Follow/Neutral. The client's response follows along with the therapist, but does not deal with changing the target behavior. The statement is neither toward nor away from the direction of changing the target behavior.

Commitment Language: These are client statements that deal with changing (positive commitment) or maintaining (negative commitment) the target behavior. Each utterance should be placed into one of the following categories by marking it with the appropriate letter. Note the valence of the commitment (positive/toward change or negative/away from change) with a + or – sign next to the letter. Only client speech that indicates or reflects the client’s *current* state of mind is included as commitment language. Client language that is in the future tense is also included here. For client speech in the past tense, coders must make a judgment about whether the speech refers to something that is in the recent past (change talk) or something from the client’s distant past that does not reflect their current state of mind (Follow/Neutral).

Client language may have the quality of relating a disposition of the client that is no longer relevant or true, or occurred in the distant past. For example, reports of past successes or failures in changing the target behavior will often occur, and will typically be coded as Follow/Neutral. They should be coded as commitment language *only if* they are used by the client to inform the therapist about the client’s *current* intentions or state of mind.

Commitment: a statement that explicitly states or implies that the client is making a commitment to change or maintain the behavior.

“I am going to stop smoking tomorrow.” (C +)
“I’ll never drive the speed limit!” (C –)

Commitments may also be indirect. Some markers for indirect commitment include the implicit or explicit use of “if...then” sentence structures indicating that a commitment is in place to the extent that the client has determined how they will react should a likely threatening situation arise. In other words, the client is indicating that they have a plan in place to reach or maintain a goal. Also, remarks about how the client has rearranged their life, either in the present or past, to maintain or change a behavior, are also considered committing language:

“Back then I would do anything to get high.” (FN)
“I stayed with him so I could get my drugs.” (C –)
“I moved away to make things better.” (C +)

Another form of indirect commitment occurs when clients suggest alternatives to the target behavior.

"I guess I could drive home another way that doesn't pass by the bar." (C +)
"Maybe I could wait 10 more minutes whenever I have a craving." (C +)

Desire: a statement that expresses a desire to alter or maintain the target behavior.

“Well, I want to quit doing drugs.” (D +)
“I mean I want to but I don’t want to [quit].” (D +, D -)

Ability: a statement that assesses the client’s ability or capacity to alter the behavior. "Ability" here refers to capability, not to choice. Statements that use ability language, but through context appear to refer to a client's choice, are coded as commitment or other.

“I can do it...this is doable.” (A +)
“If I could get rid of these drugs.” (A -)
“...okay well, I can do some [drugs] myself.” (A –)
“I need help.” (A –)
“I must get help.” (A -)
"I can stop overeating." (A +)
"I can eat popcorn instead of candy." (C +)

Notice that the last statement may be taken to imply, "I have the ability to eat popcorn instead of candy" or "I have the choice of eating popcorn or candy, and it would be better if I chose popcorn." The latter interpretation is probably more reasonable in most contexts, and therefore refers to the person's choice. Few would doubt that most people are capable of eating popcorn, so it is unlikely that a person would comment on this capability. Such statements are frequent when clients suggest alternative behaviors for the target behavior.

Need: a statement about the client’s need to change (need for help is coded as ability) or need for the target behavior.

“I need to stop.”	(N +)
“I don’t need to turn to alcohol or anything.”	(N -)
“Cause I need it everyday.”	(N -)
“I really must get help if I’m going to stop.”	(A+)

Reasons: statements about reasons for changing or maintaining the target behavior. Included here are statements about the client’s emotional reaction to the target behavior.

“I’m killing myself.”	(R +)
“It bothers me when I can’t do things right.”	(R +)
“I get relaxed. My problems go away.”	(R -)
“I am terrified of being without a cigarette.”	(R -)
“I just love the way beer makes me feel.”	(R-)
“I hate the way cigarettes smell.”	(R+)

It should be noted that desires, abilities and needs to change (or maintain) a behavior are also reasons. Consider these to be special classes of reason that get their own code. Reasons that are not statements of desire, ability or need are classified as reason.

Taking Steps: a statement that refers to a recent behavioral change made by the client. “Recent” requires some judgment on the part of coders, but refers to the quality of being current, not something the client did in the distant past. These latter statements will typically be coded as Follow/Neutral.

“Last week I cut down to only 2 cigarettes a day.”	(TS +)
“Last week I decided to try every type of beer at the bar.”	(TS -)
“When I was in college, I avoided parties so I wouldn’t drink.”	(C +)

NOTE: Each of the above categories of commitment language (C,D,A,R,N,TS) must have as their subject or object the target behavior. Statements of commitment, desire, ability, or need about related topics occasionally occur, in which the client appears to be expressing movement toward or away from change, but is not referring directly to the target behavior. In these cases, code as Other, as detailed below.

Example:

I sure want to get the most out of therapy. O⁺

This is clearly a statement of desire, but not a desire to change the target behavior, but rather a desire to fully participate in therapy for the target behavior. This is most likely a statement that expresses movement toward change, but does not refer directly to the behavior that might be changed.

Coders should take care in applying the definitions of desire, ability and need. Ability, for example, refers to the ability to engage in the target behavior or ability to stop engaging in the target behavior, not to any ability related to the target behavior. For example, consider the following statement:

I can't stop checking the door, 50 times a night, unless I drink, and then it gives me the ability to overcome the urge to check whether the door is locked

This is a reason to drink, NOT an ability statement. The statement includes ability language, but this language does not refer to the ability to drink (A-), inability to stop drinking (A-), an inability to drink (A+), or ability to stop drinking (A+). The ability statement refers to the ability to stop a compulsive behavior, but in reference to the target behavior (i.e., drinking), this is a reason to do so.

Here are examples concerning desire:

"I really want a beer right now." D-
"I drink because I want to relax." R-

Here again, the second statement includes desire language, but the desire is not directly referring to the target behavior, but rather to an outcome of the target behavior. This outcome (relaxation) is a reason for engaging in the target behavior.

Other: In the complexity of real therapy sessions, clients often express ideas related to change that are ambiguous at best. Statements which are about changing (or maintaining) the target behavior, but are not well categorized as D,A,R,N, TS or C, are categorized as Other (O). These include indirect statements that appear to avoid the topic, and statements of open resistance or hostility. Also included are statements of problem recognition, i.e., the explicitly expressed knowledge that the target behavior is problematic in some way.

A few examples are given below, but in general we cannot anticipate the exact form that Other statements will take, as the category is intended for unanticipated statements. In general, these statements will have the quality of referring to the target behavior, and will carry information (often only in the context of the surrounding utterances) about whether the client is arguing for or against change, but they will not be easily categorized as commitment, desire, ability, reason, need or taking steps.

"I know it takes a lot of willpower to quit." O (valence depends on context)
"I tell you, I sure don't want to be here in therapy." O -
"People just need to mind their own business." O -
"I've never experienced a single negative consequence of my drug use, ever." (O -)
T: "On a scale from 1 to 10, 1 being not at all motivated, how motivated are you to quit?"
C: "I'd say a 3." O -

Note that how "motivated" might refer to how much one desires to quit, the weight of reasons to quit, the need the client feels to quit, the commitment the client has to quitting, etc. It is unclear what type of commitment statement the client is making, but it is clear that the client is making a commitment statement of some kind

T: "What could you have done differently?"
C: "Nothing. Look, I don't want to talk about it." O -
T: "Tell me about your drinking."
C: "It's absolutely none of your business." O -

MI-SCOPE Summary Scores

Because MI-SCOPE is a sequential coding system, it is rich in information regarding the dynamics of client-therapist interaction. However, statistical power is a concern with sequential analyses. Time series statistics, including stochastic models and ARIMA models, are not small sample statistics. For example, in order to compute reliable transition probabilities, the minimum expected cell frequency should be at least 3, preferably 5, given chance. For the full SCOPE, there are 46 categories. A transition matrix therefore would have 2116 cells, meaning that at least 6348 transitions would need to be observed (assuming equal frequency between categories, which will rarely be the case), in order to meet the minimum expected frequency of 3 per cell in all cells.

No therapy session is likely to meet this requirement, and few studies are likely to have enough repeated observations of a single client to reliably calculate transitions among all the categories for single client statistics. The level of detail has been retained in the coding system for three reasons. First, it is still possible to use the distinct categories as frequency counts by collapsing across sequential order, and in that case the categories may still be informative. Secondly, pooling across subjects for fairly large samples still allows for general descriptive statements about individual categories, although these grouped statistics may not serve usefully as predictors. Finally, it is always possible to collapse across categories after coding, but once coded at a particular level of detail, it is not possible to expand to greater detail without recoding.

In general, though, it will be necessary to collapse across categories in order to perform sequential analyses. The following are recommendations for common research applications. Researchers should feel free to collapse the categories in any way that suits their particular needs and makes sense, keeping in mind the usual statistical concerns about parameter estimation (i.e., sequential model parameters are just as vulnerable to bias in exploratory analyses as the usual F and t tests).

Single subject categorization: Single 1-hour therapy sessions typically contain between 100-300 utterances, with a mean around 200. Given the noted guidelines about expected cell frequency, that allows for comfortable estimation of parameters for 8 categories. Since commitment language will usually be of primary interest, we recommend collapsing across Ask and FN, all positive commitment language, and all negative commitment language, to yield 3 categories of client speech. Then the following 5 categories of therapist speech may be constructed: Question, Reflect, MI+ (Affirm, emphasize control, permission seeking, support,), MI- (advise, confront, direct, opinion, warn), Other (all others).

MISC Summary Scores

Many of the summary scores from the MISC can also be extracted from SCOPE-coded sessions, although these scores *cannot* be used sequentially. These include:

Ratio of Reflections to Questions (R/Q)

R/Q is the ratio of the total number of Reflect responses to the total number of Questions asked.

Percent Open Questions (%OQ)

%OQ is a percentage in which the numerator is the number of Open Questions asked and the denominator is the total number of Questions asked (Open + Closed).

Percent Complex Reflections (%CR)

%CR is a ratio in which the numerator is the number complex reflections and the denominator is the total number of Reflections.

Percent MI-Consistent Responses (%MIC)

%MIC is a ratio in which the numerator is the number of MI+ responses, and the denominator is the total number of MI+ plus MI- responses.

Percent Client Change Talk (%CTT)

%CTT is a ratio in which the numerator is the number of all client commitment language (+) divided by the sum of client commitment language plus client negative commitment (-) responses.

Appendix A
Table of Abbreviations

Advise - Adv
Affirm - Aff
Confront - Con
Direct – Dir
Emphasize Control – Econ
Feedback – FB
Filler – Fill
Self-Disclosure – Sdis
General Information – GI
Permission Seeking – Perm
Closed Question – CQ
Open Question – OQ
Opinion – Op
Raise Concern – RC
Simple Reflection – SR
Complex Reflection – CR
Support – Sup
Structure – Str
Warn – Warn
Ask – Ask
Follow/Neutral – FN
Desire – D
Ability – A
Reason – R
Need – N
Taking Steps – TS
Commitment – C

Appendix B
MISCOPE numeric codes for data entry

Advise = 1
Affirm = 2
Confront = 3
Direct = 4
Emphasize Control = 5

Feedback = 7
Filler = 8
Inform = 9
Self-Disclosure = 10
General Info = 11
Permission seeking = 12

Questions: Closed Neutral 13
 Positive 14
 Negative 15
 Open Neutral 16
 Positive 17
 Negative 18

Opinion = 19
Raise Concern = 20

Simple Reflection Change 21
 Counter 22
 Both 23
 none 24

Complex Reflection Change 25
 Counter 26
 Both 27
 none 28

Support = 29
Structure = 30
Warn = 31
Ask = 32
Follow = 33
Commitment = 34/41
Desire = 35/42
Ability = 36/43
Reason = 37/44
Need = 38/45
Taking Steps = 39/46
Other = 40/47