

Revision for Client Language Coding: MISC 2.1  
Client Language Assessment in Motivational Interviewing (CLAMI) Segment

W. R. Miller, T. B. Moyers, J.K. Manuel, P. Christopher & P. Amrhein

The task of capturing the frequency, type and intensity of client language has proved to be a challenge in the developing research efforts to investigate the underlying processes in MI. Systems for thinking about and measuring such language during treatment sessions have been revised based on new data, new ideas about key constructs such as client resistance and evidence regarding the level of interrater reliability that can be achieved when parsing and coding client speech. Evaluating client language during MI sessions is very much like capturing a snapshot of a river: the outline is recognizable, but the content changes constantly.

The CLAMI is intended for assessing client language within MI and MET sessions (and their variants) using audiotaped or videotaped samples. As with all our coding systems, a transcript alone should never be used since the resulting loss in voice tone, inflection and pace renders an unacceptable loss of information and reliability. The *entire session* is coded and a code is assigned every time the client speaks. The CLAMI is an *exhaustive, but not mutually exclusive* coding system.

Because the CLAMI assesses only client language, and not clinician behavior, it has been designed to be compatible and fit within with other coding systems from our research group (MISC 2.0; MITI), which focus on clinician behavior in detail. In general, the complexity of the CLAMI will require a separate review of the tape, using a transcript, with clinician behavior to be evaluated on a different pass through the tape.

**Overview of Changes and Essential Differences between CLAMI and other MI client language Coding Systems**

- 1) Within the CLAMI, “Reason” is an umbrella category, with Desire, Ability and Need representing subcategories of Reason. Thus, an utterance coded as a “Reason” may, or may not, receive additional subcodes of “desire”, “ability” or “need”.
- 2) An “Other” category has been added to reflect particular types of change talk that do not fall easily into the Reason category. Examples include hypothetical advice to others, if-then statements about the possibility of changing, and foretelling of future problems if change does not occur. Problem recognition also falls into the Other category.
- 3) The “Ask” category has been folded into Follow/Neutral.
- 4) Decision rules for minimal responses from clients have been elaborated, particularly with regard to speech that is “set-up” or prompted by the therapist.

Draft January 10, 2008

5) Strength ratings for client utterances have been reduced to High, Medium and Low values. Due to reliability issues, these strength ratings are optional..

6) Client discussion of past behavior is now excluded from coding, with the exception of behavior immediately prior to the current treatment session.

7) Nomenclature of client language has been changed to be consistent with the *Consensus Statement on Client Language* (June, 2005) by Amrhein, Miller, Moyers and Rollnick

Revision for Client Language Coding: MISC 2.1  
Client Language Assessment in Motivational Interviewing (CLAMI) Segment

**A. Overview of Coding System**

*A.1 Categorizing client language:* Within the client language coding system, any language that moves in the direction of change is termed “change talk” and language indicating a movement away from change is termed “sustain talk”. Each of these positive (change) and negative (sustain) language categories is comprised of four categories: Reason, Other, Taking Steps and Commitment.

*A. 2 Identifying the Target Behavior Change (TBC):* Use of MI to recognize, reinforce and elicit client language presupposes that the interviewer has a target behavior in mind, so that he or she will know which particular instances of client language to attend to and which to ignore. Before evaluation of the tape begins, coders should be made aware of the target behavior change. In general, this is the problem area specified by the research protocol or the focus of the therapy session. A few examples of target behaviors are:

- Stopping smoking
- Increasing exercise
- Adhering to specific exercise guidelines
- Compliance with medication regimen
- Increasing fruit and vegetable intake
- Obtaining vaccines for children
- Abstaining from alcohol
- Holding toddlers while feeding them, instead of propping a bottle
- Journaling alcohol intake
- Wearing a helmet while riding a motorcycle
- Entering treatment
- Remaining in treatment

The target behavior must be specified in enough detail so that coders can reliably discriminate it from all other topics a client might discuss. The CLAMI will evaluate client language related to that target behavior (or behavior change) *and no other*.

Multiple target behaviors can be identified as long as the inclusion criteria are identified in advance and are specific. Examples of such target behavior “trees” are found below:

Smoking Cessation (Target behavior)

- “Thinking Through” cravings
- Throwing out cigarettes
- Telling friends not to offer cigarettes
- Avoiding high risk situations

HIV Risk Reduction

- Using clean needles

Avoiding sex with multiple partners  
Using a condom when having sex

Reducing risk for complications of diabetes  
Counting carbohydrates  
Checking feet for wounds  
Testing blood sugar levels

In general, coders should not infer a link between actions being discussed by the client and the TBC goal, unless it is clear from the context that the purpose of the behavior is to move toward or away from the TBC goal. For example, if the TBC goal is to reduce cardiovascular risk, (and corollary TBC's have not been specified): "I wish I were less stressed" would not in itself indicate movement toward or away from the TBC goal. If, on the other hand, the client said, "Decreasing my stress at work would probably help my heart," it would be coded as TBC. Similarly, if the counselor's or client's prior responses clearly provide a context for TBC, it is coded. For example, if the counselor asked,

"What could you do to reduce your risk of having another heart attack?"

and the client replies, "I could exercise more," change talk would be coded even if the client does not directly state the connection. If the counselor says,

"One way that people can have a healthier heart is to stop smoking"

the client's next response is likely to be relevant to TBC, whether positive or negative.

## **B. Coding Procedure**

*B.1 Elements of Coding.* Speech in the CLAMI is divided into clinician and client VOLLEYS. A volley is a speaking turn. A client volley occurs when the clinician stops speaking and the client begins. Client volleys can be lengthy or very short – even one word *can* be a volley. Only client volleys, and not clinician speech, are coded in the CLAMI.

*B.2 Parsing Volley into Utterances.* Volleys are divided into utterances. Utterances are complete and separate thoughts within a volley. Utterances are defined by the meaning attached to them. A volley may have many different ideas, and therefore many utterances. Likewise, it may have only a single idea and therefore only one utterance. Generally, each utterance will merit a separate behavior code. If a client's volley includes two statements, each of which can be assigned a different code (as below), then *both* are coded as utterances. This would include:

two utterances that would be given different signs:

*I really have to stop smoking (+).*

*My cigarettes are like a friend to me (-)*

or two utterances that state different content (e.g., reasons) for or against change:

*I'd have a better change of getting my children back if I quit drinking (R+)*

*and I'm sure I'd feel better, too (R+),*

*but I would miss going out with my friends (R-)*

or two utterances that result in different strength scores (see below):

*Probably I do need to cut down a little bit . . . (Rn+ Lo)*

*No, who am I kidding? I definitely need to cut down (Rn+ Hi)*

Even a single sentence might have two different ideas, both of which would constitute separate utterances.

*I could quit (+), but I don't want to (-).*

*My drinking is not a problem (-), but I do need to drink less (+).*

*I know I ought to exercise more (+), but I hate sure hate getting up in the morning (-), even though it would do me good (+).*

Although longer volleys usually have more utterances, this is not always the case. It is possible for clients to speak at length about a single idea without deviating from it much, such as storytelling, or reporting past behavior. In this unusual case, only a single utterance would be parsed from the volley.

*B.3 Client responses to clinician questions.* Clients may respond to clinician questions with language that fits within any of the change talk categories, and it should be coded as such. The fact that the clinician “set it up” with a particular sort of question or comment does not mean that the client’s response is not change talk. Even a one-word answer to a question may qualify for a change talk code if the coder deems it to be a genuine response rather than simply a socially facilitating response.

*B.4 Assigning Content Codes to Utterances.* Each and every utterance within a volley will be assigned one of the following eight content codes:

**R: Reason**  
(subcodes: **d: Desire, a: Ability, n: Need**)  
**O: Other**  
**TS: Taking Steps**  
**C: Commitment**  
**FN: Follow/Neutral**

Every time an example of one of these occurs in client speech, it is recorded with a positive (+) or negative (-) valence, depending on whether it reflects inclination toward (+) or away from (-) the TBC. Client language in favor of change is generally termed “Change Talk” while language moving away from change is called “Sustain Talk”.

*B.4.a. Reason:* Statements of Reasons usually refer to a specific rationale, basis, incentive, justification or motive for making, or not making, the TBC. Client discussions of health, family

problems, legal difficulties or other kinds of problems that are presented as a reason for considering change (or not changing) typically fall into the reason category. Client expressions of worry and concern about their behavior and circumstances are reasons to change (not simply the report of the concerns of others). “Ought” and “Should” statements are reasons to change. Benefits that would probably come to the client as a result of changing (+) are included in this category, as well as likely disadvantages of changing (-). Hypothetical benefits (if-then) are included in the “Other” category. Statements incorporating the words “have to” or “got to” are reasons.

*My liver's busted, so I have no choice. (R+)*

*I just don't drink that much. (R-)*

*I want my kids to have a real father. (R+)*

*It would be so good for my kids. (R+)*

*My drinking doesn't affect my kids. (R-)*

*My doc told me I'm going to lose my leg if I don't start checking my blood sugars. (R+)*

*My diabetes is as good as it's gonna get. (R-)*

*I've gotta get a grip on this (R+)*

*I've got a friend who got a head injury on his motorcycle and I don't want that to happen to me. (R+)*

*Only idiots need helmets and I am not an idiot. (R-)*

*I don't want my child to have all these expensive cavities. (R+)*

*My mother gave me my own bottle when I was her age and I never got cavities. (R-)*

*My drinking is getting worse. (R+)*

*My drinking is hopeless. (R-)*

*If I don't stop using crack, my wife will leave me. (R+)*

*If I have to use a condom, why even bother? (R-)*

*Protecting my health is the most important thing to me. (R+)*

*I have young children to take care of. (R+)*

*I just want to quit hearing those voices and the medicine helps with that. (R+)*

*I know I'd feel closer to God if I quit using drugs. They just keep me away from Him. (R+)*

*It's the right thing to do. (R+)*

*I'm a mother and I ought to take better care of my kids. (R+)*

*It's getting out of hand. I have to have my eye-opener in the morning. (R+)*

**B. 4. b Subcodes for Reasons:** Any reason statement *may* receive an additional code indicating desire, ability or need.

**B. 4. b. 1 Desire:** Desire statements must have some form of one or more of the following words: “want”, “desire”, “like” or a close synonym of them. Depending on the meaning and context of the discourse, an antonym may also indicate a desire statement. The statement must refer to the target behavior, and not some other aspect of change.

*I want to stop smoking (R+d)*

*I'd like to quit, yeah (R+d)*

*I hate a night without a buzz. (R-d)*

*I love waking up sober (R+d)*

*I hate being an addict (R+d)*

In the following exchange, the client statement is NOT desire:

T: So you see that quitting has its advantages.

C: It'd sure be nice.

While this client statement may seem to indicate desire, and probably does, it is NOT a desire statement, since it does not contain key desire words. See the discussion of the Other category for more examples of this type.

**B. 4. b. 2 Ability:** Ability statements are those that refer to the target behavior and include some form of the word “can”, “possible”, “willpower” or “ability” or a close synonym or antonym of them. Statements that indicate that changing the target behavior is difficult or hard should be coded as ability (R-a) statements. Obvious colloquialisms or turns of phrase that indicate ability may be coded as ability statements.

Draft January 10, 2008

*I am able to do this. (R+a)*

*I just can't quit. (R-a).*

*I can quit. (R+a)*

*I have the ability to stop smoking. (R+a)*

*I don't think I have it in me (R-a)*

*Once I make up my mind, I know I can do it (R+a)*

*I don't have much willpower (R-a)*

*It's not that hard to do (R+a)*

Examples of statements that might seem to be, but are not, ability statements:

*I can't smoke at work. (R+)*

*When I smoke I can think more clearly and focus for longer periods of time. (R-)*

Don't be fooled: these statements include the word "can", but the "can" part does not refer to the target behavior. These statements are Reasons to change or maintain the status quo.

**B. 4. b. 3 Need:** These are statements that refer to the target behavior and include some form of the words "need" or "must". If the statement does not include the words "need" or "must", then they are not Need statements. If a statement does not refer to the target behavior, then it is not a Need statement.

*I need to stop smoking. (R+n)*

*I must quit. (R+n)*

*I gotta do this. (R+n)*

*I need a cigarette. (R+n)*

Examples that are NOT Need:

*I need more money, so I should give up smoking. (R+)*

*I gotta get my life together, and part of that is laying off the booze. (R+)*

*"I have to do it" (R+)*



Draft January 10, 2008

These statements are Reasons to change.

Here is one that is a need statement followed by a reason:

*I need to stop smoking (R+n) or I'm gonna get cancer (R+).*

This statement should be parsed as two utterances, the first one coded as Reason: need and the second coded as Reason.

Decision Rule for D-A-R-N:

The Reason code is the default when coders cannot decide among the DARN categories

**B. 4. c. Other:** This category is intended to allow coders to capture language that clearly reflects the client's movement toward change, but does not necessarily fit easily into the Reason category. General statements of problem recognition will often reside in this category if they do not fall into one of the Reason categories. Similarly, minimization of problems will also be categorized here. Hypothetical language will usually fall into the Other category, as well as client statements of general attitude or advice to others with regard to the undesirability of the target behavior. In addition, coders may place in this category examples of language that are CLEAR and COMPELLING examples of the client's move toward change, but do not meet any criteria other established here. All such examples must be recorded word for word and discussed in the weekly coding meeting.

C: I tell everyone I know, "Stay away from crack. That shit will just mess up your life."

C: "The right AA meeting is the key."

T: Did you come in to treatment on your own?

C: Yes, I know exactly where I belong.

C: Cocaine is just not the answer for me.

C: I'm going to be thinking positively about it.

C: I never have thought I was an alcoholic (O-)

T: What will you put in place of drinking?

C: That's what I'm trying to find out.

C: I promised myself that if I do drink, I will tell you.

C: If I weren't in AA right now, I'd be on a bender.

C: If I go to the track all day I can usually win enough money to stay drunk. That's sad

B. 4. c. 1. Differentiating Hypothetical Language from other codes

Hypothetical language coded within the Other category should have the quality of a client *imagining* a different situation or outcome that would impact the target behavior. There is sometimes a wistful quality to hypothetical talk (“If I could just go kayaking on the Colorado river for three weeks, I could quit smoking”) or an if...then configuration (“If my wife would just quit pushing me, I know I’d do it.”)

Sometimes hypothetical language will fall into another change talk category, usually Reason, and when it does it should receive that code instead. For example, a client might say, “If I could just stay sober, then I could really do well at this job.” Because this probable outcome represents a reason for changing the target behavior, rather than an exercise in imagination, it should be coded as a reason.

*If I could just stay off cocaine, I'd be a better mother. (R+)*

*If my kids were with me this weekend, I could stay off cocaine. (O+)*

B.4. c. 2. Differentiating Facilitating Language from Change Talk

Facilitating language in clients occurs when they respond to therapist speech with phrases such as “uh huh” or “yeah” or “sure”. Usually, such utterances are NOT coded, as they are merely continuation markers in the conversation. In essence, the client is saying, “keep talking”. However, these phrases CAN be coded as change talk if they occur in response to a question/reflection that “pulls” for change talk.

T: “Don’t you ever wish things were different?”

C: “Yeah.” (D+)

T: I’m going to look over this report and give you some feedback.

C: Sure. (F/N)

T: Then we can get your point of view

C: ok (F/N)

When client facilitates interrupt therapist speech, there is no need to code them.

T: On the one hand, you have decided that to quit drinking is going to be the best thing for you....

C: Uh-huh

T: ...and on the other hand you feel like it’s going to be really tough...

C: Yeah

T: ...because you have tried it in the past and you feel like you have failed every time, even though you were able to stay sober for months at a time, which I really commend you on being able to do!

**B. 4. d. Commitment Language:** While change talk utterances reflect motivating factors related to change, **Commitment Language** implies an **agreement, intention, or obligation** regarding **future** TBC. Commitment can be expressed directly via a committing verb, or indirectly. Client statements of how they will rearrange their life in the future relating to the TBC are considered commitment statements. (Note that if this rearrangement is stated hypothetically, it would be coded as Other.).

*I swear I'm going to stop this.*

*Nothing is going to stop me this time.*

With commitment language, if a reason is given, it is coded separately, but does not trump the commitment language. For example:

*I'm going to do it. (C+)*

*I'm going to do it (C+) for my family. (R+)*

*No way I'm going to stop drinking. (C-)*

*I'm not coming to treatment (C-) because I don't have a drinking problem. (R-)*

**B. 4. e. Taking Steps:** Concrete and specific steps the client has taken toward the behavior change are coded as Taking Steps. These statements usually describe a particular action that the person has done in the very recent past that is clearly linked to moving toward or away from TBC. To be coded, the behavior must clearly be one that is intended by the client to lead to (or away from) TBC. It is an intermediate response on the way to (or away from) TBC. Taking Steps represents the only time that past client language is given a code.

The action may not be TBC itself. For example, if TBC is reduction in alcohol use:

*I got rid of all the alcohol from my house this week. (TS+)*

*I went to two AA meetings this week. (TS+)*

*I bought a six-pack of beer this week. (TS-)*

*I stopped going to AA this week. (TS-)*

*I tried cooking without butter. (TS+) (concrete step)*

*I'm going to try cooking without butter. (C+) intention*

*If I tried cooking without butter, I'd reduce my fat intake. (O+)*

*I swear I will stop this (C+)*

*I'm always going to eat sweets. (C-)*

*I'll go to the gym everyday. (C+)*

*I'm going to throw away all of my cigarettes. (C+)*

*I threw away all of my cigarettes. (C+)*

*I'll buy apples for snacks instead of chocolate. (C+)*  
*I didn't drink at all last week. (TS+)*  
*I worked overtime so I wouldn't be tempted to drink. (TS+)*  
*I tell my partner I'm working late, then I go to the bar. (C-)*

If a change talk utterance is made along with an Other, Commitment or Taking Steps statement, both utterances are coded. For example:

*I'm going to do it. (C+)*  
*I'm going to do it (C+) for my family (R+)*

*If I threw away all of my cigarettes, I'd be less tempted to smoke. (O+)*

*If I threw away all of my cigarettes I'd be less tempted to smoke (O+), but I'd be a nervous wreck. (R-)*

I got my blood drawn for the HIV test this week, (TS+) but I can't deal with the stress of finding out the results (R-).

**B. 4. f. Follow/Neutral (FN).** In a follow-neutral turn, there is no indication of client inclination either toward or away from the TBC. The client may be asking a question, making non-committal statements, saying TBC-irrelevant things, or just following along with the conversation. Note that only TBC-relevant change talk is coded. If the target behavior is cocaine use and the client says, "I want to get my children back," it would not be coded as + unless there is a clear link made between cocaine use and getting the children back.

Sometimes clients will emit language that indicates they are listening to what therapists are saying, or that indicates a therapist should continue speaking. These are referred to as facilitating utterances. In general, client facilitating language, unlike that of therapists, is NOT coded.

T: Why are you here?  
C: I want my children back." (FN)

Whereas:

T: Why would you want to quit cocaine?  
C: I want my children back. (R+)

When you are in doubt about an utterance - when you are not sure if there is talk (+ or -) relevant to the TBC, the default code is Follow/Neutral (FN).

Finally, a client turn is coded at Follow/Neutral (FN) *only* if it contains no other codeable utterance. That is, for a sequence of utterances within a turn, any + or - code trumps a FN. Suppose that this were the conversation:

T: What are you thinking about marijuana at this point?

C: Actually I wasn't thinking about it at all. I was thinking about my girlfriend. (FN)

... but yeah, I guess I'm smoking too much for my own good (+).

At least she says so and she wants me to quit (FN).

I don't want to break up with her (R+).

I think it's messing me up at school, too. (R+)

Remember that it is also possible to have positive and negative responses within the same turn, reflecting ambivalence (such as R+ R- N+).

***B. 4. f. 1. Decision Rule for Follow/Neutral and other codes*** : Client language that does not fit other available categories should be coded as F/N. Inaudible or incomprehensible utterances should not be coded.

***B. 4. f. 2. Decision Rule for Coding client facilitating language***: Facilitative language that has the sense of "I'm listening" or "keep talking" is not coded. Neutral client language that occurs in response to a question is typically coded as F/N. Client language that occurs in response to a question about the TBC is coded as change talk (see sect. B.4. c. 2).

T: We'll be meeting four times during the next sixteen weeks.

C: Yeah (not coded)

T: Has your husband been supportive of you in the past?

C: Uh huh (F/N)

T: If you could push a button that would make you stop drinking, would you do it?

C: Uh huh (O+, hypothetical change)

*B. 5. Rating the Strength of Client Language (Optional).* Every time Reason, Other, Commitment and Taking Steps are coded, a strength rating may be assigned: High, Medium or Low. It is important to note that ratings for strength require coders to make artificial separations along a continuum of intensity. There are no “natural” categories of language intensity, so making High, Medium and Low designations may be less precise (and more frustrating) than other tasks in the coding system. Examples of strength ratings for each code are given below:

Reason: High

*I definitely can't afford to get another DWI (R+)*  
*I'll go back to jail if I have another positive urine (R+)*  
*If I lose one more paycheck at the track, my husband will divorce me (R+)*  
*I hate the way my clothes smell (R+)*

*There's no way I'd check my blood sugar three times a day because I'd be a human pincushion (R-)*  
*It's the only way I can deal with the stress of my job (R-)*  
*Sobriety just sucks most of the time (R-)*

Reason: Medium

*It's embarrassing to remember what I did that night (R+)*  
*The reasons are starting to pile up (R+)*  
*If I go to the casino again, my husband would probably leave me (R+)*  
*It's the right thing to do (R+)*

*I can never find that machine when I have the time to test my blood sugar (R-)*  
*My cigarettes are like a good friend (R-)*

Reason : Low

*I guess I'd be healthier if I exercised (R+)*  
*It seems like the right thing to do (R+)*  
*It's cramping my style (R+)*

*Well, it helps me to relax a little (R-)*  
*I'd kind of miss my friends at the casino (R-)*  
*It's sort of nice to just eat whatever I want (R-)*

Subcodes for Reason

desire: High

*I want to get off drugs for good (Rd+)*

Draft January 10, 2008

*I'd love to be able to control my diabetes (Rd+)*

*I really wish I could just cut down (Rd+)*

*I don't want to quit (Rd-)*

*I like my life the way it is (Rd-)*

desire: Medium

*I wish I could just snap my fingers and lose 10 pounds (Rd-)*

*I just want to wake up sober in the morning (Rd-)*

*I like smoking (Rd-)*

*What's wrong with a little nightcap every now and then? (Rd-)*

desire: Low

*I guess I'd like to smoke less (Rd+)*

*I sort of wish I hadn't started using coke (Rd+)*

*It would be kind of nice to have the extra money (Rd+)*

*There's a few good things about it (Rd-)*

*I'm pretty much enjoying things the way they are (Rd-)*

*I guess I'm not very motivated to exercise (Rd-)*

ability: High

*I'm positive I can quit (Ra+)*

*I can do it: I just have to stick to it (Ra+)*

*I can quit whenever I want (Ra+)*

*Once I make up my mind, I do it (Ra+)*

*I just can't keep the weight off (Ra-)*

*There's no way I could make it through the day without a cigarette (Ra-)*

*I don't have a snowball's chance in hell (Ra-)*

ability: Medium

*I think I can (Ra+)*

*Pretty much, yes (Ra+)*

*I could (Ra+)*

*I don't think I can (Ra-)*

*Probably not (Ra-)*

*I don't have it in me (Ra-)*

ability: Low

*I might be able to (Ra+)*

*I guess I could (Ra+)*



need: High

*I definitely have to get off the street and this is the way to do it (Rn+)*

*I absolutely have to lose weight (Rn+)*

*I've got to use a condom every single time I have sex, no question about it (Rn+)*

*I need my pain pills and that's all there is to it (Rn-)*

*Cigarettes are the only thing keeping me going (Rn-)*

need: Medium

*Probably I need to do something about my drinking (Rn+)*

*A change would be a good idea (Rn+)*

*Mostly, I have to drink (Rn-)*

*I guess I need some excitement in my life (Rn-)*

need: Low

*I sort of have to drink right now (Rn-)*

*I guess I don't think I need to quit (Rn-)*

Other: High

*I've had it with this way of living (O+)*

*I imagine my liver must be saying, Thank God! (O+)*

*I'm no teetotaler! (O-)*

*I'm one of the hopeless ones they talk about in the Big Book (O-)*

Other: Medium

*I feel good about what I've accomplished (O+)*

*I realize now that all that drinking was wrong (O+)*

*AA gives me a lot of hope (O+)*

*If not know, when? (O+)*

*I keep asking myself: when are the benefits gonna show up? (O-)*

Other: Low

*I think that will motivate me to quit (O+)*

*If I could just be on a desert island for a month, I could quit (O+)*

*The court asked me to come to treatment, but that's probably not such a bad idea (O+)*

*I'm kind of questioning my behavior (O+)*