This is an example of a coded group discussion from the Lab project "Mental Representation and Framing in Individual and Group Decisions," using the content analysis program NVivo. The group consists of 3 members, who discuss 4 scenarios for which they need to find a group consensus. This example shows coding for the type of arguments made and aspects of group interaction.

Participants A, B, C -- L R
PRIZE MONEY:
B: (Reads tasks to group)
C: Is that the amount for the group as a whole, or?
B: No. It's divided equally. So. Alright. So. I guess we have to decide, how much is it worth to get it today, versus three months from today.
C: What's the interest rate? (Laughing)
B: That's a good question.
A: Where's the extra pen?
C: MPV, right? (inaudible)
A: So is anybody strapped for cash today?
B: Yes
C: I say we start looking from here down
B: From \$95.00? 90?
C: 95 is still a little..
B: (Inaudible...)...three months. That's, we'd be waging, say $\$ 65.00$, so 20. 22. -, almost 22.

C: (inaudible)
B: So $\$ 90.00$, that's an extra $\$ 8.00 \ldots$ that's not worth it.
C: I think we should go a hundred and above
B : Go a hundred and above?
C: But why, why are we doing that? Personally, I want to make it 30 or above. (Laughing) If I'm gonna wait.
B: If you're gonna wait
B: Yeah, I don't know. My wallet's empty right now, so... \$20.00 today is kind of good. Three months from today, if we were to get forty dollars each... Yeah, I would say it would have to be up there for me.
C: You want a minimum, right? The minimum that you'd be willing to wait for. We could wait for all of these.
B: What's the minimum, right? And you're saying it has to be above 90.
A: I would say... I would say 70 .
B: Really? (Other two laugh) I would say 105.-
C: Can we take an average between those?
B: I don't know. So you don't mind waiting at all for your money? (to A)
A: I don't, no.
B: As long as you're getting more. Even if you're getting one dollar
more. But if you invest it, your \$22.00...
A: Of course, inflation
C: Exactly. We've have to start thinking.
B: If you invested your \$22.00, you wouldn't get anything in 3 months. So
the $\$ 78.00$ is probably worth it.
C: Really?
B: Sure. You're only getting like one or two percent. So, on an
intellectual level, Brian's probably right. On an emotional level...
A: I would say 30 is the cutoff.
B: Thirty?
A: Yeah
B: That's fine. I don't really need the money today. But I'd prefer it today. Okay, so, so what do we think? So we can check 90, not today. C: Well I guess this is just the mind of the economist, but I'm really interested in like the present net value of $\$ 90.00$ three months from now versus today.
B: Versus?
C: It's not gonna be that much
B: Wel
year?
$C:$ That's actually less than two percent, that's...
B: Let's say it's 3, 4, 4 percent. We'll make it $4 \%$ if that's possible.
So... \$6.00, \$3.00. Three or four dollars.
C: But then again, what does 70.- give us between us?
B: Um, like 23.
C: 23? (Inaudible..) I don't know. I guess in that case than 70 can make
sense. Well, not wait. Three dollars is... Three dollars as far as
retirement rates go in three months, you know...or wait three months. I
don't know. I say 90.
A: Are you gonna miss that money, is three months time?
C: Probably not.
B: 90. -
C: Alright. Let's do it somewhere in between 70 and 90 and just average
it out.
A: I would still go with 70, even if you guys...
C: Alright
A: If you want to push it, that's fine.
C: I'm okay with 70.
B: Okay, but you'd prefer not to get the money today, regardless, is that what you're saying.
A: I'm saying $I$ want to maximize my benefit.
C: Exactly, that's exactly my point is too.
A: I'm patient, you know. I'll take out a loan for myself.
C: Is there anything?
B: (Re-reads sheet to himself.) Okay. I agree. 'Cause if we say three
months from today it could be anything more.
C: More, yeah. We're still getting more than, we're still getting more.
B: Alright. So the reasons are. Um -
C: You're still richer three months from now
B: Yeah, that's the right. The potential for getting... (fills out sheet)
C: Do you want to?
B: See, because if we get it today, no matter what, we can't
(...inaudible), even if it is more than $\$ 70.00$, right?

C: Okay, so then
B: But if we get it today, there is no potential for (...inaudible).
C: Shouldn't we talk about the difference between these and not the
actual number 29. -?
B: The potential for making an extra $\$ 55.00$ ?
C: Yeah
B: Okay. (Continues filling out sheet)...55.- ... No one needs the money today.
A: Right.
A: So as far as $I^{\prime} m$ concerned, time isn't even a dimension in this. It's just...
C: Okay
A: You're guaranteed to get more
C: Plus (...inaudible) wise, you're not losing. The money three months from

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B: Ah, I guess we all know this one.
C: Is it the same?
B: It's the same, same thing, yeah.
C: Okay
B: Alright. So, I chose program A
C: I chose B
A: I chose A
C: Alright
B: Aha
A: Good
C: Well, the probability of saving people, well, not the probability but the outcome is 200, right? But over here the outcome is still 200. So really, it is
B: No, it's 600 or 0.
C: No. $1 / 3$ a chance of 600 . So $1 / 3 \times 600+2 / 3$ of 0 . So really it's 200.
A: There's a $2 / 3$ rds chance
B: There's a bigger percentage chance
C: So you have this (she writes out the equation). That gives you 200.
B: That's the probability. But that's not the actual number of people C: That's the possible outcome of saving people.
B: Right
C: So that makes it the same thing. At least that makes me indifferent.
A: So that they're the same
C: And if I'm indifferent from that, then it means I won't choose based the number that are saved. I'm choosing based on something else. And so I looked at it again and went, 'okay. Then the one is looking at a strain and one is looking at a broad the whole variety of strains. So then I'll go to one that's looking at a variety because, the only reason I chose that was because one of the strains might become mutated and become stronger than the one that you're focusing on in A while you were doing A.
B: Ah. But that's not, but that's not really what it's saying. They're saying 200 students will be protected and this is 600 or 0 will be protected.
C: So it means 200 might be sick using this vaccine that we're (inaudible) this strain
B: No. I think this is definitely be saved
A: Yeah, this is... Problem A there's less risk and there's more
certainty that students will be protected. Program B, there's a higher
risk, but there's a bigger yield if it pays off.
C: No. It's the same. Will be protected, will be protected.
B: 600
A: There's a $1 / 3$ rd chance that 600 will be protected.
C: Will be protected
B: Right. You're talking about probability. The probability is the same.
C: So, that makes it 200 people
B: But it's not 200 people. It's either 600 people or 0 people. That's our choice. 200 people isn't in there at all.
A: Yeah, it's like
B: There's a $1 / 3$ rd chance that 600
A: 600 people are saved or 0 people are saved.
B: So I see what you're saying about the probability. But, in fact, 200 students will be protected in this one. There's a $66 \%$ that no one-
C: Are you sure this is, 'cause I thought this is how you do it in stats. That's how I know I do it.
B: Yeah, but this is, this is the fact that, just the fact that there's a $66 \%$ chance that nobody's going to be protected. They're not saying that there's a chance that a percentage of these students will be protected. It says $2 / 3$ rds chance that no one will be protected against infection.
c: Okay. I see what you're saying.
B: So I think that's why we chose program A. That's why I chose program A, because you know for a fact that 200 will be protected. And this one, there's a huge... there's $66 \%$ that nobody's gonna get protected, but only $33 \%$ chance that everyone. So I, I assume there's a small chance -
C: If this really doesn't work, then I'm with you. But if this works, than that's why I chose B.
B: I think you can ask. I mean, in this case, right, there's no chance that in program $B$ that a percentage of those students are going to be (to experimenter)
C: Is the outcome the same, 200, 200? (to experimenter)
A: Program B, either 600 people are protected or 0 are protected, right? C: Yeah
B: Yeah. So there's no chance that 200 people are going to be protected with B.
C: Okay
B: Otherwise, this would be worth it. Possible. I still don't know because there's a chance that nobody is going to be...
C: I want to take that out of the stats guide. I really do.
B: But, I mean, it's not a statistics problem. It's a question problem. C: Yeah, but I ran across a question like this once and I answered it this way.
B: If, but if that were the case, there could be a percentage that, there could be a chance that those students that, that 200 would be protected. But this is saying that that's not the case. It's either none or all. A: See, what you're calculating is an average. If there were three trails, this should be the average number of people protected out of three different trials of program B. That's what you're calculating. C: Oh. I see.
A: But I agree with Jeff. Program A, I mean, there's certainty.
C: Okay. Okay.
A: And you don't have to challenge Jeff, (inaudible...) because of all the time and effort and money.
C: Okay
B: Agree?
A: Yup.
B: You want to write down our explanations since you didn't agree? (to C) C: Well, all I can write down is risk and uncertainty greater in B. and, actually, certainty's greater in A, right? (Filling in sheet).
A: (Inaudible.)
C: Okay, anything else that you want me to write?

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other reason is that 400 students don't get vaccinated
C: Yeah. Alright. So what should I put down?
B: That more people are assured protection.
C: Got it.
A: I think I'd also put in, well, it doesn't make sense to accomplish this problem, but in real life, you don't really have the possibility of protecting everybody. (?) But I guess...
C: Oh, like 600 students?
A: But I guess
$C$ : Yeah, that's like a contrary thing 'cause it's against $B$.
B: Alright
C: Alright, what did we start again?
B: The certainty is greater. Guaranteed that more students, guaranteed that some people...
C: Okay, so we kind of make that really more like want.... That's the same thing, right?
B: Certainty about
C: Yeah, it seems like
A: Yeah, it's true.
B: But, I mean, guarantee is different from certainty.
A: It's basically just a trade-off between the risk and yield, you know. C: Okay, and the second reason was contra B, right? Which was that... Um, real world not possible to save 600 people.
A: Well, I put that in mine. I mean, you can't really assume that, you can't really hope that everyone will be protected. But, I mean, based on

C: Not likely
A: I mean, just going by this though.
C: Yeah
A: I mean, the whole complex of our decision is that there can be full protection so.
C: So, you think that ...
A: Maybe it makes more sense to use this.
B: Yeah, I don't think it needs that, too, cause we're already taking
(...inaudible)

C: The guarantee
B: I think one is right
C: Alright
A: Yeah
C: Done
ORGAN DONATION
C: Ooh, another one.
B: Organ Donation. This is a moving, moving exercise! (Reads
instructions to group). So, I guess it's whether we're for or against
being an organ donor, right?
C: We or the child?
B: For our child, right?
A: Well, what are the negative impacts of being an organ donor if you're
an eight year old child?
B: I don't know.
A: I don't know, like EMT would be less motivated to save you. (All
laugh.) That'll be my reason for it.
B: I don't think so. That would be a consideration in your own organ donation, right?
A: Um, I don't know. But what are the negative impacts of....? I mean, what motivation do we have to cancel the fact that she was an organ donor.
B: I don't know. I wouldn't see any. I wouldn't change it. I would check 'It's Acceptable.'
A: I would do the same.
C: Well the only reasons are over here.
B: In the event of a fatal accident. So? You're child's dead.
C : Oh. Okay. Yeah. Then the only thing is this. (Points to the sheet)
B: Apart from the facts, assume all your beliefs, values, previous
experience are the same as they are now.
A: So, do you have a problem slicing up a dead eight-year-old, now?
C: I don't but
B: So none of us do.
C: None of us do? Okay, just making sure. Because we're all assumed to
have the same beliefs.
B: Now. That are the same as they are now.
A: As we each personally have now.
B: So you don't have to... You shouldn't change your beliefs.
C: Oh!
B: If you don't believe in organ donation, then you would check (points
to sheet). Now, I would check 'Acceptable'.
C: Yeah.
B: You would check acceptable? (to A)
A; I see no reason
B: Okay, easy enough. Reasons? We all believe in organ donation.
A: We don't see any negative effects of being an organ donor.
C: Help save someone's life. Fatal accident.
B: So, no downside? Um... and (writing)
C: It's a good thing they made him an eight-year-old. If he were a fetus or something it would be a little bit different discussion.
B: That's right.
B: They don't want everybody to get in fights. (writing.) Okay.

MONITORING DECISION
B: The monitoring task. Okay, do you want me to read the thing?
C: Now I don't want to talk. (Laughing). Alright, I went for two.
B: I went for two
A: I did as well.
C: Phew!
B: I don't agree with the objective, but if they are going to have something then I think it should be effective. Might as well.
C: Yeah. I think so, too.
A: The only thing you have to assume is that the file-sharing, the amount
of file-sharing will stay constant or grow from this point on.
C: That's true.
A: If it dips off in the next three months significantly...
C: Another thing I was thinking of
B: But aren't they trying to stop the ah, the illegal downloading?
A: yeah

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B: So they want it to drop
A: I guess that is the final.
B: But, on the other hand, if it doesn't drop, I mean, they're protecting themselves from lawsuits, right? That's the goal of this is that, even if does endure, the percentage of people that have to pay are paying.
C: Yeah. You mean, under proposal one?
B: Two
C: No, we're talking about the three months when they haven't done it yet. B: They haven't done it for the first three months. I'm just saying that the three months creation time is worthwhile. Oh, I see, you're saying that if it drops within the first three months.
C: Yeah
A: Yeah. It's just, I mean, it's an interesting idea that if they
implement this than people stop sharing files immediately because half the people are being charged.
B: 0h, I see. Then this is effective. I see
$C$ : Then that is effective. But I think the whole thing is more we don't
have enough information.
A: Really?
C: It cost ... (inaudible)... yeah, yeah.
B: But we did agree, I think we agreed that-
A: Yeah
B: The more effective program, -
A: Based on the information... (inaudible)
C: Yeah. At least long-term it takes care of more.
B: (Fills out sheet.)
C: long-term
A: It's interesting 'cause, with both programs, I'm not sure if they're trying to just stop illegal downloads or to make all those illegal downloads legal for making money
B: But they're not making money. They're just giving the money back to the artists, right?
C: Are they?
B: You will get billed. By the request of the American... You have to
assume that they're getting the money. You don't think it will work but..
C: Yeah
B: But, assuming it worked
$C$ : So they would bill and give the money to the artists
B: Right. So they don't really care of it goes down or up. They just want
it to be legal... so...
C: Okay
A: Yeah
C: Okay

ALLOCATION TASK
C: Last one. Okay.
B: Okay. (Reads task to group) So should we assume we belong to a club or organization?
C: The PC Admin Group?
Experimenter: Yeah, the PC Admir
C: Oh, okay.
B: We wouldn't want to share the money with them. Alright, go ahead.
(Laughter) I was thinking it was
C: We are in a group!
B: I was thinking it was like a ski-club, or something, you know, where the money would actually be going to something. Alright... (Continues
reading task)
A: So, anybody?
B: Just between the three of us? Is that what you think? Well I'm
thinking if I belonged to a group that had...
C: Really, seriously awesome
A: If you actually do win this money, it's gonna go to PCN?
B: No, see this allocation, right?
A: To give to the organization?
B: To allocate -- So let's say if we did allocate it to our organization. What would we do?
C: Let's look at the all the options
B: Let's say we did allocate it to our group.
C: Is there benefits that we would get that we wouldn't otherwise get if we had the money?
B: Sure. I think. I mean, let's say we allocated $\$ 100.00$ and we did
something for the group to get together for a lunch or a dinner or a beer party, or something like that where, ah, the more that we allocate to that, the more we can spend on a group activity that everybody gets to enjoy. But, of course we could do that with our own money of we split it equally between us, but the likelihood of that happening would be less, right?
A: That's a good point
C: Yeah
B: However, we're taking our time to do this
A: Indeed we are. (Laughter)
C: Hmmm... I say we give part of it to the group. Either that or give all to the group.
B: Let's see... How can you divide? I think it would be good to give part of it to the group, but not all of it. Let's say we split it evenly between us three... 'cause we can't split $\$ 500.00$ evenly anyway.
C: Yeah, so 300. - we give to us and I give 200 to
B: But 200 is a lot to give to the group. But we're part of that group, so we would still be getting advantage out of that.
C: We'd still be getting a benefit out of it. Well, why not... Well, 200 we can't split. 250 could we?
B: 50? 450?
C: 240, I mean.
A: 450 we can.
B: 450 we can. We'd each get 150 and give $\$ 50.00$ to the group for, like, lunch.
C: 240 would be good.
B: 50, 40, 240? That's too low. (Laughter) I wouldn't go below 300.
C: Oh gosh! I say 300,200
B: 300/200. That seems like too much to me.
C: 300 to us?
A: What would we do with the \$200.00?
B: What would they do with the $\$ 300.00$ ?
$C$ : Well, parties for the rest of the year. Pizza!
B: What's wrong with pizza? They could do that.
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C: Pay for lunch for the whole IT crew for the rest of the year.
B: There wouldn't be enough.
C: A special IT New Years?
B: I'm trying to think. I say, 360.- 140. -
C: Oh. That's 120. - each. Well, I mean, if we're going to go there, we might as well go to 450. (Laughter)
B: Well, there's 6 people in our group, right? 2, 3, 4, 5, 6 (counting on fingers)
C: We could do... 420's too much. I think we should just do...
B: What do you think? (to A)
C: ...360/140 sounds good.
A: Um, I would go for 300, 200.
B: 300, 200? That's fine with me.
C: Yeah?
B: Mmhmm...
C: The last one I think, right? Or is it that one?
B: No. 300 to your group.
A: No. 200 to your column.
B: You're going 300 between the... evenly between members of the group.
C: Oh. Oh! We didn't read that!
B: Well
A: I mean, does that mean us or the whole crew?
C: All the members of the group? So we all get some more on top that.
B: Oh yeah. No. That's right. That's what we're saying, right?
B: Oh.
B: How is this money distributed? Do you give the group one check or do you hand out $\$ 50.00$ to every person in the group?
Experimenter: No, we give the group, the club 1 check, the organization 1 check.
B: Okay
Experimenter: And then whatever you allocate evenly between the members
of the group, that means this group here.
C: Oh, okay
B: Okay, so we allocate 200 to our club and 300 to between the members our group. Okay. And why did we choose that.
Experimenter: Wait. Sorry, did you want to allocate 300 to the PC Admin?
B: No, 200.-
C: To us
A: 300 to us
B: 200 to our club, and 300 split between us
Experimenter: Okay
B: Alright. So... Reasons?
C: We are altruistic?
A: Our generosity knows no bounds. (All laugh)
B: (Filling in sheet) I say...
C: We're also selfish.
A: More selfish than (inaudible)?
C: Perhaps so. (Laughing)
B: Any other reasons?
C: Well, the benefits. Well the part that we gave to the club still benefits us with the revenue. So they're still getting some benefit out of the club donation.
B: Okay, um...
C: So that helps to give a bigger amount because we are splitting it. B: We're getting less
C: Well, but we're still getting
B: We're still getting some, but we're getting less. I mean, there's some not benefiting us at all.
C: No. We are. Because the proportion of, say $x$ is the amount you give to the club, the greater the amount $x$ is, the more benefit you're getting back from that donation that you gave to the club.
B: How? Not monetarily. Because otherwise you'd be getting it yourself, right?
C: That's a lot of let down for the money, really. But if it's for the good of the whole club, then the more money it has, it should translate into more benefits for the club as a whole. Right?
B: Right. So you're saying that you want to benefit the club?
C: I'm saying that we still reap benefits from what we're doing to the club.
B: Okay, yeah. (Filling in sheet) Alright? That's it!

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