Necessary		3 item display															6 item display															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Color	1		1					1								1					1											
Noun				1		1			1	1								1	1	1												
Color | noun					1												1															
Gender + color							1																							1	1	1
Gender + color | noun											1		1																			
Gender | Gender + Color | noun															1											1	1	1				
Gender + color | color | noun												1																	1			
Gender | color | noun														1											1							
Color + noun		1																				1	1	1								
Redundant																																
Noun	1		1				1	1								1					1								1	1	1	1
color				1		1			1	1								1	1	1												
Full utt					1												1															
Full utt + gender											1	1	1	1	1										1	1	1	1				

Naming convention: {attributes} sufficient {attributes} redundant

Sufficient: all utterances that will sufficiently pick out the target
Redundant: all utterances on top of that which can be used to describe the target, but are not strictly necessary

<u>Sufficient cases:</u>

color sufficient: the target is the only object of that color in the scene, therefore saying only the color uniquely identifies the object

noun sufficient: the target is the only object of that type in the scene, therefore saying only the noun uniquely identifies the object

Gender + color sufficient: the gender and color alone do not pick out the target but together they do
   e.g. there are other masculine objects and other blue objects, but the target is the only blue_masc object

Color | noun: either the color or the noun uniquely pick out the target
   e.g. the target is a blue plate and the rest of the objects are red cups → saying blue or plate works

Gender + color | noun: either the gender+color pick out the object, or the noun
   e.g. the target is a blue masculine plate, the rest of the items are blue feminine cups and a blue masculine knife → saying blue_masc or plate suffices, but the word blue and the masculine gender on their own do not

Gender | gender + color | noun: same as case above, but the object is ALSO the only object of that gender in the scenario
   e.g. the target is a blue masculine plate, the rest of the objects are a mix of feminine cups that are blue and red → saying just blue suffices, saying blue_masc suffices, saying just masc suffices, and saying just plate suffices

Gender + color | color | noun: same as the [gender + color | noun] case, but the target is the only one of that color.
   e.g. the target is a blue masculine plate, the rest of the items are red feminine cups and red masculine knives → saying just blue suffices, saying just blue_masc suffices, and saying just plate suffices, but saying just Masc does not suffice

Gender | color | noun: hit is just like the [gender + color | color | noun] case, except that there are no other masculine objects

e.g. the target is a blue masculine plate, the rest of the items are red feminine cups (but no masculine knives)
→ saying just blue suffices, saying just masc suffices (therefore it holds vacuously that blue_masc also suffices), and saying just plate suffices

Color + noun: you need to say both the color and noun, saying either does not suffice
e.g. the target is the only blue plate, there are other plates and other blue things

Redundant cases:
color redundant: there are other objects of the same color as the target in the scene
noun redundant: there are other objects of the same type as the target in the scene
Full utt: the full utterances is redundant. Since either color or noun can be used sufficiently, by uttering the [color + noun] utterance, it is ambiguous as to whether it is the noun or the color that is being used redundantly.
Full utt + gender: same as above but includes gender on the color (so gender could be being used redundantly). I don't split this case up further since I don't see a need for it.

In the table below I split up the scenarios based on the three questions we are interested in. This is different than how you proposed in the *Stefan Game Plan* document you sent. That is, each question asks for a different type of redundancy.

1. When color is redundant, do speakers/RSA use gender strategically to signal the target? We want to compare this across gender match versus gender mismatch scenarios. → we need to get all the instances of **color redundant** scenarios
2. Do speakers/RSA strategically omit nouns in the following circumstances:
   a. Noun is uninformative: i.e. the noun is redundant. → we need all the instances of **noun redundant** scenarios
   b. Both noun and color are informative on their own → we need al instances of **full utterances redundant** scenarios

For the table below:
# of items: number of items in the scene (3 or 6)
Necessary: what words are necessary to identify the target
Dif genders: 1 = multiple genders in this scenario, 0 = only single gender in this scenario
Dif type: 1 = there are different object types in the scenario, 0 = all objects in the scenario are the same as the target
Dif colors: 1 = there are different colored objects in the scenario, 0 = all objects are of the same color

Redundancy type	Scen #	# of items	necessary	Dif Genders	Dif Type	Dif colors	Total num of scenarios
Color Redundant	4	3	Noun	0	1	0	7
	6	3	noun	0	1	1	
	9	3	noun	1	1	0	
	10	3	noun	1	1	1	
	18	6	Noun	0	1	0	
	19	6	Noun	0	1	1	
	20	6	noun	0	1	1	
Noun Redundant	1	3	Color	0	0	1	10
	3	3	Color	0	1	1	
	7	3	Gender + color	1	1	1	
	8	3	Color	1	1	1	
	16	6	Color	0	0	1	
	21	6	color	0	1	1	
	29	6	Gender + color | color | noun	1	1	1	
	30	6	Gender + color	1	1	1	
	31	6	Gender + color	1	1	1	
	32	6	Gender + color	1	1	1	
Full utterance	5	3	Color | noun	0	1	1	11
	11	3	Gender + color | noun	1	1	1	

	12	3	Gender + color | color | noun	1	1	1	
	13	3	Gender + color | noun	1	1	0	
	14	3	Gender | color | noun	1	1	1	
	15	3	Gender | gender + color | noun	1	1	1	
	17	6	Color | noun	0	1	1	
	25	6	Gender | color | noun	1	1	1	
	26	6	Gender | gender + color | noun	1	1	0	
	27	6	Gender | gender + color | noun	1	1	1	
	28	6	Gender | gender + color | noun	1	1	1	

So now we go through these scenarios within each category and split them up the way you proposed in the *Stefan Game Plan*. That is by:

Type	gender	# of items	Scenario #	Redundance type
Same type	Same gender	3	1	**noun**
		6	16	**noun**
Dif type	Same gender	3	4	Color
			6	**Color**
			3	**noun**
			5	**full**
		6	18	Color
			19	Color
			20	**color**
			21	**noun**
			17	**full**
	Dif gend	3	9	color
			10	**color**
			7	**noun**
			8	noun
			11	**full**
			12	Full
			13	Full
			14	Full
			15	full
		6	29	noun
			30	**Noun**
			31	Noun
			32	noun
			25	**Full**
			26	Full
			27	Full
			28	full

Currently working on going through this table and the previous table and pick out scenarios based on that.