# The embodiment of identity. Body preferences, health decisions and identity in the island of Trinidad.

Von der Wirtschaftswissenschaftlichen Fakultät der Gottfried Wilhelm Leibniz Universität Hannover zur Erlangung des akademischen Grades

Doktorin der Wirtschaftswissenschaften
- Doctor rerum politicarum-

genehmigte Dissertation

von

Dipl.-Volksw. Marlene Waske, M.A. (Ethnologie),

geboren am 28.3.1984 in Lübben (Spreewald).

Referentin: Apl. Prof. Dr. Susan Steiner

Koreferent: Prof. Dr. Sebastian Vollmer

Tag der Promotion: 28.02.2020

#### Abstract

This dissertation contributes to understanding the linkage between ethnicity, gender, and body preferences, as well as between ethnicity, gender, and drink choice. It relates its findings to potential implications for health policy in the context of rising global obesity rates. It focuses on the island of Trinidad, Republic of Trinidad and Tobago. All papers are joined work with Sebastian Vollmer (University of Göttingen).

Chapter 1 illustrates the motivation for this research, introduces the overall topic and sets out the main research questions. It further emphasizes why ethnicity and gender as identity categories should play an important part in overall health policy design, and in obesity related policy in particular. Using survey data collected in Trinidad in 2017, Chapter 2 analyzes if the Trinidadian society is a rather "fat-tolerant" society and relates body ideals to perceptions of health. It also draws on international samples for comparison when possible. We find that Trinidadians prefer the largest bodies compared to other international samples and that there is a significant difference between body ideals and preferences of Indo-Trinidadians and Afro-Trinidadians.

In Chapter 3, we report results of a trust game conducted in the field and ask if there is a trust premium for large respondents in investments and perceived trustworthiness, compared to skinny respondents. We analyze gender and ethnicity specific trust levels and further relate our findings to potential implications for health policy makers. We find that large respondents receive larger investments than skinny ones, but that this difference is not significant. However, we do find that large respondents are significantly more likely to be perceived trustworthy than skinny ones. But as the respondent becomes too large compared to the proposer's own ideals and preferences, investment size and the likelihood to be perceived trustworthy decrease.

Chapter 4 analyzes if a simple drink choice is used by members of the same (different) ethnic group to associate oneself with co-ethnics or dissociate oneself from members of ethnic groups other than one's own group. Here too, we analyze gender effects. We use data on drink choices collected in the survey, the trust game and in observations carried out in public food courts and find that neither Afro-Trinis nor Indo-Trinis show a particular preference for water or soda, the two drinks allowed for choice. We find some evidence that in fact an individual's drink choice is influenced by the peer's ethnicity and gender.

**Keywords:** ethnicity, obesity, body ideals, body preferences, body perception, trust, food choice, drink choice, lab-in-the-field experiment, trust game

### Acknowledgements

This thesis marks the end of a five year long journey and I owe thanks to many people who have supported me during this time in various ways.

I was very lucky to have Susan Steiner as my first supervisor, who helped me pin down my vague interest in the relationship between ethnicity and economics, who supported me with expertise and patience, kept me focused and motivated me with her well-intended criticism. I am also very thankful to my second supervisor and co-author, Sebastian Vollmer, for introducing Trinidad and Tobago as a research site, for his guidance and advice on the experimental set-up and his valuable comments on the drafts of this thesis. Also, I thank Martin Gassebner for his readiness to be the third supervisor.

I am also especially indebted to the German Research Foundation (Grant RTG 1723) and the research and training group "Globalization and Development" (GlaD) for their generous support in financial matters, as well as for the opportunities I have been given to develop personally in various coachings and seminars. I also want to thank my colleagues at the GlaD and at the University of Hannover, who made this journey a lot of fun, too.

Further, gathering the data for this study would not have been possible without the effort of our enumerators in the field and I am very grateful for their endurance and motivation.

Last but not least, I would have not been able to finish this thesis without the kind love and support of my husband, Michael, who encouraged me from the beginning of the first PhD course to the day I handed in this thesis; who is the best father to our children and who made it possible for me to be a PhD student and a mother, too. I also wish to thank my parents and my sister, as well as my parents in law who have all supported this work in many ways.

## Contents

A	bstra	$\mathbf{ct}$		i
$T_{i}$	able (	of Con	tents	vii
Li	st of	Figur	es	ix
Li	st of	Table	S	xi
1	Intr	oducti	ion	1
2	Dog	g eat b	one, men eat meat.	9
	2.1	Introd	luction	9
	2.2	Metho	od	14
		2.2.1	Hypotheses	20
	2.3	Result	ts	21
		2.3.1	Implicit associations with overweight and obesity	21
		2.3.2	Explicit associations with overweight and obesity	26
		2.3.3	Regression Analysis: Body Perception	28
		2.3.4	Regression Analysis: Stigmatization of overweight and obesity .	34
	2.4	Discus	ssion	35
3	Em	bodied	l Trust	43
	3.1	Introd	luction	43
	3.2	Metho	od and Hypotheses	46
	3.3	Result	ts	53
		3.3.1	Trust and Trustworthiness	54
		3.3.2	Are larger people assumed to be more trusting?	60
	3.4	Discus	ssion and Conclusion	61

4	Dri	nk witl	h F	Pride	!															65
	4.1	Introd	luct	ion .									•							65
	4.2	Metho	od a	nd H	[ypot]	heses	S .						•							68
	4.3	Result	ts.						 •		•								•	76
	4.4	Discus	ssio	n and	l Con	clusi	on.			٠					 ٠					88
5	Con	clusior	n																	91
	Refe	rences								•										93
	App	endices	S .										•							106
		A	$A_{\mathbf{l}}$	ppen	dix fo	r Ch	apte	er 1					•							106
		В	Ap	ppen	dix fo	r Ch	apte	er 2					•							107
		С	Ap	ppen	dix fo	r Ch	apte	er 3					•							137
		D	Αı	ppene	dix fo	r Ch	apte	er 4												174

# List of Figures

2.1	Figure Rating Scale (Stunkard et al., 1983)
2.2	Average body shapes chosen in response to each statement, by ethnic
	group
2.3	Average body shapes chosen in response to each statement, by gender
	group
2.4	Preferred shape and BMI
2.5	Unhealthy shapes, by ethnic group
2.6	Unhealthy shapes, by gender group
2.7	Agreement with statements, by ethnic group
2.8	Agreement with statements, by gender group
3.1	Figure Rating Scale (Stunkard et al., 1983)
3.2	AME of large respondent for distance to female ideal
3.3	AME of Afro-Trini respondent for distance to female ideal
4.1	Figure Rating Scale (Stunkard et al., 1983)
4.2	AME of group size
4.3	AME of same ethnicity
4.4	AME of same sex
4.5	AME of overweight
4.6	AME 1st choice water, by ethnicity
4.7	AME 1st choice water, by weight
1	Proposer's post-decision questionnaire
2	Respondent's post-decision questionnaire
3	Distribution of experimental participants' female ideals
4	Distribution of experimental participants' male ideals
5	Distribution of experimental participants' own shape

6	Distribution of experimental participants' preferred shape	140
7	Distribution of centered abs. distance to female ideal	141
8	Distribution of centered abs. distance to male ideal	142
9	Distribution of centered abs. distance to preferred size	142
10	AME of large respondent for centered distance between P's actual size and	
	R's size	159
11	AME of large respondent for centered distance between P's male ideal and	
	R's size	159
12	AME of large respondent for centered distance between P's preferred shape	
	and R's size	160
13	AME of Afro-Trini respondent for distance to male ideal	162
14	AME of Afro-Trini respondent for distance to preferred size	162
15	AME of Afro-Trini respondent for distance to actual size	163
16	AME of same ethnicity for distance to female ideal	165
17	AME of same ethnicity for distance to male ideal	165
18	AME of same ethnicity for distance to preferred size	166
19	AME of same ethnicity for distance to actual size	166
20	Coca Cola slogan in India	174
21	AME single chooser, by weight	176

# List of Tables

2.1	Description of data	16
2.2	Ethnicity, gender and body preferences	29
2.3	Ethnic identity, other-group orientation, preferred and female ideal shapes	29
2.4	Ethnic identity, other-group orientation, male ideal and healthy female	30
2.5	Gender, ethnic identity, other-group orientation and preferred shape	31
2.6	Gender, ethnic identity, other-group orientation, ideal and healthy male	
	shapes	32
2.7	Gender and likelihood to consider the overweight shape unhealthy	32
2.8	Being married and body preferences	33
2.9	Ethnicity and likelihood to agree that "People are overweight because	
	they are lazy."	34
3.1	Response sheet player A	50
3.2	Investment and overweight	54
3.3	Investment and ethnicity	55
3.4	Perceived trustworthiness and weight	56
3.5	Investment size and centered distance	56
3.6	Trustworthiness and centered distance	57
3.7	Investment size and direction of distance	57
3.8	Trustworthiness and direction of distance	58
3.9	Likelihood to assume proposer in round 2 was large	61
4.1	Choosing water alone vs. in a group	79
4.2	Likelihood to choose water instead of soda II	80
4.3	Imitating the first person's drink choice	83
4.4	Imitation, ethnic identity and other-group orientation	84
4.5	Choosing Coke in the survey	84

4.6	Likelihood to choose water I	85
4.7	Likelihood to choose water II	86
1	BMI associated with FRS figures	107
2	Actual and preferred body size, by subgroup	107
3	Healthy and ideal male size, by subgroup	107
4	Healthy and ideal female size, by subgroup	108
5	Ethnicity and preferred shape	108
6	Gender and preferred shape	109
7	Ethnicity and female ideal	110
8	Gender and female ideal	111
9	Ethnicity and male ideal	112
10	Gender and male ideal	113
11	Ethnicity and healthiest female	114
12	Gender and healthiest female	115
13	Ethnicity and healthiest male	116
14	Gender and healthiest male	117
15	Age effects	118
16	Ethnicity and overweight male	119
17	Gender and overweight male	120
18	Ethnicity and overweight female	121
19	Gender and overweight female	122
20	Ethnicity and slim male	123
21	Gender and slim male	124
22	Ethnicity and slim female	125
23	Gender and slim female	126
24	Ethnicity and overweight female considered unhealthy	127
25	Gender and overweight female considered unhealthy	128
26	Ethnicity and overweight male considered unhealthy	129
27	Gender and overweight male considered unhealthy	130
28	Likelihood to agree that "Weight gain is a sign of contentment and	
	happiness."	131
29	Likelihood to agree that "People are overweight because they are lazy."	132
30	Likelihood to agree that "Obesity is what happens when people do not	
	have self-control."	133

31	Likelihood to agree that "For a woman a thick body is prestigious."	134
32	Likelihood to agree that "A thick man is a powerful man."	135
33	Agreement with "Being overweight is a sign of poverty."	136
34	Characteristics of survey and experimental participants	137
35	Mean investments	138
36	Balance table	139
37	Absolute distances between respondent's body shape and proposer's	
	body preferences	141
38	Size of proposer's investment in the trust game I	143
39	Size of proposer's investment in the trust game II	144
40	Investment size and centered distance	145
41	Investment size and direction of distance	146
42	Investment size, ethnicity and distance I	147
43	Investment size, ethnicity and distance II	148
44	Size of proposer's investment in the trust game III	149
45	Size of proposer's investment in the trust game IV	150
46	Investment and centered distance II	151
47	Investment and direction of centered distance II	152
48	Investment, ethnicity and direction of centered distance II	153
49	Investment, ethnicity and distance III	154
50	Perceived trustworthiness of respondent I	155
51	Perceived trustworthiness of respondent II	156
52	Perceived trustworthiness and centered distance	157
53	Perceived trustworthiness and direction of centered distance	158
54	Perceived trustworthiness, ethnicity and centered distance I	161
55	Perceived trustworthiness, ethnicity and centered distance II	164
56	Perceived trustworthiness of respondent III	167
57	Perceived trustworthiness of respondent IV	168
58	Perceived trustworthiness and centered distance IV	169
59	Perceived trustworthiness and direction centered distance II $\dots$ .	170
60	Perceived trustworthiness, ethnicity and centered distance III	171
61	Perceived trustworthiness, ethnicity and centered distance IV	172
62	Likelihood to assume proposer was large	173
63	Likelihood to choose water instead of soda I	175

65	Likelihood that drink choice is imitated I
64	Likelihood to choose water instead of soda II
66	Likelihood that drink choice is imitated (food court obs. only) 177
67	Likelihood that drink choice is imitated (experiment only) 178
68	Likelihood that drink choice is imitated III
69	Likelihood that drink choice is imitated IV
70	Likelihood to imitate choice of water I
71	Likelihood to imitate choice of water II
72	Likelihood to imitate choice of water I (food court obs. only) 183
73	Likelihood to imitate choice of water II (food court obs. only) 184
74	Likelihood to choose coke (survey)

### Chapter 1

#### Introduction

"Finally. You are getting fat!" Like it was yesterday I remember my friend Kandra smiling at me wholeheartedly when she said that, tapping me on the shoulder. I would give a lot to go back to that moment during my first field research, more than 10 years ago, to see my own face. Truth be told, ever since I made it through puberty my weight and height are pretty much constant, corresponding to a Body Mass Index (BMI) of 22.2 – medically, that's fine. But being raised in Western Europe my own body preferences as a young female were pretty standard – I thought: Should be skinnier, should be taller. It took me another few months in the field, in Kandra's remote highland village in Papua New Guinea (PNG), to realize that what Kandra was saying, and what I understood were two entirely different things – based on two very different interpretations of the body.

A few months later, still in Papua New Guinea, but now in Port Moresby, the capital: I am invited to a barbecue by informants and acquaintances. Most of them are descendants of the villagers I am staying with in the highlands, or are linked to the village by some other social or business tie. They are the economic elite of the village; the ones that have made it in the big urban melting pot. I am loading my plate with cooked banana, sweet potato and pumpkin, when the platter with the barbecued lamb flaps comes around to me. I am offered one of the best pieces, I am assured: a charcoal-like chunk of fat, that only has very vague resemblance with meat, grease dripping down as it is being lifted onto my plate. Sori tumas! - Whenever I say that

I am a vegetarian, I earn an irritated look and people feel *very sorry* for me. At some later point during the occasion, I ask if people really liked their food this greasy. And, to my surprise, many say: "No. But this is what we eat!" It is what they eat, because they can afford it and because it is a taste of the world, a taste of the rich. Lamb flaps are imported from the developed Pacific nations. What my well-to-do acquaintances were eating was not primarily chosen by taste, but rather by the status they felt the need to signal.

To the young female researcher that I was, the body was a private thing, something only I was responsible for and that would maybe be judged by others, but only in a sense that it would tell them something about me, how I took care of myself. For Kandra and my informants it was a different story. What Kandra said wasn't so much about me, as it was about the villagers. She may have been tapping my shoulder, yet she was tapping the shoulders of the people in the village just as much. She wasn't really saying "You are fat", but rather, "Look how well we are taking care of you! We feed you, we are hospitable, we can afford to host you. Our group can work together." My body was telling a story about them: about their hospitality, their economic success and their integrity as an ethnic group.

If I was restricting my eating, it was to get or stay in shape. But what my informants were eating at the barbecue was not about health; they knew the grease would eventually show up on their hips, thighs and bellies. But it was a way of telling me something about them: how successful they were, how they could afford to feed me these delicacies. In these moments, Clifford Geertz' (1973, p. 89) definition of culture as the "pattern of meanings embodied in symbols" was literally standing in front of me. And although I was in the field on a completely different topic (and discipline, for that matter), it sparked my interest in how humans perceive their bodies, what it tells them about each other, others, and themselves and how they use food to communicate social values.

Research in and traveling to other societies in other parts of the globe showed that what I experienced in PNG was not specific to this particular country: I witnessed similar episodes, people commenting on my skinniness or fatness and the types and amounts of food one should eat in Cameroon, Nicaragua and Jordan, to name a fewall the while my actual weight did not change. It is these episodes that have motivated this research thesis. If it was not my body that was changing, it must have been how my body was perceived by the people I interacted with, that was the moving part.

While there is an anthropological curiosity at the root of the interest in these varying body perceptions, there is an economic motivation at its core, too: If perceptions of skinniness and fatness vary and social values influence food choice, what does this mean for health policy in the context of globally rising obesity rates?

In 2016, worldwide almost 40% of men and women age 18 and above were overweight, meaning their BMI was larger or equal to 25. And 11% of men and 15% of women worldwide were obese, with a BMI greater or equal to 30. In total numbers, this is almost 2 billion people worldwide who are overweight, and half a billion of these are obese. Each year, billions of dollars are spent on obesity related diseases or lost due to a loss of labor.

The Sustainable Development Goal number 3, good health and well-being, rests on the assumption that "[e]nsuring healthy lives and promoting the well-being at all ages is essential to sustainable development" and one of the associated targets, target 3.4, is to "reduce by one third premature mortality from non-communicable diseases through prevention and treatment (...)" (United Nations Sustainable Development, 2019). Obesity is one of the major risk factors to develop non-communicable diseases (NCDs), like heart disease, stroke, cancer, and type 2 diabetes. The World Health Organization (2019) notes that non-communicable diseases "are the leading cause of mortality in the world" and that this "invisible epidemic is an under-appreciated cause of poverty and hinders the economic development of many countries." Especially in developing nations obesity is one of the greatest challenges for health policy. And while the World Health Organization (2019) argues that "[t]he NCD threat can be overcome using existing knowledge", that "[t]he solutions are highly cost-effective" and that "[c]omprehensive and integrated action at country level, led by governments, is the means to achieve success", the helplessness with which public health actors have been trying to deal with this problem is worrisome. There are no national success stories (Ng et al., 2014).

The anecdotes mentioned above hint that overweight is not just about eating healthy food and exercising. It is also a matter of status, perception and the communication of values and these factors have not been considered by research or policy makers in due detail yet: Are people in some societies overweight because they want to be; because it is ideal or beautiful? Are there social risks linked to losing weight or being skinny which health policy makers are unaware of? Are body perceptions specific to ethnic or gender groups? And (how) does ethnicity influence food choice, one of the main drivers of obesity in a globalized food world?

This thesis contributes to closing this gap by addressing these questions in the context of the island of Trinidad in the Republic of Trinidad and Tobago (T&T).

The Callaloo Nation Located in the southern Caribbean, Trinidad and Tobago is a two-island state whose economy has been dominated by oil and gas exports since the 1930s, and whose national identity is shaped by ethnic diversity. The last census was carried out in 2011 and showed that out of the total population of 1.3 million, 34% were Afro-Trinidadian and 35% Indo-Trinidadian (henceforth Trinis), while the rest was made up of the growing "mixed" group (23%), minorities of white Europeans, Chinese, and Syrians as well as small numbers of mixed descendants of indigenous groups (Reddock, 2014, p. 47). In general Trinidad has a greater ethnic diversity than Tobago, which is why this study focuses on Trinidad.

The construction of US air- and sea-bases in the Second World War, post-war increases in contact and remittances between Trinidadians and émigrés to the Unites States, the United Kingdom and Canada, as well as advanced media technology that broadcasted product images to Trinidadian homes, brought mass consumption and "a sense of wealth and excitement, and the possibilities of broader worlds" to the island (D. Miller, 1997). After the Second World War, nationalist sentiments and cultural nationalism blossomed as the Afro-Trinidadian middle class became more publicly visible, their folk culture becoming the primary bearer of the nation. The need of Indo-Trinidadians to distinguish themselves from this predominantly Afro-Trini discourse

was met with the construction of Hindu temples, Muslim mosques and denominational schools which became symbols of Indo-Trini identity (Khan, 2004, p. 10). Race and culture also found their way into the political sphere after independence in 1962, and until today the two main political parties are set apart not only by the political ideology, but also by the ethnicity of their members and supporters (Khan, 2004, p. 12). This has had effects on racial relations, especially since 1995, when an Indo-Trini prime minister and party took office for the first time (Khan, 2004, p. 16).

The oil boom in the 1970s boosted the country's economy, but in hindsight also led to less favorable developments: Imported foods and a taste for imported cuisines replaced local dishes; the country was "flooded with international brand names and a culture of mass consumption indistinguishable from Indonesia or Alaska" (D. Miller, 1997, p. 205). By 1980, 90% of the domestic food consumption was based on imported foods. The new affluence lead to "a loss of authenticity", as traditional knowledge, food and customs declined, families and communities dissolved with ever traveling siblings and children, who reject older lifestyles and moralities (D. Miller, 1997, pp. 204-205).

Yet, despite this seeming homogenization Trinidad's society is marked by ethnic diversity, the conflicts of which have impacted its history for decades in the public and private sphere. While in the early twentieth century romantic relationships between Afro-Trini men and Indo-Trini women were controversial (and to a certain degree are to this day), still in 1981 Bridget Brereton wrote about "the reluctance of Indian men to cohabit with Creole women, despite the shortage of Indian women" (quoted in Reddock, 2014, p. 48). Since the early Trinidadian history, there was a fear of romantic contact between Indian females and men of other ethnic groups, but not the opposite scenario and this fear can still be felt today. Reddock (2014, pp. 49-50) argues that this "is not surprising as in most patriarchal and ethno-national contexts, the control of women's sexuality is central to the construction of ethnic identity and the maintenance of ethnic 'purity'. (...) In contrast, men's incursions unto the women of the enemy are often perceived as conquest and as shaming of the other". If Indian women were involved in controversial relationships they risked the exclusion from kinship support and research suggests that taboos like these still exist today. More so, there seems

to be a link between private romantic relationships and politics: Indo females who marry Afro males are perceived as "supporting Afro-Trinidadian political power and the disintegration of Indo-Trinidadian culture and values" (Chari, 2005 quoted in Reddock, 2014, p. 51). These discourses on gender, ethnicity and identity also make their way into the country's rich popular culture: One of the famous examples is the 2004 socasong *Looking for ah Indian Man* by Afro-Trinidadian Denise Belfon, which provoked a discussion about "the ongoing negotiations on ethnicity, nation, citizenship and gender" (Reddock, 2014, p. 46) and which also makes frequent references to foods as ethnic markers (see Appendix A for lyrics).

Anthropologist Fredrik Barth argued that social relations are maintained across ethnic boundaries and can be based exactly on the ethnic dichotomy: "(...) it is clear that [ethnic] boundaries persist despite a flow of personnel across them. In other words, categorical ethnic distinctions do not depend on an absence of mobility, contact and information, but do entail social processes of exclusion and incorporation whereby discrete categories are maintained despite changing participation and membership in the course of individual life histories" (Barth, 1998, op. 1969, p. 9). This seeming paradox is found in Trinidad in near perfection. The society is marked by ethnic competition, yet "Trinidad claims itself as the epitome of mixedness, a callaloo nation where a stew becomes the primary metaphor of the independent nation-state" (Khan, 2004, p. 12). It is the paradox of "purity and mixing: the mutually exclusive, essential differences between Afro and Indo versus their committed efforts at cooperation based on perceived affinities" (Khan, 2004, p. 17).

This constant negotiation of ethnic individuality and national unity makes Trinidad a very interesting research location to address questions about ethnicity and how it may impact economic and societal development.

Road Map Economic research has shown that ethnicity matters on the macro level, for example with respect to ethnic polarization or fractionalization and its effect on economic growth (Alesina & La Ferrara, 2005; Collier, 2001). It has also shown that ethnicity specific social norms affect decisions on the micro level, like altruism, coop-

eration and fairness (Ensminger & Henrich, 2014), as well as labor market outcomes (Barr & Oduro, 2002). This dissertation is concerned with the micro level and contributes to understanding how ethnicity specific norms and attitudes may affect health outcomes. More precisely, it studies the linkage between ethnicity, gender, and body preferences as well as between ethnicity, gender, and drink choice.

Ethnicity specific body preferences may deviate from what is considered medically healthy by associating large bodies, especially in women, with positive characteristics such as prestige, trustworthiness or high social status. They hence reduce an individual's incentive to attain a body size that is medically healthy and pose a challenge for the successful implementation of health policy that aims to reduce overweight and obesity.

Further, Charles et al. (2009, p. 425) show that ethnicity affects conspicuous consumption behavior, such that visible goods are used to signal social standing: "Blacks and Hispanics devote larger shares of their expenditure bundles to visible goods (clothing, jewelry, and cars) than do comparable Whites". Instead of focusing primarily on the effect of ethnicity on the consumption of a particular good or class of goods as a mean to signal social class, this dissertation adds to the literature by analyzing the effect of ethnicity on the imitation of a consumption choice as a mean of association or dissociation. The imitation behavior is relevant in the health context: the simple choice between drinking water and drinking soda serves as an approximation of complex health decisions.

This study relates its findings to potential implications for health policy design in the context of rising global obesity rates and the challenges they pose for economic development, especially in developing countries. It focuses on the island of Trinidad, Republic of Trinidad and Tobago.

Using survey data collected in Trinidad in 2017, Chapter 2 analyzes body preferences in Trinidad. It asks if the Trinidadian society is a rather fat-tolerant society and relates body ideals to perceptions of health and to international samples for comparison. We find that the Trinidadian society prefers the largest bodies compared to other international samples and that there is a significant difference between the body

ideals and body preferences of Indo-Trinis and Afro-Trinis. We also show that there are gender differences in how overweight and obesity are stigmatized.

In Chapter 3, we analyze results of a trust game that was set up as a lab-in-the-field experiment. We ask if there is a trust premium for large respondents in investments and perceived trustworthiness compared to skinny respondents. We analyze gender and ethnicity specific trust levels and further relate our findings to potential implications for health policy makers. We find that large respondents receive larger investments than skinny ones, but that this difference is not significant. However, we do find that large respondents are significantly more likely than skinny ones to be perceived trustworthy. But as the respondent becomes too large compared to the proposer's own ideals and preferences, investment size and the likelihood to be perceived trustworthy are reduced. This paper also contributes to the ongoing discussion if the trust game adequately measures trust. We find effects of body size on the size of the investment sent in the trust game, and these results are supported by findings obtained from the analysis of a post-decision questionnaire assessing perceived trustworthiness.

Chapter 4 analyzes if a simple drink choice between water and soda is used by members of an ethnic group to associate with co-ethnics, or dissociate from members of ethnic groups other than one's own. We are not only interested in the choice of a particular food or drink, but rather in the act of imitating or not imitating a choice made by a co-ethnic or member of a different ethnic group. We use data on drink choices collected in the survey, the trust game and in observations carried out in public food courts and find that neither Afro-Trinis nor Indo-Trinis show a particular preference for water or coke, but that ethnicity and gender of a peer influence an individual's imitation behavior.

Chapter 5 concludes and reflects on the implications of our findings for health policy. The take-home message of this work is simple: Ethnicity matters in the health context! It has implications for health decisions and body preferences and should find greater consideration in health policy making.

## Chapter 2

"Dog eat bone, men eat meat."

Body ideals, ethnicity and socio-economics in the Island of Trinidad.

#### 2.1 Introduction

"Dog eat bone, men eat meat" commented one of our female Afro-Trini enumerators when we first introduced this study to potential collaborators in the field. What she referred to was the notion that "real Afro-Trini men" found women with curves more attractive than skinny ones. Stereotypes like this are not new and can be found especially with respect to people of African descent and in popular culture. Songs about the "Junk in the Trunk", Lucille Clifton's 1987 poem "Homage to My Hips" or Joe Tex's 1967 song "Skinny legs and all" show that "[c]hemically, in its ability to promote disease, black fat may be the same as white fat. Culturally it is not" (Randall, 2012, see also Parasecoli, 2007). But if some societies prefer being large – how large is large in one society compared to another? If being large is good, is larger always better? And how do socio-economic factors and gender influence this notion?

This paper links body preferences and the stigmatization of overweight and obesity in Trinidad to gender, ethnicity and socio-economics, while controlling for Body Mass Index (BMI). We examine if body preferences vary between the two main ethnic groups, Afro- and Indo-Trinis, as well as between females and males. In a second step, we study how the stigmatization of overweight and obesity varies between ethnic and gender groups.

The human body is the most obvious physical trait of a person. We use it to express

who we are – or want to be - with hairstyles, tattoos, make-up, piercings, clothing, as well as with size and shape. Body ideals from thin to curvy, descriptions of apple and pear shapes, Y-shapes and lean shapes, 'spare tire' and 'six pack' are examples of interpretations of our bodies; they are also examples of the social meaning and stigmatization we attach to it. The human body thus is a symbol through which we communicate. It has been of academic interest in cultural studies, sociology, philosophy and history since the twentieth century (see Gremillion, 2005 for a comprehensive overview). The list of its researchers contains notable individuals from Norbert Elias, Marcel Mauss, Michel Foucault and Pierre Bourdieu to Judith Butler and Susan Bordo (Rocha Teixeira, 2017, p. 7).

What constitutes the ideal, desirable, or attractive body has historically been one of the most varied aspects of human culture (Brown & Konner, 1987; Sobal & Stunkard, 1989). "In much of the industrialized West (...) slimness is associated with health, beauty, intelligence, youth, wealth, attractiveness, grace, self-discipline, and goodness (...), [f]atness and obesity are by contrast associated with ugliness, sexlessness, and undesirability but also with specifically moral failings, such as a lack of self-control, social irresponsibility, ineptitude, and laziness" (Brewis, 2011, p. 269). Yet, anthropological data on cultural norms in a range of societies suggest that, historically, many groups have had a preference for larger bodies especially in women (Becker, 1995; Popenoe, 2005; Sobo, 1993), and many also have no concept of excess fat as a bad thing (Brewis, 2011, p. 86).

Beyond the anthropological interest and the appreciation of human cultural diversity there is also an economic reason why we should better understand varying body preferences: since the 1980s obesity rates have been rising globally - in some countries they have doubled. The World Health Organization (WHO) argues that "an escalating global epidemic of overweight and obesity -"globesity" is taking over many parts of the world. If immediate action is not taken, millions will suffer from an array of serious health disorders (...) that affects virtually all age and socioeconomic groups" (World Health Organization, 2019). Globesity comes at tremendous economic cost: Each year billions are spent on obesity related diseases, or lost due to a decrease of work capacity, shortened life span, and absenteeism due to illness. Researchers agree that changes to the human environment have greatly contributed to the spread of obesity, like changes in diets, a sedentary lifestyle, and urbanization. Yet many public health interventions have failed to produce measurable results, and obesity levels have continued to rise (Brewis, 2011, pp. 2 - 11). If we understand what causes it, then why are we so unable to cope with it?

Health promotion strategies often focus on educating about the risks of obesity; yet they aim to induce individual behavioral change. This approach has proven unsuccessful: "Fully' informing individuals about health and health risk does not necessarily lead to a change in health behavior" and a "causal link between health beliefs and health behavior cannot be assumed" (Whitehead & Russell, 2004, pp. 164 - 165, Thompson & Kumar, 2011).

We follow anthropologist Alexandra Brewis (2011) and argue that researchers understand obesity from a medical perspective, but not as a social or political phenomenon: The body is a commodity, an articulation of capital, power, and social mobility and the encoding of cultural values (Bourdieu, 1984). It is shaped by society just as much as it is shaped by biological factors. What we find attractive is learned in a social process which allows us to affiliate with others, achieve membership with a preferred group and distance us from disliked groups (McCabe et al., 2013). Further, Elliott (2007) and Rawlins (2008) show that in industrialized countries this 'embodiment' overlaps with the political sphere, when being a 'good citizen' becomes associated with being a fit citizen, while the fat body becomes a symbol of the 'failed citizen'.

Varying body ideals may simply be rooted in evolution and economic development: When food is scarce and skinniness the norm, larger bodies are valued highly and associated with economic prosperity. With economic development and changes to the human environment, food becomes abundant and preferences shift: Skinniness is valued, because in a world of abundance it is harder to attain - and larger bodies become associated with lower socio-economic status (SES) (Sobal & Stunkard, 1989; Ezzati et al., 2005; McLaren, 2007). Additionally, globalized (Western) media is reaching all parts of the world - spreading the stigmas, ideals and eating disorders that for the longest time have been found predominantly in economically well-to-do countries (Sussman & Truong, 2011; Haytko et al., 2014; Becker et al., 2002; Schooler, 2008; Council & Placek, 2014; Becker et al., 2011).

Does this mean there will soon be a global thin body ideal, once all countries have passed an unknown threshold of economic development? Indeed, negative ideas about obesity are spreading and already permeate traditionally fat-positive societies (Brewis, 2011; Bakhshi, 2011). So, why bother about obesity policy if soon everyone will want to be skinny? The answers are obvious: Even in economically advanced countries obesity rates are no reason to be enthusiastic: In Germany 22% of all adults above the age of 18 are obese, in Australia and the United States these numbers are up to 29% and 36%, respectively. So even if living in an economically successful country leads to

idealizing skinniness, it does not necessarily mean that people live up to these ideals. But more than that, as Randall (2012) writes with respect to African Americans in the US: "too many experts who are involved in the discussion of obesity don't understand something crucial about black women and fat: many black women are fat because we want to be."

We argue that this is also a reason why rates of obesity differ not only between countries, but also within the same country or even within the same community (Brewis, 2011, pp. 3-4). Different ethnic groups may have different associations with large bodies and there may be a difference between a medically ideal size and a culturally ideal size. While in Western countries associations with fat are negative, in other societies being large may symbolize group membership, resistance against a global homogenization of beauty or the dissociation of oneself from others: "And it's not only aesthetics that make black fat different. It's politics too. (...) [F]at black women can be a rounded opposite of the fit black slave, (...)" (Randall, 2012; see Bakhshi, 2011 for a comprehensive overview of the role of culture in body image). Resistance to prescribed medically ideal bodies is present also in other industrialized societies, especially in the context of health campaigns (Thompson & Kumar, 2011; Crossley, 2002).

A large part of the literature studies body preferences and stigmatization in the U.S., focusing on African Americans and ethnic minorities (D. B. Wilson et al., 1994; Cunningham et al., 1995; Parker et al., 1995; Gilbert et al., 2009; Gray & Frederick, 2012; Gentles-Peart, 2018; Greenberg & LaPorte, 1996; Caldwell et al., 1997; Altabe, 1998; Cachelin et al., 2002; A. Roberts et al., 2006; Cheney, 2011; Ali et al., 2013; Webb et al., 2013; Hart et al., 2016).

Becker (1995), Hardin (2015), McCabe et al. (2012), as well as McCabe and Ricciardelli (2003) focus on stigma and body preferences in the Pacific and Asian countries, while Brewis and Wutich (2014) and Brewis (2011) study stigmatization in international comparison. Dressler et al. (2008) and Dressler et al. (2012) look at body images in Brazil. Pompper et al. (2007) is one of few studies analyzing male body concepts, and a few studies compare body images of females and males, showing that females often prefer slimmer shapes than males (Ata et al., 2007; Murnen, 2011).

The literature on body preferences in the Caribbean countries is limited (Council & Placek, 2014, Commonwealth of Dominica; Ragoobirsingh et al., 2004, Jamaica; Simeon et al., 2001, Simeon et al., 2003, Allen, 1998, Ramberan, Austin, & Nichols, 2006, Trinidad and Tobago) and like the majority of the literature in general, primarily focuses on female adolescents. We want to add to the literature by giving an in-depth analysis of body preferences and stigmatization in Trinidad, using a sample that covers

a wider range of factors than commonly found.

Understanding body preferences in the Caribbean, especially in Trinidad and Tobago, is important for a number of reasons: First, obesity is a serious health issue affecting the lives of a huge number of Trinidadians. Obesity rates in the country are among the highest in the Caribbean (36%, PAHO/WHO Trinidad and Tobago, 2019) and the country's overall percentage of deaths due to Chronic Non-communicable Diseases (CNCDs), at 60%, is the highest within the region (Government of the Republic of Trinidad and Tobago. Ministry of Health, 2012). Further, although in 2006 only 5.6% of the total population was multi-dimensionally poor, deprivations in health contributed 94.3% to overall poverty (besides education and living standards, United Nations Development Programme, 2013, p. 161). Understanding what drives obesity in Trinidad will be necessary to develop adequate policy.

Second, at the beginning of this century Simeon et al. (2001) argued that culture was one of the driving forces behind the epidemiological transition of the country, shifting from infectious and nutrient-deficiency diseases to non-communicable diseases. They showed that international ideals influenced the desired body size of adolescents, but that this did not lead to a preference of slim or underweight body shapes, but rather to preferring normal and overweight sizes, especially in males. Allen (1998) investigated the phenomenon of getting in shape for Carnival and how local fitness culture and body images are permeated by both, ambivalence and resistance towards the constructions of Western bodies, sometimes incorporating it, sometimes defying it. These findings contradict the theory that Western media spreads skinny images and replaces traditional body ideals, yet we do not know if this affects all age, gender and ethnic groups alike.

Further, many studies concerning minorities cannot disentangle the effects of SES and ethnicity, since the two are often closely linked. According to the World Bank, since 2006 Trinidad and Tobago has been considered a high income country in terms of Gross National Income (GNI) and by the standards of the Human Development Index (HDI); but the country's wealth heavily depends on oil and inequality adjusted measures tell a different story: the HDI value drops from 0.78 to 0.66 and the country's GINI coefficient, as a measure of inequality, remains high at around 0.40. Hence, the range of income groups and SES is wide and equally so for both of the two main ethnic groups. If there is an effect of economic development on body ideals, then ideals of rather privileged groups who have benefited from the country's economic success should differ from the ideals of those who have yet to profit from global economic integration.

Although in many aspects the two ethnic groups seem very similar, the literature

suggests that we can expect to find ethnic differences with respect to body ideals, as well as a desire of members in each ethnic group to dissociate themselves from the respective other: Ragbir (2012) shows how in the Miss Trinidad and Tobago Pageant there have so far been only very few Indo-Trini women participating and explains that one main reason for this is because it is so Afro-dominated. In fact, Niranjana (2006) argues that Indo-Trini identity for the longest time was a manifestation of Indian nationalism oriented towards the home country, marking similarities instead of differences, in order to be different from others in Trinidad, especially from the Afro-Trini population. Ramberan et al. (2006) show how Indo-Trini adolescents were more concerned about their body shapes, more likely to engage in binge eating and had a stronger desire to be thin than other ethnic groups in Trinidad.

Similarly to Randall (2012), Gentles-Peart (2018, p. 200) argues that the Afro-Caribbean body ideal is deeply rooted in colonial practices with its images of the "black female body as voluptuous and unwomanly (...), built for functionality and labor" and "employed to affirm the use of black women as slave labor"; she shows how members of the Afro-Caribbean population uphold the "idea of the curvy or thick woman" as a symbol of black identity, specifically because it resists whiteness, colonialism, and Eurocentric aesthetics. And Meisenhelder (2003) illustrates that the "othering" of the African body by Europeans has a long history which goes back to the sixth century B.C.

#### 2.2 Method

Our survey data cover 510 participants and were collected between April and July 2017 in the communities of San Juan and D'abadie in northern Trinidad. San Juan is home to about 15'000 people (around 5000 households) and located only about 5 kilometers from the nation's capital, Port of Spain. D'abadie is somewhat more rural, home to about 6000 people (around 1900 households) and located 30 kilometers east of the capital (Government of the Republic of Trinidad and Tobago. Central Statistical Office, 2011). The sample was drawn in randomly selected streets going house to house in both communities, as well as in a number of different locations: an industrial compound in each of the communities; a Presbyterian church in D'abadie; a mainly Indo-Trini primary school in San Juan; the Eastern Main Road that stretches through both communities and is one of the main commercial and shopping areas; a supermarket in each of the communities; a hospital that caters to both communities; as well as students at the University of the West Indies that live in one of the communities.

The goal was to sample Trinidadians of African and Indian descent. However, since enumerators had to approach potential participants on the spot while running daily routines or visit a home without knowing the ethnic identity of its inhabitant, our sample naturally also includes Trinidadians of other ethnic groups. For the course of the analysis we will exclude 41 participants who self-identified as mixed, Caucasian or other, leaving a sample size of 469. The sample hence contains members of the two main ethnic groups (67% Afro- and 33% Indo-Trinis), females (58%) and males (42%), urban and rural inhabitants as well as data on monthly income (less than 2500 TTD – more than 20000 TTD), education (no formal education, primary school, secondary school, university degree), occupation (white collar, blue collar, unemployed, students, house wives) and age (18 - 91 years).

We want to know how ethnicity, gender and socio-economic status are associated with body perception and stigmatization in Trinidad. To operationalize ethnicity we use three different measures. Phinney (1992, p. 159) notes that "individuals who use a given ethnic label may vary widely in their sense of belonging to their group (...)". And Dressler et al. (2012) argue that the more a person knows about her culture, the more she looks like the cultural "prototype". To account for this, we first simply ask for a person's self-identification – i.e. the response to the question "What ethnic group do you feel you belong to". Three hundred and sixteen participants (67%) identified as Afro-Trini, 153 (33%) identified as Indo-Trini.

Second, we include a measure of the strength of a person's ethnic identity using three of the statements developed by Phinney (1992) and R. E. Roberts et al. (1999). The respondent indicated her agreement with these statements on a four item scale from "strongly disagree" to "strongly agree". There was no "neutral" option. The statements included: "I feel a strong attachment towards people who share my ethnicity", "I participate in cultural practices of my own ethnic group, such as special food, music, or customs", and "I have a clear sense of my ethnic background and what it means for me". If the participant strongly agreed or agreed with all three statements, we classified her as having a strong ethnic identity. This applied to about 40% of the sample.

Third, we use three more statements by the same authors to measure a person's other-group orientation, i.e. "attitudes towards, and interactions with, ethnic groups other than one's own" (Phinney, 1992, p. 161): "I am involved in activities with people from other ethnic groups", "I don't try to become friends with people from other ethnic groups", and "I sometimes feel it would be better if different ethnic groups didn't try to mix together". If the participant strongly agreed or agreed to the first statement

and strongly disagreed or disagreed with the last two statements, we classified her as having a strong other-group orientation. This applied to about 70% of the sample.

We include the participant's self-identification as male or female to account for gender. BMI was calculated using self-reported weight and height. Since some participants were reluctant to provide this information or simply were unsure about their height and/or weight, we have BMI data for 431 individuals. To approximate SES we use age, monthly income, education and marital status. For security reasons participants were often reluctant to give information about their personal and household income. Data on personal monthly income cover 362 participants, data on household income cover only 309 participants. Data on education and age are almost complete, with only 7 participants missing this information; data on marital status are missing for 4 participants. Table 2.1 summarizes the characteristics of each ethnic and gender group.

	Afro-Trini	Indo-Trini	Difference	Male	Female	Difference
Mean Age	39.81	40.93	-1.12	39.58	40.62	-1.04
Mean BMI	28.85	27.02	1.84**	27.10	29.07	-1.97***
Share of participants that is						
overweight	0.67	0.55	0.12**	0.57	0.65	084*
$_{ m female}$	0.59	0.54	0.06			
Afro-Trini				0.64	0.70	-0.05
Indo-Trini				0.36	0.30	0.05
$\operatorname{married}$	0.45	0.55	-0.10**	0.45	0.50	057
urban	0.50	0.47	0.03	0.49	0.49	0.00
aware of health issues	0.17	0.25	-0.09**	0.14	0.24	0.10***
Share of participants with a						
university degree	0.25	0.23	0.02	0.19	0.29	-0.10**
own income $> 8000 \text{ TTD}$	0.23	0.13	0.10**	0.22	0.18	0.04
${\rm HH~Income} > 20'000~{\rm TTD}$	0.16	0.12	0.04	0.18	0.13	0.05
Strong Ethnic ID	0.43	0.34	0.09*	0.45	0.37	0.08*
Strong Other-group Or.	0.70	0.68	0.02	0.68	0.71	-0.02

<sup>\*</sup>p<0.1 \*\*p<0.5 \*\*\*p<0.01

Table 2.1: Description of data

A participant's body perception was measured using the 9 item Figure Rating Scale (FRS; Stunkard, Sorensen, & Schulsinger, 1983) shown in Figure 2.1. On the FRS the first drawing is associated with a BMI that is medically bordering underweight, drawings 2-4 are considered normal weight, drawings 5-6 are considered overweight and drawings 7-9 represent obese body shapes<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>Detailed BMI data that correspond to each figure are given in appendix B, Table 1.

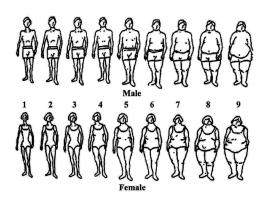


Figure 2.1: Figure Rating Scale (Stunkard et al., 1983)

Participants were handed a print out of the scale, read out a number of statements, and were to point at the figure(s) they felt matched the statement best on the male and/or female scale. Statements included:

- 1. Indicate the body shape you would like to have.
- 2. Indicate your own body shape.
- 3. This person has an ideal body shape.
- 4. This is the most healthy person.
- 5. This is a slim person.
- 6. This is an overweight person.
- 7. This is an unhealthy person.

We will compare the average shapes on the FRS (1-9) that individuals in each group felt matched each statement best. We will refer to statement 1 as the participant's "preferred shape", and to statement 2 as the participant's "actual shape".

In a second step, we look at explicit stigmatization using statements that associate overweight and obesity with different personal characteristics: laziness, poverty, male power, lack of self-control, female prestige and contentment. We identify a participant's agreement with each statement, using the four item scale ranging from "strongly disagree" to "strongly agree". Statements included:

- 8. People are overweight because they are lazy.
- 9. Obesity is what happens when people do not have self-control.
- 10. Weight gain is a sign of contentment

and happiness.

- 11. For a woman a thick body is prestigious.
- 12. A thick man is a powerful man.
- 13. Being overweight is a sign of poverty.

These statements are adapted from a larger set of statements frequently used in cultural consensus analysis regarding fat stigma (Brewis, 2011), body attitudes (Dressler et al., 2008) and nutrition habits (Brewis & Gartin, 2006).

We first calculate mean responses to each statement and discuss how the answers relate to medical measures of overweight and obesity. We also draw on international comparisons when possible, using studies assembled by Brewis (2011).

We then estimate the following equations using Ordinary Least Squares analysis:

$$BS = c + \alpha A fro - Trini + \beta female + \gamma SES + \delta CV + u, \tag{2.1}$$

$$BS = c + \alpha (Afro - Trini * StrongEthnicID) +$$
$$\beta female + \gamma SES + \delta [CV] + u, \quad (2.2)$$

$$BS = c + \alpha (Afro - Trini * StrongOther - groupOrientation) +$$
$$\beta female + \gamma SES + \delta [CV] + u, \quad (2.3)$$

$$BS = c + \alpha (Afro - Trini * female) + \beta [SES] + \gamma [CV] + u,$$
(2.4)

$$BS = c + \alpha (female * StrongEthnicID) +$$
$$\beta A fro - Trini + \gamma SES + \delta [CV] + u, \quad (2.5)$$

$$BS = c + \alpha (female * StrongOther - groupOrientation) +$$
$$\beta A fro - Trini + \gamma SES + \delta [CV] + u, \quad (2.6)$$

where BS is the average body size chosen by participants in response to statements 1-6, and Afro-Trini is an indicator variable that equals 1 if the participant self-identified as Afro-Trini and 0 if he self-identified as Indo-Trini. StrongEthnicID(StrongOther - groupOrientation) equals 1 if the participant showed a strong ethnic identity (other-group orientation). The indicator variable female equals 1 if the participant is female and 0 if he is male. The vector SES contains the participant's age, an indicator variable which equals 1 if the person has a university education and 0 otherwise, as well as an indicator variable which equals 1 if the person is married or lives in a common law relationship<sup>2</sup>. We include the participant's education instead of income since the two are significantly correlated (corr=0.30\*\*\* with HH income, corr=0.29\*\*\* with personal income) but income data are often missing. We also include a vector containing the following control variables: the participant's BMI since it is possible that larger people also have larger ideals; an indicator variable that equals 1 if the participant knew the enumerator personally and 0 otherwise; as well as indicator variables for each enumerator and each location; further, the number of statements a person has answered with "strongly agree" and "strongly disagree" in order to control for extreme answers.

From a medical point of view, statement 7, "This is an unhealthy person", applies to underweight as well as to overweight and obese people. We therefore first use t-testing to compare the shares of Afro- and Indo-Trinis (females and males) that associate at least one of the figures in each weight category (underweight (1)/normal weight (2, 3, 4)/overweight (5, 6)/obese (7, 8, 9)) with being unhealthy. In order to analyze if ethnicity and gender correlate with the likelihood to consider at least one of the overweight shapes unhealthy, we use logistic regression analysis and estimate the following equations:

$$P(unhealthy) = c + \alpha A fro - Trini + \beta female + \gamma [SES] + \delta [CV] + u, \quad (2.7)$$

<sup>&</sup>lt;sup>2</sup>A common-law relationship refers to unmarried, heterosexual couples, who are living as husband and wife and have rights according to the Cohabitational Relationships Act and the Distribution of Estates Act.

$$P(unhealthy) = c + \alpha(Afro - Trini * StrongEthnicID) + \beta female + \gamma SES + \delta[CV] + u, \quad (2.8)$$

$$P(unhealthy) = c + \alpha(Afro - Trini * StrongOther - groupOrientation) + \beta female + \gamma SES + \delta[CV] + u, \quad (2.9)$$

$$P(unhealthy) = c + \alpha(Afro - Trini * female) + \beta[SES] + \gamma[CV] + u,$$
(2.10)

$$P(unhealthy) = c + \alpha(female * StrongEthnicID) + \beta Afro - Trini + \gamma SES + \delta[CV] + u, \quad (2.11)$$

$$P(unhealthy) = c + \alpha(female * StrongOther - groupOrientation) + \beta A fro - Trini + \gamma SES + \delta[CV] + u, \quad (2.12)$$

where P(unhealthy) is the likelihood that the participant considered at least on of the overweight figures on the FRS unhealthy and all other variables remain as above. To analyze explicit stigmatization, we first use t-testing to determine if the share of participants that (strongly) agrees with statements 8-13 differs between the ethic (gender) groups. We then use the logistic model described in (2.7) - (2.12), where now the dependent variable is the likelihood that a participant (strongly) agreed with statements 8-13.

## 2.2.1 Hypotheses

If people of African descent prefer being large, as was argued by Randall (2012) and Gentles-Peart (2018), we expect to find that Afro-Trini culture is less negative or more positive in attitude towards larger bodies than Indo-Trinis. If this is the case, Afro-Trinis should choose larger shapes than Indo-Trinis on the FRS to represent the ideal body, the healthiest body, the slim and overweight body, and the shape they would like to have.

Further, they should be more likely to consider the underweight and normal weight

shapes unhealthy than Indo-Trinis and less likely to consider the overweight/obese shapes unhealthy. Effects should be larger for Afro-Trinis with a strong ethnic identity and/or lower other-group orientation. We would also expect Afro-Trinis to be less likely to explicitly stigmatize overweight and obesity, i.e. they should be less likely to agree with the statements associating overweight or obesity with laziness, poverty, and lack of self-control and they should be more likely to agree with the statements associating overweight or obesity with contentment, female prestige, and male power. With respect to gender, we expect women to prefer smaller shapes than men. Further, if body preferences correlate with economic prosperity (Sobal & Stunkard, 1989; Ezzati et al., 2005; McLaren, 2007), we would expect that people of lower income prefer larger shapes while those with a high income prefer slimmer shapes.

#### 2.3 Results

### 2.3.1 Implicit associations with overweight and obesity

Figure 2.2 and Figure 2.3 plot the average body shapes chosen by survey participants in response to statements 1 - 6. Statistically significant differences (p<0.1) are bold and red lines in Figure 2.2 show how results compare internationally by indicating the minimum, maximum and mean preferred shape reported in all 39 studies listed in Brewis (2011, pp. 157-160).

Participants indicated a mean actual body shape of 4.77 on the FRS and this does not differ significantly between the two ethnic groups, nor between males and females. In terms of BMI, this would approximately equal a value of 25 – 26, being slightly overweight. However, the actual mean BMI of the survey participants is 28.24 which would more likely correspond to a figure just between number 5 and 6 on the FRS. So in general, participants associated a smaller figure with their current body than they actually had. Further, the average preferred shape was only around 4.12, which is significantly smaller than the mean actual shape of 4.77 (p=0.000). This was significant in all subgroups (see appendix B, Table 2) and indicates that the average participant

would like to be slimmer.

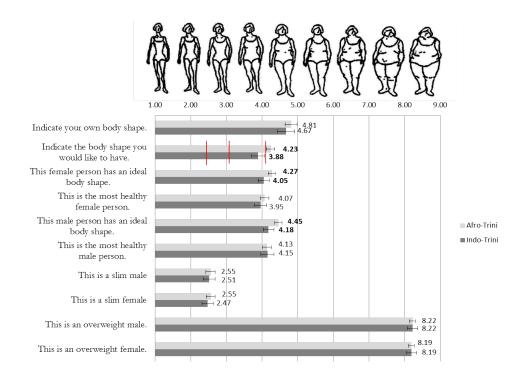


Figure 2.2: Average body shapes chosen in response to each statement, by ethnic group. Statistically significant differences (p<0.1) are bold, red lines show how results compare internationally by indicating the minimum, maximum and mean preferred shape reported in all 39 studies listed in Brewis (2011, pp. 157-160).

Figure 2.4 shows a scatter plot of the average BMI and preferred shape of our own data on Afro-Trinis (red) and Indo-Trinis (green), as well as each sample listed in Brewis (2011), which covers a variety of geographical regions. The orange line shows the cut-off between normal weight and overweight according to BMI. In international comparison the average preferred shape in our sample is very large, at around 4 on the FRS. In Brewis (2011) the largest preferred shape is 3.9 on the FRS and was found for Moroccans living in the Netherlands, but in general this value was between 2.5 and 3 on the FRS, rather than 4. In Figure 2.4 there seems to be an almost linear relationship between the samples' average BMI and the preferred shape for those cases, in which the average shape was below the cut-off between overweight and normal weight (i.e. a BMI below 25). But the relationship is less clear beyond this cut off. Considering the comparatively advanced economic development and the widespread influence of



Figure 2.3: Average body shapes chosen in response to each statement, by gender group. Statistically significant differences (p<0.1) are bold.

American media in Trinidad, we would expect that Trinidadians prefer comparably slim shapes, if media exposure and economic development were the main drivers of body preferences. This, however, is not the case.

We find that there was a significant difference between the shapes that Indo-Trinis and Afro-Trinis (females and males) preferred and considered ideal. Females (Indo-Trinis) on average chose preferred and ideal shapes that were significantly smaller than the ones chosen by males (Afro-Trinis). There are also significant gender differences with respect to what is considered the most healthy body shape, and this difference is significant for male healthy shapes and just above the 10% significance level in the female case. There were no significant differences between the ethnic groups with respect to the healthy shapes. In general, shapes that are perceived healthy correspond to BMIs that indeed fall within the range of medical normal weight.

Further, there were also interesting differences between what participants thought

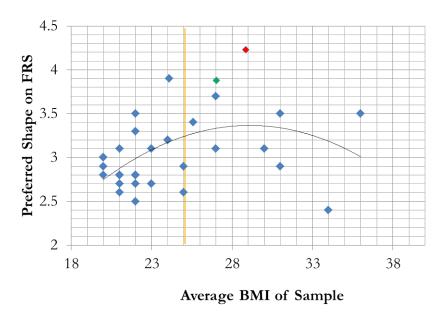


Figure 2.4: Preferred shape and BMI. Source: Brewis (2011) and own data. Afro-Trinis represented by red dot, Indo-Trinis by green dot. The yellow line shows the cut-off between normal weight and overweight.

was an ideal shape and what they considered the most healthy shape. The difference between the male ideal and male healthy shape is positive and significant in all subgroups, except for the Indo-Trinis (see Table 3 in appendix B). The difference between the female ideal and female healthy shape is positive and significant only for males and Afro-Trinis (see Table 4 in appendix B). In other words, on average participants were aware that a slimmer shape is healthy, but considered larger shapes ideal.

Participants were also asked to indicate all shapes they thought represented an overweight and a slim person. On average both ethnic and gender groups chose the eighth body shape on the FRS to represent an overweight female and male. This shape actually corresponds to a BMI of more than 38 and would be classified as obesity class II, which is linked to a very high risk for type 2 diabetes, hypertension, and Cardio Vascular Disease (US Department of Health & Human Services: National Heart, Lung and Blood Institute, 2019).

Figure 2.5 and Figure 2.6 illustrate the share of participants that thought at least one figure in each weight category was unhealthy (multiple responses were allowed).

We observe no significant differences between the ethnic groups and only with respect to the normal weight male is there a significant difference between females and

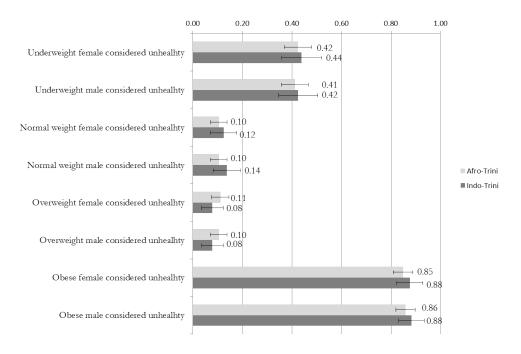


Figure 2.5: Share of participants in each ethnic group that considered at least one figure in each weight category unhealthy. Multiple responses were allowed. Statistically significant differences (p<0.1) are bold.

males. In general, the share of participants who considered at least one of the overweight shapes (numbers 5 and 6 on the FRS) unhealthy was only between 8% and 12%. On the other hand, between 38% and 46% correctly identified the underweight body shape (number 1 on the FRS) as unhealthy and between 84% and 88% considered the obese shapes unhealthy (numbers 7-9 on the FRS). The share of participants who correctly identified the underweight body shapes as unhealthy is much larger than the share of participants who identified at least one of the overweight body shapes as unhealthy. More strikingly, a larger share of males considered the normal weight shapes unhealthy than the overweight shapes, and this difference is significant at the 10% level for female shapes and at the 5% level for male shapes.

When participants were asked to indicate all shapes they think are overweight, only about 4% of the survey population checked number 5 on the FRS, and only about 20% of the survey population checked number 6 on the FRS to represent an overweight female and male shape. Further, only about 10% of the sample correctly identified at least one of the overweight shapes as an unhealthy shape and more than 10% did not consider the obese shapes unhealthy. The share of Indo-Trinis that considered the

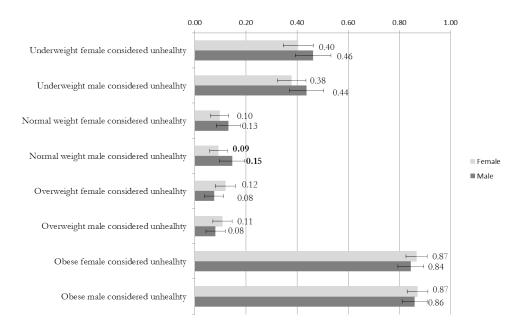


Figure 2.6: Share of participants in each gender group that considered at least one figure in each weight category unhealthy. Statistically significant differences (p<0.1) are bold. Multiple responses were allowed.

normal weight shapes unhealthy is actually slightly larger than the share of Indo-Trinis that thought overweight shapes are unhealthy.

## 2.3.2 Explicit associations with overweight and obesity

Figure 2.7 and Figure 2.8 illustrate the share of participants in each ethnic and gender group that agreed with statements 8-13. There are more significant differences between the shares of females and males that agree with the statements, than between the shares of Indo- and Afro-Trinis. The two ethnic groups only differ in their agreement with respect to the statement "People are overweight because they are lazy". As expected, the share of Afro-Trinis agreeing is significantly lower than the share of Indo-Trinis, i.e. 31% and 43% respectively.

Brewis (2011, p. 164) also finds differences between various groups with respect to this reply: the majority of survey participants in northern Mexico, urban Paraguay and American Samoa thought this statement was true while the majority in eight other samples thought the statements was false.

It is interesting to observe that the share of participants who agree with the state-

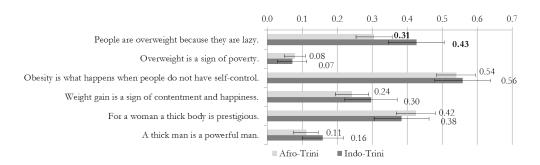


Figure 2.7: Share of participants in each ethnic group that agreed with each statement. Statistically significant differences (p<0.1) are bold.



Figure 2.8: Share of participants in each gender group that agreed with each statement. Statistically significant differences (p<0.1) are bold.

ment "Overweight is a sign of poverty" is very low in both ethnic groups, about 7-8%, and is comparable to what Brewis (2011) found: in all samples the majority believed this statement to be false. On the other hand, the share of participants in our sample agreeing that "Obesity is what happens when people do not have self-control" is very high in both groups - between 54% and 56%. One could argue that poverty is an external circumstance in the sense that an individual is less able to change poverty, than it is able to change being lazy or having no self-control. Our results would hence support the notion that overweight and obesity seem to be perceived as moral personal failings, as something the individual has control over, rather than the result of external circumstances.

About 25% of the participants agreed with the statement that "Weight gain is a sign of contentment and happiness" and this compares to the findings in Brewis (2011): in all samples the majority thought the statement was false.

There are no significant differences between the ethnic groups in agreeing with "For

a woman a thick body is prestigious" and "A thick man is a powerful man". However, in both groups more participants associated a positive characteristic (prestige) with thickness in the female case (38% - 42%), than a positive characteristic (power) with thickness in the male case (11% - 16%). This indicates that positive and negative associations with fatness are not independent of context but, for example, are linked to gender roles. In all of the samples gathered by Brewis (2011) the majority thought both statements were false.

In summary, gender differences are greater than ethnic differences: in five out of six statements there were significant differences between the sexes, and in each case the share of males agreeing with a statement is larger than the share of females. This would imply that males in general are more likely to stigmatize than females, irrespective of whether or not it is a positive or negative association with overweight. The difference was greatest for the statement "For a woman a thick body is prestigious" (34% and 51% of females and males agreed, respectively).

## 2.3.3 Regression Analysis: Body Perception<sup>3</sup>

Table 2.2 shows the coefficients of ethnicity and gender variables resulting from the OLS estimation of equation (2.1). Controlling for age in years, BMI, marital status and education, we find that on average Afro-Trinis chose significantly larger preferred shapes, ideal shapes and healthy female shapes than Indo-Trinis and females on average chose smaller preferred, ideal and healthy shapes than males (see also column 1 in Tables 5, 7, 9, 11 & 13 in appendix B).

Tables 2.3 & 2.4 show the results of interacting the ethnicity variable with the strength of a person's ethnic identity and other-group orientation as described in equations (2.2) and (2.3). The ethnicity effect was neither reinforced nor lessened by the strength of the participant's ethnic identity or other-group orientation (see also columns 2 and 3 in Tables 5, 7, 9, 11 & 13 in appendix B).

On the other hand, females with a strong ethnic identity, regardless of whether

<sup>&</sup>lt;sup>3</sup>An extended regression output is given in appendix B, Tables 5 - 33.

	Preferred Shape	Female Ideal	Male Ideal	Healthiest Female	Healthiest Male
Afro-Trini Participant	0.357***	0.272**	0.321***	0.231*	0.087
	0.12	0.11	0.11	0.13	0.13
Female	-0.390***	-0.261***	-0.291***	-0.242**	-0.354***
	0.11	0.09	0.1	0.11	0.11
Observations	405	389	386	373	373
R-Squared	0.26	0.22	0.18	0.17	0.23
Adj. R-Squd	0.18	0.12	0.08	0.07	0.13

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV: Married, BMI, Age in Years, University Degree, personal acquaintance with enumerator, indicator variables for location and enumerator, number of extreme answers

OLS analysis, dependent variable: average body shape chosen in response to statements 1, 3, and 4.

Table 2.2: Ethnicity, gender and body preferences

	Preferred Shape		Femal	e Ideal
Afro-Trini Participant	0.253*	0.381*	0.280**	0.392**
	0.15	0.2	0.14	0.18
Afro-Trini Participant x Strong Ethnic ID	0.216		0.025	
	0.23		0.21	
Afro-Trini Participant x Strong Other-group Orientation		-0.02		-0.167
		0.24		0.21
Observations	396	403	381	387
R-Squared	0.27	0.26	0.22	0.22
Adj. R-Squd.	0.18	0.17	0.11	0.12

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV: Married, BMI, Age in Years, University Degree, personal acquaintance with enumerator, indicator variables for location and enumerator, number of extreme answers.

OLS analysis, dependent variable: average body shape chosen in response to statements 1 and 3.

Table 2.3: Ethnic identity, other-group orientation, preferred and female ideal shapes

they were Afro- or Indo-Trini, chose a larger preferred shape, male ideal and healthy male shape than females with a weak ethnic identity. The strength of other-group orientation had no significant relation with these body preference (Tables 2.5 & 2.6, see also Tables 6, 8, 10, 12 & 14 in appendix B).

We also find that the correlation between a strong ethnic identity and males' body preferences was consistently negative, but significant only with respect to the male ideal, represented by the coefficient of "Strong Ethnic ID" in column 2 in Tables 6, 8, 10, 12 & 14 in appendix B .

There were no ethnic differences with respect to what is considered a slim or overweight female and male, but there was a gender difference: females that strongly identi-

	Male Ideal		Healthiest Female	
Afro-Trini Participant	0.339**	0.411**	0.184	0.295
	0.14	0.19	0.16	0.21
Afro-Trini Participant x Strong Ethnic ID	-0.019		0.058	
	0.21		0.24	
Afro-Trini Participant x Strong Other-group Orientation		-0.146		-0.092
		0.22		0.24
Observations	378	384	365	371
R-Squared	0.19	0.19	0.19	0.17
Adj. R-Squared	0.08	0.08	0.08	0.06

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV: Married, BMI, Age in Years, University Degree, personal acquaintance with enumerator, indicator variables for location and enumerator, number of extreme answers.

OLS analysis, dependent variable: average body shape chosen in response to statements 3 and 4.

Table 2.4: Ethnic identity, other-group orientation, male ideal and healthy female

fied with their ethnic group chose a figure on the FRS to represent a slim male that was on average half a shape larger than what their counterparts with a weak ethnic identity chose (Tables 16 - 23 in appendix B). There were no ethnic differences with respect to the likelihood to consider the overweight female and male shapes unhealthy (Tables 24 & 26 in appendix B). However, Table 2.7 shows that females were consistently more likely to consider the overweight shapes unhealthy when they only identified weakly with their respective ethnic group or had little other-group orientation, compared to men who identified weakly with their respective ethnic group or had little other-group orientation (see also Tables 25 & 27 in appendix B).

With respect to the influence of SES on body preferences we find that education only had a consistent and significant correlation with what is considered an overweight female. What participants with a university education considered an overweight female was on average about 0.2 shapes smaller than what those with no university education thought was an overweight female (Tables 18 & 19 in appendix B). There is also a consistently negative and significant correlation between age and the choice of the male ideal, the most healthy shapes as well as what participants considered a slim shape (Tables 9 - 14 & 20 - 23 in appendix B). Further, independent of age, there is a consistently negative and significant correlation between being married and the

	Preferred Shape		
Female	-0.526***	-0.440**	
	0.14	0.19	
Female x Strong Ethnic ID	0.359*		
El Ct Oth O-it-ti	0.21	0.075	
Female x Strong Other-group Orientation		$0.075 \\ 0.22$	
Observations	396	403	
R-Squared	0.28	0.26	
Adj. R-Squared	0.19	0.17	

 $Standard\ errors\ in\ italics,\ *p<0.10\ ***p<0.05\ ****p<0.01$   $CV:Married,\ BMI,\ Age\ in\ Years,\ University\ Degree,\ Afro-Trini$   $indicator\ variables\ for\ location\ and\ enumerator,\ number\ of\ extreme\ answers.$   $OLS\ analysis,\ dependent\ variable:\ average\ body\ shape\ chosen\ in\ response\ to\ statement\ 1.$ 

Table 2.5: Gender, ethnic identity, other-group orientation and preferred shape preferred and ideal shapes (Table 2.8 in this section and Tables 5 - 10 in appendix B).

	Male Ideal		Healthie	st Male
Female	-0.445***	-0.480***	-0.555***	-0.397**
	0.13	0.18	0.15	0.2
Female x Strong Ethnic ID	0.430**		0.426*	
	0.19		0.22	
Female x Strong Other-group Orientation		0.267		0.078
		0.21		0.24
Observations	378	384	365	371
R-Squared	0.2	0.19	0.25	0.23
Adj. R-Squared	0.1	0.09	0.14	0.13

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV:Married, BMI, Age in Years, University Degree, Afro-Trini

indicator variables for location and enumerator, number of extreme answers.

OLS analysis, dependent variable: average body shape chosen in response to statements 3 and 4.

Table 2.6: Gender, ethnic identity, other-group orientation, ideal and healthy male shapes

	Overwei	ght Female	Overweight Male		
Female	2.932*	5.950*	2.760*	6.034*	
	1.77	5.54	1.69	5.59	
Female x Strong Ethnic ID	0.318		0.43		
	0.26		0.36		
Female x Strong Other-group Orientation		0.177*		0.170*	
		0.19		0.18	
Observations	282	284	245	246	

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV: Married, BMI, Age in Years, University Degree, Afro-Trini

indicator variables for location and enumerator, number of extreme answers.

Logistic regression, exponentiated coefficients, dependent variable: likelihood to consider one of the overweight shapes unhealthy.

Table 2.7: Gender and likelihood to consider the overweight shape unhealthy

	Preferred Shape	Female Ideal	Male Ideal
Married	-0.276***	-0.177*	-0.168*
	0.1	0.09	0.1
Observations	405	389	386
R-Sq.	0.26	0.22	0.18
Adj. R-Sq.	0.18	0.12	0.08

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

CV: Female, Afro-Trini, BMI, Age in Years, University Degree

indicator variables for location and enumerator, number of extreme answers.

OLS analysis, dependent variable: average body shape chosen in response to statements 1 and 3.

Table 2.8: Being married and body preferences

## 2.3.4 Regression Analysis: Stigmatization of overweight and obesity

Controlling for age in years, BMI, marital status and education we do not find that there is a systematic difference between how Indo- and Afro-Trinis stigmatize overweight and obesity, but that females are often less likely than males to stigmatize in general (see appendix B, Tables 28 - 33, column 1). For example, females are significantly less likely than males to agree that "For a woman a thick body is prestigious" and that "A thick man is a powerful man" (Tables 31 & 32 in appendix B). This parallels the findings by Thompson and Kumar (2011) who show that males seem to be more likely to resist health messages, hence they would be more likely to adhere to medically rather unhealthy body concepts. Further, males who strongly identify with their ethnic group are more likely to agree that "Obesity is what happens when people do not have self-control" compared to when they do not strongly identify with their group (Table 30, column 5, in appendix B).

	1	2	3
Afro-Trini Participant	0.665	0.553*	0.692
	0.18	0.19	0.31
Afro-Trini Participant x Strong Ethnic ID		1.889	
		1	
Afro-Trini Participant x Strong Other-group Orientation			0.87
			0.46
Observations	405	396	403

Exponentiated coefficients; Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

Logistic regression analysis; CV: Female, Married, University Education, BMI, Age in Years

Table 2.9: Ethnicity and likelihood to agree that "People are overweight because they are lazy."

We also find that a strong other-group orientation in males is associated with a significant decrease in the likelihood to agree that "People are overweight because they are lazy" compared to males who do not have such a strong other-group orientation (Table 29 in appendix B, column 6).

There is some evidence that Afro-Trinis with a weak ethnic identity may be less

likely to agree that "People are overweight because they are lazy" than Indo-Trinis with a weak ethnic identity. A strong other-group orientation had no significant relation with the likelihood to agree with this statement (Table 2.9 in this section and columns 2 - 3 in Table 29 in appendix B).

How SES relates to the likelihood to agree with each statement varies widely. We find a consistently negative correlation between age and the likelihood to agree with "For a woman a thick body is prestigious" (Table 31 in appendix B). There is also some evidence that having a university degree was associated with a reduction of the likelihood to agree that "Obesity is what happens when people do not have self-control" (Table 30 in appendix B), "For a woman a thick body is prestigious" (Table 31 in appendix B), and "A thick man is a powerful man" (Table 32 in appendix B). Being married only significantly correlated with the likelihood to agree with "A thick man is a powerful man" (Table 32 in appendix B) — married participants were about 60% less likely to agree. None of the variables we considered significantly correlated with the likelihood to agree that "Weight gain is a sign of contentment and happiness" (Table 28 in appendix B).

## 2.4 Discussion

Participants systematically underestimated their actual size: the average figure on the FRS chosen to represent the actual body shape was smaller than the one that would have been associated with their current size based on BMI. There are two explanations for this: either people are really not aware of their size, or do not want to acknowledge it, which would lead them to choose a smaller shape to make them seem smaller than they actually are. Or the BMI associated with each FRS drawing is not suitable for all ethnic groups. In this case, people would estimate their true size, but for all drawings on the FRS they would have a higher BMI than suggested by Stunkard et al. (1983). The fact that in 87% of the cases the difference between the size the participant chose for herself, and the size the enumerator estimated, is 0 to +/- 1 would support the latter (see also Carroll et al., 2008 and Lear et al., 2007). Either scenario is relevant

for health policy: in the former case, people underestimating their true size, policy should consider making an effort to enhance bodily perception so people become aware that they have an unhealthy size in the first place. In the latter scenario, simple BMI measurements will not suffice to truly assess the obesity epidemic and react accordingly.

There further seems to be a general underestimation of what overweight and unhealthy shapes look like which may be due to changes in the relative colloquial meaning of the term "normal weight": If most of the population is overweight, then overweight becomes the new normal which from a policy point of view is alarming.

We found that Afro-Trinis prefer and idealize larger sizes than Indo-Trinis. No such difference was found with respect to what both groups considered the healthiest shape. So even though Afro-Trinis know that slimmer is healthier, there is cultural ideal that is significantly larger, right at the medical cut-off between normal weight and overweight which would make this group more at risk of developing overweight. It is also worrisome that neither the strength of a participant's ethnic identity as Afro-Trini, nor a strong interaction with other, presumably slimmer and healthier, groups correlated with this ideal. What we are observing seems to be a broad cultural notion rather than the interpretation of the body done by a few cultural "extremists". Being born Afro-Trini seems to be enough to knowingly adhere to a larger ideal even in the presence of a slimmer peer group. This larger ideal could even be an act of othering, of defining one's own group in contrast to all others – as was argued by Gentles-Peart (2018) and Randall (2012). On the other hand, we only use a subset of all the statements developed by Phinney (1992) to measure the strength of ethnic identity and other-group orientation. A more detailed assessment of these aspects in the context of body attitudes remains an interesting path for future research.

The differences between what is (considered) healthy and what is ideal are small, with a maximum of 0.32 shapes for Afro-Trini males. This would roughly correspond to an increase of 0.73 in personal BMI. At an assumed height of 1.80 meters this equals about 3 kg more. It seems like this shouldn't be much of a concern for policy then. But given the personal nature of the topic and the fact that there is probably a social desirability effect with respect to understating the actual ideal, we assume our results

are underestimating the true difference. And even if the actual difference is small – carrying just a little extra weight every day for an entire life will eventually affect health. Further, as people get older, they gain between 300 – 500 grams per year (Visscher et al., 2009). So an additional three kilograms translates into six to ten years of "normal" age-related weight gain. Since there are no longitudinal data on ideal and perceived healthy shapes yet, there is no way of knowing if and how this difference may be changing. Cultures are dynamic and ideals may change. So this difference may increase or decrease and knowledge about this is crucial for health policy makers.

However, our results show that body perceptions in Trinidad are not only driven by ethnicity, but even more so by gender. In fact, the gender differences we found were often greater than the differences between the two ethnic groups. On average, females chose significantly smaller preferred shapes and ideals than males and were more likely to consider medically overweight shapes unhealthy, especially when they weakly identified with their ethnic group or had little other-group orientation.

But why would the strength of ethnic identity show an effect in gender groups instead of ethnic groups? It is possible that people responded to statements about ethnicity not as Afro-Trini or Indo-Trini but rather as Trinidadian in general. However, we consider this rather unlikely due to the fact that ethnicity is an ever present category in the lives of Trinidadians, in politics, religion and residential areas. We would think it more likely that ethnicity, as a proxy for culture, is something that maybe affecting females due to the nature of the topic: The body, its appearance, as well as concepts of beauty and desirability eventually link back to reproduction and the ability to give birth – which is why cultural norms in this domain may be especially important for women. As Reddock (2014, p. 49) notes, not only in Trinidad, but in "most patriarchal and ethno-national contexts, the control of women's sexuality is central to the construction of ethnic identity and the maintenance of ethnic 'purity'". Interactions of gender, ethnicity and strength of ethnic identity would surely be an interesting subject for future research.

Socio-economic status also influenced body perception though overall in a much less significant way than one would have anticipated (see for example, Banks et al.,

2006). Independent of age there was a consistently negative and significant correlation between being married and the size of preferred shapes and ideals, but not between being married and what were considered healthy shapes. This may reflect the fact that the desire to match the comparably large average Trini ideal is more important to individuals who are searching for a partner, and who therefore want to be very attractive to the other sex. Once they marry and provide for potential offspring, it may be more important to be healthy and hence prefer smaller sizes which may in turn lead them to idealize more healthy shapes. Randall (2012), however, exemplifies the conflicting preferences between African American spouses: "But I know many black women whose sane, handsome, successful husbands worry when their women start losing weight" and how this was framed as the danger of losing "the sugar down below".

Overall it is surprising how little education correlated with our outcome variables: a healthy diet and regular exercise are commonly said to reduce the risk of being overweight. We assume that well educated individuals should be more likely to possess (a) this knowledge, and (b) the means and discipline to employ it. But although the coefficient of the education indicator variable generally has the expected sign, it is hardly ever significant. So either our sample is too small (115 participants with a university degree, 351 participants without) to detect a – presumably very small – effect, or there simply is none. This again raises the question if health policy that aims to educate people about lifestyle factors that enhance health is a good tool to slowing down rising obesity rates. The context in which people live, especially women of African descent, may make it much harder for them to attain a healthy size even if they wish to do so.

Especially concerning from a health policy point of view is the negative and significant correlation between ideal and healthy shapes and the participant's age. This supports what Simeon et al. (2001) found: 'Slim is not in' among adolescents in Trinidad. Although we do not assess adolescents in our sample we find that young participants prefer larger shapes. If international media were spreading a thin ideal and economic development would lead people to adopt slimmer ideals we would expect that younger people idealize and prefer slimmer shapes than older people, since they would probably

be more susceptible to media images and would have lived most of their life in a high income country. Further, it would be plausible to find that older people have larger ideals and body preferences simply because one gains weight over the life span and might adjust own preferences for personal comfort. In fact, we find the opposite. The coefficient of age in years is always negative in sign (for preferred shape, ideals, overweight and slim shapes) or above one (likelihood to consider overweight shapes unhealthy) and it is statistically significant for the male ideal, the healthy shapes, and the slim shapes. At first glance the size of the coefficient may seem very small: an increase in age by one year would result in the participant choosing a 0.006 shapes slimmer healthy male shape. But our sample covers an age range between 18 and 91 years of age and hence allows us to think about this correlation in terms of generations rather than years. If we assume a gap of 25 years between each generation, we roughly cover 4 generations (approximately of age 20, 45, 70 and 95). So while the youngest generation would choose a healthy male shape that is about 0.15 shapes larger than what would have been chosen by the generation of their parents, the difference to the oldest generation (great-grandparents) 1.05 shapes. Now, this simple calculation assumes that the effect is linear, which is debatable. However, we do not find any indication that there is a non-linear relationship between the outcomes and the participant's age (see Table 15 in appendix B).

Further, we might be observing a selection bias: because people consider slim bodies healthy, they are more likely to make an effort to stay slim (and healthy) and hence get older. But this selection bias only applies to the old generations, but the difference is also present between the young generation and their parents. If we assume that, once acquired, body preferences remain relatively stable over the life course, it may indicate that over a long time span the size of a body which is considered healthy has increased significantly, which from a health policy point of view would be alarming. Of course it is possible that body preferences shift over the course of time such that preferences of all ages would be affected by media and economic development. But then the question remains why the same media images and economic advancement lead young people to prefer larger shapes and older people to prefer smaller shapes? Research into the

dynamics of body ideals would certainly support adequate health policy design.

With respect to the explicit stigmatization of overweight and obesity we did not find any compelling and robust evidence that one of the groups stigmatizes more or less than the other. The correlation between the strength of ethnic identity, othergroup orientation and stigmatization was inconsistent. But here also, the differences between how males and females stigmatize (or not) are far more pronounced. Females in general seem less likely to stigmatize overweight and obesity than males. However, we find that whenever the strength of ethnic identity and other-group orientation was significantly correlated with stigmatization, it was for males. Further, only for males were coefficients consistent in the direction of the correlation. Given the private nature of the topic it is quite possible that there is a large social desirability bias in these results and that there is more stigmatization in everyday life than we can detect here. Maybe males are just more likely to admit to it than females. However, in both groups overweight or obesity are perceived to be more a result of personal failure, i.e. the lack of self-control, than the result of circumstances, such as living in poverty, which may be considered to be less within the realm of what can be changed by the individual. This observation is typically paralleled in industrialized nations (Doyal 2006). Some scholars argue that this ultimately is a consequence of economic progress that causes a "shift in personhood from citizen to consumer [which] encourages (over)eating at the same time that neoliberal notions of discipline vilify it" (Guthman & DuPuis, 2006, p. 427)) and Kerrigan (2018, p. 417) with respect to Trinidad shows that the current cultural change in Trinidad facilitates "the individual consenting to top-down definitions of everyday life that obscure social narratives of historical racism, structural poverty, and cumulative disadvantage, and replaces them with neoliberal myth-making, blaming personality, psychology, and dubious morality for social problems and insecurity."

Further, our results reflect what Brewis (2011) found in 11 samples gathered in very different societies: despite rising obesity rates the weight-related stigma is spreading – even to societies that were traditionally considered rather tolerant towards large body sizes. Brewis and Wutich (2014) as well as Puhl and Brownell (2003) ask how it is possible that obesity rates keep rising while, paradoxically, the weight-related stigma

spreads even to societies that are traditionally considered rather fat tolerant. We argue that rising obesity rates in fact could be a precondition for the stigma to be now found in these societies. Our results showed that there can be robust differences between medically ideal bodies and culturally ideal bodies, with the latter being significantly larger and leaning towards medical overweight. This is currently reflected in a debate in Trinidad caused by former health minister Fuad Khan whose attempt to publicly shame a plus-size Carnival masquerader and was met with public outrage and controversy (Santoo, March 9, 2019; Achong, 2019). As long as a society's economic development is such that diets and lifestyle are supportive of bodies that are slimmer or equal to the cultural ideal there is no stigmatization visible, because there simply aren't enough people that substantially surpass the cultural ideal. A change in lifestyle that leads people to gain weight would at first also not lead to stigmatization, because although people may become overweight in a medical sense, they have an ideal body in the cultural sense. It is only when many people become obese that they now are larger than the cultural ideal, too, and stigmatization sets in. So in summary, the question is not if fatness is stigmatized in a society, but more at which level of body size the stigmatization sets in. From a health policy perspective, this has serious implications: While overweight and obesity in developing nations will remain a serious health problem it is also possible that the future will see an increase in eating disorders or extreme weight control behavior as a result of the spreading stigma.

## Chapter 3

## Embodied Trust.

On the consequences of not matching other's ideals.

#### 3.1 Introduction

What do our bodies symbol to others? French sociologist Pierre Bourdieu argued that the human body is a commodity, an articulation of capital, power, and social mobility - the encoding of cultural values (Bourdieu, 1984). Culture can be understood as the "historically transmitted pattern of meanings embodied in symbols" (Geertz, 1973, p. 89). The human body then is a symbol in the sense described by Geertz, the meaning of which is interpreted by members of a social group: they derive conclusions about a person's character from that person's appearance. The body is a biological product just as much as it is a societal one.

There is some evidence that trustworthiness is one of these character traits inferred from body size: Puhl et al. (2013) show, that patients were more likely to mistrust physicians who were overweight or obese. And there is a large literature showing that beauty, of which body size is an aspect, affects trust: Bascandziev and Harris (2014) show how children are more likely to trust informants that are more attractive. Ravina (2007) finds that more beautiful loan applicants are more likely to get a loan and pay less interest rate than others. R. K. Wilson and Eckel (2006) argue that there is a beauty premium in being perceived trustworthy as well as a beauty penalty when beautiful participants fail to live up to enhanced expectations. Further, Andreoni and Petrie (2008) show how players in a public goods experiment expect beautiful people to be more cooperative. On a more general level, to be trusting is a process of evaluating another human being (i.e. decoding the other's appearance), hence trust

and trustworthiness are a form of social capital that is literally "embodied".

While the literature has focused on Western countries, there is compelling anthropological evidence that what constitutes the ideal, desirable, or attractive body has historically been one of the most varied aspects of human culture (Brown & Konner, 1987; Sobal & Stunkard, 1989). It is not only body ideals that differ, but also what is associated with body size: "[i]n much of the industrialized West (...) slimness is associated with health, beauty, intelligence, youth, wealth, attractiveness, grace, selfdiscipline, and goodness (...), [f]atness and obesity are by contrast associated with ugliness, sexlessness, and undesirability but also with specifically moral failings, such as a lack of self-control, social irresponsibility, ineptitude, and laziness" (Brewis et al., 2011, p. 269). It is well documented that the stigmatization of obese people can have consequences for individuals in Western societies, and these include but are not limited to: eating disorders (Durso et al., 2012; Sussman & Truong, 2011; K. H. Gordon et al., 2010), discrimination in everyday interactions (Puhl & King, 2013; Puhl & Brownell, 2003; Puhl & Heuer, 2009; Puhl et al., 2009; Williams et al., 2008), as well as at the work place (Andreoni & Petrie, 2008; Ding et al., 2005; Finkelstein et al., 2007; Larose et al., 2016; Mobius & Rosenblat, 2006; Jusot et al., 2008; Caliendo & Gehrsitz, 2016; Caliendo & Lee, 2013; Cawley et al., 2009; Maestripieri et al., 2017; Powroznik, 2017).

However, anthropological data on cultural norms in a range of societies suggest that, historically, many groups have had a preference for larger bodies especially in women (Becker, 1995; Popenoe, 2005; Sobo, 1993), and many also have no concept of excess fat as a bad thing (Brewis, 2011, p. 86). Yet surprisingly, while obesity rates have been rising globally for the past 40 years, the stigmatization of obese people has spread to societies that are traditionally considered rather "fat-tolerant". And little is known about the consequences of the stigma in these societies, especially with respect to trust.

The need to understand the mechanisms that are beneath this paradox is great: rising obesity rates lead to tremendous social and economic cost, especially in developing nations (Lehnert et al., 2013). Yet policy that addresses this problem has so far often failed. We argue that this is due to a lack of understanding the social meaning of bodies and the implicit inability to adequately design health policy and have appropriate expectations about the successes and failures of such policies. If societies are "fat-tolerant", such that being larger is better, then health policy promoting weight loss schemes will likely fail. As African-American author Alice Randall (2012) writes: "too many experts who are involved in the discussion of obesity don't understand something crucial about black women and fat: many black women are fat because we want

to be." If larger bodies are associated with positive aspects such as trustworthiness, health policy that aims to convince people to lose weight will likely fail, because it does not take into account the social cost of becoming skinny: losing weight means losing trustworthiness.

Our earlier work in Trinidad, Republic of Trinidad and Tobago (T&T), showed that preferred and ideal body sizes are large in comparison to other societies, especially with respect to Afro-Trinis (Waske & Vollmer, 2019). This study shows how such ideals can have effects on everyday interactions: it measures levels of trust depending on body size in the context of Trinidad. We use survey data of a sample of 469 participants, as well as 66 investment decisions, and responses to a post-decision questionnaire elicited in a trust game played by Indo- and Afro-Trinidadians participants, the two main ethnic groups.

In economics, trust games (see Berg et al., 1995) are frequently used to estimate how trusting and trustworthy people are in different contexts (Burns, 2006; Gil-White, 2004; Barr, 2003; Croson & Buchan, 1999; Berg et al., 1995). In general, the difference between being trusting and being trustworthy depends on the direction of trust between two people: for person A to be trusting means that A has trust in another person B; for A to be perceived trustworthy means that B assumes he can trust A.

We add to the literature by narrowing down beauty to body size and relating it to measures of trust. While beauty is a vague concept because it lies in the eye of the beholder, body size is an aspect of beauty but yet a more tangible concept that can be measured quite well using a Figure Rating Scale (FRS, see Figure 3.1) and which can be directly linked to potential health consequences. Further, empirical insights into the effects of stigmatization of obese people will help form more realistic expectations about stigmatization and its consequences which individuals in developing nations face – and what this implies for health policy.

We aim to answer the following questions:

- 1. Are higher levels of trust associated with being large in this society? Specifically,
  - (a) ...do participants trust large people more than skinny ones?
  - (b) Are large people more likely to be perceived trustworthy?
  - (c) Are large people assumed to be more trusting?
- 2. Are there ethnic or gender differences in the answers to these questions?

## 3.2 Method and Hypotheses

We use a trust game as described by Berg et al. (1995) to measure trust and trustworthiness. Prior to the experiment, we surveyed 469 individuals in two communities in northern Trinidad, San Juan and D'abadie, between April and May 2017 (see Waske & Vollmer, 2019). The former community is more urban and close to the capital, Port of Spain, the latter is somewhat more rural, about half an hour drive away from the capital. Three hundred and sixteen participants were Afro-Trini, 153 were Indo-Trini.

When the survey was conducted the security situation in the country was not favorable: people would be too cautious to talk to strangers coming to their house, or would not answer their door. For this reason we used random sampling going to every third house in randomly selected streets but also sampled at locations with lots of foot traffic, including industrial compounds, shopping streets, a hospital waiting area, a school, a church, and a super market. At the end of the survey, participants indicated if they were willing to participate in an experiment and were given several dates, each one on a weekend, to indicate their availability. All experimental participants took part in the prior survey.

As part of the survey, participants were handed the Figure Rating Scale (Stunkard et al., 1983) shown in Figure 3.1<sup>1</sup>. They were then read out the following statements and asked to indicate the (male and/or female) shape they thought matched each statement best:

- 1. This person has an ideal body shape.
- 2. Indicate your own body shape.
- 3. Indicate the body shape you would like to have.
- 4. I would not engage in a Sou Sou with a person like this.

Participants could also answer that the respective statement did not apply to any or did apply all figures on the FRS. Their responses allow us to asses participants' body preferences and use them in the experimental set up.

<sup>&</sup>lt;sup>1</sup>On the FRS the first drawing is associated with a BMI that is medically bordering underweight, drawings 2-4 are considered normal weight, drawings 5-6 are considered overweight and drawings 7-9 represent obese body shapes.

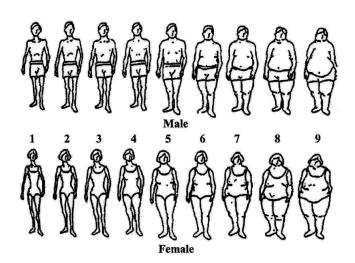


Figure 3.1: Figure Rating Scale (Stunkard et al., 1983)

While the first statement aims to elicit the shape that the participant considers to be ideal, the third statement asks about more realistic expectations the participant has with respect to her own body. It can thus be different from her response in the first statement. For example, people may find it ideal to look like someone they personally admire, but due to genetics, health concerns, age and so forth, the shape they would choose for themselves does not have to be identical with what they think is ideal. The second statement aims to elicit the participant's own current shape.

The fourth statement allows us to form expectations about potential effects of body size on financial trust: A Sou Sou is a Trinidadian informal savings or loan club, run by one individual, the so called Sou Sou hand. Over a fixed time interval all participants in the Sou Sou pay a certain amount of money to the hand, who pays out the total amount to one member of the Sou Sou until all members have received a payout. For example, 3 people, A, B, and C, enter the SouSou (plus the hand) and agree to pay 1000 Trinidad and Tobago Dollars (TTD) per month into the Sou Sou community. In total, 3000 TTD are paid into the Sou Sou each month. All members agree that A receives payout first, B second, and C third. In the first month of the Sou Sou, A, B, and C pay 1000 TTD each and A receives 3000 TTD. In the second month A, B, and C pay 1000 TTD each and B receives 3000 TTD, in the third month A, B, and C pay 1000 TTD each and C receives 3000 TTD. If participants would rather not enter a Sou Sou with individuals of a certain body size, we would expect that this would also correlate with trust levels observed in the trust game.

Survey participants were further asked to indicate on a four-item scale (strongly disagree to strongly agree, no neutral option) if they agreed to the statements "I find

it easier to trust someone who shares my ethnicity" and "I find it easier to trust a slim person than a thick one".

The experiment took place in two school buildings, one in each of the communities in which we conducted the survey, and was carried out in 12 sessions on a Saturday or Sunday between June 10 and July 2, 2017 with 4 – 9 participants in each session. In total 50 Afro-Trinis and 21 Indo-Trinis participated and 66 participants made investment decisions we use in our analysis. Participants who had indicated in the survey that they were generally available were called on Monday, Wednesday and Friday before the experiment and invited to/reminded about the experiment. They were also called about 2 hours before the actual experiment started. Participants received snacks and drinks during the experiment and could earn a safe payout of 60 TTD. However, show-up rates were extremely low. Often out of 35 people who were invited, about 30 people would confirm their attendance only hours before – and eventually only 4 would show up.

As can be expected there are some differences in the characteristics of the survey participants and the participants in the experiment, but none of these differences are significant (see appendix C, Table 34).

In the standard trust game two anonymous players, the proposer and the respondent, each receive an endowment (in our case 30 TTD<sup>2</sup>) from the experimenter. The proposer is then told that he can either keep the endowment, in which case the game is over and both players walk away with 30 TTD; or the proposer can make an investment (of 5 TTD, 10 TTD, 15 TTD, 20 TTD, 25 TTD, or 30 TTD) which is given back to the experimenter, who triples the amount, and then gives it to the respondent. The respondent then decides if and how much he wants to return to the proposer. The socially optimal outcome would be for the proposer to invest everything (30 TTD, tripled by experimenter to equal 90 TTD) and for the respondent to return 60 TTD, so both parties double their endowments and earn 60 TTD each. However, following homo economicus reasoning, the proposer anticipates that the respondent will not return anything, since he can only gain by keeping whatever amount the proposer is investing. Hence, the proposer does not invest at all and both earn only their endowments (30 TTD). The size of the investment sent by the proposers is the measure of trust: the more the proposer trusts the respondent, the larger the investment.

In the standard procedure of this game, the two players have now knowledge about one another. Often participants play the role of the proposer first, are then anonymously matched with another player, and then play the part of the respondent by

<sup>&</sup>lt;sup>2</sup>30 TTD equal about USD 4.40, or twice the official minimum hourly wage in T&T.

responding to the investment sent by the player they were matched with.

The general structure of the game is the same in our setting: all participants played the part of the proposer first (round 1) and then played the part of the respondent (round 2). But contrary to the standard procedure, the proposers in our game were given an information sheet which informed them about the ethnicity (Afro-Trini or Indo-Trini) and the body shape of the respondent, which they played in round 1. The body shape of the respondent corresponded to either shape number 1 and 2 (skinny) or 7 and 8 (thick) on the FRS. The cultural ideal shape lies between figure 4 and 5 on the FRS (Waske & Vollmer, 2019), hence the skinny and thick shapes we use in the experiment are equidistant above and below this ideal. In medical terms, according to BMI, figures 7 and 8 would be considered obese, figure 2 is considered normal weight and figure 1 is just at the cut-off between normal weight and underweight. The sheet also informed the player that the other person is 18 years or older and a resident of T&T.

Further, our experimental design was split up into two groups, Group 0 and Group 1. Of interest for our analysis were investments made by Group 1 participants. In order to truthfully inform Group 1 proposers about the body size of respondents it would have been necessary to invite only participants of the respective size, which would have limited the pool of potential players. Instead, Group 0 participants were selected into Group 0 because they had the relevant body shapes (corresponding to 1, 2, 7, and 8 on the FRS). Group 0 respondents replied to all possible investments. Their responses were recorded and used to reply to investments sent by Group 1 proposers. An example will help illustrate the procedure.

In Group 0, participants A (Indo-Trini, shape 1), B (Afro-Trini, shape 2), C (Indo-Trini, shape 7), and so forth for all ethnicity – body shape combinations, played the part of the proposer first. In the instructions they were given an information sheet that contained only information that applied to all players, A, B and C, such as "The respondent is a resident of Trinidad". This info sheet was for training purposes only and not relevant for the actual analysis. All Group 0 players made their investment decision. Afterwards all participants played the part of the respondent. They were told that an investment had been sent to them, but they would be informed about its size after they had filled out a response sheet (see third column of Table 3.1) in which they were to note for each possible investment how much they would reciprocate, i.e. send back to the proposer. Meanwhile, Group 0 participants were randomly matched with one another by the experimenter. After they had completed the response sheet, they were informed about the size of the investment that had been sent to them by the

matched Group 0 proposer and payouts were made according to their response sheet. For example, A invested 10 TTD, B invested 15 TTD and C invested 20 TTD in round 1. In round 2, they all completed the response sheet. We assume that A completed his sheet as shown in Table 3.1, third column.

Assume your partner sent you an investment of	*	How much would you send back in five dollar notes? If you do not wish to send anything back, please write down "0".
0 TTD	0 TTD	0
5 TTD	15 TTD	10
10 TTD	30  TTD	20
15 TTD	$45~\mathrm{TTD}$	30
20 TTD	60 TTD	40
25 TTD	75TTD	50
30 TTD	90 TTD	60

Table 3.1: Response sheet player A

While A was filling out his response sheet he was matched to C. After A had completed his response sheet he was informed that an investment of 20 TTD (tripled to equal 60 TTD) had been sent to him. From this round he would thus receive 60 TTD -40 TTD =20 TTD. Adding the 30 TTD endowment that all players receive in each round, his total earnings would be 50 TTD.

The response sheets of A, B, C and so forth were then used to determine responses to investments sent by Group 1 proposers. For example, player D was invited to Group 1. He plays the role of the proposer first. In the information sheet he is informed that the respondent is an Indo-Trini of shape 1 on the FRS. D invests 10 TTD. His investment is then matched to player A from Group 0 (shape 1, Indo-Trini), hence he receives 20 TTD as a response.

All Group 1 proposers were thus matched to Group 0 respondents. The size of the investment that Group 1 proposers sent to Group 0 respondents is the first outcome variable we are interested in. When Group 1 participants played the part of the respondent, they were instructed that they could now respond to an investment, but were not given any information about where this investment originated from. In fact, respondents replied to investments of randomly determined sizes that were "sent" by the experimenter and not by a participant.

During the experiment, we administered two post-decision questionnaires. The first post-decision questionnaire (Figure 1 in appendix C) asked Group 1 proposers in round 1 to indicate if they found the respondent described in the info sheet trustworthy on a five item scale from "not at all" to "very". This measure of the respondent's perceived trustworthiness is our second outcome variable. For the purpose of the analysis we summarized their answers as follows: If they ticked item 1 or 2 we classified their answer as "rather not trustworthy", if they ticked item 3 we classified their answer as "neutral", if they ticked item 4 or 5 we classified their answer as "rather trustworthy". The second post-decision questionnaire (Figure 2 appendix C) was administered to Group 1 respondents (round 2) only. Group 1 respondents were asked to reply to investments that had been sent to them, but which were randomly generated. After the response decision, the post-decision questionnaire asked about the assumptions that respondents made about what kind of proposer would send an investment like the one they had received. They were asked if they thought the investment was sent to them by someone rather skinny or rather large. We summarized their response (six item scale) as follows: if they ticked item 1-3 we classified their answer as "rather skinny", if they ticked item 4-6 we classified their answer as "rather large".

In our earlier work we show that Trinidadians are a rather "fat-tolerant" society, that Afro-Trinis on average prefer and idealize larger shapes than Indo-Trinis and that Trinidadian females on average prefer and idealize smaller shapes than males (Waske & Vollmer, 2019). We would thus expect that respondents who are large receive larger investments and are perceived more trustworthy than respondents who are skinny. We further expect this effect to be larger for Afro-Trinis than Indo-Trinis, and smaller for females than males. Andreoni and Petrie (2008) show that beautiful people are expected to be more cooperative in public goods games. If the same expectations apply in a trust game, then we would expect to find that respondents assume that higher investments were sent to them by more beautiful, i.e. larger, people. In other words, respondents would assume that larger proposers are more trusting. Again, we expect this effect to be larger for Afro-Trinis than Indo-Trinis. We also consider the possibility that trust is greater and hence investments are larger when the proposer and respondent share similarities, i.e. are both large or share the same ethnicity or same sex.

To test these hypotheses we use Ordinary Least Squares analysis to estimate the

following:

$$Investment size = c + \alpha Large Respondent + \beta A fro - Trini Respondent +$$

$$\gamma Overweight Proposer + \delta A fro - Trini Proposer +$$

$$\epsilon Female + \zeta [CV] + u, \quad (3.1)$$

where Investmentsize is the size of the investment sent by Group 1 proposers, LargeRespondent equals 1 if the respondent has a body shape corresponding to figure 7 or 8 on the FRS, and 0 if her body shape corresponded to figure 1 or 2 on the FRS; Afro-TriniRespondent equals 1 if the respondent is Afro-Trini, and 0 if she is Indo-Trini; OverweightProposer is an indicator variable that equals 1 if the proposer was medically overweight or obese, and 0 otherwise. Afro-TriniProposer equals 1 if the proposer is Afro-Trini, and 0 if he is Indo-Trini. Female is an indicator variable that equals 1 if the proposer was female, and 0 if he was male.

[CV] is a vector of control variables which includes session fixed effects, the participants' age in years, as well as the indicator variable "University Degree" which equals 1 if the participant had a university degree and 0 otherwise. We also control for employment in a health sector, employment in jobs that may require a certain physique (security guard, laborer, etc.), as well as for any acquaintances between survey enumerators and participants. In the appendix we provide an extended regression output where we report the results of this estimation using session fixed effects (appendix C, Tables 38 - 43), as well as community fixed effects (appendix C, Tables 44 - 49).

We first run the regression only with LargeRespondent, then add control variables and then interact LargeRespondent with each of the following:

OverweightProposer, Afro-TriniRespondent, proposer's BMI (centered at the mean), agreement with the statement "I find it easier to trust a slim person than a thick one", and an indicator P+RshareEthnicity that equals one if proposer and respondent share the same ethnicity and 0 otherwise. This way we want to assess if investments are larger when respondents are large, if only large proposers send larger investments to large respondents, and if potential effects are specific to each ethnic group.

In a second set of regressions instead of *LargeRespondent*, we calculate the absolute value of the distance on the FRS between the respondent's size and the proposer's female ideal, male ideal, own size and preferred size. We then center the distance at the mean (distributions of ideals, preferred and actual body shapes of the experimental participants are given in Figures 3, 4, 5 & 6 in appendix C; mean absolute distances

are shown in Table 37 in appendix C; distributions of centered distances are given in Figures 7, 8, and 9 in appendix C). We then interact LargeRespondent with each of these centered distance measures to account for the direction of the distance. Finally, we interact each distance measure with Afro-TriniRespondent first and second, with P+Rshareethnicity to check if deviations from ideals and preferences have different impacts in the two ethnic groups.

With respect to perceived trustworthiness we employ an ordered logit model in which the likelihood of the respondent to be perceived trustworthy (coded as not trustworthy, neutral, trustworthy) is the dependent variable. We include the same variables and interactions as outlined above and report extended results in the appendix with session fixed effects (Tables 50 - 55 in appendix C) and community fixed effects (Tables 56 - 61 in appendix C).

With respect to the Group 1 respondent's likelihood to assume an investment in round 2 was sent by a large proposer, we use a logit model and estimate the following equation:

$$P(largeProposer) = c + \alpha InvestmentReceived + \\ \beta Afro - Trini + \gamma Female + \delta [CV] + u, \quad (3.2)$$

where P(largeProposer) is the respondent's likelihood to assume that the proposer was large, InvestmentReceived is an amount between 0 and 30 TTD (in 5 TTD intervals) that was randomly generated and sent to the respondent as an investment. Afro-Trini and Female are indicator variables as used above and refer to ethnicity and gender of the respondent. The vector CV contains the respondent's marital status, education, weight status, the size of the investment the respondent invested in round 1 when he played the proposer's part, as well as the respondent's age. An extended regression output with session and community fixed effects is reported in Table 62, appendix C.

## 3.3 Results

In the survey we find that only 10% of all participants agreed that they would find it easier to trust a slim person than a thick one, and around 30% agreed that they would find it easier to trust someone who shares their ethnicity. Further, the vast majority of survey participants, namely more than 87% indicated that the statement "I would

not engage in a Sou Sou with a person like this" did not apply to any of the shapes on the FRS. Given these results, we would expect that body size would have no impact on trust levels observed in the game, and that ethnicity effects would be moderate.

# 3.3.1 Trust and Trustworthiness: Do participants trust large people more than skinny ones? Are large people more likely to be perceived trustworthy? Is the effect specific to ethnicity or gender?

We find that average investments sent to large respondents are not significantly larger than investments sent to skinny respondents. Table 3.2 shows that the coefficient of LargeRespondent is always positive but not significant<sup>3</sup>. Including control variables does not change this finding. Further, overweight or obese proposers did not sent investments that were different from those sent by normal weight proposers (see also Table 38 in appendix C). We also do not find any ethnicity or gender effects and no correlation between investment size and a participant's agreement with the statement "I find it easier to trust a slim person than a thick one" (see Table 3.3 in this section, as well as Table 39 in appendix C).

	1	2	3	4
Large Respondent	3.07	3.61	3.92	3.69
	2.13	2.89	4.68	2.91
Overweight/Obese Proposer		0.98	1.34	
		2.72	5.17	
Large Respondent x Overweight/Obese Proposer			-0.49	
			5.88	
(centered) BMI of Proposer				0.01
				0.22
Large Respondent x (centered) BMI of Proposer				0.14
				0.32
No. of Obs.	66	64	64	64
R-Squared	0.03	0.31	0.31	0.31
Adj. R-Squared	0.02	-0.01	-0.04	-0.03

 $Standard\ errors\ in\ italics,\ *p<0.10\ ***\ p<0.05\ ****\ p<0.01$  OLS analysis, dependent variable: Investment size; Session fixed effects;  $Model\ 1\ without\ controls,\ Model\ 2\ with\ controls$ 

Table 3.2: Investment and overweight

 $<sup>^3</sup>$ Given the small sample size and the fact that sometimes p-values are just above the 10% significance level, we are careful to conclude that there is no significant correlation if we do not detect one. Mean investment and balance tables are given in appendix C, Tables 35 and 36.

	1	2	3
Afro-Trini Respondent	-1.67	0.71	
	2.84	4.26	
Afro-Trini Proposer	1.65	3.52	
	3.19	3.19	
Female	-0.8	0.55	0.22
	3.21	3.08	3.03
Agree: 'Easier to trust slim'	1.18		
	7.25		
Large Respondent x Agree: 'Easier to trust slim'	-8.52		
	9.86		
Large Respondent x Afro-Trini Respondent		-4.45	
		6.04	
${ m P+R}$ share ethnicity			-3.47
			4.76
Large Respondent $x P + R$ share ethnicity			3.12
			5.74
No. of Obs.	63	64	64
R-Squared	0.32	0.32	0.3
Adj. R-Squared	-0.05	-0.03	-0.03

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

OLS analysis, dependent variable: Investment size; Session fixed effects

Table 3.3: Investment and ethnicity

When we use perceived trustworthiness of the respondent as the outcome variable in an ordered logit model, we find that the coefficient of LargeRespondent is always positive and significant. On average, large respondents were more than three to seven times more likely to be perceived trustworthy (opposed to not trustworthy or neutral) compared to skinny respondents (see Table 3.4 in this section and Table 50 in appendix C). In fact, the effect was largest when the proposer was normal weight, as indicated by the coefficient of LargeRespondent in column 3, Table 3.4: when the proposer was normal weight, large respondents were more than 26 times more likely to be perceived trustworthy than skinny respondents. This effect seems quite large and given the small sample size we may add that only 24 participants were normal weight, 14 of whom played large respondents. This means the external validity of this result may be limited. However, the result is in line with the overall findings. As with investment size, we do not find any ethnicity or gender effects on trustworthiness and no correlation between trustworthiness and a participant's agreement with the statement "I find it easier to trust a slim person than a thick one" (see Table 51 in appendix C).

	1	2	3	4
Large Respondent	3.41**	7.82**	26.30**	7.41**
	1.67	6.56	36.72	6.17
Overweight/Obese Proposer		0.45	1.66	
		0.32	2.24	
Large Respondent x Overweight/Obese Proposer			0.16	
			0.26	
(centered)BMI of Proposer				1.01
				0.05
Large Respondent x (centered)BMI of Proposer				0.95
				0.08
No. of Obs.	66	64	64	64

 $Standard\ errors\ in\ italics,\ ^*p<0.10\ ^{**}p<0.05\ ^{***}p<0.01$  OLS analysis, dependent variable: Investment size; Session fixed effects;  $Model\ 1\ without\ controls,\ Model\ 2\ with\ controls$ 

Table 3.4: Perceived trustworthiness and weight

When instead of LargeRespondent, we use the absolute distance between the proposer's ideals, own size or preferred size and the respondent's size, centered at the mean, the coefficients of the distance measures are inconsistent in sign and significance with respect to investments size (Table 3.5 in this section and Table 40 in appendix C) and perceived trustworthiness (Table 3.6 in this section and Table 52 in appendix C). So a deviation of the respondent's size from the proposer's ideals or preferred shape, not accounting for the direction of this deviation, has no consistent effect on trust.

	1	2	3	4
Centered Distance to Female Ideal	0.57			
	1.24			
Centered Distance to Male Ideal		-0.7		
		1.25		
Centered Distance to Actual Size			-2.41*	
			1.29	
Centered Distance to Preferred Size				-1.92
				1.36
No. of Obs.	62	61	64	63
R-Squared	0.31	0.31	0.33	0.32
Adj. R-Squared	-0.01	-0.01	0.04	0.02

 $Standard\ errors\ in\ italics,\ ^*p<0.10\ ^{**}p<0.05\ ^{***}p<0.01$  OLS analysis, dependent variable: Investment size; Session fixed effects

Table 3.5: Investment size and centered distance

However, interacting *LargeRespondent* with the distance measures shows consistency in sign and that an increase in distance between the respondent's size and the

1	2	3	4
0.69			
0.22			
	0.57*		
	0.18		
		1.17	
		0.39	
			0.65
			0.23
62	61	64	63
	0.69 0.22	0.69 0.22 0.57* 0.18	0.69 0.22 0.57* 0.18 1.17 0.39

 $Standard\ errors\ in\ italics,\ *p{<}0.10\ ***\ p{<}0.05\ ****\ p{<}0.01$  Ordered Logit Model, dependent variable: perceived trustworthiness of respondent;  $Session\ fixed\ effects$ 

Table 3.6: Trustworthiness and centered distance

proposer's male ideal or preferred size by one shape on the FRS reduced the size of the investment by approximately 6 TTD, but only when the respondent was large (Table 3.7 in this section and Table 41 in appendix C). In other words, the skinnier the proposer's ideals in comparison to the respondent's (large) shape, the smaller the investment. Further, the coefficients of all distance measures were negative when the respondent was large and inconsistent when he was skinny (see coefficients of CenteredDistanceto... in Table 41, appendix C). At mean distance (represented by the coefficient of LargeRespondent in Table 3.7), there was no statistically significant difference between the average investment sent to large and skinny respondents.

	1	2	3	4
Large Respondent	2.26	3.27	3.11	4.31
	3.08	3.06	2.86	3
Large Respondent x Centered Distance to Female Ideal	-4.98			
	3.12			
Large Respondent x Centered Distance to Male Ideal		-6.54**		
		3		
Large Respondent x Centered Distance to Actual Size			-2.16	
			2.61	
Large Respondent x Centered Distance to Preferred Size				-5.95*
				3.1
No. of Obs.	62	61	64	63
R-Squared	0.36	0.4	0.36	0.43
Adj. R-Squared	0.02	0.07	0.04	0.14

 $Standard\ errors\ in\ italics,\ *\ p<0.10\ ***\ p<0.05\ ****\ p<0.01$  OLS analysis, dependent variable: Investment size; Session fixed effects

Table 3.7: Investment size and direction of distance

With respect to perceived trustworthiness we observe the following: the coefficient of LargeRespondent in Table 3.8 (and Table 53 in appendix C) is positive and significant and indicates that, at mean distance, large respondents were significantly more likely to be perceived trustworthy than skinny ones. Further, all interaction terms of LargeRespondent with the distance measures are significant. Figure 3.2 shows how the likelihood that the respondent is perceived trustworthy decreases when the distance between the respondent's size and the proposer's female ideal increases. A centered distance of zero corresponds to the mean absolute distance and roughly to the societal female ideal of around 4 on the FRS. The figure shows that at a centered distance the large proposer is more likely to be perceived trustworthy than a skinny one. Similar observations are shown for each distance measure in Figures 10, 11, and 12 in appendix C.

	1	2	3	4
Large Respondent	15.60***	33.48***	10.68***	12.10**
	15.16	35.37	9.58	12.1
Large Respondent x Centered Distance to Female Ideal	0.08**			
	0.09			
Large Respondent x Centered Distance to Male Ideal		0.17*		
		0.17		
Large Respondent x Centered Distance to Actual Size			0.20**	
			0.16	
Large Respondent x Centered Distance to Preferred Size				0.19*
				0.17
No. of Obs.	62	61	64	63

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

Ordered Logit Model, dependent variable: perceived trustworthiness of respondent; Session fixed effects

Table 3.8: Trustworthiness and direction of distance

When we interact Afro-TriniRespondent with the centered distance measures (see Table 42 in appendix C) we find that a greater distance between the proposer's own, preferred and ideal body shapes and the respondent's body shape was on average associated with lower investments when the respondent was Afro-Trini, but this relation was not significant, except with respect to the distance between the proposer's preferred size and the Afro-Trini respondent's size: An increase in distance was on average associated with a decrease in investment size of 5.7 TTD. With respect to the Indo-Trinis, the effect of a greater distance between the proposer's own, preferred and ideal

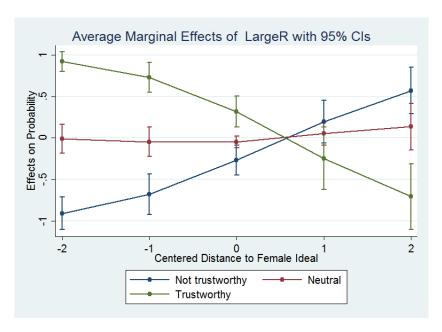


Figure 3.2: AME of large respondent for distance to female ideal

body shapes and the respondent's body shape on investment size was consistently positive but insignificant (represented by the coefficients of *CenteredDistanceto...* in Table 42 in appendix C).

In Table 54 in appendix C the effects of the interaction of Afro-TriniRespondent with the centered distance measures on perceived trustworthiness are significant. Figure 3.3 shows the average marginal effect of Afro-TriniRespondent at different values of the centered distance to the proposers female ideal: As long as the difference between the respondent's body size and the proposer's female ideal is below the mean distance (when centered distance is zero), Afro-Trini Respondent's are more likely to be perceived trustworthy than Indo-Trini respondents. As the distance increases, the trust bonus decreases and eventually turns negative, meaning that Afro-Trini respondent's are less likely to be perceived trustworthy than Indo-Trini respondents. Figures 13, 14, and 15 in appendix C show similar results of the average marginal effect of being an Afro-Trini respondent for the other distance measures. On the other hand, in general large Indo-Trini respondents were more likely to be perceived trustworthy than skinny Indo-Trinis (represented by the coefficient of LargeRespondent in column 1, Table 54 in appendix C).

When instead of Afro-TriniRespondent we use the indicator variable P+RShareEthnicity and interact it with the distance measures, we find that a deviation

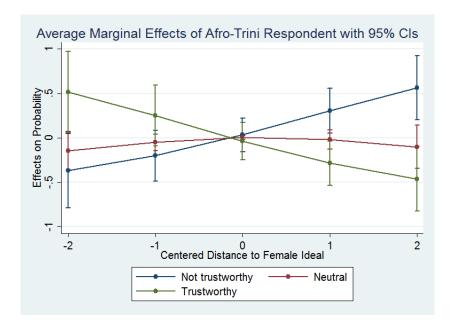


Figure 3.3: AME of Afro-Trini respondent for distance to female ideal

from the proposer's own, preferred and ideal shapes is associated with a significant decrease in the average investment size (see Table 43 in appendix C) and perceived trustworthiness (see Table 55 and Figures 16, 17, 18, and 19 in appendix C). However, when we use community fixed effects the significance is lost, but the direction of the effects remains (see Tables 49 & 61 in appendix C). These findings hint that deviations from ethnicity specific ideals lead to a reduction of trust within the same ethnic group, but less so between groups.

With respect to the impact of SES, i.e. education and age, we would have assumed that people of higher education and older age and hence, higher income, would have been more likely to invest more, simply because they have to care less about the amount they earn or lose in the game. However, we do not find an effect of either variable on investment size (see Tables 38 - 49 appendix C). On the other hand, we find that an increase in age is associated with an increase in the likelihood to perceive the respondent trustworthy (see Tables 50 - 55 in appendix C). When we use community fixed effects, the direction of the age effect remains, but significance is partly lost (see Tables 56 - 61 in appendix C).

## 3.3.2 Are larger people assumed to be more trusting?

In the previous section we analyzed decisions of proposers in round one: they made investments and after the investment decision they were asked how trustworthy they thought the respondent they had just played was. We now turn to round two, where participants played the part of the respondent and received an investment. They were then asked to respond to this investment. After the response decision they were questioned about their assumptions concerning the characteristics of the person who might have sent the investment they had just received. If larger people were thought to be more trusting, we would expect people to assume that larger investments were sent by larger people.

	1	2	3
Size of investment received in Round 2		$\begin{array}{c} 1.06 \\ 0.05 \end{array}$	1.04 0.04
No. of Obs.	62	58	61

Standard errors in italics, Logistic Regression, Odds Ratios reported. Model 2, CV: Session FE and Enumerator knew participant personally; Model 3, Community FE and Enumerator knew participant personally

Table 3.9: Likelihood to assume proposer in round 2 was large

Table 3.9 (see also Table 62 in appendix C) shows that although the direction of the coefficient is as expected, we do not find a significant effect of the size of the investment that respondents received on the likelihood that the respondent assumed that the investment was sent by a large person.

#### 3.4 Discussion and Conclusion

In summary, we find evidence that there is a trust bonus for large people, although survey responses would have indicated that such a bonus does not exist. However, the definition of large is crucial: Large is good, but too large is not! Although our results may indicate a greater tolerance for, i.e. more trust in, people with large bodies, evidence also suggests that trust is reduced when respondents become too large relative to the cultural ideal, measured by the distance between the proposer's ideals or preferred sizes and the respondent's body shape. Further, these reductions of trust seem to be ethnicity specific, such that they are larger when respondent and proposer belonged to the same ethnic group compared to when they belonged to different ethnic groups. Interestingly, although our earlier work (Waske & Vollmer, 2019) showed that, on average, Trinidadian females prefer smaller shapes, this did not impact investments or perceived trustworthiness.

In general, the investments show fewer consistent and significant results than the

questionnaire asking about perceived trustworthiness. This could have several reasons. First, there is an ongoing debate if the game actually measures trust (Brülhart & Usunier, 2012). Our findings would support that it does, but maybe only in a financial context. However, it is also possible that questions about trustworthiness showed more consistent results because of social desirability – participants were eager not to stigmatize large people when it came at no cost. However, besides stronger effects for large respondents, we also find consistent and positive age effects on perceived trustworthiness that we did not find with respect to investment size. Social desirability cannot explain why older people should be less willing to stigmatize in the trust game, but more when asked about perceived trustworthiness.

From a health policy perspective our findings are good news and bad news: The good news is that although there seems to a trust bonus for people with larger bodies, obesity is not desirable, because it leads to a reduction of "embodied" social capital, i.e. reduced trustworthiness. This means that people most likely have an intrinsic motivation not to become obese, which increases the chances of success for obesity policy. On the other hand, policy makers should be aware that health policy and body images are politicized: Thompson and Kumar (2011) and Crossley (2002) show how in the context of health campaigns, there is a resistance to prescribed medically ideal bodies in industrialized societies. If health policy uses Western role models or desired body images, i.e. skinny bodies, to raise awareness about the risks of obesity it will likely not succeed.

Further, there is evidence in the literature that (culturally and medically) overweight people are stigmatized in Western countries and that this is linked to developing eating disorders. If obesity rates keep rising in Trinidad, we should expect that more people do not only become overweight in medical terms, but also "too large" relative to the cultural ideal. Our results would then suggest that a growing number of Trinidadians will suffer from stigmatization which in turn could increase the risk of people developing eating disorders. Of course this implies that cultural ideals remain constant which is a strong assumption. Nevertheless, health policy should not only focus on coping with obesity, but should also be prepared for rising rates of eating disorders and other consequences commonly found in (seemingly) "fat-negative" societies.

It has been argued that, from an ethical point of view, health policy especially with respect to obesity, fails to account for the social and cultural value of eating (ten Have et al., 2011). We want to add that it also fails to account for the social and cultural value of being large. These values are internalized and may not consciously influence an individual's everyday decisions. Body size "embodies" value and meaning

which may interfere with health policy. Yet policy is not doomed to fail. Social norms influence societal members – but the relationship runs both ways. Individuals are not trapped within their society's norms, nor is society as a whole unable to change them. Considering the huge personal and economic cost of overweight and obesity there is a need for well targeted health policy. However, understanding the societal context in which this policy is perceived is crucial.

# Chapter 4

# Drink with pride!

Ethnicity and drink choice in Trinidad.

#### 4.1 Introduction

This paper's goal is to test if selected aspects of an individual's identity affect a health relevant drink choice: namely, how ethnicity and gender of a peer affect an individual's choice between soda and water. This decision may seem trivial at first glance, but it offers the chance to approximate the complex decisions that may result from the conflict of making a choice that is (un-)healthy and making a choice that symbolizes identity.

An individual's food and drink choices determine which nutrients her body receives and thus have an effect on her health. Humans are omnivores whose diet is mainly determined by availability. But the drinks and foods an individual consumes, especially in a world of abundance, are also a mean to express identity. They are social markers that identify one's group (Sobal, Bisogni, Devine, & Jastran, 2011; Rozin, 2011). And although gender, age and social status may have an impact on food and drink preferences, "culture is almost certainly the predominant influence" (Rozin, 2011, p. 29). The (imitation of) food choices and how they act as a social marker has been studied to some extent (Cruwys et al., 2012, 2015; Higgs, 2015; Hermans et al., 2012; Robinson, 2015; McFerran et al., 2015), but there remain areas that have not been properly investigated. "There have been few studies of modelling of eating in groups but it would be interesting to examine how food choices are affected by group norms (...)" (Higgs, 2015, p. 41). Further, how drink choices (as opposed to food choices) are used to express identity is not well understood. A few studies have looked at the consumption of alcohol or energy drinks as an act of bonding and identity shaping (Livingstone et

al., 2011; K. E. Miller, 2008; J. Nicholls, 2013; E. Nicholls, 2016), but we are unaware of studies concerning the relationship between identity and non-alcoholic drinks.

"Drink with pride", the slogan that Coca Cola used in India (see Figure 20 in appendix D) and which titles this paper, is an example how in commercials nonalcoholic drinks are linked to emotions and identity. There is certainly a need to understand how the consumption of non-alcoholic drinks, especially soft drinks, may interact with identity: In the US diet, soft drinks are the largest source of calories and added sugar, and in developing countries the consumption of high sugar drinks has reached alarming levels, too (Harvard T.H. Chan School of Public Health, 2013; Hu & Malik, 2010; National Cancer Institute, 2019; Malik et al., 2013). That food choices and health decisions in general are influenced by one's group membership is also reflected in global health data: worldwide obesity has nearly tripled since 1975 (World Health Organization, 2018), but it is by no means equally spread among the world's population. For example, in New Zealand almost 31% of all adults aged 15 and above were obese in 2012/2013. Yet these numbers are significantly higher for Maori or Pacific Islanders living in New Zealand, at 48% and 68%, respectively (New Zealand Ministry of Health, 2006, 2019). Understanding what drives consumption will be key to developing health policy.

What do we know about food and identity? On the one hand, food has a symbolic role: it is tied to the social world of humans and functions as a homogenizing agent, when people share food with those they are close to. Imitating food choices of members of a social group enhances our affiliation or identification with that group. Food choices can also be used to do the opposite, and function as a heterogenizing agent, when people distinguish themselves from others by not sharing food or not imitating a food choice (Rozin, 2011).

The physical or social presence of others is a strong driver of what people choose to eat (McFerran et al., 2015). Social norms, i.e. the shared expectations about what the right behavior is, influence food choices even when we eat without others present. Following a norm or imitating socially close peers has emotional consequences. It induces a sense of belonging and self-worth. If the individual identifies with a group, she is more likely to follow the norms of this group. She is more likely to reject a norm if the group is of lower status, disliked or socially distant and not seen as aspirational. In this case the rejection serves to distance oneself from this group (Higgs, 2015).

But of course, identity is not unidimensional. An individual is not just simply a woman; she is a national of a country; a mother; an ethnic Indian; a health and sports obsessed chocolate lover, to name just a few. Identity, then, is rather a complex whole

of all possibly relevant identity aspects, which are more or less important in decision making in specific circumstances.

Similarly, a certain type of food or drink can have different meanings for the individual in different contexts. Different outcomes or feelings are associated with choosing a particular food: having a piece of chocolate can be associated with enjoyment, the taste of "home"; with feelings of guilt or worries about putting on weight; but also with a feeling of high social status when we consume a particularly expensive brand. It is the outcomes that are salient at the time of making a choice that are considered most important. Interestingly, there is evidence that shows that health related outcomes, like worrying about weight gain, seem to be less important in food decisions than socially transmitted information about which foods are acceptable, like consuming an expensive brand to signal social class (Conner & Armitage, 2011). This may also be due to people's present bias: consuming expensive chocolate is rewarded with an instant feeling of belonging to a more affluent social class while the health benefits of not consuming chocolate (and eating an apple instead) occur only in some distant future.

Further, following norms is often not even a conscious choice: "People act as they do, naturally and without question, mostly out of habit. They are products of their social environment and unaware that they might have behaved quite differently" (Akerlof & Kranton, 2011, p. 22). Norms may become so internalized that decisions are not made "bending to social pressure" but rather as a mean of self-affirmation. If someone identifies with being a "green consumer" his consumption decisions can be driven by his need to retain a sense of self, rather than by social forces (Conner & Armitage, 2011, p. 50).

Economists have approached the relationship between consumption and identity with respect to conspicuous consumption (Veblen, 1934, op. 1899): people may consume certain goods to signal social class. Our approach differs in an important aspect: We do not only analyze if members of a given ethnic group choose water (or soda) to symbolize group membership. Rather, we ask if an individual <u>imitates</u> a co-ethnic's drink decision to symbolize group affiliation regardless of whether that co-ethnic chose water or soda. This is important because this way ethnicity may hinder or support healthy decisions, depending on the choice of the co-ethnic.

Our research is located in the island of Trinidad, Republic of Trinidad and Tobago. The Caribbean island state is greatly influenced by US food products and media, which allows for a comparison to data on ethnicity specific soda consumption in the US. Further, ethnicity is a very salient category in everyday interactions in Trinidad, such that an effect of ethnicity on drink choices could be expected. Third, the country

faces severe public health challenges. Obesity, overweight and its associated diseases are widespread and linked to nutrition patterns which need to be better understood.

## 4.2 Method and Hypotheses

To study drink choices, we employ two different methods of data collection: First, we recorded drink choices observed in five different food courts in the communities of Trincity, San Juan and the University of the West Indies (UWI) in northern Trinidad between March and July 2017. Second, we also recorded the drink choices of participants who took part in a survey and an unrelated behavioral game between April and July 2017.

At randomly selected dates and times, research assistants visited food courts and engaged in participant observation, a research method most commonly used in anthropology. While occasionally consuming a drink or food themselves, they observed for an hour the drink choices, ethnicity, gender and body shape of customers who came alone or in the company of others to food court areas in malls, at the UWI campus, or to highly frequented walk-in restaurants, like Subway and KFC. If customers came in groups, assistants noted down drink choices and relevant other data in the order in which people placed their orders. It is important to note that, although observations were recorded in the order in which individuals or groups queued up at the counter, noting down all information for more than one person is time consuming. Also, we were only interested in the choices of Afro- and Indo-Trini, but not in the choices of other ethnic groups. Hence, we know that observation 215 (for example, a group of 3 customers) occurred before observation 216 (for example, a single customer) but there might have been other customers ordering in between these two observations, who were either not Afro- or Indo-Trini or were placing their order while assistants were still recording relevant information of another observation. We therefore analyze if there are significant differences between the choices of single customers and first choosers in a group; we further analyze if there are significant relationships between choices of first and second choosers in the same group. Our data does not allow to analyze if the choice of a single customer had an effect on the choice of a group's first chooser, since there may have been other customers in between them who were not recorded.

In total assistants collected data on 615 individuals, 278 of which were single customers, 99 pairs of two, 35 groups of three, six groups of four, and two groups of five customers. Although the amount of variables collected this way is limited to the drink choice and obvious physical traits, the advantage using this method is that data can be

collected quickly and that people were in their everyday routine instead of consciously taking part in a survey or an experiment; hence, social desirability should not bias the data. People were observed only in public spaces, making choices that they chose to make in public. No personal data that could identify a person were recorded, nor were enumerators acquainted with the people they observed.

Survey and experimental data were collected between April and July 2017 (generally, several days to a few weeks passed between the survey and the experiment). Data were collected on body ideals and preferences, as well as on demographics. Body preferences were assessed by research assistants in the survey and during the food court observations using the 9 item Figure Rating Scale (FRS, Stunkard et al., 1983) shown in Figure 4.1. On this scale the first drawing is associated with a Body Mass Index (BMI) that is medically bordering underweight, drawings 2-4 are considered normal weight, drawings 5-6 are considered overweight and drawings 7-9 represent obese body shapes.

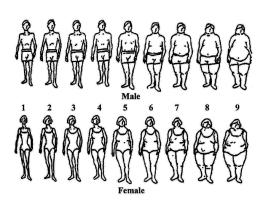


Figure 4.1: Figure Rating Scale (Stunkard et al., 1983)

In the survey, we also assessed the strength of a person's ethnic identity using three of the statements developed by Phinney (1992) and R. E. Roberts et al. (1999). The respondent indicated her agreement with these statements on a four item scale from "strongly disagree" to "strongly agree". There was no "neutral" option. The statements included: "I feel a strong attachment towards people who share my ethnicity", "I participate in cultural practices of my own ethnic group, such as special food, music, or customs", and "I have a clear sense of my ethnic background and what it means for me". If the participant strongly agreed or agreed with all three statements, we classified her as having a strong ethnic identity. We then used another three statements

to measure a person's other-group orientation, i.e. "attitudes towards, and interactions with, ethnic groups other than one's own" (Phinney, 1992, p. 161): "I am involved in activities with people from other ethnic groups", "I don't try to become friends with people from other ethnic groups", and "I sometimes feel it would be better if different ethnic groups didn't try to mix together". If the participant strongly agreed or agreed to the first statement and strongly disagreed or disagreed with the last two statements, we classified her as having a strong other-group orientation.

The same four item scale was used to assess a basic understanding of the health risks of consuming sugar and soft drinks: We use an individual's agreement with the statements "Consuming lots of sugar makes you gain weight" and "Soda contains a lot of sugar and is very unhealthy" as an indicator for basic health knowledge that is relevant in the choice between water and soda. If the participant strongly agreed or agreed with these statements we classified her as possessing basic health knowledge.

Further, people were asked to indicate if they suffered from Coronary Heart Disease (CHD), high blood pressure or type 2 diabetes.

At the end of the survey, each participant was offered a drink as a thank you. This drink choice between water and coke is used to approximate the participants' general preference for soda or water.

Out of 469 Afro- and Indo-Trini survey participants 68 also chose between water and coke during the experiment. Upon arriving at the experimental sites they were randomly assigned red or green stickers in alternating order. Participants played two rounds of a trust game during which they first made investments to respondents of different ethnicity and body shape. This a standard approach in the literature: "[P]articipants are provided with a non-food related cover story for the experiment (Bevelander et al., 2013; Cruwys et al., 2012; Hermans et al., 2012). In these experiments, participants believe that food is incidental to the research question" (Cruwys et al., 2015).

During the investment decision participants were sitting in a room with up to eight other players and were advised not to communicate. After the decision, they were served small food snacks during a short break, but no drinks. For the next decision they were taken to either the red or the green room one by one, depending on the color of the sticker they were given upon arrival. In the red and green room they were asked to respond to an investment which had been sent to them. In each room there was another person whom participants believed to be a fellow participant, but who in fact was a research confederate. This parallels Cruwys et al. (2015, p. 4) who argue that "... an experimental design in which the intake and/or choice of one co-eater

(i.e., the confederate) is predetermined by the experimenter has arguably become the gold standard for research on the modeling of food intake. This paradigm enables researchers to investigate modeling behavior without any potential confounds related to selection or non-social processes." In our case, in the red room the confederate was Indo-Trini, in the green room she was Afro-Trini, and all confederates were female. The actual participants were taken into the room by an assistant and, together with the confederate, were explained the response decision they were about to make. They were also advised that this time they were free to discuss their decision with the "other person" if they wished to do so. At the end of the explanation, the assistant offered both confederate and participant a drink from a tray on which several bottles of coke and water were placed. Assistants always offered the confederate first and the confederate's drink choice had been randomly determined before the participant entered the room. After offering the drinks the assistant left the room. In total out of 68 participants, 22 chose coke, 42 chose water and 4 did not choose a drink. 48 participants were Afro-Trini, 20 were Indo-Trini, 23 participants were male, and 45 were female.

In summary, we have data on drink choices from three different sources: First, all 469 survey participants were offered a drink at the end of the survey as a thank you. Second, for 68 survey participants we have data on a drink choice made in a controlled experimental setting in the presence of an Indo- or Afro-Trini confederate. Third, we have data on drink choices of 615 individuals frequenting a restaurant or food court alone (henceforth single choosers) or as part of a group. We only consider the first and second choosers of each group although the total group size may be larger than two (henceforth first chooser and second chooser). In the food court observations we naturally have very little information that we can use as control variables. However, we combine them with controlled experimental data. Also, due to the random assignment of the dates and times that observations in the food courts were carried out, and the rather long time span during which they occurred (March until July 2017) we are confident that results reflect well the relationship between identity and drink choice.

We first analyze if there are significant differences between single choosers and first choosers with respect to body shape, ethnicity and gender. We also look at differences in these characteristics between single and first choosers compared to second choosers. We then address the following questions (Q1 - Q5):

1. Do members of one of the two ethnic or gender groups show a preference for coke or water? We use t-testing to analyze the drink choices at the end of the survey, the drink choices made in the experiment, as well as in the food court

observations.

2. Is there a difference in the likelihood to choose water between single choosers and first choosers? Does the first chooser's choice depend on the size of the group? We estimate the following equations using logistic regression analysis and data collected in the food courts:

$$P(Water) = c + \alpha SingleChooser + \beta Female +$$

$$\gamma A froTrini + \delta Overweight + \epsilon [CV] + u, \quad (4.1)$$

$$P(Water) = c + \alpha Group Size + \beta Female + \gamma A fro Trini + \delta Overweight + \epsilon [CV] + u, \quad (4.2)$$

where the dependent variable is the probability that the person chose water instead of soda, SingleChooser equals one if the person is a single chooser and 0 if she is a first chooser. AfroTrini, Female and Overweight are indicator variables for ethnicity, gender and weight status. Control variables include the starting time of the observation session as well as indicator variables for location and the observing research assistants. We perform subgroup analysis using interactions of SingleChooser with AfroTrini, Female and Overweight. GroupSize is the number of people that visited the food courts together (between 1 and 5, including single choosers).

- 3. Are people more likely to imitate the drink choice of a person when that person is of the same ethnicity, same sex and/or similar body shape?
  - (a) We first address this question by combining experimental data with food court observations of people who came in groups of two and estimate the following logit model:

$$P(samedrink) = c + \alpha SameEthnicity + \beta SameSex +$$

$$\gamma P1Overweight + \delta P2Overweight + \epsilon [CV] + u, \quad (4.3)$$

where the dependent variable is the probability that the person choosing second imitates the choice of the person choosing first,

SameEthnicity is a dummy variable that equals one if the decision makers

share a common ethnicity,

SameSex is a dummy variable that equals one if the decision makers are of the same sex;

P1Overweight and P2Overweight are indicator variables of the weight status of both choosers, derived from the BMI that is associated with their corresponding body shape on the FRS. Control variables include time, research assistant and location.

(b) We then ask: (How) is the likelihood to imitate the confederate's drink choice in the experiment affected by the preferences participants demonstrated earlier in the survey? We estimate the following logit model using data on experimental participants only:

$$P(samedrink) = c + \alpha SameEthnicity + \beta DistanceBS +$$
$$\gamma Female + \delta SamePreferences + \epsilon [CV] + u, \quad (4.4)$$

where the dependent variable is the probability that experimental participant imitates the confederate's drink choice, SameEthnicity is a dummy variable that equals one if the confederate and participant share a common ethnicity, Distance BS measures the absolute distance between the confederate's body shape and the participant's body shape on the FRS. It is thus a measure how similar both are in body shape without making references to whether or not they are overweight or normal weight. Female is a dummy that equals one if the participant is female and hence of the same sex as all confederates, and zero otherwise. SamePreferences is an indicator variable that equals one if the drink that the confederate chose in the experiment is the same as the drink that the participant chose at the end of the survey, and zero otherwise. If we assume that the participant's drink choice at the end of the survey reflects her preferences for water or coke then this variable controls for the fact that the confederate by chance just picked the drink the participant prefers. The participant would thus not imitate a choice but merely act according to her preferences. Control variables include age of the participant as well as indicator variables for confederate, instructor and time.

(c) Last, we ask if the imitation behavior is different for people who strongly identify with their ethnic group or for those who interact a lot with other

ethnic groups. We estimate the following logit model:

$$P(SameDrink) = c + \alpha SameEthnicity + \beta DistanceBS + \gamma Female + \\ \delta SamePreferences + \epsilon [CV] + u, \quad (4.5)$$

$$P(SameDrink) = c + \alpha SameEthnicity + \beta DistanceBS + \gamma Female + \\ \delta StrongEthnicID + \epsilon (SameEthnicity * StrongEthnicID) + \\ \zeta[CV] + u, \quad (4.6)$$

$$P(SameDrink) = c + \alpha SameEthnicity + \beta DistanceBS + \gamma Female + \\ \delta StrongOO + \epsilon (SameEthnicity * StrongOO) + \\ \zeta[CV] + u, \quad (4.7)$$

where *StrongEthnicID* (*StrongOO*) is an indicator variable that equals one if the participant had a strong ethnic identity (strong other-group orientation), and zero otherwise. Control variables include (i) session fixed effects or (ii) indicator variables for instructor, confederate, time and age of the participant. All other variables remain the same as above.

4. Are a survey participant's health issues, knowledge about unhealthy drinks or being overweight associated with the likelihood that she chooses coke at the end of the survey?

We use a logistic estimation and drink decisions of all survey participants to estimate the following logit model:

$$P(Coke) = c + \alpha Healthissues + \beta Healthknowledge +$$
$$\gamma Female + \delta A fro Trini + \epsilon Overweight + \eta [CV] + u, \quad (4.8)$$

where *Healthissues* equals one if the participant knowingly suffers from coronary heart disease, high blood pressure and/or type 2 diabetes, and zero otherwise. *Healthknowledge* equals one if the participant strongly agreed or agreed to the statements "Soda contains a lot of sugar and is very unhealthy" and "Consuming lots of sugar makes you gain weight", and zero otherwise. All other variables

remain as above. Control variables include age in years, as well as indicator variables for time of the interview, location and observing research assistant.

5. Using combined data of the experimental drink decisions as well as drink decisions of people who came to the food courts in groups of two, we ask the following: Is the drink choice, ethnicity, body shape and sex of the person choosing a drink first associated with the likelihood that the second person chooses water?

We use a logistic estimation strategy and drink decisions made at the end of the survey to estimate the following logit model:

$$P(P2Water) = c + \alpha P1Water + \beta SameEthnicity +$$

$$\gamma SameSex + \delta P1overweight + \epsilon P2Overweight + \zeta[CV] + u, \quad (4.9)$$

where the dependent variable is the likelihood of the second person to choose water, P1Water is a dummy variable that equals one if the confederate (the first chooser) chose water and zero if she chose coke. P1overweight (P2overweight) is an indicator variable that equals one if the confederate or fist chooser (the participant or second chooser) was overweight and zero otherwise. All other variables remain as above.

We then interact P1Water with SameSex, as well as with SameEthnicity, P1overweight, and P1overweight. We further use the interaction of P1Water \* SameSex \* SameEthnicity.

Control variables include the time of the experimental session / observing session as well as an indicator variable that equals one if the data were gathered in the experiment and zero if they were gathered in the food courts.

With regard to question 1 it is unclear what to expect. Afro-Trinis in our survey have a significantly higher BMI than the Indo-Trinis and we could speculate that this captures a tendency for a less healthy lifestyle: The West's anxiety of getting or being fat has been resisted by the African diaspora. There is even clear opposition that slenderness equals health (Shaw, 2006). Further, African Americans have on average a relatively high consumption of sugary drinks compared to other groups in the US (Bleich et al., 2018), but there are no such data for Trinidad. Given the findings for the US, it is possible that Afro-Trinis have a higher consumption of soda.

With respect to question 2, we expect that those in company are more likely to choose water, given that they may feel a need to be an example of a healthy person. The

Trinidadian Ministry of Health has been running health campaigns targeting obesity for the last few years. An example is the "Fight The Fat - T&T Wellness Revolution" that calls on "the national community to get active, eat healthy and live healthier lives to lower the risk for chronic non-communicable diseases (CNCDs) like heart disease, cancers, diabetes and strokes" (Trinidad & Tobago Ministry of Health, 2011). If these campaigns had lead to a greater public awareness of the importance of consuming healthy foods and drinks then we would expect that people feel rather obliged to consume healthily in the presence of peers.

With respect to question 3a, we expect that, if drinks have a similarly symbolic and identity expressing function as food, the more similar people are in ethnicity, sex and body shape, the more likely they should be to imitate the first person's choice.

It is unclear what to expect regarding the results of question 3b and c. If participants have set preferences that are hardly impacted by peers, then they should not deviate. If however, people use drinks to dissociate themselves from or associate themselves with others we can expect that they do deviate; in this case we would also expect that this deviation is greater for people who identify strongly with their ethnic group and less so if they interact a lot with others.

With regard to question 4 we expect that having health issues, being overweight and possessing knowledge about the effects of unhealthy drinks should reduce the likelihood that a person chooses coke at the end of the survey.

With respect to question 5 we expect to see interaction effects of ethnicity, sex and body shape with the first person choosing water, given that we assume that people who are more similar are more likely to imitate each other's choices.

## 4.3 Results<sup>1</sup>

We first address the differences between first choosers, single choosers and groups.

We find that in terms of body shape, first choosers and single choosers are significantly larger than second choosers: on average, their body shapes corresponded to figure 4.68 and 4.37 on the FRS, respectively, p = 0.05). But, single choosers are not significantly different in body size compared to first choosers (4.52 and 4.76, p=0.15).

Further, there were significantly more female second choosers than female first choosers (50% of the first choosers and 69% second choosers were female, p = 0.000); and 53% of the single choosers were female while only only 42% of the first choosers

 $<sup>^{1}</sup>$ An extended regression output is given in appendix D, Tables 63 - 74.

were female (p=0.03).

There were no ethnic differences between first and second choosers: The share of Afro-Trinis in all groups (single choosers, first choosers, second choosers) is between 60% and 65%.

A few further questions arise: First, are single customers are per se different from those who came in groups? Second, are those who came in a group of co-ethnics different from those who came with members of different ethnic groups? And third, are those observed in the food courts systematically different from people who took part in the survey and experiment? And last, if so, does this bias our findings?

With respect to the first question, it is possible that people who choose drinks and food by themselves rather than with company are less sociable and maybe care less about behaving in a socially acceptable way than those individuals who came in a group. The "loners" might not be as affected as sociable people by some peer's drink decision. This would imply that any findings would be limited to people who are rather sociable.

The second question can be addressed using the experimental data, were group composition was randomized and hence any systematic differences between those who came in groups of co-ethnics or not could only be random. With respect to the food court observations, it is possible that those who came with co-ethnics are those to whom ethnicity is an especially important identity trait and who have little other-group orientation. Hence, imitating the choice of a co-ethnic could be more important to them than it is to those who came in a mixed group. A significant correlation between choosing with a co-ethnic and imitating his behavior could be driven by a sub-group to whom ethnic identity is especially important. We would hence be overestimating the effect of co-ethnicity on the imitation of drink choice for those to whom ethnicity may be a less important identity category.

On the other hand, people who came in mixed groups may still be very conscious of their ethnicity as a marker of identity. As anthropologist Fredrik Barth argued: "categorical ethnic distinctions do not depend on an absence of mobility, contact and information, but do entail social processes of exclusion and incorporation whereby discrete categories are maintained despite changing participation and membership in the course of individual life histories" (Barth, 1998, op. 1969, p. 9). In other words, ethnicity is made at the boundaries; it is because people come with members of other ethnic groups that they might dissociate themselves from them by not imitating the other ones drink choice. In this case, we would overestimate the effect of not-imitating the drink choice of a member of a different ethnic group for those who came with co ethnics.

However, building on Barth's (1998) argument, we believe that those who self-selected into coming with co-ethnics would even be more eager to dissociate themselves from others had they come in a mixed group. Hence, a correlation between not-imitating a choice and being in a mixed group would underestimate the true relationship.

Last, we do not have reason to believe that there is a systematic difference between those who were observed in the food courts and those who took part in the survey and experiment. All observations in the survey and food courts were made as randomly as possible and over a quite long time. In Waske and Vollmer (2019) we show that experimental participants and survey participants are not systematically different from one another.

We now turn to the questions Q1 - Q5 outlined above.

Q1: We do not find a significant difference between the share of experimental participants in each ethnic group who chose coke in the experiment (Afro-Trinis 27.1%, Indo-Trinis 45%, p = 0.18), but the choices that experimental participants had made in the prior survey indicate that significantly more Indo-Trinis than Afro-Trinis chose coke over water (or nothing) at the end of the survey (Afro-Trinis 24%, Indo-Trinis 47.6%, p = 0.07). However, analyzing the entire survey population, which includes participants who answered in the survey but did not take part in the experiment, we do not find drink choices differ significantly between ethnic or gender groups (coke chosen by: females 26%, males 26%, p=0.66; Afro-Trinis 25%, Indo-Trinis 26%, p=0.46). Using combined data of the survey and the food court observations (single choosers) showed no statistically significant difference between the shares of females, males, Afro-Trinis and Indo-Trinis who chose coke (females 43%, males 44%, p=0.64; Afro-Trini = 43%, Indo-Trini 45%, p= 0.58).

Q2: We find significant differences in the probability to choose water between single choosers and first choosers (see Table 4.1 & 4.2). We assumed that, when in a group, people would be more likely to choose healthily because they might feel pressured to be a good example. Our analysis shows that single choosers were more likely to choose water than those who came in a group, and that this was mainly driven by single customers who were overweight (also Table 64 and Figure 21 in appendix D). There is also some evidence that Afro-Trinis, who visited in a group, are less likely to order water compared to Indo-Trini groups. We do not find any significant correlations between drink choice and gender. When we use group size instead of the indicator variable for single customers we do not find a significant correlation between drink choice and group size. However, average marginal effects in Figure 4.2 show that there seems to be a convex relationship: Being in a group compared to choosing alone first reduces

the likelihood to choose water. As group size increases, the likelihood to choose water increases, too.

	1	2	3	4
Single Customer	1.489*	0.990	1.662	0.966
	(0.35)	(0.36)	(0.52)	(0.33)
Female	0.917	0.887	1.081	0.925
	(0.20)	(0.19)	(0.41)	(0.20)
Afro Trini	0.778	0.488*	0.785	0.789
	(0.17)	(0.19)	(0.17)	(0.17)
Overweight	1.194	1.205	1.191	0.705
	(0.26)	(0.27)	(0.26)	(0.27)
Single Customer X Afro-Trini		1.980		
		(0.93)		
Single Customer X Female			0.784	
			(0.37)	
Single Customer X Overweight				2.218*
				(1.02)
Pseudo R-squared	0.03	0.04	0.03	0.04
Observations	415	415	415	415

Exponentiated coefficients; Standard errors in parentheses

Table 4.1: Choosing water alone vs. in a group

Q3a: We do not find that being of the same ethnicity or of the same sex significantly correlated with the imitation behavior of food court visitors and experimental participants. We do, however, find a combined correlation: If the person choosing first and the person choosing second were of the same ethnicity and different sex, the second person was less likely to imitate the first person's choice, as shown in Figures 4.3 & 4.4, as well as in Table 4.3. If we re-run the analysis on experimental and food court data separately significance is partly lost, but the direction of the correlations remains the same (see appendix D, Tables 66 & 67).

Q3b and c: We assume that the drink choice a survey participant made at the end of the survey reveals his preferences for water or coke. Since in general several

	1	
Female	0.929	
	(0.20)	
Afro Trini	0.779	
	(0.17)	
Overweight	1.221	
	(0.27)	
Group Size	0.830	
	(0.12)	
Pseudo R-squared	0.03	
Observations	415	

Exponentiated coefficients; Standard errors in parentheses

Table 4.2: Likelihood to choose water instead of soda II

days to a few weeks passed between survey and experiment we do not assume that participants would have deliberately repeated their choice, but would rather stick to their preferences. The question then was, if participants merely imitated the confederates drink choice because the confederate had picked a drink that just happened to mirror the participant's preferences. Indeed we find that this is the main driving force behind the drink choices made by the experimental participants, as shown in Table 4.4. When the confederate chose a drink in the experiment that was identical to the drink the participant had picked in at the end of the survey, then the participant was roughly ten times more likely to choose this same drink again in the experiment. Table 4.4 also shows that neither sharing an ethnicity, identifying strongly with the (shared) ethnic group, interacting a lot with other ethnic groups or being more similar to the confederates body shape was significantly correlated with this choice.

Q4: We do not find that having health issues or possessing health knowledge is significantly correlated with choosing coke at the end of the survey (see Table 4.5). In fact, the coefficient of health issues is positive and probably shows reverse causality: because people choose coke, i.e. generally make unhealthier decisions, they have health issues in the first place. Having knowledge about the unhealthiness of soda is associated with a decrease of the likelihood to choose coke at the end of the survey, but is not significant. We do not find gender correlations. However, ethnicity in combination with being overweight was significantly correlated with drink choice. Indo-Trini participants who were overweight were significantly more likely to select coke at the end of the survey compared to normal weight Indo-Trinis, while for Afro-Trinis seem to be less

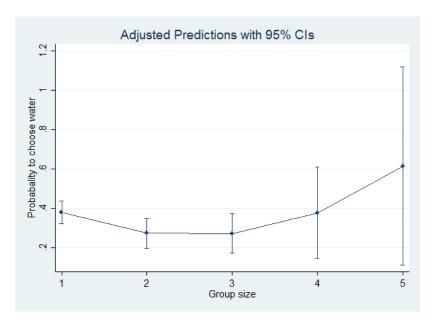


Figure 4.2: AME of group size

likely to chose coke when they are overweight, compared to normal weight Afro-Trinis (see Figure 4.5).

Q5: Analyzing the combined data of food court observations and experimental drink decisions, we find evidence that the first person's drink choice affected the second person's choice: When the first person chose water, the second person was significantly more likely to choose water, too. Interestingly, this seems to be driven by ethnicity. When both people shared an ethnicity and the first person chose water, the second person was significantly more likely to imitate this healthy choice compared to when they did not share an ethnicity (see Figure 4.6). We do not find a combined correlation between ethnicity, sex and the likelihood to imitate the choice of water (Table 4.6 & 4.7).

We also find strong correlations between drink choices and the first person's body shape. When the person choosing first was normal weight and chose water, the second person was significantly more likely to also choose water (see Figure 4.7 and Table 4.7). While there was no significant correlation between the first person's choice of water the second person being overweight (Table 4.7)

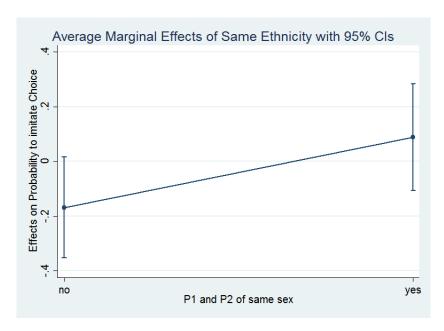


Figure 4.3: AME of same ethnicity

If we drop the experimental data and re-run the analysis using only food court observations a few problems emerge: the food court observations, because of the natural setting, are not as well balanced as the experimental data. Of all the 138 pairs who visited the food courts only 13 were of different ethnicity and in only two of these 13 pairs did the first person choose water. Hence in the analysis a few important categories are left empty. The results we do find however mirror the findings in the combined data (see Tables 72 & 73 in appendix D).

As a note on the side we also want to briefly reflect on the social desirability bias. Since we combined the data of the survey and the experiment, in which obviously people knew they were being observed, with the data from the food courts, where people were not aware that their choices were taken note of, we can derive a rough estimate of how the results in the survey and the experiment may underestimate the actual behavior. Compared to people in the food courts, survey participants were three times more likely to choose water instead of soda.

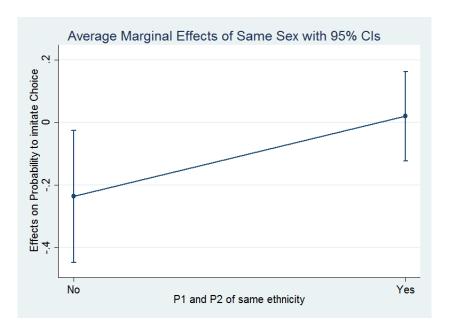


Figure 4.4: AME of same sex

	1	2	3
P1 and P2 of same ethnicity	0.939	0.349	0.945
	(0.38)	(0.24)	(0.39)
P1 and P2 of same sex	0.753	0.247**	0.746
	(0.25)	(0.17)	(0.25)
P1 is overweight	0.786	0.756	0.731
	(0.30)	(0.29)	(0.38)
P2 is overweight	1.415	1.533	1.278
	(0.48)	(0.52)	(0.76)
P1 and P2 of same ethnicity X P1 and P2 of same sex		4.499*	
		(3.53)	
P1 is overweight X P2 is overweight			1.161
			(0.84)
Pseudo R-squared	0.11	0.13	0.11
Observations	206	206	206

Exponentiated coefficients; Standard errors in parentheses

Table 4.3: Imitating the first person's drink choice

	(1)	(2)	(3)
Same Ethnicity	1.157	1.846	0.425
	(0.75)	(1.63)	(0.59)
Absolute distance P's BS from C's BS	1.128	1.119	1.100
	(0.32)	(0.31)	(0.32)
Female	0.630	0.669	0.634
	(0.40)	(0.43)	(0.40)
C. + P. same drink preferences	9.725***	10.500***	9.328***
	(6.28)	(6.94)	(6.15)
Strong Ethnic ID		1.339	
		(1.10)	
Same ethnicity X Strong Ethnic ID		0.396	
		(0.48)	
Strong Other-group Orientation			0.740
			(0.60)
Same ethnicity X Strong Other-group Orientation			3.659
			(5.65)
Pseudo R-squared	0.21	0.21	0.22
Observations	68	68	68

Exponentiated coefficients; Standard errors in parentheses; CV: Confederate, Instructor, Time Indicator Variables

Table 4.4: Imitation, ethnic identity and other-group orientation

	(1)	(2)
Healthissues	1.531	1.511
	(0.45)	(0.45)
Healthknowledge	0.695	0.713
	(0.16)	(0.16)
Female	0.943	0.990
	(0.21)	(0.22)
Afro-Trini Participant	0.937	1.874*
	(0.21)	(0.71)
Participant is Overweight	1.298	2.412**
	(0.30)	(0.87)
Afro-Trini Participant X Participant is Overweight		0.339**
		(0.16)
Pseudo R-squared	0.02	0.03
Observations	457	457

Exponentiated coefficients; Standard errors in parentheses

Table 4.5: Choosing Coke in the survey

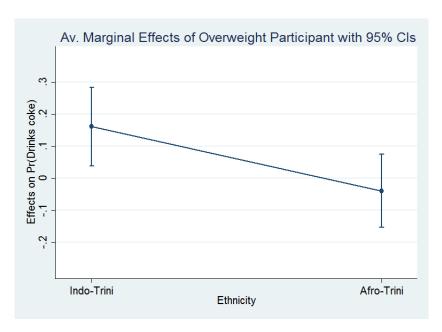


Figure 4.5: AME of overweight

	1	2	3
P1 chose water	3.935***	1.065	5.881***
	(1.26)	(0.67)	(3.09)
P1 is overweight	0.912	1.009	0.940
	(0.32)	(0.37)	(0.33)
P2 is overweight	1.073	1.153	1.086
	(0.35)	(0.38)	(0.35)
P1 and P2 of same ethnicity	0.976	0.515	0.975
	(0.41)	(0.25)	(0.41)
P1 and P2 of same sex	1.009	0.981	1.319
	(0.33)	(0.32)	(0.56)
P1 chose water X P1 and P2 of same ethnicity		5.777**	
		(4.28)	
P1 chose water X P1 and P2 of same sex			0.519
			(0.34)
Pseudo R-squared	0.14	0.16	0.14
Observations	206	206	206

Exponentiated coefficients; Standard errors in parentheses

Table 4.6: Likelihood to choose water I

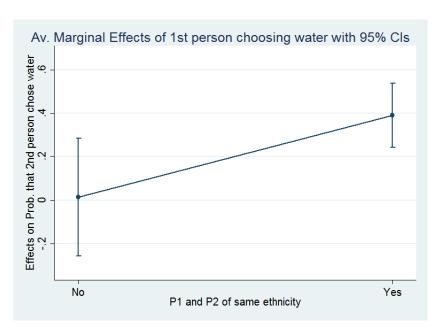


Figure 4.6: AME 1st choice water, by ethnicity

	1	2	3
P1 chose water	11.599***	3.641***	4.463
1 1 chose water	(6.76)	(1.78)	(4.96)
D1 is overweight	1.749	0.917	1.003
P1 is overweight	(0.82)	(0.33)	(0.37)
D9 is evenueight	$\frac{(0.82)}{1.022}$	$\frac{(0.33)}{1.016}$	$\frac{(0.37)}{1.191}$
P2 is overweight			
D1 1D0 6 (1111)	(0.34)	(0.42)	(0.40)
P1 and P2 of same ethnicity	0.883	0.986	1.015
P4 1 P2 4	(0.37)	(0.42)	(0.86)
P1 and P2 of same sex	1.060	1.006	2.737
	(0.35)	(0.32)	(2.40)
P1 chose water X P1 and P2 of same ethnicity			1.429
			(1.82)
P1 chose water X P1 and P2 of same sex			0.110
			(0.15)
P1 chose water X P1 is overweight	0.193**		
	(0.14)		
P1 chose water X P2 is overweight		1.146	
		(0.75)	
P1 and P2 of same sex X P1 and P2 of same ethnicity		, ,	0.358
·			(0.36)
P1 chose water X P1 and P2 of same sex X P1 and P2 of same ethnicity			8.519
v			(13.24)
Pseudo R-squared	0.16	0.14	0.17
Observations	206	206	206

 ${\bf Exponentiated\ coefficients;\ Standard\ errors\ in\ parentheses}$ 

Table 4.7: Likelihood to choose water II

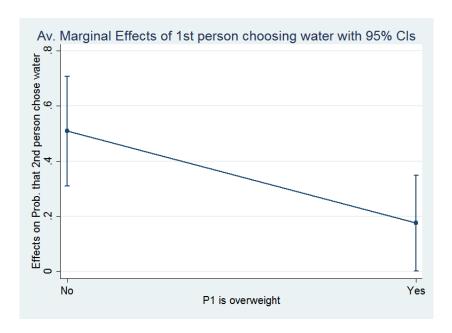


Figure 4.7: AME 1st choice water, by weight

#### 4.4 Discussion and Conclusion

In summary, we do not find that any gender or ethnic group favored water or soda significantly more than the other. Group pressure does not seem to encourage healthy consumption unless the group becomes sufficiently large. We may speculate that there are two distinct mechanisms at play here. First, although by World Bank standards Trinidad and Tobago classifies as a high income country, inequality is a pressing issue and the country is strongly influenced by the US in terms of consumer products. It is possible that choosing the somewhat more "American" drink symbolizes economic well-being, global citizenship or ability to afford imported products rather than local water and thus being "at the right end" of the income distribution<sup>2</sup>. On the other hand, peer group pressure may work better in favor of health decisions when peers are socially more distant. An increase in group size may correlate with social distance between peers. In other word, people may be more likely to have lunch or dinner with one friend or several colleagues. Our results also speak to the importance of salient characteristics in seemingly unimportant drink choices: When people are of same ethnicity but different sex they seem to be less likely to imitate a drink choice. Our analysis shows that identity issues as captured by the ethnic and gender similarity of two people are a factor in these decisions, the impact of which is not fully understood so far.

However, in the "natural setting" of food court observations we hardly observed mixed groups and our data had to be joined with controlled experimental data that had created situations in which people faced counter-ethnics. Nevertheless, our results are still relevant, since we control for this experimental setting in the analysis of the joined sample of food court data and experimental data. The question remains if the analysis of drink choice in mixed ethnic groups is of any day-to-day relevance. We argue that it is. Our data can only show a short glimpse of specific restaurants and locations and hence comparable data from different locations would be of interest. Further, we analyze only one occasion in which ethnic groups interact and finding that a drink decision can reflect identity concepts should make us think deeper about how small everyday interactions can have an unintended health effect, especially in countries in which ethnicity is as salient a category as it is in Trinidad. Given our results, we want to follow Sobal et al. (2011) in their argument that important social and environmental factors impact the food context and food choices and in turn construct identities. Policy

<sup>&</sup>lt;sup>2</sup>A 0.33 liter bottle like we used in the experiment and survey, costs around 6.12 TTD, while water in the same quantity is about 4.96 TTD (Numbeo.com, 2019)

### CHAPTER 4. DRINK WITH PRIDE! 4.4. DISCUSSION AND CONCLUSION

needs to know its whom it is designed for before it can be implemented successfully.

### 4.4. DISCUSSION AND CONCLUSION CHAPTER 4. DRINK WITH PRIDE!

# Chapter 5

# Conclusion

The main findings of this thesis are that Trinidadians have large body ideals and preferences for large bodies compared to other societies and that preferred and ideal bodies are larger for Afro-Trinis compared to Indo-Trinis. This preference for large bodies is mirrored in the fact that Trinidadians participating in a trust game are more likely to trust larger respondents than skinny ones, but that an increase in body size relative to the proposers own ideals and preferences leads to reduced trust.

Further, stigmatization of overweight and obesity is similar to what is found in industrialized, seemingly rather fat-negative societies. Though preferring large bodies but stigmatizing the obese may seem like a paradox, we argue that it hinges on the definition of large. The cultural ideal corresponds to what is considered in medical terms overweight, so the "culturally too large" would correspond to medical obesity. If stigmatization does not occur on the basis of medical norms but rather based on cultural perception, it seems a logical consequence that rising (medical) obesity rates involve a spread of stigmatization, since more people do not only become medically obese, but also culturally too large. Although ethnic differences in ideals and preferences translate into small actual kg per height values, they should be taken as a lower boundary of the ethnicity effect. Further research into the dynamics of ideals and their interaction with gender roles and expectations is needed.

These findings are relevant for health policy and the challenges it may face in the future. Not only do rising obesity rates pose a risk factor by increasing the probability to suffer from a wide array of NCDs; the stigmatization of medically obese (and in our case, culturally too large) people and their perceived non-conformity with cultural norms also pose a direct health related risk as it can result in developing eating disorders (Vartanian & Porter, 2016). These disorders were for the longest time believed to be

culture bound and specific to north American and western European countries, but since the 1990s they have spread to countries that seemed to be immune to them, including India, South Africa and Nigeria (R. Gordon, 2003). The greatest public health challenge may thus still be on its way: a combination of obesity and increasing eating disorders, and some ethnic groups may be particularly at risk.

The fact that people of African descent in Trinidad and elsewhere have larger ideals and preferences compared to other groups raises the question if these body preferences are actively used as an act of othering. This is an interesting avenue for future research.

Although participants had some knowledge that overweight is not healthy and that healthy shapes are slimmer than what they considered ideal, they did not seem to know what a medically overweight shape looks like on the FRS. Further, they did not seem to know the cut-off between a healthy shape and an overweight shape. Hence, policy should try to attach visual images to quantified measures such as BMI. Most people may not weigh themselves on a regular basis, but are likely to take a look in the mirror frequently. Being able to recognize an (almost) overweight shape may help prevent becoming overweight in the first place.

Last, we found that there is a statistically significant relation between ethnicity, gender and the likelihood to imitate the drink choice of a peer. It is important to note that ethnicity was not associated with choosing a particular type of drink to signal ethnic companionship. Rather, the act of imitating or not-imitating a drink choice was used as a mean to signal group membership. This illustrates how signaling identity by association (dissociation) could conflict with health concerns: Even if an individual would chose healthily when alone, this choice may be altered in the presence of others and could lead to an unhealthy choice.

In general, while policy obviously needs to educate about the risks of overweight, it should not stop there. Policy makers need to be aware of the social context of bodies and their role as a cultural symbol. In societies in which being large means being more trustworthy the cost of obtaining a medically healthy body are greater than just sweat and counting calories. Ethnicity matters, even in seemingly unimportant decisions such as a choice between water and soda. We have yet to grasp its full extent.

#### References

- Achong, D. (2019). Singing sandra slams fat-shaming fuad. Port of Spain, Trinidad & Tobago. Retrieved 11.11.2019, from https://www.cnc3.co.tt/press-release/singing-sandra-slams-fat-shaming-fuad
- Akerlof, G. A., & Kranton, R. E. (2011). <u>Identity economics how our identities shape</u>
  our work, wages, and well-being. Princeton and Oxford: Princeton University
  Press.
- Alesina, A., & La Ferrara, E. (2005). Ethnic diversity and economic performance. Journal of economic literature, 43(3), 762–800.
- Ali, M. M., Rizzo, J. A., & Heiland, F. W. (2013). Big and beautiful? evidence of racial differences in the perceived attractiveness of obese females. <u>Journal of</u> adolescence, 36(3), 539–549. doi: 10.1016/j.adolescence.2013.03.010
- Allen, C. (1998). Health promotion, fitness and bodies in a postcolonial context: the case of trinidad. <u>Critical Public Health</u>, <u>8</u>(1), 73–92. doi: 10.1080/09581599808409213
- Altabe, M. (1998). Ethnicity and body image: Quantitative and qualitative analysis.

  International Journal of Eating Disorders, 23(2), 153–159. doi: 10.1002/(SICI)
  1098-108X(199803)23:2{\textless}153::AID-EAT5{\textgreater}3.0.CO;2-J
- Andreoni, J., & Petrie, R. (2008). Beauty, gender and stereotypes: Evidence from laboratory experiments. <u>Journal of Economic Psychology</u>, <u>29</u>(1), 73–93. doi: 10.1016/j.joep.2007.07.008
- Ata, R. N., Ludden, A. B., & Lally, M. M. (2007). The effects of gender and family, friend, and media influences on eating behaviors and body image during adolescence. Journal of Youth and Adolescence, 36(8), 1024–1037.
- Bakhshi, S. (2011). Women's body image and the role of culture: A review of the literature. Europe's Journal of Psychology, 7(2). doi: 10.5964/ejop.v7i2.135
- Banks, J., Marmot, M., Oldfield, Z., & Smith, J. P. (2006). Disease and disadvantage in the united states and in england. <u>JAMA</u>, <u>295</u>(17), 2037–2045. doi: 10.1001/jama.295.17.2037
- Barr, A. (2003). Trust and expected trustworthiness: experimental evidence from zimbabwean villages. The Economic Journal, 113(489), 614–630.
- Barr, A., & Oduro, A. (2002). Ethnic fractionalization in an african labour market. Journal of Development Economics, 68(2), 355–379.
- Barth, F. (1998, op. 1969). Ethnic groups and boundaries: The social organization of culture difference. Waveland Press.

- Bascandziev, I., & Harris, P. L. (2014). In beauty we trust: children prefer information from more attractive informants. The British journal of developmental psychology, 32(1), 94–99. doi: 10.1111/bjdp.12022
- Becker, A. E. (1995). <u>Body, self, and society: The view from fiji</u>. University of Pennsylvania Press.
- Becker, A. E., Burwell, R. A., Gilman, S. E., Herzog, D. B., & Hamburg, P. (2002). Eating behaviours and attitudes following prolonged exposure to television among ethnic fijian adolescent girls. The British journal of psychiatry: the journal of mental science, 180, 509–514. doi: 10.1192/bjp.180.6.509
- Becker, A. E., Fay, K. E., Agnew-Blais, J., Khan, A. N., Striegel-Moore, R. H., & Gilman, S. E. (2011). Social network media exposure and adolescent eating pathology in fiji. The British journal of psychiatry: the journal of mental science, 198(1), 43–50. doi: 10.1192/bjp.bp.110.078675
- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. Games and economic behavior, 10(1), 122–142.
- Bevelander, K. E., Anschütz, D. J., Creemers, D. H. M., Kleinjan, M., & Engels, R. C. (2013). The role of explicit and implicit self-esteem in peer modeling of palatable food intake: a study on social media interaction among youngsters. PloS one, 8(8), e72481.
- Bleich, S. N., Vercammen, K. A., Koma, J. W., & Li, Z. (2018). Trends in beverage consumption among children and adults, 2003-2014. Obesity, 26(2), 432–441.
- Bourdieu, P. (1984). <u>Distinction: A social critique of the judgement of taste</u>. London [etc.]: Routledge & Kegan Paul.
- Brewis, A. A. (2011). <u>Obesity: Cultural and biocultural perspectives</u>. New Brunswick, NJ: Rutgers University Press.
- Brewis, A. A., & Gartin, M. (2006). Biocultural construction of obesogenic ecologies of childhood: parent-feeding versus child-eating strategies. <u>American journal of human biology</u>: the official journal of the Human Biology Council, 18(2), 203–213. doi: 10.1002/ajhb.20491
- Brewis, A. A., & Wutich, A. (2014). A world of suffering? biocultural approaches to fat stigma in the global contexts of the obesity epidemic. <u>Annals of Anthropological Practice</u>, 38(2), 269–283. doi: 10.1111/napa.12056
- Brewis, A. A., Wutich, A., Falletta-Cowden, A., & Rodriguez-Soto, I. (2011). Body norms and fat stigma in global perspective. <u>Current Anthropology</u>, <u>52(2)</u>, 269–276. doi: 10.1086/659309
- Brown, P. J., & Konner, M. (1987). An anthropological perspective on obesity. Annals

- of the New York Academy of Sciences,  $\underline{499}$ , 29–46. doi: 10.1111/j.1749-6632.1987.tb36195.x
- Brülhart, M., & Usunier, J.-C. (2012). Does the trust game measure trust? Economics Letters, 115(1), 20–23.
- Burns, J. (2006). Racial stereotypes, stigma and trust in post-apartheid south africa. Economic Modelling, 23(5), 805–821. doi: 10.1016/j.econmod.2005.10.008
- Cachelin, F. M., Rebeck, R. M., Chung, G. H., & Pelayo, E. (2002). Does ethnicity influence body-size preference? a comparison of body image and body size. Obesity Research, 10(3), 158–166. doi: 10.1038/oby.2002.25
- Caldwell, M. B., d. Brownell, K., & Wilfley, D. E. (1997). Relationship of weight, body dissatisfaction, and self-esteem in african american and white female dieters.

  International Journal of Eating Disorders, 22(2), 127–130. doi: 10.1002/(SICI) 1098-108X(199709)22:2{\textless}127::AID-EAT2{\textgreater}3.0.CO;2-H
- Caliendo, M., & Gehrsitz, M. (2016). Obesity and the labor market: A fresh look at the weight penalty. Economics and human biology, 23, 209–225. doi: 10.1016/j.ehb.2016.09.004
- Caliendo, M., & Lee, W.-S. (2013). Fat chance! obesity and the transition from unemployment to employment. <u>Economics and human biology</u>, <u>11(2)</u>, 121–133. doi: 10.1016/j.ehb.2012.02.002
- Carroll, J. F., Chiapa, A. L., Rodriquez, M., Phelps, D. R., Cardarelli, K. M., Vishwanatha, J. K., ... Cardarelli, R. (2008). Visceral fat, waist circumference, and bmi: Impact of race/ethnicity. Obesity, 16(3), 600–607. doi: 10.1038/oby.2007.92
- Cawley, J., Han, E., & Norton, E. C. (2009). Obesity and labor market outcomes among legal immigrants to the united states from developing countries. <u>Economics and human biology</u>, 7(2), 153–164. doi: 10.1016/j.ehb.2009.04.001
- Chari, S. (2005). <u>'one together and one apart': Interracial marriages between indo-trinidadian women and afro-trinidadian men</u> (MA Thesis). University of Florida, Gainesville, Florida.
- Charles, K. K., Hurst, E., & Roussanov, N. (2009). Conspicuous consumption and race \*. Quarterly Journal of Economics, 124(2), 425–467. doi: 10.1162/qjec.2009.124.2.425
- Cheney, A. M. (2011). Most girls want to be skinny: body (dis)satisfaction among ethnically diverse women. Qualitative health research, 21(10), 1347–1359. doi: 10.1177/1049732310392592
- Collier, P. (2001). Implications of ethnic diversity. Economic policy, 16(32), 128–166.

- Conner, M., & Armitage, C. J. (2011). Social psychological models of food choice. In R. Shepherd & M. Raats (Eds.), <u>The psychology of food choice</u> (pp. 41–57). Wallingford: CABI and The Nutrition Society.
- Council, S. K., & Placek, C. (2014). Cultural change and explicit anti-fat attitudes in a developing nation: a case study in rural dominica. <u>Social Medicine</u>, <u>9</u>(1), 11–21.
- Croson, R., & Buchan, N. (1999). Gender and culture: International experimental evidence from trust games. <u>American Economic Review</u>, <u>89</u>(2), 386–391. doi: 10.1257/aer.89.2.386
- Crossley, M. L. (2002). Resistance to health promotion: a preliminary comparative investigation of british and australian students. <u>Health Education</u>, <u>102(6)</u>, 289–299. doi: 10.1108/09654280210446838
- Cruwys, T., Bevelander, K. E., & Hermans, R. C. J. (2015). Social modeling of eating: a review of when and why social influence affects food intake and choice. Appetite, 86, 3–18. doi: 10.1016/j.appet.2014.08.035
- Cruwys, T., Platow, M. J., Angullia, S. A., Chang, J. M., Diler, S. E., Kirchner, J. L., ... others (2012). Modeling of food intake is moderated by salient psychological group membership. Appetite, 58(2), 754–757.
- Cunningham, M. R., Roberts, A. R., Barbee, A. P., Druen, P. B., & Wu, C.-H. (1995). Their ideas of beauty are, on the whole, the same as ours: Consistency and variability in the cross-cultural perception of female physical attractiveness. <u>Journal</u> of Personality and Social Psychology, 68(2), 261–279.
- Ding, V. J., Stillman, J., et al. (2005). An empirical investigation of discrimination against overweight female job applicants in new zealand. New Zealand Journal of Psychology, 34(3).
- Dressler, W. W., Oths, K. S., Balieiro, M. C., Ribeiro, R. P., & Dos Santos, J. E. (2012). How culture shapes the body: cultural consonance and body mass in urban brazil. American journal of human biology: the official journal of the Human Biology Council, 24(3), 325–331. doi: 10.1002/ajhb.22207
- Dressler, W. W., Oths, K. S., Ribeiro, R. P., Balieiro, M. C., & Dos Santos, J. E. (2008). Cultural consonance and adult body composition in urban brazil. American journal of human biology: the official journal of the Human Biology Council, 20(1), 15–22. doi: 10.1002/ajhb.20674
- Durso, L. E., Latner, J. D., & Hayashi, K. (2012). Perceived discrimination is associated with binge eating in a community sample of non-overweight, overweight, and obese adults. Obesity facts, 5(6), 869–880. doi: 10.1159/000345931

- Elliott, C. D. (2007). Big persons, small voices: On governance, obesity, and the narrative of the failed citizen. Journal of Canadian Studies, 41(3), 134–149.
- Ensminger, J. E., & Henrich, J. (Eds.). (2014). <u>Experimenting with social norms:</u>

  <u>Fairness and punishment in cross-cultural perspective</u>. New York, NY: Russell Sage Foundation.
- Ezzati, M., Vander Hoorn, S., Lawes, C. M. M., Leach, R., James, W. P. T., Lopez, A. D., ... Murray, C. J. L. (2005). Rethinking the diseases of affluence paradigm: global patterns of nutritional risks in relation to economic development. <u>PLoS medicine</u>, 2(5), e133. doi: 10.1371/journal.pmed.0020133
- Finkelstein, L. M., Frautschy Demuth, R. L., & Sweeney, D. L. (2007). Bias against overweight job applicants: Further explorations of when and why. <u>Human</u> Resource Management, 46(2), 203–222. doi: 10.1002/hrm.20157
- Geertz, C. (1973). <u>The interpretation of cultures: Selected essays</u>. New York: Basic Books.
- Gentles-Peart, K. (2018). Controlling beauty ideals: Caribbean women, thick bodies, and white supremacist discourse. WSQ: Women's Studies Quarterly, 46(1-2), 199–214. doi: 10.1353/wsq.2018.0009
- Gilbert, S. C., Crump, S., Madhere, S., & Schutz, W. (2009). Internalization of the thin ideal as a predictor of body dissatisfaction and disordered eating in african, african-american, and afro-caribbean female college students. <u>Journal of College</u> Student Psychotherapy, 23(3), 196–211. doi: 10.1080/87568220902794093
- Gil-White, F. J. (2004). Ultimatum game with an ethnicity manipulation. <u>Foundations</u> of human sociality: Economic experiments and ethnographic evidence from fifteen small-scale societies, 260–304.
- Gordon, K. H., Castro, Y., Sitnikov, L., & Holm-Denoma, J. M. (2010). Cultural body shape ideals and eating disorder symptoms among white, latina, and black college women. Cultural Diversity and Ethnic Minority Psychology, 16(2), 135–143. doi: 10.1037/a0018671
- Gordon, R. (2003). Eating disorders east and west: A culture-bound syndrome unbound. In M. Nasser, M. Katzman, & R. Gordon (Eds.), <u>Eating disorders and</u> cultures in transition (pp. 1–15). Routledge.
- Government of the Republic of Trinidad and Tobago. Central Statistical Office. (2011). Population: Community register: 2011 population and housing census. Retrieved 11.11.2019, from https://cso.gov.tt/subjects/population-and-vital-statistics/population/
- Government of the Republic of Trinidad and Tobago. Ministry of Health. (2012).

- Ministry of health fights childhood obesity. Retrieved 2012, from http://www.health.gov.tt/news/newsitem.aspx?id=376
- Gray, P. B., & Frederick, D. A. (2012). Body image and body type preferences in st. kitts, caribbean: A cross-cultural comparison with u.s. samples regarding attitudes towards muscularity, body fat, and breast size. Evolutionary Psychology, 10(3), 147470491201000. doi: 10.1177/147470491201000319
- Greenberg, D. R., & LaPorte, D. J. (1996). Racial differences in body type preferences of men for women. <u>International Journal of Eating Disorders</u>, 19(3), 275–280. doi: 10.1002/(SICI)1098-108X(199604)19:3{\textless}275::AID-EAT6{\textgreater}3.0.CO;2-J
- Gremillion, H. (2005). The cultural politics of body size. Annu. Rev. Anthropol., 34, 13–32.
- Guthman, J., & DuPuis, M. (2006). Embodying neoliberalism: Economy, culture, and the politics of fat. Environment and Planning D: Society and Space, 24(3), 427–448. doi: 10.1068/d3904
- Hardin, J. (2015). Christianity, fat talk, and samoan pastors: Rethinking the fat-positive-fat-stigma framework. <u>Fat Studies</u>,  $\underline{4}(2)$ , 178-196. doi: 10.1080/21604851.  $\underline{2015.1015924}$
- Hart, E. A., Sbrocco, T., & Carter, M. M. (2016). Ethnic identity and implicit anti-fat bias: Similarities and differences between african american and caucasian women. Ethnicity & Disease, 26(1), 69. doi: 10.18865/ed.26.1.69
- Harvard T.H. Chan School of Public Health. (2013). <u>Sugary drinks</u>. Retrieved 22.11.2019, from https://www.hsph.harvard.edu/nutritionsource/healthy-drinks/sugary-drinks/
- Haytko, D. L., Parker, R. S., Motley, C. M., & Torres, I. M. (2014). Body image and ethnicity: A qualitative exploration. <u>Journal of Management and Marketing</u> Research, 17, 1–20.
- Hermans, R. C. J., Salvy, S.-J., Larsen, J. K., & Engels, R. C. (2012). Examining the effects of remote-video confederates on young women's food intake. <u>Eating</u> behaviors, 13(3), 246–251.
- Higgs, S. (2015). Social norms and their influence on eating behaviours. Appetite, 86, 38–44.
- Hu, F. B., & Malik, V. S. (2010). Sugar-sweetened beverages and risk of obesity and type 2 diabetes: epidemiologic evidence. Physiology & Behavior, 100(1), 47–54.
- Jusot, F., Khlat, M., Rochereau, T., & Serme, C. (2008). Job loss from poor health, smoking and obesity: a national prospective survey in france. Journal

- of epidemiology and community health,  $\underline{62}(4)$ ,  $\underline{332}$ – $\underline{337}$ . doi:  $\underline{10.1136}$ /jech. $\underline{2007}$ .  $\underline{060772}$
- Kerrigan, D. (2018). Language-in-use living under militarisation and insecurity: How securitisation discourse wounds trinidad. The Journal of Latin American and Caribbean Anthropology, 23(3), 416-436. doi: 10.1111/jlca.12341
- Khan, A. (2004). <u>Callaloo nation: Metaphors of race and religious identity among</u> south asians in trinidad. Durham: Duke University Press.
- Larose, S. L., Kpelitse, K. A., Campbell, M. K., Zaric, G. S., & Sarma, S. (2016). Does obesity influence labour market outcomes among working-age adults? evidence from canadian longitudinal data. <u>Economics and human biology</u>, <u>20</u>, 26–41. doi: 10.1016/j.ehb.2015.09.007
- Lear, S. A., Humphries, K. H., Kohli, S., & Birmingham, C. L. (2007). The use of bmi and waist circumference as surrogates of body fat differs by ethnicity\*\*. Obesity, 15(11), 2817–2824. doi: 10.1038/oby.2007.334
- Lehnert, T., Sonntag, D., Konnopka, A., Riedel-Heller, S., & König, H.-H. (2013). Economic costs of overweight and obesity. <u>Best practice & research. Clinical endocrinology & metabolism</u>, 27(2), 105–115. doi: 10.1016/j.beem.2013.01.002
- Livingstone, A. G., Young, H., & Manstead, A. S. R. (2011). "we drink, therefore we are". <u>Group Processes & Intergroup Relations</u>, <u>14</u>(5), 637–649. doi: 10.1177/1368430210392399
- Maestripieri, D., Henry, A., & Nickels, N. (2017). Explaining financial and prosocial biases in favor of attractive people: Interdisciplinary perspectives from economics, social psychology, and evolutionary psychology. <u>Behavioral and Brain Sciences</u>, <u>40</u>, 64. doi: 10.1017/S0140525X16000340
- Malik, V. S., Willett, W. C., & Hu, F. B. (2013). Global obesity: trends, risk factors and policy implications. Nature Reviews Endocrinology, 9(1), 13.
- McCabe, M. P., Fuller-Tyszkiewicz, M., Mellor, D., Ricciardelli, L., Skouteris, H., & Mussap, A. (2012). Body satisfaction among adolescents in eight different countries. <u>Journal of health psychology</u>, <u>17</u>(5), 693–701. doi: 10.1177/1359105311425274
- McCabe, M. P., & Ricciardelli, L. A. (2003). Sociocultural influences on body image and body changes among adolescent boys and girls. The Journal of social psychology, 143(1), 5–26. doi: 10.1080/00224540309598428
- McCabe, M. P., Waqa, G., Dev, A., Cama, T., & Swinburn, B. A. (2013). The role of cultural values and religion on views of body size and eating practices among adolescents from fiji, tonga, and australia. British Journal of Health Psychology,

- 18(2), 383-394. doi: 10.1111/j.2044-8287.2012.02090.x
- McFerran, B., Dahl, D. W., Fitzsimons, G. J., & Morales, A. C. (2015). How the body type of others impacts our food consumption. In R. Batra, V. J. Strecher, & P. A. Keller (Eds.), <u>Leveraging consumer psychology for effective health communications: The obesity challenge: The obesity challenge</u> (pp. 151–167). Routledge.
- McLaren, L. (2007). Socioeconomic status and obesity. <u>Epidemiologic Reviews</u>, <u>29</u>(1), 29–48. doi: 10.1093/epirev/mxm001
- Meisenhelder, T. (2003). African bodies: Othering the african in precolonial europe. Race, Gender & Class, 10(3), 100-113. Retrieved from http://www.jstor.org/stable/41675090
- Miller, D. (1997). <u>Modernity: An ethnographic approach</u>; dualism and mass consumption in trinidad (Reprinted. ed.). Oxford: Berg.
- Miller, K. E. (2008). Wired: energy drinks, jock identity, masculine norms, and risk taking. Journal of American College Health, 56(5), 481–490.
- Mobius, M. M., & Rosenblat, T. S. (2006). Why beauty matters. <u>American Economic</u> Review, 96(1), 222–235. doi: 10.1257/000282806776157515
- Murnen, S. (2011, 01). Gender and body images. <u>Body Image: A Handbook of Science</u>, Practice, and Prevention, 173-179.
- National Cancer Institute. (2019). Sources of calories from added sugars among the u.s. population, 2005-06: Risk factor monitoring and methods branch web site. applied research mean intake of added sugars & percentage contribution of various foods among us population. Retrieved 22.11.2019, from https://epi.grants.cancer.gov/diet/foodsources/added\_sugars/
- New Zealand Ministry of Health. (2006). Embodying social rank: How body fat varies with social status, gender and ethnicity in new zealand (Vol. 34). Wellington.
- New Zealand Ministry of Health. (2019). Obesity statistics. Retrieved from https://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/obesity-statistics
- Ng, M., Fleming, T., Robinson, M., Thomson, B., Graetz, N., Margono, C., ... Gakidou, E. (2014). Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the global burden of disease study 2013. The Lancet, 384(9945), 766–781. doi: 10.1016/S0140-6736(14)60460-8
- Nicholls, E. (2016). 'what on earth is she drinking?'doing femininity through drink choice on the girls' night out. Journal of International Women's Studies, 17(2),

- 77-91.
- Nicholls, J. (2013). The politics of alcohol: A history of the drink question in england.

  Manchester University Press.
- Niranjana, T. (2006). <u>Mobilizing india</u>. Duke University Press. doi: 10.1215/9780822388425
- Numbeo.com. (2019). <u>Cost of living in trinidad and tobago.</u> Retrieved 21.11.2019, from https://www.numbeo.com/cost-of-living/country\_result.jsp?country=Trinidad+And+Tobago
- PAHO/WHO Trinidad and Tobago. (2019). Overweight affects almost half the population of all countries in latin america and the caribbean except for haiti. Retrieved 11.11.2019, from https://www.paho.org/trt/index.php?option=com\_content&view=article&id=232:overweight -affects-almost-half-the-population-of-all-countries-in-latin -america-and-the-caribbean-except-for-haiti&Itemid=310
- Parasecoli, F. (2007). Bootylicious: Food and the female body in contemporary black pop culture. Women's Studies Quarterly, 35(1/2), 110–125.
- Parker, S., Nichter, M., Nichter, M., Vuckovic, N., Sims, C., & Ritenbaugh, C. (1995). Body image and weight concerns among african american and white adolescent females: Differences that make a difference. <u>Human Organization</u>, <u>54</u>(2), 103–114. doi: 10.17730/humo.54.2.06h663745q650450
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. <u>Journal of Adolescent Research</u>, 7(2), 156–176. doi: 10.1177/074355489272003
- Pompper, D., Soto, J., & Piel, L. (2007). Male body image and magazine standards: Considering dimensions of age and ethnicity. <u>Journalism & Mass Communication</u> Quarterly, 84(3), 525–545. doi: 10.1177/107769900708400308
- Popenoe, R. (2005). Ideal. In D. Kulick & A. Meneley (Eds.), <u>Fat</u> (pp. 9–28). New York: Jeremy P. Tarcher/Penguin.
- Powroznik, K. M. (2017). Healthism and weight-based discrimination. Work and Occupations, 44(2), 139–170. doi: 10.1177/0730888416682576
- Puhl, R. M., & Brownell, K. D. (2003). Psychosocial origins of obesity stigma: toward changing a powerful and pervasive bias. Obesity reviews: an official journal of the International Association for the Study of Obesity, 4(4), 213–227. doi: 10.1046/j.1467-789x.2003.00122.x
- Puhl, R. M., Gold, J. A., Luedicke, J., & DePierre, J. A. (2013). The effect of physicians' body weight on patient attitudes: implications for physician selection,

- trust and adherence to medical advice. <u>International Journal Of Obesity</u>, <u>37</u>, 1415 EP -. Retrieved from https://doi.org/10.1038/ijo.2013.33 doi: 10.1038/ijo.2013.33
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: A review and update. Obesity, 17(5), 941–964. doi: 10.1038/oby.2008.636
- Puhl, R. M., Heuer, C. A., & Brownell, K. D. (2009). Stigma and social consequences of obesity. In Kopelman, P. G., Caterson, I. D., & Dietz, W. H. (Ed.), <u>Clinical</u> obesity in adults and children (pp. 25–40). John Wiley & Sons.
- Puhl, R. M., & King, K. M. (2013). Weight discrimination and bullying. <u>Best practice</u> & research. Clinical endocrinology & metabolism, <u>27</u>(2), 117–127. doi: 10.1016/j.beem.2012.12.002
- Ragbir, A. (2012). Fictions of the past: Staging indianness, identity and sexuality among young women in indo-trinidadian beauty pageants. <u>Caribbean Review of Gender Studies(6)</u>.
- Ragoobirsingh, St. Morrison, E. Y. A., Johnson, P., & Lewis-Fuller, E. (2004). Obesity in the caribbean: the jamaican experience. <u>Diabetes, Obesity and Metabolism</u>, 6(1), 23–27. doi: 10.1111/j.1463-1326.2004.00303.x
- Ramberan, K., Austin, M., & Nichols, S. (2006). Ethnicity, body image perception and weight-related behaviour among adolescent females attending secondary school in trinidad. The West Indian medical journal, 55(6), 388–393. doi: 10.1590/s0043-31442006000600004
- Randall, A. (2012). Black women and fat. <u>Sunday Review</u>. Retrieved 11.11.2019, from https://www.nytimes.com/2012/05/06/opinion/sunday/why-black-women-are-fat.html
- Ravina, E. (2007). Beauty, personal characteristics, and trust in credit markets. <u>SSRN</u> Electronic Journal. doi: 10.2139/ssrn.972801
- Rawlins, E. (2008). Citizenship, health education and the obesity 'crisis'. <u>ACME: An</u> International E-Journal for Critical Geographies, 7(2), 135–151.
- Reddock, R. (2014). "looking for ah indian man": Popular culture and the dilemmas of indo-trinidadian masculinity. <u>Caribbean Quarterly</u>, <u>60</u>(4), 46–63. doi: 10.1080/00086495.2014.11672535
- Roberts, A., Cash, T. F., Feingold, A., & Johnson, B. T. (2006). Are black-white differences in females' body dissatisfaction decreasing? a meta-analytic review.

  <u>Journal of consulting and clinical psychology</u>, 74(6), 1121–1131. doi: 10.1037/0022-006X.74.6.1121
- Roberts, R. E., Phinney, J. S., Masse, L. C., Chen, Y. R., Roberts, C. R., & Romero,

- A. (1999). The structure of ethnic identity of young adolescents from diverse ethnocultural groups. The Journal of Early Adolescence, 19(3), 301–322.
- Robinson, E. (2015). Perceived social norms and eating behaviour: An evaluation of studies and future directions. Physiology & Behavior, 152, 397–401.
- Rocha Teixeira, S. (2017). Introduction: Bodies in the americas. <u>forum for</u> inter-american research, 10(2), 5–11.
- Rozin, P. (2011). The integration of biological, social, cultural and psychological influences on food choice. In R. Shepherd & M. Raats (Eds.), <u>The psychology of food choice (pp. 19–39)</u>. Wallingford: CABI and The Nutrition Society.
- Santoo, S. (March 9, 2019). Fuad causes furore, accused of fat-shaming candice.

  <u>Daily Express</u>. Retrieved 11.11.2019, from https://trinidadexpress.com/
  news/local/fuad-causes-furore-accused-of-fat-shaming-candice/
  article\_f8ece310-428f-11e9-9394-5b4a28fd1d1c.html
- Schooler, D. (2008). Real women have curves. <u>Journal of Adolescent Research</u>, <u>23</u>(2), 132–153. doi: 10.1177/0743558407310712
- Shaw, A. E. (2006). <u>The embodiment of disobedience: Fat black women's unruly</u> political bodies. Lanham: Lexington Books.
- Simeon, D. T., Abdool, P. S., Ali, A. C., Kungeesingh, K. V., Panchoo, K., & Rattan, R. D. (2001). 'slim is not in' among adolescents in trinidad. <u>Journal of Adolescent Health</u>, <u>28</u>(5), 370–371. doi: 10.1016/S1054-139X(01)00222-1
- Simeon, D. T., Rattan, R. D., Panchoo, K., Kungeesingh, K. V., Ali, A. C., & Abdool, P. S. (2003). Body image of adolescents in a multi-ethnic caribbean population.

  <u>European Journal of Clinical Nutrition</u>, <u>57</u>(1), 157–162. Retrieved from https://doi.org/10.1038/sj.ejcn.1601515 doi: 10.1038/sj.ejcn.1601515
- Sobal, J., Bisogni, C. A., Devine, C. M., & Jastran, M. (2011). A conceptual model of the food choice process over the life course. In R. Shepherd & M. Raats (Eds.), <u>The psychology of food choice</u> (pp. 1–18). Wallingford: CABI and The Nutrition Society.
- Sobal, J., & Stunkard, A. J. (1989). Socioeconomic status and obesity: a review of the literature. Psychological bulletin, 105(2), 260–275. doi: 10.1037/0033-2909.105.2 .260
- Sobo, E. J. (1993). Bodies, kin, and flow: Family planning in rural jamaica. Medical Anthropology Quarterly, 7(1), 50–73. doi: 10.1525/maq.1993.7.1.02a00040
- Stunkard, A. J., Sorensen, T., & Schulsinger, F. (1983). Use of the danish adoption register for the study of obesity and thinness. In S. S. Kety (Ed.), <u>Genetics of</u> neurological and psychiatric disorders (pp. 115–120). New York: Raven Press.

- Sussman, N. M., & Truong, N. (2011). Body image and eating disorders among immigrants. In V. R. Preedy, R. R. Watson, & C. R. Martin (Eds.), <u>Handbook of behavior, food and nutrition</u> (pp. 3241–3254). New York: Springer Science & Business Media.
- ten Have, M., de Beaufort, I. D., Teixeira, P. J., Mackenbach, J. P., & van der Heide, A. (2011). Ethics and prevention of overweight and obesity: an inventory. Obesity reviews: an official journal of the International Association for the Study of Obesity, 12(9), 669–679. doi: 10.1111/j.1467-789X.2011.00880.x
- Thompson, L., & Kumar, A. (2011). Responses to health promotion campaigns: resistance, denial and othering. <u>Critical Public Health</u>, <u>21</u>(1), 105–117. doi: 10.1080/09581591003797129
- Trinidad & Tobago Ministry of Health. (2011). Fight the fat t&t wellness revolution.

  Retrieved 22.11.2019, from http://www.health.gov.tt/news/newsitem.aspx
  ?id=294
- United Nations Development Programme. (2013). <u>Human development report</u>. New York and London: United Nations and Eurospan [distributor].
- United Nations Sustainable Development. (2019). Health: Goal 3: Ensure healthy lives and promote well-being for all at all ages. Retrieved 18.11.2019, from https://www.un.org/sustainabledevelopment/health/
- US Department of Health & Human Services: National Heart, Lung and Blood Institute. (2019). Losing weight, body mass iindex: Classification of overweight and obesity by bmi, waist circumference, and associated disease risks. Retrieved 11.11.2019, from https://www.nhlbi.nih.gov/health/educational/lose\_wt/BMI/bmi\_dis.htm
- Vartanian, L. R., & Porter, A. M. (2016). Weight stigma and eating behavior: A review of the literature. Appetite, 102, 3–14. doi: 10.1016/j.appet.2016.01.034
- Veblen, T. (1934, op. 1899). The theory of the leisure class: an economic study of institutions. 1899. New York: The Modern Library.
- Visscher, T. L. S., Snijder, M. B., & Seidell, J. C. (2009). Epidemiology: Definition and classification of obesity. In P. G. Kopelman, I. D. Caterson, & W. H. Dietz (Eds.), Clinical obesity in adults and children (pp. 3–14). John Wiley & Sons.
- Waske, M., & Vollmer, S. (2019). <u>Dog eat bone, men eat meat: Body ideals, ethnicity and socio-economics in the island of trinidad.</u> (unpublished manuscript). Leibniz University, Hannover.
- Webb, J. B., Warren-Findlow, J., Chou, Y.-Y., & Adams, L. (2013). Do you see what i see?: An exploration of inter-ethnic ideal body size comparisons among college

- women. Body image, 10(3), 369-379. doi: 10.1016/j.bodyim.2013.03.005
- Whitehead, D., & Russell, G. (2004). How effective are health education programmes—resistance, reactance, rationality and risk? recommendations for effective practice. <u>International Journal of Nursing Studies</u>, <u>41</u>(2), 163–172. doi: 10.1016/S0020-7489(03)00117-2
- Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2008). Racial/ethnic discrimination and health: Findings from community studies. <u>American Journal of Public Health</u>, 98(Supplement\_1), S29-S37. doi: 10.2105/AJPH.98. Supplement{\textunderscore}1.S29
- Wilson, D. B., Sargent, R., & Dias, J. (1994). Racial differences in selection of ideal body size by adolescent females. Obesity Research, 2(1), 38–43. doi: 10.1002/j.1550-8528.1994.tb00042.x
- Wilson, R. K., & Eckel, C. C. (2006). Judging a book by its cover: Beauty and expectations in the trust game. Political Research Quarterly, 59(2), 189–202. doi: 10.1177/106591290605900202
- World Health Organization. (2018). Obesity and overweight: Key facts. Retrieved 22.11.2019, from https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight
- World Health Organization. (2019). Controlling the global obesity epidemic. Retrieved 11.11.2019, from https://www.who.int/nutrition/topics/obesity/en/

## **Appendices**

#### A Appendix for Chapter 1

Lyrics of the soca song "Lookin' for ah Indian man" as performed by Denise Belfon.

Tah-ticky-tah, tah-ticky-tah-te (x 3) Chorus: Tonight ah lookin' for ah Indian man Yes ah callin' for ah Indian man Ah want yuh hold on me an jam, inside de session Yes you Mr Indian Man Ah really lookin' for ah Indian brute Rough and tough and sexy, smart and cute And if yuh have ah dhal belly Den better fete for me Choonkay dey, now leh me see Choonkay meh curry, Choonkay meh dhal If yuh come from Port of Spain, or yuh come from PenalWAIST is what yuh want from me WINE is what yuh want tuh see WAIST is what does make yuh scream WINE is what yuh want tuh feel Ah lookin for: ah Indian man Ah feelin for: ah Indian man Ah gotta get: ah Indian man Ah gotta have: ah Indian man Ah searching for: ah Indian man Ah hungry for: ah Indian man

Ah thirsty for: ah Indian man

(Chorus)

Ah yearning for: ah Indian man

To choonkay in de party When yuh pepper meet meh sauce We goin' an EH! Ah want ah Indian dhoti Tuh join meh sexy sari Meh bells dem ringing for he So come and choonkay Saucy Ah want ah Indian dhoti Tuh join meh sexy sari Meh bells dem ringing for he So come and choonkay Saucy (Chorus) Choonkay meh aloo, and meh baighan If yuh come from Caroni, I from Point Cumana WAIST is what yuh want from me WINE is what yuh want tuh see WAIST is what does make yuh scream WINE is what yuh want tuh feel Ah lookin for: ah Indian man Ah feelin for: ah Indian man Ah qotta qet: ah Indian man Ah gotta have: ah Indian man Ah searching for: ah Indian man Ah hungry for: ah Indian man Ah thirsty for: ah Indian man Ah yearning for: ah Indian man Leh we choonkay nah! (x 2)Choonkay dey! (x 2) Tah-ticky-tah, tah-ticky-tah-te  $(x \ 3)$ 

Are you de Indian man for me

## B Appendix for Chapter 2

The following table shows the approximate BMI associated with each figure on the FRS, as well as the body weight in kilograms that corresponds to each BMI for selected heights.

Number on the FRS	1	2	3	4	5	6	7	8	9
$\sim \mathrm{BMI}$	18.3	19.3	20.9	23.1	26.2	29.9	34.3	38.6	45.4
Kg at height 1.80m	59.29	62.53	67.72	74.84	84.89	96.88	111.13	125.06	147.1
Kg at height 1.70m	52.89	55.78	60.4	66.76	75.72	86.41	99.13	111.55	131.21
Kg at height 1.60m	46.85	49.41	53.5	59.14	67.07	76.54	87.81	98.82	116.22
Kg at height 1.50m	41.18	43.43	47.03	51.98	58.95	67.28	77.18	86.85	102.15

Table 1: BMI associated with FRS figures

The following tables show the difference between actual shape and preferred shape, as well as the difference between healthy and ideal shapes chosen on the FRS for the full sample and selected subgroups.

	Actual Shape	Preferred Shape	Difference
Full Sample	4.77	4.12	0.65***
Females	4.83	3.97	0.86***
Males	4.68	4.32	0.36***
Afro-Trini	4.81	4.23	0.58***
Indo-Trini	4.67	3.88	0.79***

Table 2: Actual and preferred body size, by subgroup

	Male Ideal	Male Healthy	Difference
Full Sample	4.36	4.14	0.22***
Females	4.26	4.02	0.24***
Males	4.50	4.30	0.20**
Afro-Trini	4.45	4.13	0.32***
Indo-Trini	4.18	4.15	0.03

Table 3: Healthy and ideal male size, by subgroup

	Female Ideal	Female Healthy	Difference
Full Sample	4.20	4.03	0.17***
Females	4.11	3.97	0.14
Males	4.33	4.11	0.22**
Afro-Trini	4.27	4.07	0.20***
Indo-Trini	4.05	3.95	0.10

Table 4: Healthy and ideal female size, by subgroup

The following tables show the OLS regression output. Outcome variables are the body shapes on the FRS chosen by survey participants in response to statements 1 - 6.

	1	2	3
Afro-Trini Participant	0.357***	0.253*	0.381*
	0.12	0.15	0.2
Female	-0.390***	-0.372***	-0.388***
	0.11	=	=
Married	-0.276***	-0.299***	-0.280***
	0.1	0.11	0.11
BMI	0.054***	0.055***	0.054***
	0.01	0.01	0.01
Age in years	-0.006	-0.006	-0.006
	0	0	0
University degree	0.002	-0.033	0.004
	0.14	0.14	0.14
Strong Ethnic ID		-0.124	
		0.19	
Afro-Trini Participant x Strong Ethnic ID		0.216	
		0.23	
Strong Other-group Orientation			0.039
			0.19
Afro-Trini Participant x Strong Other-group Orientation			-0.02
			0.24
Observations	405	396	403
R-Squared	0.26	0.27	0.26
Adj. R-Squared	0.18	0.18	0.17

Table 5: Ethnicity and preferred shape

	1	2	3
Afro-Trini Participant	0.285*	0.338***	0.365***
•	0.17	0.12	0.12
Female	-0.478***	-0.526***	-0.440**
	0.18	•	
Married	-0.273***		
	0.1		
BMI	0.054***		
	0.01	0.01	0.01
Age in years	-0.006*		-0.006
	0	0	$\theta$
University degree	0.001		0
	0.14	0.14	0.14
Strong Ethnic ID		-0.178	
		0.16	0.014
Strong Other-group Orientation			-0.016
	0.104		0.17
Afro-Trini Participant x Female	0.134		
E 1 C4 E41 : ID	0.22	0.250*	
Female x Strong Ethnic ID		0.359*	
Famala y Strong Other group Orientation		0.21	0.075
Female x Strong Other-group Orientation			$0.075 \\ 0.22$
Observations	405	396	403
R-Squared	0.26	0.28	0.26
Adj. R-Squared	0.18	0.19	0.17

Table 6: Gender and preferred shape

	1	2	3
Afro-Trini Participant	0.272**	0.280**	0.392**
-	0.11	0.14	0.18
Female	-0.261***	-0.248**	-0.263***
	0.09	0.1	0.1
Married	-0.173*	-0.181*	-0.172*
	0.09	0.1	0.09
BMI	0.028***	0.028***	0.028***
	0.01	0.01	0.01
Age in years	-0.004	-0.005	-0.004
	0	0	0
University degree	-0.155	-0.167	-0.151
	0.12	0.12	0.12
Strong Ethnic ID		-0.103	
		0.17	
Afro-Trini Participant x Strong Ethnic ID		0.025	
		0.21	
Strong Other-group Orientation			0.108
			0.17
Afro-Trini Participant x Strong Other-group Orientation			-0.167
			0.21
Observations	389	381	387
R-Squared	0.22	0.22	0.22
Adj. R-Squared	0.12	0.11	0.12

Table 7: Ethnicity and female ideal

	1	2	3
Afro-Trini Participant	0.357**	0.291***	0.277**
	0.15	0.11	0.11
Female	-0.161	-0.335***	-0.228
	0.16	0.13	0.17
Married	-0.177*	-0.175*	-0.172*
	0.09	0.09	0.09
BMI	0.028***	0.029***	0.028***
	0.01	0.01	0.01
Age in years	-0.004	-0.005	-0.004
	0	0	0
University degree	-0.154	-0.177	-0.15
	0.12	0.12	0.12
Strong Ethnic ID		-0.202	
		0.14	
Strong Other-group Orientation			0.028
			0.15
Afro-Trini Participant x Female	-0.152		
<del>-</del>	0.2		
Female x Strong Ethnic ID		0.203	
O		0.19	
Female x Strong Other-group Orientation			-0.053
			0.2
Observations	389	381	387
R-Squared	0.22	0.22	0.22
Adj. R-Squared	0.12	0.12	0.12

Table 8: Gender and female ideal

	1	2	3
Afro-Trini Participant	0.321***	0.339**	0.411**
	0.11	0.14	0.19
Female	-0.291***	-0.263**	-0.291***
	0.1	0.1	0.1
Married	-0.168*	-0.184*	-0.164*
	0.1	0.1	0.1
BMI	0.024***	0.026***	0.024***
	0.01	0.01	0.01
Age in years	-0.006*	-0.007*	-0.006*
	0	0	0
University degree	-0.071	-0.117	-0.076
	0.12	0.13	0.12
Strong Ethnic ID		-0.034	
		0.17	
Afro-Trini Participant x Strong Ethnic ID		-0.019	
		0.21	
Strong Other-group Orientation			0.159
			0.18
Afro-Trini Participant x Strong Other-group Orientation			-0.146
			0.22
Observations	386	378	384
R-Squared	0.18	0.19	0.19
Adj. R-Squared	0.08	0.08	0.08

Table 9: Ethnicity and male ideal

	1	2	3
Afro-Trini Participant	0.266*	0.335***	0.304***
	0.16	0.11	0.11
Female	-0.355**	-0.445***	-0.480***
	0.16	0.13	0.18
Married	-0.166*	-0.175*	-0.166*
	0.1	0.1	0.1
BMI	0.024***	0.027***	0.024***
	0.01	0.01	0.01
Age in years	-0.006*	-0.007*	-0.007*
o ,	0	0	0
University degree	-0.071	-0.137	-0.088
	0.12	0.13	0.12
Strong Ethnic ID		-0.290**	
		0.15	
Strong Other-group Orientation			-0.09
0 0 1			0.16
Afro-Trini Participant x Female	0.098		0.10
Time Tim Tarterpant in Temate	0.2		
Female x Strong Ethnic ID	0.2	0.430**	
Tomaio il Strong Etimio 12		0.19	
Female x Strong Other-group Orientation		0.10	0.267
1 children a crond a check a tremederen			0.21
Observations	386	378	384
	0.19	0.2	0.19
R-Squared			
Adj. R-Squared	0.08	0.1	0.09

Table 10: Gender and male ideal

	1	2	3
Afro-Trini Participant	0.231*	0.184	0.295
•	0.13	0.16	0.21
Female	-0.242**	-0.246**	-0.241**
	0.11	0.11	0.11
Married	-0.141	-0.135	-0.143
	0.11	0.11	0.11
BMI	0	-0.003	0
	0.01	0.01	0.01
Age in years	-0.008**	-0.009**	-0.008**
	0	0	0
University degree	0.036	0.043	0.037
	0.14	0.14	0.14
Strong Ethnic ID		0.06	
		0.19	
Afro-Trini Participant x Strong Ethnic ID		0.058	
		0.24	
Strong Other-group Orientation			0.038
			0.2
Afro-Trini Participant x Strong Other-group Orientation			-0.092
			0.24
Observations	373	365	371
R-Squared	0.17	0.19	0.17
Adj. R-Squared	0.07	0.08	0.06

Table 11: Ethnicity and healthiest female

	1	2	3
Afro-Trini Participant	0.175	0.207	0.227*
•	0.18	0.13	0.13
Female	-0.309*	-0.357**	-0.434**
	0.19	0.14	0.19
Married	-0.14	-0.126	-0.147
	0.11	0.11	0.11
BMI	0	-0.002	0
	0.01	0.01	0.01
Age in years	-0.008**	-0.009**	-0.009**
	0	0	0
University degree	0.035	0.035	0.029
ů č	0.14	0.14	0.14
Strong Ethnic ID	·	-0.045	•
		0.16	
Strong Other-group Orientation			-0.18
<u> </u>			0.17
Afro-Trini Participant x Female	0.101		
	0.23		
Female x Strong Ethnic ID		0.262	
Ŭ		0.21	
Female x Strong Other-group Orientation			0.281
			0.23
Observations	373	365	371
R-Squared	0.17	0.2	0.18
Adj. R-Squared	0.07	0.09	0.06

Table 12: Gender and healthiest female

	1	2	3
Afro-Trini Participant	0.087	0.098	0.075
	0.13	0.16	0.22
Female	-0.354***	-0.376***	-0.343***
	0.11	0.12	0.12
Married	-0.162	-0.134	-0.157
	0.11	0.11	0.11
BMI	0.01	0.009	0.011
	0.01	0.01	0.01
Age in years	-0.014***	-0.014***	-0.014***
	0	0	0
University degree	0.142	0.144	0.128
	0.15	0.15	0.15
Strong Ethnic ID		0.088	
		0.2	
Afro-Trini Participant x Strong Ethnic ID		-0.069	
		0.25	
Strong Other-group Orientation			-0.04
			0.2
Afro-Trini Participant x Strong Other-group Orientation			-0.029
			0.25
Observations	373	365	371
R-Squared	0.23	0.24	0.23
Adj. R-Squared	0.13	0.13	0.13

Table 13: Ethnicity and healthiest male

	1	2	3
Afro-Trini Participant	0.003	0.072	0.053
•	0.19	0.13	0.13
Female	-0.455**	-0.555***	-0.397**
	0.19	0.15	0.2
Married	-0.159	-0.124	-0.158
	0.11	0.11	0.11
BMI	0.01	0.01	0.011
	0.01	0.01	0.01
Age in years	-0.014***	-0.014***	-0.014***
	0	0	0
University degree	0.14	0.124	0.125
	0.15	0.15	0.15
Strong Ethnic ID		-0.195	
		0.17	
Strong Other-group Orientation			-0.103
			0.18
Afro-Trini Participant x Female	0.153		
	0.24		
Female x Strong Ethnic ID		0.426*	
		0.22	
Female x Strong Other-group Orientation			0.078
			0.24
Observations	373	365	371
R-Squared	0.23	0.25	0.23
Adj. R-Squared	0.13	0.14	0.13

Table 14: Gender and healthiest male

	(1)	(2)	(3)	(4)	(5)
	Male ideal	Healthy Male	Healthy Female	Slim Male	Slim Female
Afro-Trini Participant	0.326***	0.085	0.225*	0.132	0.098
	0.11	0.13	0.13	0.13	0.13
Female	-0.290***	-0.355***	-0.243**	-0.057	-0.033
	0.10	0.11	0.11	0.11	0.11
${ m married/common\ law}$	-0.180*	-0.155	-0.128	0.008	0.042
	0.10	0.12	0.11	0.11	0.11
BMI	0.023***	0.010	0.000	0.006	0.006
	0.01	0.01	0.01	0.01	0.01
Age in years	0.003	-0.019	-0.018	0.010	0.012
	0.02	0.02	0.02	0.02	0.02
Age in years x Age in years	-0.000	0.000	0.000	-0.000	-0.000
	0.00	0.00	0.00	0.00	0.00
University degree	-0.066	0.139	0.030	0.255*	0.240*
	0.12	0.15	0.14	0.14	0.14
Observations	386	373	373	407	410
R-Squared	0.19	0.23	0.17	0.25	0.25
Adj. R-Squared	0.08	0.13	0.07	0.16	0.16

Table 15: Age effects

	1	2	3
Afro-Trini Participant	0.093	0.072	-0.086
•	0.09	0.11	0.15
Female	0.017	0.034	0.02
	0.08	0.08	0.08
Married	0.067	0.072	0.079
	0.08	0.08	0.07
BMI	-0.005	-0.004	-0.004
	0.01	0.01	0.01
Age in years	-0.002	-0.003	-0.002
	0	0	0
University degree	-0.13	-0.131	-0.14
	0.1	0.1	0.1
Strong Ethnic ID		-0.018	
		0.14	
Afro-Trini Participant x Strong Ethnic ID		0.052	
		0.17	
Strong Other-group Orientation			-0.236*
			0.14
Afro-Trini Participant x Strong Other-group Orientation			0.203
			0.17
Observations	409	401	407
R-Squared	0.19	0.19	0.2
Adj. R-Squared	0.1	0.09	0.1

Table 16: Ethnicity and overweight male

	1	2	3
Afro-Trini Participant	0.136	0.09	0.055
	0.12	0.09	0.09
Female	0.07	0.077	0.021
	0.13	0.1	0.13
Married	0.065	0.072	0.077
	0.08	0.08	0.07
BMI	-0.005	-0.004	-0.004
	0.01	0.01	0.01
Age in years	-0.002	-0.003	-0.002
	0	0	$\theta$
University degree	-0.131	-0.124	-0.139
	0.1	0.1	0.1
Strong Ethnic ID		0.078	
		0.12	
Strong Other-group Orientation			-0.102
			0.12
Afro-Trini Participant x Female	-0.079		
	0.16		
Female x Strong Ethnic ID		-0.106	
		0.15	
Female x Strong Other-group Orientation			0.003
			0.16
Observations	409	401	407
R-Squared	0.19	0.19	0.2
Adj. R-Squared	0.1	0.09	0.1

Table 17: Gender and overweight male

	1	2	3
AC THE LEGISLA			
Afro-Trini Participant	0.088	0.106	-0.105
	0.08	0.11	0.14
Female	-0.005	0.008	-0.001
	0.07	0.08	0.07
Married	-0.002	0.002	0.01
	0.07	0.07	0.07
BMI	-0.005	-0.004	-0.003
	0	0	0
Age in years	-0.002	-0.003	-0.002
	0	0	0
University degree	-0.211**	-0.214**	-0.224**
	0.09	0.09	0.09
Strong Ethnic ID		0.014	
		0.13	
Afro-Trini Participant x Strong Ethnic ID		-0.046	
		0.16	
Strong Other-group Orientation			-0.202
			0.13
Afro-Trini Participant x Strong Other-group Orientation			0.226
			0.16
Observations	408	400	406
R-Squared	0.2	0.2	0.21
Adj. R-Squared	0.11	0.1	0.11

Table 18: Ethnicity and overweight female

	1	2	3
Afro-Trini Participant	0.157	0.088	0.052
The second secon	0.12	0.09	0.08
Female	0.08	0.036	0.011
	0.13	0.1	0.13
Married	-0.005	0	0.007
	0.07	0.07	0.07
BMI	-0.005	-0.004	-0.003
	0	0	0
Age in years	-0.002	-0.003	-0.002
	0	0	0
University degree	-0.213**	-0.212**	-0.222**
	0.09	0.09	0.09
Strong Ethnic ID		0.019	
		0.11	
Strong Other-group Orientation			-0.043
			0.12
Afro-Trini Participant x Female	-0.127		
	0.15		
Female x Strong Ethnic ID		-0.066	
		0.15	
Female x Strong Other-group Orientation			-0.013
			0.15
Observations	408	400	406
R-Squared	0.2	0.2	0.2
Adj. R-Squared	0.11	0.1	0.11
University degree Strong Ethnic ID Strong Other-group Orientation Afro-Trini Participant x Female Female x Strong Ethnic ID Female x Strong Other-group Orientation Observations R-Squared	0 -0.213** 0.09 -0.127 0.15 408 0.2	0 -0.212** 0.09 0.019 0.11 -0.066 0.15	0 -0.222** 0.09 -0.043 0.12 -0.013 0.15 406 0.2

Table 19: Gender and overweight female

	1	2	3
Afro-Trini Participant	0.120	0.085	0.039
	0.13	0.16	0.21
Female	-0.061	-0.076	-0.050
	0.11	0.12	0.11
Married	0.036	0.047	0.032
	0.11	0.11	0.11
BMI	0.008	0.008	0.007
	0.01	0.01	0.01
Age in years	-0.010**	-0.009**	-0.010***
	0.00	0.00	0.00
University degree	0.246*	0.242*	0.224
	0.14	0.14	0.14
Strong Ethnic ID		0.029	
		0.20	
Afro-Trini Participant x Strong Ethnic ID		0.059	
		0.24	
Strong Othergroup Orientation			0.178
			0.20
Afro-Trini Participant x Strong Othergroup Orientation			0.107
			0.24
Observations	407	398	405
R-Squared	0.24	0.24	0.25
Adj. R-Squared	0.16	0.15	0.16

Table 20: Ethnicity and slim male

	1	2	3
Afro-Trini Participant	0.055	0.113	0.113
<u>-</u>	0.18	0.13	0.13
Female	-0.141	-0.299**	-0.031
	0.19	0.15	0.20
Married	0.040	0.056	0.031
	0.11	0.11	0.11
BMI	0.008	0.009	0.007
	0.01	0.01	0.01
Age in years	-0.010***	-0.009**	-0.010**
	0.00	0.00	0.00
University degree	0.247*	0.213	0.225
	0.14	0.14	0.14
Strong Ethnic ID		-0.227	
		0.17	
Strong Othergroup Orientation			0.264
			0.18
Afro-Trini Participant x Female	0.120		
	0.23		
Female x Strong Ethnic ID		0.525**	
		0.22	
Female x Strong Othergroup Orientation			-0.025
			0.23
Observations	407	398	405
R-Squared	0.24	0.25	0.25
Adj. R-Squared	0.16	0.16	0.16

Table 21: Gender and slim male

	1	2	3
Afro-Trini Participant	0.084	0.089	0.048
-	0.13	0.16	0.21
Female	-0.038	-0.049	-0.027
	0.11	0.11	0.11
Married	0.075	0.088	0.069
	0.11	0.11	0.11
BMI	0.008	0.008	0.007
	0.01	0.01	0.01
Age in years	-0.012***	-0.010**	-0.011***
	0.00	0.00	0.00
University degree	0.229*	0.230	0.214
	0.14	0.14	0.14
Strong Ethnic ID		0.118	
		0.20	
Afro-Trini Participant x Strong Ethnic ID		-0.058	
		0.24	
Strong Othergroup Orientation			0.222
			0.20
Afro-Trini Participant x Strong Othergroup Orientation			0.059
			0.24
Observations	410	401	408
R-Squared	0.24	0.24	0.25
Adj. R-Squared	0.16	0.15	0.16

Table 22: Ethnicity and slim female

	1	2	3
Afro-Trini Participant	0.025	0.070	0.089
Г	0.18	0.13	0.13
Female	-0.110	-0.172	-0.042
	0.19	0.15	0.20
Married	0.078	0.091	0.068
	0.11	0.11	0.11
BMI	0.008	0.009	0.007
	0.01	0.01	0.01
Age in years	-0.012***	-0.010**	-0.011***
	0.00	0.00	0.00
University degree	0.230*	0.211	0.214
	0.14	0.14	0.14
Strong Ethnic ID		-0.089	
		0.17	
Strong Othergroup Orientation			0.248
			0.18
Afro-Trini Participant x Female	0.109		
	0.23		
Female x Strong Ethnic ID		0.296	
		0.22	
Female x Strong Othergroup Orientation			0.023
			0.23
Observations	410	401	408
R-Squared	0.24	0.24	0.25
Adj. R-Squared	0.16	0.15	0.16

Table 23: Gender and slim female

The following tables show the results of a logit estimation in which the dependent variable is the likelihood that the participant thought at least one of the overweight female or male shapes on the FRS was unhealthy (Statement 7).

	1	2	3
Afro-Trini Participant	1.628	1.584	1.357
	0.79	0.99	1.12
Female	1.663	1.717	1.652
	0.71	0.74	0.71
Married	1.346	1.324	1.338
	0.54	0.53	0.53
BMI	0.971	0.97	0.968
	0.03	0.03	0.03
Age in years	1.017	1.017	1.018
	0.01	0.02	0.02
University degree	1.584	1.581	1.601
	0.84	0.84	0.85
Strong Ethnic ID		1.191	
		0.92	
Afro-Trini Participant x Strong Ethnic ID		1.048	
		0.96	
Strong Other-group Orientation			1.337
			1.06
Afro-Trini Participant x Strong Other-group Orientation			1.323
			1.27
Observations	284	282	284

Table 24: Ethnicity and overweight female considered unhealthy

	1	2	3
Afro-Trini Participant	1.736	1.639	1.671
•	1.22	0.8	0.82
Female	1.8	2.932*	5.950*
	1.37	1.77	5.54
Married	1.341	1.359	1.31
	0.54	0.55	0.53
BMI	0.971	0.969	0.969
	0.03	0.03	0.03
Age in years	1.017	1.018	1.021
	0.02	0.02	0.02
University degree	1.576	1.652	1.764
	0.84	0.89	0.94
Strong Ethnic ID		2.503	
		1.63	
Strong Other-group Orientation			5.036*
			4.38
Afro-Trini Participant x Female	0.894		
	0.8		
Female x Strong Ethnic ID		0.318	
		0.26	
Female x Strong Other-group Orientation			0.177*
			0.19
Observations	284	282	284

Table 25: Gender and overweight female considered unhealthy

	1	2	3
Afro-Trini Participant	1.568	1.697	1.163
	0.77	1.11	0.96
Female	1.639	1.817	1.627
	0.7	0.79	0.7
Married	1.128	1.096	1.129
	0.46	0.45	0.47
BMI	0.973	0.973	0.969
	0.03	0.03	0.03
Age in years	1.022	1.022	1.022
	0.02	0.02	0.02
University degree	1.368	1.39	1.402
	0.78	0.8	0.8
Strong Ethnic ID		2.007	
		1.53	
Afro-Trini Participant x Strong Ethnic ID		0.834	
		0.76	
Strong Other-group Orientation			1.333
			1.06
Afro-Trini Participant x Strong Other-group Orientation			1.614
			1.55
Observations	246	245	246

Table 26: Ethnicity and overweight male considered unhealthy

	1	2	3
Afro-Trini Participant	2.401	1.535	1.658
-	1.72	0.76	0.83
Female	2.842	2.760*	6.034*
	2.2	1.69	5.59
Married	1.096	1.095	1.1
	0.45	0.45	0.45
BMI	0.973	0.973	0.97
	0.03	0.03	0.03
Age in years	1.023	1.023	1.027*
	0.02	0.02	0.02
University degree	1.32	1.417	1.58
	0.76	0.82	0.91
Strong Ethnic ID		2.952*	
		1.93	
Strong Other-group Orientation			5.878**
			5.16
Afro-Trini Participant x Female	0.458		
	0.42		
Female x Strong Ethnic ID		0.43	
		0.36	
Female x Strong Other-group Orientation			0.170*
			0.18
Observations	246	245	246

Table 27: Gender and overweight male considered unhealthy

The following tables show the results of a logit estimation in which the dependent variable is the participant's likelihood to agree with each stigmatizing statement 8 - 12.

	1	2	3	4	5	6
Afro-Trini Participant	1.012	0.815	1.691	1.509	0.964	1.003
	0.3	0.31	0.82	0.62	0.29	0.3
Female	1.094	1.102	1.095	1.797	1.273	1.727
	0.28	0.29	0.29	0.78	0.45	0.76
Married	1.111	1.086	1.111	1.075	1.1	1.121
	0.29	0.29	0.29	0.28	0.29	0.29
BMI	0.975	0.977	0.977	0.975	0.977	0.977
	0.02	0.02	0.02	0.02	0.02	0.02
Age in years	0.99	0.99	0.99	0.991	0.99	0.991
*** · · · · · · · ·	0.01	0.01	0.01	0.01	0.01	0.01
University degree	1.147	1.041	1.175	1.124	1.081	1.191
Ct Ed ' ID	0.38	0.35	0.39	0.37	0.37	0.39
Strong Ethnic ID		0.984			1.567	
Afra Trini Danticinant y Ctuana Ethnia ID		$0.45 \\ 1.519$			0.6	
Afro-Trini Participant x Strong Ethnic ID		0.85				
Strong Other-group Orientation		0.00	1.222			1.082
Strong Other-group Orientation			0.56			0.44
Afro-Trini Participant x Strong Other-group Orientation			0.451			0.44
Time Time I development a serong office group officentiation			0.25			
Afro-Trini Participant x Female			0.20	0.463		
Time Time I development in Formate				0.25		
Female x Strong Ethnic ID				0.1.00	0.713	
U					0.37	
Female x Strong Other-group Orientation						0.482
						0.26
Observations	400	389	399	400	389	399

Table 28: Likelihood to agree that "Weight gain is a sign of contentment and happiness."

	1	2	3	4	5	6
Afro-Trini Participant	0.665	0.553*	0.692	0.544	0.698	0.623*
	0.18	0.19	0.31	0.2	0.19	0.17
Female	0.617**	0.618*	0.591**	0.481*	0.708	0.449*
	0.15	0.16	0.15	0.2	0.23	0.19
Married	1.335	1.268	1.359	1.355	1.287	1.358
	0.32	0.31	0.33	0.33	0.31	0.33
BMI	0.967**	0.968*	0.970*	0.967**	0.968*	0.970*
	0.02	0.02	0.02	0.02	0.02	0.02
Age in years	0.997	1.002	0.996	0.996	1.002	0.996
	0.01	0.01	0.01	0.01	0.01	0.01
University degree	0.645	0.613	0.672	0.646	0.634	0.661
	0.2	0.2	0.21	0.2	0.2	0.21
Strong Ethnic ID		0.642			1.185	
		0.28			0.42	
Afro-Trini Participant x Strong Ethnic ID		1.889				
		1				
Strong Other-group Orientation			0.519			0.376***
			0.22			0.14
Afro-Trini Participant x Strong Other-group Orientation			0.87			
			0.46			
Afro-Trini Participant x Female				1.462		
				0.72		
Female x Strong Ethnic ID					0.712	
					0.34	
Female x Strong Other-group Orientation						1.522
						0.76
Observations	405	396	403	405	396	403

Table 29: Likelihood to agree that "People are overweight because they are lazy."

	1	2	3	4	5	6
Afro-Trini Participant	1.009	0.936	0.653	1.17	0.941	0.981
•	0.27	0.31	0.29	0.44	0.26	0.26
Female	0.725	0.793	0.713	0.872	0.98	0.947
	0.17	0.19	0.17	0.35	0.3	0.39
Married	0.868	0.844	0.883	0.862	0.834	0.882
	0.2	0.2	0.2	0.2	0.2	0.2
BMI	0.966**	0.963**	0.968**	0.966**	0.962**	0.968**
	0.01	0.02	0.02	0.01	0.02	0.02
Age in years	0.996	0.994	0.995	0.996	0.994	0.996
	0.01	0.01	0.01	0.01	0.01	0.01
University degree	0.563**	0.564*	0.561**	0.562**	0.578*	0.571*
	0.16	0.17	0.16	0.16	0.17	0.17
Strong Ethnic ID		1.866			2.603***	
		0.83			0.94	
Afro-Trini Participant x Strong Ethnic ID		1.029				
		0.54				
Strong Other-group Orientation			0.528			0.974
			0.23			0.36
Afro-Trini Participant x Strong Other-group Orientation			1.764			
			0.91			
Afro-Trini Participant x Female				0.761		
				0.37		
Female x Strong Ethnic ID					0.583	
					0.27	
Female x Strong Other-group Orientation						0.673
						0.33
Observations	397	388	396	397	388	396

Table 30: Likelihood to agree that "Obesity is what happens when people do not have self-control."

	1	2	3	4	5	6
Afro-Trini Participant	1.243	0.843	1.387	1.152	1.15	1.183
·	0.35	0.3	0.65	0.44	0.33	0.34
Female	0.509***	0.545**	0.523***	0.461*	0.549*	0.370**
	0.13	0.14	0.13	0.19	0.18	0.16
Married	0.743	0.688	0.744	0.746	0.705	0.742
	0.18	0.17	0.18	0.18	0.17	0.18
BMI	1.029*	1.028*	1.029*	1.029*	1.028*	1.029*
	0.02	0.02	0.02	0.02	0.02	0.02
Age in years	0.963***	0.960***	0.963***	0.963***	0.960***	0.962***
	0.01	0.01	0.01	0.01	0.01	0.01
University degree	0.607	0.533*	0.597*	0.609	0.555*	0.586*
	0.19	0.17	0.19	0.19	0.18	0.18
Strong Ethnic ID		0.972			1.754	
		0.44			0.63	
Afro-Trini Participant x Strong Ethnic ID		2.249				
		1.22				
Strong Other-group Orientation			1.215			0.803
			0.54			0.31
Afro-Trini Participant x Strong Other-group Orientation			0.818			
			0.44			
Afro-Trini Participant x Female				1.159		
				0.59		
Female x Strong Ethnic ID					0.954	
					0.46	
Female x Strong Other-group Orientation						1.654
						0.85
Observations	404	395	402	404	395	402

Table 31: Likelihood to agree that "For a woman a thick body is prestigious."

	1	2	3	4	5	6
Afro-Trini Participant	0.668	0.592	0.657	0.721	0.614	0.644
•	0.27	0.34	0.43	0.36	0.26	0.26
Female	0.342***	0.364***	0.358***	0.382*	0.396*	0.332*
	0.13	0.14	0.13	0.22	0.21	0.2
Married	0.402***	0.360***	0.400***	0.399***	0.357***	0.400***
	0.14	0.13	0.14	0.14	0.13	0.14
BMI	0.984	0.983	0.984	0.984	0.983	0.984
	0.02	0.02	0.02	0.02	0.02	0.02
Age in years	0.99	0.993	0.99	0.99	0.993	0.99
	0.01	0.01	0.01	0.01	0.01	0.01
University degree	0.447*	0.363*	0.439*	0.445*	0.364*	0.438*
	0.22	0.19	0.22	0.22	0.2	0.22
Strong Ethnic ID		2.275			2.557**	
		1.33			1.2	
Afro-Trini Participant x Strong Ethnic ID		1.076				
		0.8				
Strong Other-group Orientation			0.996			0.932
			0.59			0.46
Afro-Trini Participant x Strong Other-group Orientation			0.975			
			0.74			
Afro-Trini Participant x Female				0.831		
				0.6		
Female x Strong Ethnic ID					0.853	
					0.6	
Female x Strong Other-group Orientation						1.119
						0.8
Observations	360	351	358	360	351	358

Table 32: Likelihood to agree that "A thick man is a powerful man."

The following table shows the result of an OLS estimation in which the dependent variable was the participant's agreement with statement 13. The share of participants that agreed with this statement was too low to employ a logit model. Hence, OLS is used as an approximation.

	1	2	3	4	5	6
Afro-Trini Participant	0.026	0.005	0.032	0.092*	0.026	0.024
	0.03	0.04	0.06	0.05	0.03	0.03
Female	-0.071**	-0.068**	-0.075**	0.01	-0.101**	-0.132**
	0.03	0.03	0.03	0.05	0.04	0.05
Married	0.041	0.039	0.042	0.038	0.041	0.042
	0.03	0.03	0.03	0.03	0.03	0.03
BMI	-0.001	-0.002	-0.001	-0.002	-0.002	-0.001
	0	0	0	0	0	0
Age in years	0.001	0.001	0.001	0.001	0.001	0.001
TT : '4 1	0	0	0	0	0.00	0
University degree	-0.01	-0.017	-0.004	-0.011	-0.02	-0.006
Strong Ethnic ID	0.04	0.04 -0.049	0.04	0.04	0.04 -0.055	0.04
Strong Ethine ID		0.049			0.04	
Afro-Trini Participant x Strong Ethnic ID		0.056			0.04	
Alto-Timi Tarticipant X Strong Dunite 1D		0.07				
Strong Other-group Orientation		0.0.	-0.083			-0.137***
			0.05			0.05
Afro-Trini Participant x Strong Other-group Orientation			-0.009			
			-0.07			
Afro-Trini Participant x female				-0.121*		
				-0.06		
female x Strong Ethnic ID					0.078	
$ ext{textit}0 ext{-}0.06$						
female x Strong Other-group Orientation						0.083
0-0.06						
Observations	411	402	409	411	402	409

Standard errors in italics, \* p<0.10 \*\* p<0.05 \*\*\* p<0.01

Table 33: Agreement with "Being overweight is a sign of poverty."

## C Appendix for Chapter 3

## Characteristics of Survey and Experimental Participants

The following table shows characteristics of survey and experimental participants by subgrou. No significant differences were found.

Variable	Experiment	Survey	Difference
mean age	42.51	40.18	-2.33
mean BMI	28.36	28.24	-0.12
share of Afro-Trinis	0.7	0.67	-0.03
share of females	0.65	0.58	-0.07
share with high personal income	0.24	0.2	-0.04
share with high household income	0.17	0.15	-0.02
share with university degree	0.24	0.25	0.01
share that is married	0.51	0.48	-0.03
share that lives in urban area	0.44	0.49	0.06
share that trusts slim person easier	0.09	0.1	0.01
share that trusts own ethnic group easier	0.28	0.29	0.01
share that is religious	0.97	0.94	-0.03
av. figure on FRS that is considered a slim male	2.71	2.54	-0.17
av. figure on FRS that is considered a slim female	2.67	2.53	-0.14
av. figure on FRS that is considered an ideal male	4.27	4.36	0.09
av. figure on FRS that is considered an ideal female	4.17	4.2	0.03
av. preferred own shape on the FRS (male participant)	4.52	4.32	-0.2
av. preferred own shape on the FRS (female participant)	3.73	3.97	0.24
av. actual own shape on the FRS (male participant)	4.72	4.68	-0.04
av. actual own shape on the FRS (female participant)	4.72	4.83	0.11

Table 34: Characteristics of survey and experimental participants

	Not at all		Very		
Did you find the person described trustworthy?	0	0	0	0	0

Figure 1: Proposer's post-decision questionnaire

The	person who s	sent this inv	estment wou	ld probably	be
someone skinny					someone thick
0	0	0	0	0	0

Figure 2: Respondent's post-decision questionnaire

The following table shows mean investments sent by proposers to respondents, by ethnicity and weight status of both.

	Mean Investments	Min	Max	Obs.
All participants	14.16667	0	30	66
Afro-Trini Proposers	14.46809	0	30	47
Indo-Trini Proposers	13.42105	0	30	19
Large Respondents	15.375	5	30	40
Skinny Respondents	12.30769	0	30	26
Afro-Trini Respondents	13.91892	0	30	37
Indo-Trini Respondents	14.48276	0	30	29

Table 35: Mean investments

The following table summarizes the number of investments sent to respondents of given ethnicity and weight status.

Respondent is	Afro-Trini	Indo-Trini	Total
Skinny	15	11	26
Large	22	18	40
Total	37	29	66

Table 36: Balance table

The following figures illustrate the distribution of experimental participants body preferences.

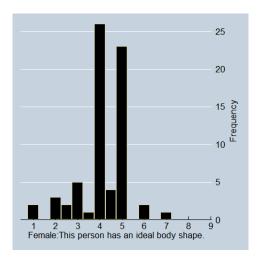


Figure 3: Distribution of experimental participants' female ideals

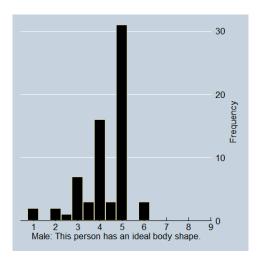


Figure 4: Distribution of experimental participants' male ideals

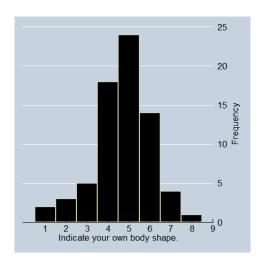


Figure 5: Distribution of experimental participants' own shape

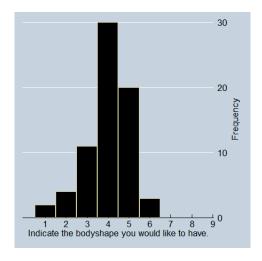


Figure 6: Distribution of experimental participants' preferred shape

The following table shows the average absolute distance between the respondent's body shape and the proposer's female ideal, male ideal, preferred shape and actual shape.

	between all Re-	Absolute Distance between large Respondent's BS and Proposers	between skinny Respondent's BS and
Female Ideal Male Ideal Actual shape Preferred shape	2.90	3.05	2.67
	2.88	2.96	2.76
	2.53	2.28	2.92
	2.74	3.00	2.32

Table 37: Absolute distances between respondent's body shape and proposer's body preferences

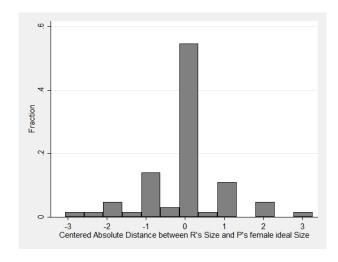


Figure 7: Distribution of centered abs. distance to female ideal

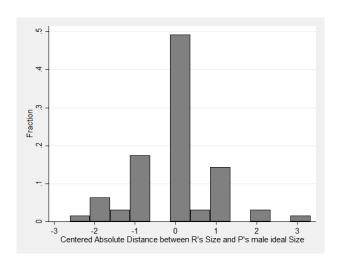


Figure 8: Distribution of centered abs. distance to male ideal

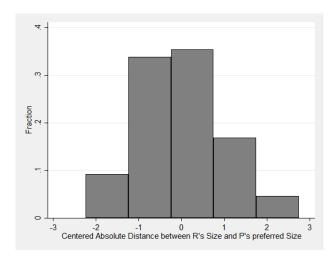


Figure 9: Distribution of centered abs. distance to preferred size

## **Extended Regression Output**

The following tables show OLS regression results using **Session fixed effects** as control variables. The dependent variable is the size of the investment sent by the group 1 proposer in round 1.

	1	2	3	4
Large Respondent	3.07	3.61	3.92	3.69
	2.13	2.89	4.68	2.91
Overweight/Obese Proposer		0.98	1.34	
		2.72	5.17	
Afro-Trini Respondent		-1.7	-1.76	-1.55
		2.72	2.85	2.76
Afro-Trini Proposer		2.79	2.79	2.68
		3.01	3.05	3.07
Female		0.11	0.11	0.18
		3.01	3.04	3.01
Age in years		0.03	0.03	0.03
		0.09	0.09	0.09
University degree		1.54	1.55	1.37
		2.81	2.85	2.87
works in health sector		-3.11	-3.13	-3.23
		4.71	4.78	4.75
work with physical requirements		-2.14	-2.06	-2.35
		3.24	3.41	3.31
Large Respondent x Overweight/Obese Proposer			-0.49	
•			5.88	
(centered) BMI of Proposer				0.01
,				0.22
Large Respondent x (centered) BMI of				0.14
Proposer				
				0.32
No. of Obs.	66	64	64	64
R-Squared	0.03	0.31	0.31	0.31
Adj. R-Squared	0.02	-0.01	-0.04	-0.03

Table 38: Size of proposer's investment in the trust game I

	1	2	3
Large Respondent	4.5	5.92	3.1
Large Respondent	3.1	4.27	3.87
Overweight/Obese Proposer	0.57	0.31	1.41
Overweight/Obese i Toposer	2.78	2.88	2.82
Afro-Trini Respondent	-1.67	0.71	2.02
Tito Itim respondent	2.84	4.26	
Afro-Trini Proposer	1.65	$\frac{4.50}{3.52}$	
Tillo Tilli Troposor	3.19	3.19	
Female	-0.8	0.55	0.22
2 02200	3.21	3.08	3.03
Age in years	0.03	0.03	0.03
	0.1	0.09	0.09
University degree	0.76	1.49	0.92
- , , ,	2.95	2.83	2.82
works in health sector	-3.02	-2.41	-2.7
	5.02	4.83	4.72
work with physical requirements	-3.35	-1.4	-1.4
1	3.48	3.41	3.19
Agree: 'Easier to trust slim'	1.18	,	
	7.25		
Large Respondent x Agree: 'Easier to trust slim'	-8.52		
	9.86		
Large Respondent x Afro-Trini Respondent		-4.45	
1		6.04	
P + R share ethnicity		,	-3.47
v			4.76
Large Respondent x P $+$ R share eth-			3.12
nicity			
			5.74
No. of Obs.	63	64	64
R-Squared	0.32	0.32	0.3
Adj. R-Squared	-0.05	-0.03	-0.03

 $Standard\ errors\ in\ italics,\ *\ p<0.10\ ***\ p<0.05\ ****\ p<0.01;\ CV:\ \textbf{Session}\ \textbf{FE},\ Enum.\ Personally\ knew\ Participant$ 

Table 39: Size of proposer's investment in the trust game II

	1	2	3	4
Afro-Trini Respondent	-3.55	-3.72	0.06	-3.15
r	2.69	2.77	2.92	2.7
Afro-Trini Proposer	1.46	1.15	2.97	1.88
-	3.16	3.19	2.92	3.08
Female	0.38	0.07	-0.41	-0.49
	3.01	3.07	2.89	3.01
Age in years	0.08	0.09	0.05	0.09
	0.09	0.09	0.09	0.09
University degree	1.65	1.54	1.98	1.64
	2.81	2.84	2.73	2.85
works in health sector	-4.34	-4.72	-3.39	-5.69
	4.69	4.66	4.49	4.87
work with physical requirements	-2.04	-1.78	-2.62	-3.59
	3.27	3.39	3.14	3.34
Centered Distance to Female Ideal	0.57			
	1.24			
Centered Distance to Male Ideal		-0.7		
		1.25		
Centered Distance to Actual Size			-2.41*	
			1.29	
Centered Distance to Preferred Size				-1.92
				1.36
No. of Obs.	62	61	64	63
R-Squared	0.31	0.31	0.33	0.32
Adj. R-Squared	-0.01	-0.01	0.04	0.02

 $Standard\ errors\ in\ italics,\ *\ p<0.10\ ***\ p<0.05\ ****\ p<0.01;\ CV:\ \textbf{Session}\ \textbf{FE},\ Enum.\ Personally\ knew\ Participant$ 

Table 40: Investment size and centered distance

	1	2	3	4
Afro-Trini Respondent	-3.93	-4.44	0.08	-2.93
	2.89	2.99	3.02	2.71
Afro-Trini Proposer	2.1	0.77	3.82	1.31
	3.14	3.06	3.2	2.91
Female	2.6	2.2	0.06	2.43
	3.26	3.09	2.92	3.22
Age in years	0.06	0.07	0.04	0.07
	0.09	0.09	0.09	0.09
University degree	1.23	0.8	2.06	2.18
	2.79	2.75	2.74	2.69
works in health sector	-3.53	-2.24	-2.57	-4.03
	4.7	4.63	4.57	4.61
work with physical requirements	-1.35	-1	-2.03	-2.75
	3.24	3.26	3.2	3.2
Centered Distance to Female Ideal	3.82			
	2.56			
Centered Distance to Male Ideal		3.7		
		2.47		
Centered Distance to Actual Size			-0.87	
			2.08	
Centered Distance to Preferred Size				1.43
				2.67
Large Respondent	2.26	3.27	3.11	4.31
<u> </u>	3.08	3.06	2.86	3
Large Respondent x Centered Distance to Female Ideal	-4.98			
	3.12			
Large Respondent x Centered Dis-	0.12	-6.54**		
tance to Male Ideal				
		3	_	
Large Respondent x Centered Distance to Actual Size			-2.16	
			2.61	
Large Respondent x Centered Dis-			,5.0=	-5.95*
tance to Preferred Size				5.50
				3.1
No. of Obs.	62	61	64	63
R-Squared	0.36	0.4	0.36	0.43
Adj. R-Squared	0.30	$0.4 \\ 0.07$	0.30	0.43 $0.14$
	0.02	0.01	0.04	0.14

 $Standard\ errors\ in\ italics,\ *\ p<0.10\ ***\ p<0.05\ ****\ p<0.01;\ CV:\ \textbf{Session}\ \ \textbf{FE},\ Enum.\ Personally\ knew\ Participant$ 

Table 41: Investment size and direction of distance

	1	2	3	4	5
Afro-Trini Respondent	0.82	-2.99	-3.14	-0.58	-2.77
	4.1	2.89	2.78	2.95	2.59
Large Respondent	6.04				
	4.08				
Afro-Trini Respondent x Large Respondent	-4.65				
A.C. T D.	5.67	1 10	1.0	0.01	4.01
Afro-Trini Proposer	3.56	1.13	1.8	3.21	4.31
Female	$3.14 \\ 0.62$	3.2	3.22	2.91	3.15
remaie	$\frac{0.62}{2.98}$	-0.02 3.08	0.43 3.04	-0.71 2.88	-0.83 <i>2.89</i>
Age in years	0.03	0.07	$\frac{3.04}{0.07}$	0.05	0.12
Age iii years	0.03 - 0.09	$0.07 \\ 0.09$	0.01	0.09	$0.12 \\ 0.09$
University degree	1.51	1.92	1.93	1.79	2.82
Oniversity degree	2.79	2.87	2.86	2.72	2.79
works in health sector	-2.33	-4.63	-4.64	-4.32	-6.25
morns in neuron sector	4.72	4.67	4.74	4.52	4.67
work with physical requirements	-1.37	-1.88	-1.82	-3.59	-3.86
ru	3.35	3.4	3.31	3.22	3.2
Centered Distance to Male Ideal		0.46			
		1.78			
Afro-Trini Respondent x Centered Distance to Male Ideal		-2.57			
		2.78			
Centered Distance to Female Ideal			1.48		
			1.89		
Afro-Trini Respondent x Centered Distance to Female Ideal			-1.75		
			2.72	0.05	
Centered Distance to Actual Size				0.05	
AC TEND 1 A C A 1D A A 10				2.35 -3.67	
Afro-Trini Respondent x Centered Distance to Actual Size				-3.67 2.94	
Centered Distance to Preferred Size				2.94	0.92
Sentered Distance to Freienred Size					$\frac{0.92}{1.83}$
Afro-Trini Respondent x Centered Distance to Preferred Size					-5.69*
The Time respondence to converted Distance to 1 reletted Size					2.58
No. of Obs.	64	61	62	64	63
R-Squared	0.32	0.32	0.31	0.36	0.39
Adj. R-Squared	0	-0.01	-0.02	0.06	0.1

Table 42: Investment size, ethnicity and distance I

	1	2	3	4
Female	-0.63	-0.98	-0.66	-1.56
	3.13	2.98	2.81	2.91
Age in years	0.06	0.04	0.05	0.09
	0.1	0.09	0.09	0.09
University degree	1.03	0.57	0.87	1.31
	2.88	2.77	2.69	2.75
works in health sector	-4.39	-4.53	-3.17	-5.54
	4.71	4.59	4.37	4.73
work with physical requirements	-2.38	-2.42	-1.52	-3.85
	3.45	3.14	3.01	3.2
Centered Distance to Male Ideal	0.92			
	2.51			
Centered Distance to Female Ideal		3.62*		
		1.97		
Centered Distance to Actual Size			-0.73	
			1.49	
Centered Distance to Preferred Size				1.1
				2.06
${ m P+R}$ share ethnicity	-0.98	-1.15	0.54	1.02
	2.71	2.58	2.4	2.54
P + R share ethnicity x Centered Distance to Male Ideal	-2.34			
	3			
P + R share ethnicity x Centered Distance to Female Ideal		-4.93*		
		2.62		
P + R share ethnicity x Centered Dis-		2.02	-3.70*	
tance to Actual Size			0.41	
			2.14	F 40**
P + R share ethnicity x Centered Dis-				-5.42**
tance to Preferred Size				0.15
				2.45
No. of Obs.	61	62	64	63
R-Squared	0.29	0.34	0.36	0.37
Adj. R-Squared	-0.04	0.04	0.08	0.09

Standard errors in italics, \* p < 0.10 \*\*\* p < 0.05 \*\*\*\* p < 0.01; CV: Session FE, Enum. Personally knew Participant

Table 43: Investment size, ethnicity and distance II

The following tables show OLS regression results using **Community fixed effects** as control variables instead of session fixed effects. The dependent variable is the size of the investment sent by the group 1 proposer in round 1.

	1	2	3
Large Respondent	2.37	3.17	2.31
	2.4	4.57	2.45
Overweight/Obese Proposer	2.06	2.88	1.78
<u> </u>	2.58	4.75	3.13
Afro-Trini Respondent	-2.06	-2.18	-1.95
	2.37	2.46	2.42
Afro-Trini Proposer	1.61	1.58	1.56
<u>-</u>	2.52	2.55	2.57
Female	0.5	0.56	0.39
	2.77	2.81	2.83
Age in years	0.03	0.03	0.03
	0.09	0.09	0.09
University degree	0.41	0.45	0.17
, c	2.71	2.74	2.79
works in health sector	-0.29	-0.37	-0.43
	4.19	4.24	4.3
work with physical require-	0.19	0.39	-0.16
ments			
	2.86	3.05	3
Large Respondent x Partici-		-1.16	
pant is Overweight			
		5.63	
(centered) BMI of Proposer			-0.07
			0.24
Large Respondent x (centered)			0.17
BMI of Proposer			
			0.32
No. of Obs.	64	64	64
R-Squared	0.1	0.11	0.11
Adj. R-Squared	-0.08	-0.1	-0.12

Table 44: Size of proposer's investment in the trust game III

1	2	3
		2.63
		3.42
-		2.24
		2.62
-2.35		2.02
0.95	2.05	
2.68	2.6	
-0.4		0.44
		2.79
0.03	0.03	0.03
0.09	0.09	0.09
-0.27		0.19
2.85		2.73
-0.19		0.61
		4.25
-0.4	0.8	0.58
3.07	2.99	2.85
-2.55		
6.05		
0.12		
8.36		
	-4.02	
	5.37	
		-2.25
		3.84
		$0.8\overline{5}$
		4.83
63	64	64
	0.11	0.1
-0.13	-0.09	-0.09
	2.46 0.95 2.68 -0.4 2.95 0.03 0.09 -0.27 2.85 -0.19 4.32 -0.4 3.07 -2.55 6.05 0.12 8.36	2.64 3.89 1.82 1.53 2.66 2.68 -2.35 0.43 2.46 4.08 0.95 2.05 2.68 2.6 -0.4 0.78 2.95 2.8 0.03 0.03 0.09 0.09 -0.27 0.27 2.85 2.73 -0.19 0.42 4.32 4.32 -0.4 0.8 3.07 2.99 -2.55 6.05 0.12 8.36 -4.02 5.37

Table 45: Size of proposer's investment in the trust game IV

	1	2	3	4
Afro-Trini Respondent	-2.7	-2.93	-1.41	-2.13
	2.41	2.42	2.45	2.43
Afro-Trini Proposer	1.43	1.45	1.71	1.91
	2.54	2.56	2.5	2.62
Overweight/Obese Pro-	1.96	2.24	1.56	1.82
poser				
	2.69	2.68	2.57	2.61
Female	0.7	0.65	0.23	0.26
	2.81	2.83	2.77	2.84
Age in years	0.04	0.05	0.05	0.04
C v	0.09	0.09	0.09	0.09
University degree	0.66	0.69	0.51	0.15
	2.75	2.76	2.7	2.8
works in health sector	-0.42	-1.58	-0.71	-1.76
	4.37	4.29	4.13	4.57
work with physical requirements	0.12	0.01	0.3	0.01
	2.91	2.94	2.85	2.93
Centered Distance to Female Ideal	0.47	r		
	1.26			
Centered Distance to Male Ideal		-1.04		
		1.2		
Centered Distance to Actual Size			-1.4	
			1.16	
Centered Distance to Pre-				-0.87
ferred Size				
				1.21
No. of Obs.	62	61	64	63
R-Squared	0.1	0.11	0.11	0.1
Adj. R-Squared	-0.1	-0.09	-0.07	-0.1

Table 46: Investment and centered distance II

Afro-Trini Proposer 1.71 0.83 2.28 2.5 2.51 2.79 Overweight/Obese Proposer 1.94 1.97 1.23 2.66 2.65 2.75 Female 2.61 2 0.28 2.93 2.84 2.8 Age in years 0.05 0.06 0.05	3.64 2.45 1.22 2.5 0.93 2.53 3.4 3.12 0.06
Afro-Trini Proposer 1.71 0.83 2.28 2.5 2.51 2.79 Overweight/Obese Proposer 1.94 1.97 1.23 2.66 2.65 2.75 Female 2.61 2 0.28 2.93 2.84 2.8 Age in years 0.05 0.06 0.05	2.45 1.22 2.5 0.93 2.53 3.4 3.12
Afro-Trini Proposer       1.71       0.83       2.28         2.5       2.51       2.79         Overweight/Obese Proposer       1.94       1.97       1.23         2.66       2.65       2.75         Female       2.61       2       0.28         2.93       2.84       2.8         Age in years       0.05       0.06       0.05	1.22 2.5 0.93 2.53 3.4 3.12
Overweight/Obese Proposer       2.5       2.51       2.79         1.94       1.97       1.23         2.66       2.65       2.75         Female       2.61       2       0.28         2.93       2.84       2.8         Age in years       0.05       0.06       0.05	0.93 2.53 3.4 3.12
Female	2.53 3.4 3.12
Female       2.61       2       0.28         2.93       2.84       2.8         Age in years       0.05       0.06       0.05	3.4 3.12
Age in years 2.84 2.8 O.05 0.06 0.05	3.12
Age in years 0.05 0.06 0.05	
0 0	0.06
$\rho$	
	0.09
î O	0.64
	2.68
	1.08
	4.35
1 0 1	0.45
	2.82
Centered Distance to Female Ideal 4.32*	
Centered Distance to Male Ideal 2.45  2.45	
2.33	
Centered Distance to Actual Size -0.13	
2.11	
	3.31
	2.42
	1.96
0 1	2.61
Large Respondent x Centered Distance to Female Ideal -5.75*	
2.96	
Large Respondent x Centered Distance to Male Ideal -5.87*	
2.94	
Large Respondent x Centered Distance to Actual Size -1.7	
2.79	
Large Respondent x Centered Distance to Preferred Size -6	5.99**
	2.98
No. of Obs. 62 61 64	63
	0.22
	0.01

Table 47: Investment and direction of centered distance II

		2		
	1	2	3	4
Afro-Trini Respondent	-2.7	-2.5	-1.54	-1.89
	2.43	2.42	2.44	2.4
Afro-Trini Proposer	1.75	1.77		3.11
	2.54	2.56	2.47	2.68
Female	0.48	0.73	0.05	-0.18
	2.85	2.83	2.77	2.85
Age in years	0.05	0.04	0.06	0.07
	0.09	0.09	0.09	0.09
University degree	1.09	0.94	0.69	0.65
	2.76	2.77	2.67	2.77
works in health sector	-1.01	0.09	-1.09	-1.55
	4.23	4.33	4.15	4.5
work with physical requirements	-0.38	0.02	-0.72	-0.49
	2.98	2.92	2.97	2.9
Centered Distance to Male Ideal	-0.23			
	1.64			
Afro-Trini Respondent x Centered Dis-	-1.58			
tance to Male Ideal				
	2.39			
Centered Distance to Female Ideal		1.02		
		1.71		
Afro-Trini Respondent x Centered Dis-		-0.72		
tance to Female Ideal				
		2.36		
Centered Distance to Actual Size			0.03	
			1.99	
Afro-Trini Respondent x Centered Dis-			-2.36	
tance to Actual Size				
			2.55	
Centered Distance to Preferred Size				0.56
				1.67
Afro-Trini Respondent x Centered Dis-				-3.12
tance to Preferred Size				
				2.54
No. of Obs.	61	62	64	63
R-Squared	0.1	0.09	0.12	0.12
Adj. R-Squared	-0.1	-0.11	-0.06	-0.08
<u> </u>				

Table 48: Investment, ethnicity and direction of centered distance II

	1	2	3	4
Female	0.45	0.36	-0.25	0.18
	2.89	2.8	2.74	2.86
Age in years	0.04	0.02	$0.05^{'}$	0.04
	0.09	0.09	0.08	0.09
University degree	0.56	-0.02	-0.13	0
	2.83	2.77	2.68	2.79
works in health sector	-0.29	0.57	0.63	-0.58
	4.27	4.28	4.01	4.47
work with physical requirements	0.17	0.32	0.66	0.16
	3	2.85	2.76	2.88
Centered Distance to Male Ideal	-0.26			
	2.39			
Centered Distance to Female Ideal		2.65		
		1.9		
Centered Distance to Actual Size			-0.19	
			1.49	
Centered Distance to Preferred Size				0.99
				2.02
${ m P+R}$ share ethnicity	-1.7	-1.78	-0.88	-0.91
	2.41	2.36	2.26	2.44
P + R share ethnicity x Centered Distance to Male Ideal	-0.92			
	2.83			
P + R share ethnicity x Centered Distance to Female Ideal		-2.99		
variet to Temate Ideal		2.48		
P + R share ethnicity x Centered Distance to Actual Size		2.40	-3.16	
tance to Actual Size			ഉ രെ	
P + R share ethnicity x Centered Dis-			2.22	-2.78
tance to Preferred Size				
				2.44
No. of Obs.	61	62	64	63
R-Squared	0.08	0.1	0.13	0.09
Adj. R-Squared	-0.11	-0.07	-0.03	-0.08

 $Standard\ errors\ in\ italics,\ ^*p<0.10\ ^{***}\ p<0.05\ ^{****}\ p<0.01;\ CV:\ \textbf{Community}\ \ \textbf{FE},\ Enum.\ Personally\ knew\ Participant}$ 

Table 49: Investment, ethnicity and distance III

The following tables show results of an ordered logit regression using **Session fixed effects** as control variables. The dependent variable is the likelihood of the group 1 proposer to perceive the respondent in round 1 trustworthy. Odds ratios are reported.

	1	2	3	4
Large Respondent	3.41**	7.82**	26.30**	7.41**
-	1.67	6.56	36.72	6.17
Overweight/Obese Proposer		0.45	1.66	
		0.32	2.24	
Afro-Trini Respondent		1.21	0.96	1.13
		0.85	0.7	0.82
Afro-Trini Proposer		0.45	0.39	0.46
		0.35	0.31	0.36
Female		1.68	1.74	1.52
		1.27	1.33	1.14
Age in years		1.04*	1.04*	1.04*
		0.02	0.02	0.02
University degree		1.19	1.23	1.19
		0.79	0.82	0.81
works in health sector		2.95	2.77	2.79
		3.51	3.24	3.28
work with physical requirements		0.61	0.8	0.6
		0.48	0.67	0.47
Large Respondent x Over- weight/Obese Proposer			0.16	
			0.26	
(centered)BMI of Proposer				1.01
· · · · · · · · · · · · · · · · · · ·				0.05
Large Respondent x (centered)BMI of Proposer				0.95
of t toposet				0.08
No. of Obs.	66	64	64	64

Table 50: Perceived trustworthiness of respondent I

	1	2	3
Large Respondent	3.71	17.15**	6.47*
	3.25	22.64	6.42
Overweight/Obese Proposer	0.42	0.37	0.48
	0.3	0.29	0.35
Afro-Trini Respondent	0.68	2.54	
	0.53	3.01	
Afro-Trini Proposer	0.66	0.5	
	0.58	0.4	
Female	0.99	2.08	1.82
	0.94	1.68	1.43
Age in years	1.03	1.04*	1.05*
	0.03	0.02	0.02
University degree	0.97	1.24	1.08
	0.71	0.83	0.71
works in health sector	2.94	3.78	2.75
	3.74	4.75	3.17
work with physical requirements	0.58	0.82	0.53
	0.55	0.72	0.41
Large Respondent x Agree: 'Easier to trust slim'	$5.57\mathrm{E}{+15}$		
	3.28E + 19		
Large Respondent x Afro-Trini Respondent		0.26	
spondene		0.43	
P + R share ethnicity		r -	0.31
V			0.37
Large Respondent x P + R share			1.32
ethnicity			1.92
No. of Obs.	63	64	64

Table 51: Perceived trustworthiness of respondent II

	1	2	3	4
Afro-Trini Respondent	0.59	0.8	0.56	0.6
-	0.38	0.53	0.41	0.4
Afro-Trini Proposer	0.48	0.53	0.68	0.57
	0.39	0.43	0.52	0.45
Female	0.93	0.91	1.03	0.9
	0.72	0.71	0.74	0.69
Age in years	1.06**	1.05**	1.04*	1.05**
	0.02	0.02	0.02	0.02
University degree	1.17	1.21	1.06	1.15
	0.76	0.8	0.68	0.77
works in health sector	1.47	1.76	1.58	1.21
	1.65	1.99	1.73	1.42
work with physical requirements	0.51	0.33	0.47	0.33
	0.42	0.29	0.37	0.29
Centered Distance to Female Ideal	0.69			
	0.22			
Centered Distance to Male Ideal		0.57*		
		0.18		
Centered Distance to Actual Size			1.17	
			0.39	
Centered Distance to Preferred Size				0.65
				0.23
No. of Obs.	62	61	64	63

Table 52: Perceived trustworthiness and centered distance

	1	2	3	4
Afro-Trini Respondent	0.82	1.92	0.74	0.89
	0.64	1.66	0.59	0.7
Afro-Trini Proposer	0.49	0.33	0.92	0.31
	0.42	0.31	0.77	0.27
Female	2.99	2.22	1.81	2.58
	2.69	1.98	1.4	2.32
Age in years	1.06**	1.05*	1.04*	1.06**
	0.03	0.03	0.02	0.03
University degree	1.1	1.04	1.12	1.35
	0.79	0.77	0.75	0.96
works in health sector	2.97	8.89	2.69	1.64
	3.71	12.22	3.1	2.09
work with physical requirements	0.72	0.52	0.76	0.3
	0.64	0.46	0.61	0.27
Centered Distance to Female Ideal	2.66			
	2.37			
Centered Distance to Male Ideal		1.4		
		1.15		
Centered Distance to Actual Size			3.68*	
			2.52	
Centered Distance to Preferred Size				1.2
				0.91
Large Respondent	15.60***	33.48***	10.68***	12.10**
	15.16	35.37	9.58	12.1
Large Respondent x Centered Dis-	0.08**			
tance to Female Ideal				
	0.09			
Large Respondent x Centered Dis-		0.17*		
tance to Male Ideal				
		0.17		
Large Respondent x Centered Dis-			0.20**	
tance to Actual Size				
			0.16	
Large Respondent x Centered Dis-				0.19*
tance to Preferred Size				
				0.17
No. of Obs.	62	61	64	63

Table 53: Perceived trustworthiness and direction of centered distance

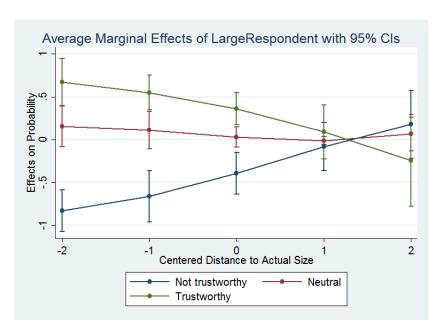


Figure 10: AME of large respondent for centered distance between P's actual size and R's size

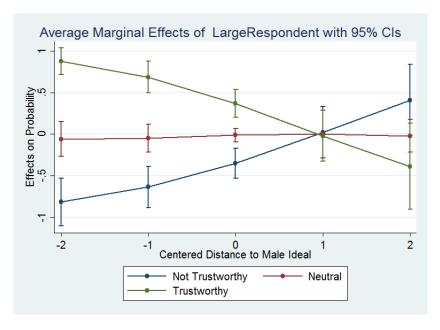


Figure 11: AME of large respondent for centered distance between P's male ideal and R's size

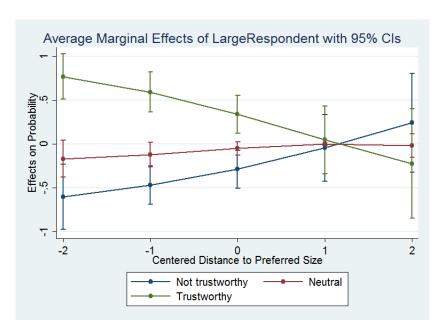


Figure 12: AME of large respondent for centered distance between P's preferred shape and R's size

	1	2	3	4	5
Afro-Trini Proposer	0.5	0.44	0.49	0.79	0.74
1	0.4	0.38	0.41	0.6	0.61
Female	1.66	0.93	0.94	0.91	0.88
	1.28	0.75	0.74	0.67	0.67
Age in years	1.04*	1.05**	1.05**	1.04*	1.06**
	0.02	0.02	0.02	0.02	0.03
University degree	1.11	1.4	1.42	1.01	1.3
	0.73	0.96	0.97	0.65	0.88
works in health sector	2.85	2.56	1.26	1.22	1.06
	3.47	3.15	1.48	1.35	1.26
work with physical requirements	0.62	0.29	0.53	0.32	0.3
	0.51	0.26	0.45	0.27	0.26
Afro-Trini Respondent	1.84	1.06	0.8	0.49	0.62
	2.06	0.74	$\theta.55$	0.36	0.42
Large Respondent	11.29**				
	13.86				
Afro-Trini Respondent x Large Respondent	0.5				
	0.77				
Centered Distance to Male Ideal		1.07			
		0.49			
Afro-Trini Respondent x Centered Distance to Male Ideal		0.24*			
		0.18			
Centered Distance to Female Ideal			1.63		
			0.87		
Afro-Trini Respondent x Centered Distance to Female Ideal			0.17**		
			0.13		
Centered Distance to Actual Size				2.24	
				1.34	
Afro-Trini Respondent x Centered Distance to Actual Size				0.38	
to House Side				0.28	
Centered Distance to Preferred Size				0.20	0.96
					0.45
Afro-Trini Respondent x Centered Distance to Preferred Size					0.43
					0.28
No. of Obs.	64	61	62	64	63

 $Standard\ errors\ in\ italics,\ *\ p<0.10\ ***\ p<0.05\ ***\ p<0.01;\ CV:\ Session\ FE,\ Enum.\ Personally\ knew\ Participant$ 

Table 54: Perceived trustworthiness, ethnicity and centered distance I

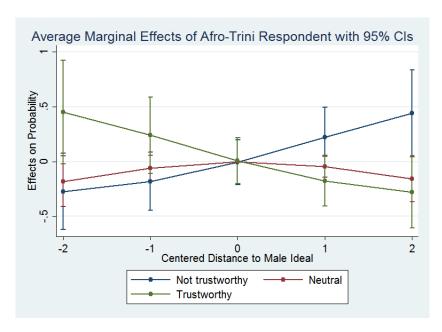


Figure 13: AME of Afro-Trini respondent for distance to male ideal

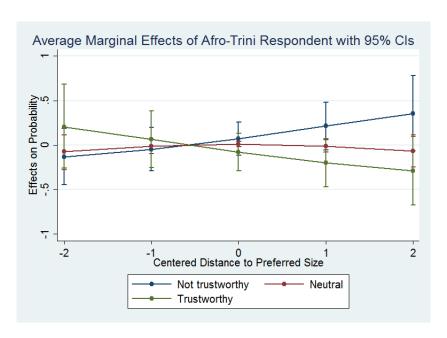


Figure 14: AME of Afro-Trini respondent for distance to preferred size

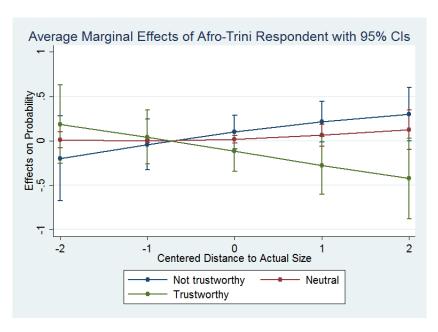


Figure 15: AME of Afro-Trini respondent for distance to actual size

	1	2	3	4
Afro-Trini Proposer	0.53	0.43	1.55	0.69
	0.46	0.36	1.35	0.59
Female	0.5	0.58	0.86	0.72
	0.43	0.47	0.64	0.57
Age in years	1.05*	1.05**	1.05**	1.06**
	0.03	0.02	0.02	0.02
University degree	0.88	0.85	0.84	1.01
	0.64	0.58	0.56	0.7
works in health sector	2.8	1.34	1.64	1.35
	3.58	1.55	1.78	1.61
work with physical requirements	0.13**	0.35	0.36	0.27
	0.13	0.3	$\theta.3$	0.24
Centered Distance to Male Ideal	2.8			
	2.13			
Centered Distance to Female Ideal		1.72		
		0.88		
Centered Distance to Actual Size			2.04	
			0.91	
Centered Distance to Preferred Size				1.3
				0.68
P + R share ethnicity	0.76	0.55	0.37	0.57
	0.56	0.38	0.27	0.41
P + R share ethnicity x Centered Distance to Male Ideal	0.08**			
	0.08			
P + R share ethnicity x Centered Distance to Female Ideal		0.20**		
		0.15		
P + R share ethnicity x Centered Distance to Actual Size		0.10	0.31*	
oo Houdai bibo			0.2	
P + R share ethnicity x Centered Distance to Preferred Size			0.2	0.33*
to Figure 5120				0.22
No. of Obs.	61	62	64	63

Table 55: Perceived trustworthiness, ethnicity and centered distance II

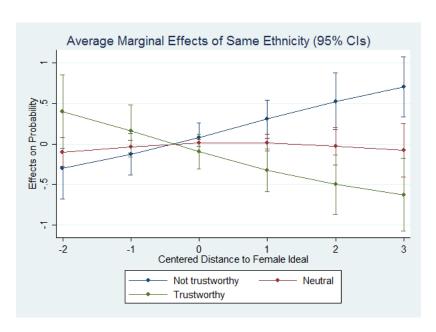


Figure 16: AME of same ethnicity for distance to female ideal

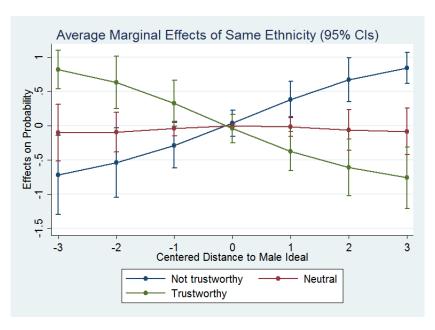


Figure 17: AME of same ethnicity for distance to male ideal

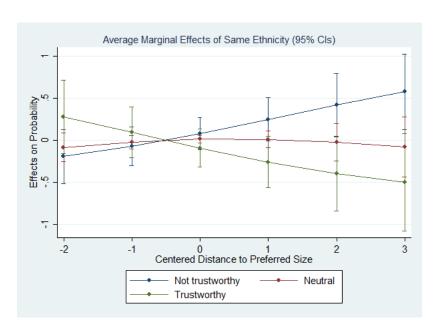


Figure 18: AME of same ethnicity for distance to preferred size

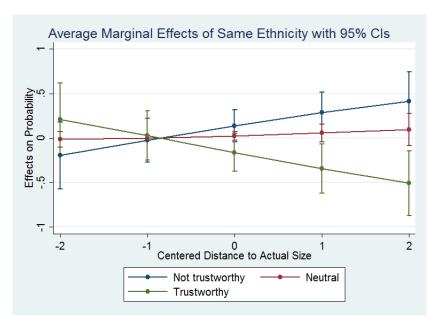


Figure 19: AME of same ethnicity for distance to actual size

The following tables show Logistic regression results using **Community fixed effects** as control variables. The dependent variable is the likelihood of the group 1 proposer to perceive the respondent in round 1 trustworthy. Odds ratios are reported.

	1	2	3
Large Respondent	5.28***	7.18*	5.46***
-	3.19	7.89	3.28
Overweight/Obese Proposer	0.59	0.8	
	0.35	0.88	
Afro-Trini Respondent	1.34	1.29	1.3
	0.71	0.7	0.68
Afro-Trini Proposer	0.7	0.68	0.63
	0.41	0.41	0.37
Female	2.46	2.52	2.37
	1.54	1.59	1.48
Age in years	1.03	1.03	1.03
	0.02	0.02	0.02
University degree	1.11	1.12	1.01
	0.64	0.65	0.59
works in health sector	2.09	2.03	1.9
	1.94	1.89	1.77
work with physical requirements	1.23	1.32	1.24
	0.81	0.91	0.82
Large Respondent x Participant is Overweight		0.65	
		0.83	
(centered)BMI of Proposer			1
			0.04
Large Respondent x (centered)BMI of Proposer			1
			0.06
No. of Obs.	64	64	64

Table 56: Perceived trustworthiness of respondent III

	1	2	3
Large Respondent	3.67**	8.40**	4.51*
	2.39	8.25	3.56
Overweight/Obese Proposer	0.49	0.54	0.59
	0.31	0.33	0.35
Afro-Trini Respondent	0.86	2.2	
	0.49	2.13	
Afro-Trini Proposer	0.68	0.72	
	0.47	0.43	
Female	2.47	2.66	3.07*
	1.82	1.71	2
Age in years	1.04	1.03	1.03
	0.03	0.02	0.02
University degree	0.98	1.1	1
	0.61	0.64	0.58
works in health sector	2.01	2.48	2.57
	1.93	2.41	2.41
work with physical requirements	1.86	1.43	1.31
	1.43	1	0.86
Large Respondent x Agree: 'Easier to trust slim'	8.41E + 14		
	2.37E + 18		
Large Respondent x Afro-Trini Respondent		0.46	
		0.58	
P + R share ethnicity			0.36
v			0.32
Large Respondent $x P + R$ share ethnicity			1.56
<u> </u>			1.7
No. of Obs.	63	64	64

Table 57: Perceived trustworthiness of respondent IV

	1	2	3	4
Afro-Trini Respondent	0.87	1	1.03	0.86
-	0.45	0.52	0.53	0.45
Afro-Trini Proposer	0.73	0.66	0.78	0.64
	0.41	0.38	0.43	0.37
Female	2.54	2.61	2.43	2.52
	1.62	1.65	1.52	1.59
Age in years	1.03	1.03	1.02	1.03
	0.02	0.02	0.02	0.02
University degree	1.16	1.15	1.03	1.16
	0.65	0.65	0.57	0.65
works in health sector	1.18	1.24	1.39	2
	1.06	1.11	1.21	1.97
work with physical requirements	1.64	1.43	1.53	1.62
	1.06	0.93	0.97	1.04
Centered Distance to Female Ideal	0.73			
	0.21			
Centered Distance to Male Ideal		0.67		
		0.19		
Centered Distance to Actual Size			0.92	
			0.23	
Centered Distance to Preferred Size				0.84
				0.23
No. of Obs.	62	61	64	63

Table 58: Perceived trustworthiness and centered distance IV

	1	2	3	4
Afro-Trini Respondent	0.51	0.8	0.85	0.91
-	0.31	0.49	0.49	0.53
Afro-Trini Proposer	0.73	0.43	1.1	0.42
	0.44	0.27	0.69	0.27
Female	7.70***	4.87**	2.73	4.81**
	6.09	3.54	1.82	3.72
Age in years	1.05**	1.05**	1.03	1.04*
	0.03	0.03	0.02	0.02
University degree	0.86	0.81	0.87	1.13
	0.53	0.51	0.51	0.68
works in health sector	1.52	4.27	2.02	2.32
	1.57	4.46	1.89	2.52
work with physical requirements	2.07	1.41	1.72	1.46
	1.57	1	1.19	1.02
Centered Distance to Female Ideal	6.17**			
	5.2			
Centered Distance to Male Ideal		2.97		
		2.05		
Centered Distance to Actual Size			3.27**	
			1.88	
Centered Distance to Preferred Size				1.64
				0.99
Large Respondent	6.48***	9.98***	7.94***	6.35**
	4.31	6.92	5.51	4.46
Large Respondent x Centered Distance to	0.04***			
Female Ideal				
	0.04			
Large Respondent x Centered Distance to Male Ideal		0.09***		
		0.08		
Large Respondent x Centered Distance to Actual Size			0.20**	
			0.14	
Large Respondent x Centered Distance to Preferred Size			r	0.20**
				0.16

Table 59: Perceived trustworthiness and direction centered distance II

	1	2	3	4
Afro-Trini Proposer	0.69	0.85	0.78	0.83
1	0.4	0.49	0.43	0.51
Female	$2.\overset{\cdot}{1}$	2.41	2.28	2.05
	1.34	1.53	1.43	1.31
Age in years	1.03	1.03	1.02	1.03
	0.02	0.02	0.02	0.02
University degree	1.18	1.24	1.01	1.2
	0.69	0.72	0.56	0.69
works in health sector	1.53	1.01	1.2	1.93
	1.46	0.93	1.06	1.92
work with physical requirements	0.9	1.36	1.26	1.33
	0.6	0.89	0.83	0.86
Centered Distance to Male Ideal	1.47			
	0.63			
Afro-Trini Respondent	1.12	1.01	1	0.91
	0.58	0.52	0.53	0.47
Afro-Trini Respondent x Centered Distance to Male Ideal	0.21**			
	0.13			
Centered Distance to Female Ideal		1.62		
		0.74		
Afro-Trini Respondent x Centered Distance to Female Ideal		0.23**		
		0.14		
Centered Distance to Actual Size		- 1	1.31	
			0.59	
Afro-Trini Respondent x Centered Distance to Actual Size			0.59	
Can Side			0.33	
Centered Distance to Preferred Size			0.00	1.31
Contolled Distance to I foldified Size				0.52
Afro-Trini Respondent x Centered Distance to Preferred Size				0.4
ICITCU DIZE				0.24
No. of Obs.	61	62	64	63

Table 60: Perceived trustworthiness, ethnicity and centered distance III

	-1			
	1	2	3	4
Afro-Trini Proposer	0.67	0.69	0.99	0.6
	0.39	0.4	0.57	0.36
Female	2.57	2.62	2.53	2.63
	1.66	1.68	1.59	1.67
Age in years	1.02	1.03	1.02	1.03
	0.02	0.02	0.02	0.02
University degree	0.91	0.99	0.81	1.04
	0.53	0.57	0.46	0.6
works in health sector	1.31	1.24	1.58	2.21
	1.21	1.14	1.39	2.21
work with physical requirements	1.2	1.68	1.54	1.67
	0.83	1.11	0.98	1.08
Centered Distance to Male Ideal	1.33			
	0.69			
Centered Distance to Female Ideal		1.03		
		0.46		
Centered Distance to Actual Size			1.28	
			0.45	
Centered Distance to Preferred Size				1.3
				0.59
P + R share ethnicity	0.73	0.69	0.67	0.73
	0.38	0.36	0.34	0.39
P + R share ethnicity x Centered Distance to Male	0.38		·	
Ideal				
	0.24			
P + R share ethnicity x Centered Distance to Female	•	0.56		
Ideal				
		0.34		
P + R share ethnicity x Centered Distance to Actual		·	0.51	
Size				
			0.27	
P + R share ethnicity x Centered Distance to Pre-				0.52
ferred Size				
				0.3
No. of Obs.	61	62	64	63
	0.1	04	υī	

Table 61: Perceived trustworthiness, ethnicity and centered distance IV

## Likelihood to assume Proposer was large

The following table shows results of a logistic regression. The dependent variable is the likelihood of the group 1 respondent to assume that the proposer was large in round 2.

	1	2	3
Size of investment recieved in Round 2	1.03	1.06	1.04
	0.03	0.05	0.04
Amount invested in Round 1		1	1
		0.05	0.04
Afro-Trini Respondent (Round 2)		0	0.5
		0	0.34
Female Respondent (Round 2)		1.87	2.62
		1.76	1.81
Overweight/Obese Respondent (Round 2)		0.32	0.44
		0.33	0.31
Age in years of Respondent (Round 2)		1.01	0.99
		0.04	0.02
married Respondent (Round 2)		1.5	2.07
		1.59	1.43
University degree (Respondent (Round 2))		0.81	1.66
		0.75	1.27
No. of Obs.	62	58	61

Standard errors in italics, Odds Ratios are reported. Model 2, CV: Sessio FE and Enumerator knew participant personally; Model 3, Community FE and Enumerator knew participant personally

Table 62: Likelihood to assume proposer was large

# D Appendix for Chapter 4

#### Coca-Cola Slogan

The image was retrieved from amazing and curious com via Pinterest, online at  $\frac{\text{https:}}{\text{www.pinterest.de}}$  online at

The only source that states this slogan was used by Coca-Cola in India is Wikipedia (https://en.wikipedia.org/wiki/List\_of\_Coca-Cola\_slogans#India). The author also sought confirmation from Coca-Cola India. Confirmation was pending at the time of submission.



Figure 20: Coca Cola slogan in India

## Drink Choices of First Choosers and Single Choosers

The following tables show results of a logistic regression, in which the likelihood to choose water in the food courts is the dependent variable.

	1	2	3	4
Single Customer	1.489*	0.990	1.662	0.966
_	(0.35)	(0.36)	(0.52)	(0.33)
Female	0.917	0.887	1.081	0.925
	(0.20)	(0.19)	(0.41)	(0.20)
Afro Trini	0.778	0.488*	0.785	0.789
	(0.17)	(0.19)	(0.17)	(0.17)
Overweight	1.194	1.205	1.191	0.705
	(0.26)	(0.27)	(0.26)	(0.27)
$_{ m time}$	0.759**	0.750**	0.750**	0.760**
	(0.09)	(0.09)	(0.09)	(0.09)
location	1.087	1.087	1.087	1.092
	(0.06)	(0.06)	(0.06)	(0.06)
Enumerator	1.018	1.022	1.019	1.021
	(0.04)	(0.04)	(0.04)	(0.04)
Single Customer X Afro-Trini		1.980		
		(0.93)		
Single Customer X Female			0.784	
			(0.37)	
Single Customer X Overweight				2.218*
				(1.02)
Pseudo R-squared	0.03	0.04	0.03	0.04
Observations	415	415	415	415

Exponentiated coefficients; Standard errors in parentheses

Table 63: Likelihood to choose water instead of soda I

#### **Imitations of Drink Choices**

The following tables show results of a logistic regression, in which the likelihood to imitate the drink choice of the person who is choosing first is the dependent variable.

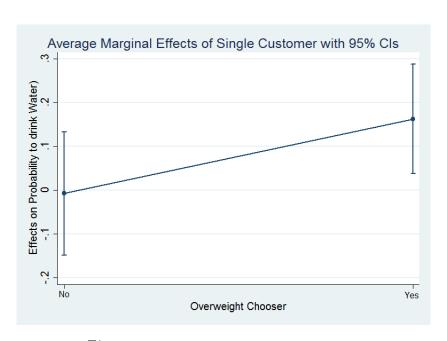


Figure 21: AME single chooser, by weight

	1	2	3	4	5
P1 and P2 of same ethnicity	0.939	0.349	0.945	0.955	0.942
•	(0.38)	(0.24)	(0.39)	(0.39)	(0.38)
P1 and P2 of same sex	0.753	0.247**	0.746	0.784	0.765
	(0.25)	(0.17)	(0.25)	(0.26)	(0.26)
P1 is overweight	0.786	0.756	0.731	0.840	
	(0.30)	(0.29)	(0.38)	(0.31)	
P2 is overweight	1.415	1.533	1.278		1.365
	(0.48)	(0.52)	(0.76)		(0.45)
time	0.998	1.013	0.999	0.998	0.993
	(0.19)	(0.20)	(0.19)	(0.19)	(0.19)
Experiment	0.193***	0.189***	0.196***	0.200***	0.178***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.07)
P1 and P2 of same ethnicity X P1 and P2 of same sex		4.499*			
		(3.53)			
P1 is overweight X P2 is overweight			1.161		
			(0.84)		
Pseudo R-squared	0.11	0.13	0.11	0.11	0.11
Observations	206	206	206	206	206

Table 65: Likelihood that drink choice is imitated I

	1	
Female	0.929	
	(0.20)	
Afro Trini	0.779	
	(0.17)	
Overweight	1.221	
	(0.27)	
$_{ m time}$	0.760**	
	(0.09)	
location	1.086	
	(0.06)	
Enumerator	1.019	
	(0.04)	
Group Size	0.830	
	(0.12)	
Pseudo R-squared	0.03	
Observations	415	

Table 64: Likelihood to choose water instead of soda II

	1	2	3	4	5
P1 and P2 of same ethnicity	1.113	0.701	1.113	1.133	1.179
·	(0.80)	(0.81)	(0.80)	(0.80)	(0.84)
P1 and P2 of same sex	1.012	0.491	1.017	1.009	1.005
	(0.43)	(0.68)	(0.44)	(0.43)	(0.43)
P1 is overweight	0.745	0.743	0.783	0.758	
	(0.33)	(0.33)	(0.48)	(0.32)	
P2 is overweight	1.058	1.043	1.123		0.970
	(0.48)	(0.47)	(0.77)		(0.42)
time	0.887	0.888	0.887	0.886	0.883
	(0.20)	(0.20)	(0.20)	(0.19)	(0.19)
P1 and P2 of same ethnicity X P1 and P2 of same sex		2.233			
		(3.26)			
P1 is overweight X P2 is overweight			0.900		
			(0.81)		
Pseudo R-squared	0.01	0.01	0.01	0.01	0.00
Observations	138	138	138	138	138

Table 66: Likelihood that drink choice is imitated (food court obs. only)

	1	2
P1 and P2 of same ethnicity	0.828	0.220
	(0.43)	(0.20)
P1 and P2 of same sex	0.372*	0.134**
	(0.22)	(0.12)
P1 is overweight	1.123	1.295
	(0.92)	(1.13)
P2 is overweight	2.643	3.117*
	(1.57)	(1.95)
${ m time}$	1.461	1.487
	(0.61)	(0.63)
P1 and P2 of same ethnicity X P1 and P2 of same sex		7.552*
		(8.63)
Pseudo R-squared	0.06	0.09
Observations	68	68

Table 67: Likelihood that drink choice is imitated (experiment only)

The following tables show results of a logistic regression using experimental data only. The dependent variable is the likelihood of the participant (P) to imitate the drink choice of the confederate (C).

	1	2	3	4
P. + C. of same ethnicity	0.647	0.267	1.119	0.173
	(0.47)	(0.31)	(1.04)	(0.25)
Absolute distance P's BS from C's BS	0.884	0.884	0.881	0.844
	(0.28)	(0.28)	(0.28)	(0.28)
Female	0.439	0.257	0.461	0.416
	(0.30)	(0.23)	(0.32)	(0.29)
C. + P. same drink preferences	5.341***	5.268***	5.990***	4.908**
	(3.24)	(3.25)	(3.82)	(3.09)
Age in years	0.997	0.994	0.999	0.995
	(0.02)	(0.02)	(0.03)	(0.02)
Same ethnicity X female		3.782		
		(5.09)		
Strong Ethnic ID			1.438	
			(1.25)	
same ethnicity X Strong Ethnic ID			0.301	
			(0.39)	
Strong Othergroup Orientation				0.740
				(0.70)
same ethnicity X Strong Othergroup Orientation				5.524
				(9.24)
Pseudo R-squared	0.21	0.22	0.22	0.22
Observations	66	66	66	66

Exponentiated coefficients; Standard errors in parentheses; CV: Session FE

Table 68: Likelihood that drink choice is imitated III

	(1)	(2)	(3)	(4)
P. + C. of same ethnicity	1.157	0.463	1.846	0.425
-	(0.75)	(0.49)	(1.63)	(0.59)
Absolute distance P's BS from C's BS	1.128	1.127	1.119	1.100
	(0.32)	(0.31)	(0.31)	(0.32)
Female	0.630	0.336	0.669	0.634
	(0.40)	(0.29)	(0.43)	(0.40)
C. + P. same drink preferences	9.725***	9.049***	10.500***	9.328***
	(6.28)	(5.89)	(6.94)	(6.15)
Age in years	1.011	1.006	1.013	1.009
	(0.02)	(0.02)	(0.02)	(0.02)
$\operatorname{confederate}$	0.554*	0.558*	0.547*	0.568*
	(0.17)	(0.17)	(0.17)	(0.18)
instructor	1.040	0.995	1.076	1.067
	(0.30)	(0.29)	(0.31)	(0.31)
$\operatorname{time}_{\operatorname{Drink}_{\operatorname{Exp}}}$	1.592	1.599	1.540	1.518
	(0.81)	(0.81)	(0.81)	(0.78)
Same ethnicity X female		3.963		
		(4.94)		
Strong Ethnic ID			1.339	
			(1.10)	
Same ethnicity X Strong Ethnic ID			0.396	
			(0.48)	
Strong Othergroup Orientation				0.740
				(0.60)
Same ethnicity X Strong Othergroup Orientation				3.659
				(5.65)
Pseudo R-squared	0.21	0.22	0.21	0.22
Observations	68	68	68	68

Exponentiated coefficients; Standard errors in parentheses; CV: Confederate, Instructor, Time Indicator Variables

Table 69: Likelihood that drink choice is imitated IV

The following tables show results of a logistic regression using experimental and food court data. The dependent variable is the likelihood of Person 2 (P2) to imitate the first person's (P1) choice of water.

	1	2
P1 chose water	4.696***	3.935***
	(1.58)	(1.26)
P1 is Afro-Trini	0.600	
	(0.23)	
P2 is Afro-Trini	1.836	
	(0.75)	
P1 is female	0.773	
	(0.32)	
P2 is female	1.335	
	(0.48)	
P1 is overweight	1.039	0.912
	(0.38)	(0.32)
P2 is overweight	1.069	1.073
	(0.35)	(0.35)
P1 and P2 of same ethnicity		0.976
		(0.41)
P1 and P2 of same sex		1.009
		(0.33)
$ ext{time}$	0.830	0.829
	(0.16)	(0.16)
Experiment	2.976**	3.055***
	(1.34)	(1.22)
Pseudo R-squared	0.15	0.14
Observations	210	206

Table 70: Likelihood to imitate choice of water I

	1	2	3	4	5
P1 chose water	1.065	5.881***	11.599***	3.641***	4.463
	(0.67)	(3.09)	(6.76)	(1.78)	(4.96)
P1 is overweight	1.009	0.940	1.749	0.917	1.003
	(0.37)	(0.33)	(0.82)	(0.33)	(0.37)
P2 is overweight	1.153	1.086	1.022	1.016	1.191
	(0.38)	(0.35)	(0.34)	(0.42)	(0.40)
time	0.799	0.831	0.855	0.831	0.812
	(0.16)	(0.16)	(0.17)	(0.16)	(0.16)
Experiment	3.235***	2.977***	3.295***	3.062***	3.210***
	(1.32)	(1.19)	(1.31)	(1.23)	(1.32)
P1 and P2 of same ethnicity	0.515	0.975	0.883	0.986	1.015
	(0.25)	(0.41)	(0.37)	(0.42)	(0.86)
P1 and P2 of same sex	0.981	1.319	1.060	1.006	2.737
	(0.32)	(0.56)	(0.35)	(0.32)	(2.40)
P1 chose water X P1 and P2 of same ethnicity	5.777**				1.429
	(4.28)				(1.82)
P1 chose water X P1 and P2 of same sex		0.519			0.110
		(0.34)			(0.15)
P1 chose water X P1 is overweight			0.193**		
			(0.14)		
P1 chose water X P2 is overweight				1.146	
				(0.75)	
P1 and P2 of same sex X P1 and P2 of same ethnicity					0.358
					(0.36)
P1 chose water X P1 and P2 of same sex X P1 and P2 of same ethnicity					8.519
					(13.24)
Pseudo R-squared	0.16	0.14	0.16	0.14	0.17
Observations	206	206	206	206	206

Table 71: Likelihood to imitate choice of water II

	(1)	(2)
P1 chose water	13.722***	14.916***
	(6.29)	(7.08)
P1 is Afro-Trini	0.535	
	(0.42)	
P2 is Afro-Trini	1.376	
	(1.08)	
1 female	0.761	
	(0.36)	
2 female	1.002	
	(0.50)	
P1 is overweight	1.698	1.535
	(0.81)	(0.72)
P2 is overweight	1.162 $1.24$	
	(0.53)	(0.58)
time	0.953	0.923
	(0.24)	(0.22)
P1 and P2 of same ethnicity		0.319
		(0.23)
P1 and P2 of same sex		0.701
		(0.31)
Pseudo R-squared	0.25	0.24
Observations	142	138

Table 72: Likelihood to imitate choice of water I (food court obs. only)

	1	2	3	4	5
P1 chose water	14.110***	16.639***	22.132***	13.781***	14.060***
	(6.80)	(11.85)	(15.68)	(9.29)	(10.15)
P1 is overweight	1.488	1.554	2.176	1.549	1.524
	(0.70)	(0.74)	(1.44)	(0.74)	(0.73)
P2 is overweight	1.247	1.248	1.209	1.162	1.239
	(0.58)	(0.59)	(0.57)	(0.74)	(0.58)
time	0.934	0.922	0.938	0.924	0.929
	(0.22)	(0.22)	(0.22)	(0.22)	(0.22)
P1 and P2 of same ethnicity	0.362	0.319	0.310	0.326	0.730
	(0.28)	(0.23)	(0.23)	(0.24)	(0.89)
P1 and P2 of same sex	0.702	0.760	0.731	0.699	2.145
	(0.31)	(0.45)	(0.33)	(0.31)	(3.06)
P1 chose water X P1 and P2 of same ethnicity	1.000				1.000
	(.)				(.)
P1 chose water X P1 and P2 of same sex		0.828			1.048
		(0.75)			(1.00)
P1 chose water X P1 is overweight			0.477		
			(0.45)		
P1 chose water X P2 is overweight				1.161	
				(1.05)	
P1 and P2 of same sex X P1 and P2 of same ethnicity					0.281
					(0.44)
P1 chose water X P1 and P2 of same sex X P1 and P2 of same ethnicity					1.000
Pseudo R-squared	0.23	0.24	0.25	0.24	0.23
Observations	136	138	138	138	136

Table 73: Likelihood to imitate choice of water II (food court obs. only)

## Drink Choice, health and ethnicity

The following tables show results of a logistic regression using survey data. The dependent variable is the likelihood of the survey participant to choose coke at the end of the survey.

	(1)	(2)	(3)
CHD/Diabetes/Blood Pressure	1.663*	1.531	1.511
,	(0.50)	(0.45)	(0.45)
has healthknowledge	0.680*	0.695	0.713
	(0.16)	(0.16)	(0.16)
Female	0.970	0.943	0.990
	(0.22)	(0.21)	(0.22)
Afro-Trini Participant	0.799	0.937	1.874*
	(0.19)	(0.21)	(0.71)
BMI	1.008		
	(0.02)		
Age in years	0.994	0.994	0.995
	(0.01)	(0.01)	(0.01)
Interviewer	0.983	0.984	0.982
	(0.02)	(0.02)	(0.02)
Time interview started	1.156	1.146	1.165
	(0.13)	(0.12)	(0.13)
Location of interview	1.012	0.999	0.998
	(0.02)	(0.02)	(0.02)
Overweight/Obese Participant		1.298	2.412**
		(0.30)	(0.87)
Afro-Trini Participant X Participant is Overweight			0.339**
			(0.16)
Pseudo R-squared	0.02	0.02	0.03
Observations	427	457	457

Table 74: Likelihood to choose coke (survey)